

THE COUNTY  
OF SANTA CLARA

# Stanford University Community Plan





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# Acknowledgments

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Susan Ellenberg, *District 4, President*

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Sylvia Arenas, *District 1*

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Aimee Escobar

Bob Levy

Vicki Moore

Marc Rauser

## Stanford Community Resource Group

Maria Doerr

Peter Drekmeier

Alice Kaufman

Olivia Fu

Arushi Gupta

Pria Graves

Jerry Hearne

Ed Lauing

Betsy Nash

Mary O'Kicki

Jim Sweeney

Greg Tanaka

Tom Vlastic

Eric Filseth (former)

Ray Mueller (former)

Greer Stone (former)

Cecilia Taylor (former)

## Acknowledgments

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### County of Santa Clara Staff

Sylvia Gallegos, *Deputy County Executive*

Jacqueline R. Onciano, *Director of Planning and Development*

Leza Mikhail, *Deputy Director of Planning and Development, Planning Services*

Charu Ahluwalia, *Senior Planner*

Elizabeth G. Pianca, *Assistant County Counsel*

Lizanne Reynolds, *Lead Deputy County Counsel*

Steve Borgstrom, *GIS Analyst*

Bharat Singh, *Principal Planner (former)*

### Consultants

M-Group

Baker Tilly International

Environmental Science Associates

Keyser Marston Associates, Inc.

Public Consulting Group

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- Attachment A**      Municipal Services Study
- Attachment B**      Graduate Student Housing Affordability Study
- Attachment C**      Childcare Study
- Attachment D**      Adopting Resolution

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# Introduction

Stanford University (“Stanford” or “University”) is a private university located in the northwest corner of Santa Clara County, adjacent to San Mateo County. Founded in 1891, Stanford has grown over time to become a highly respected institution of higher learning and research. It contains over 4,000 acres of land within the jurisdictional boundaries of Santa Clara County, the area addressed under this Community Plan (the “Stanford Community Plan Area”). Stanford also owns lands in other jurisdictions, including Palo Alto, Menlo Park, San Mateo County, Woodside, and Portola Valley (see Error! Reference source not found.).



Image 1: photo credit – M-Group

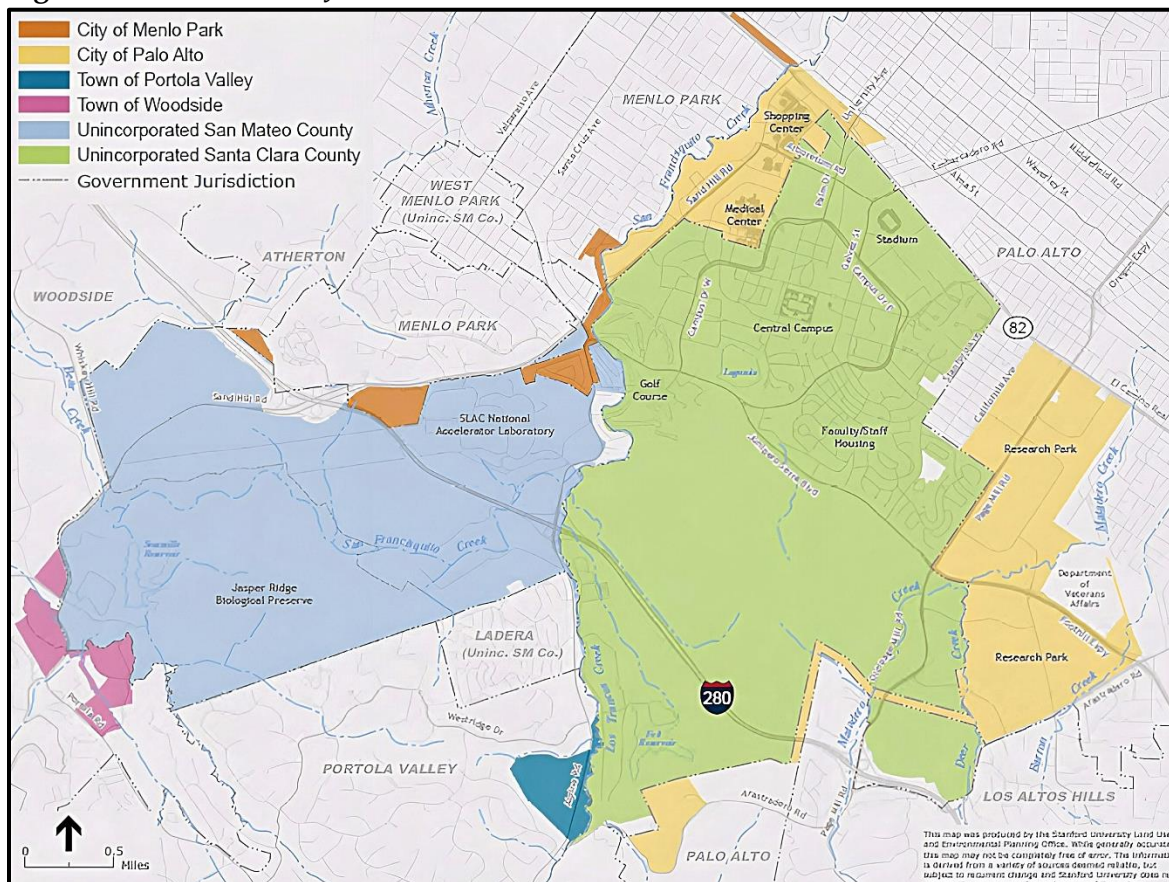
The unincorporated lands of Stanford University within Santa Clara County are subject to the land use jurisdiction and regulatory authority of the County. The 1995 Santa Clara County General Plan and subsequent General Plan Element updates serve as the regulatory document that establish the policy direction and set goals for use of lands and physical development within the unincorporated area. The Stanford Community Plan refines the policies and goals of the General Plan as they apply to Stanford lands within the County.

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*The primary purpose of the Stanford Community Plan is to guide the future use and development of Stanford lands in a manner that incorporates key General Plan principles of compact urban development, open space preservation, and resource conservation.*

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Figure 1 Governmental Jurisdiction of Stanford Lands



## Purpose of the Community Plan and Relation to the General Plan

Community plans focus on a particular region or community within the overall general plan area of a jurisdiction. As an integral part of the General Plan, a community plan must be consistent with the General Plan, in keeping with the requirements of state law that general plans be internally consistent. To facilitate consistency, the Stanford Community Plan builds upon the basic strategies and policy framework for each element of the General Plan, tailoring the treatment of each subject to those aspects of an element most applicable and pertinent to Stanford.

The Community Plan is also consistent with and furthers the implementation of associated planning instruments, such as the 1985 Land Use Policy Agreement. For more information on this notable land use agreement between the County, City of Palo Alto and Stanford University, please refer to the Growth and Development Chapter.

The primary purpose of the Stanford Community Plan is to guide the future use and development of Stanford lands in a manner that incorporates key General Plan principles of

compact urban development, open space preservation, and resource conservation. Growth and development, in general, can have both advantages and disadvantages. The Community Plan attempts to achieve an appropriate balance between the reasonable expectations of the University to use and develop its land with the interests of the public to responsibly manage such growth. The 2000 Community Plan established a total development of 17,300,000 square feet inclusive of academic space, academic support facilities and student housing. This 2023 Community Plan update does not include development beyond this amount. Any additional increase would require a Community Plan amendment and concurrent General Use Permit (GUP) application.

The Community Plan is adopted as an amendment of the General Plan in the manner set forth by Government Code § 65350 et seq. Any and all revisions to the Community Plan considered in the future must also be made according to the provisions of State law for adopting and amending general plans.

## Organization of the Community Plan

Community Plan focused topics and policies are organized into seven chapters:

1. Growth and Development,
2. Land Use,
3. Housing,
4. Circulation,
5. Open Space,
6. Resource Conservation, and
7. Health and Safety.

Each chapter addresses focused topics and policies as they pertain to Stanford lands and its regional setting. The strategies and policies are not intended to duplicate all aspects of the General Plan chapters or “elements” on which they are based. Instead, each chapter provides the specific focus and context beyond that provided in the General Plan in order to provide policy direction and guide decision-making for Stanford lands.

Each chapter of the Stanford Community Plan uses the same organizational structure. Within each chapter, a summary is provided, indicating the strategies set forth in the chapter. These strategies are overall policy approaches to various areas of focus, and they form the framework for more detailed policies and implementation recommendations on the particular subjects, which are articulated in each respective chapter. Strategy statements correspond with those of the relevant General Plan chapters, with modifications to reflect the particular circumstances, topics, and policies as they relate to Stanford. Following the chapter summary, each chapter contains relevant background information, followed by discussion for each strategy and its associated policies and implementation measures.

### Implementation of the Community Plan

Prior to adoption of the 2000 Community Plan, the principal means of guiding land use and development for Stanford lands was the General Use Permit, or GUP. The GUP served as a master use permit under which Stanford may obtain approvals for development, consistent with the provisions of the County’s Zoning Ordinance. Under the updated Stanford Community Plan, the GUP will remain as the principal land use entitlement for implementation of the Community Plan. The GUP contains conditions regarding review of individual projects, such as regular monitoring and reporting as well as other land use entitlements and approvals that may be required for development.

Additionally, the Stanford Community Plan contains implementation measures to enact and apply the policies specified in the Stanford Community Plan.

Individual projects allowed under the Stanford Community Plan, documented in the 2000 GUP, and noted in future GUPs are subject to the County’s Architecture and Site Approval (ASA) and/or Grading Approval permitting process. As such, the Stanford Community Plan is further implemented by the review and conditioning procedures of ASA and Grading Approval. In particular, certain conditions of development approval may be employed specifically to carry out environmental mitigations required under the Environmental Impact Report prepared for the adoption of the 2000 GUP, Stanford Community Plan and/or new approved GUP.

### Informing Studies of the Community Plan: Municipal Services, Graduate Student Housing Affordability, and Childcare Studies

In November 2016, Stanford University applied for a new General Use Permit (GUP). The County’s efforts to update the GUP included community outreach such as community meetings, public comment intake, and Planning Commission and Board of Supervisors meetings. As part of the County’s processing of the GUP application, the Department of Planning and Development recommended additional amendments to the Community Plan. The Stanford-proposed and County staff-recommended Community Plan amendments were considered by the Planning Commission and Board of Supervisors in tandem with consideration of the new GUP for Stanford in 2019. On November 1, 2019, Stanford withdrew the GUP and Community Plan amendment application (hereby referred to as the “2019 General Use Permit” or “2019 GUP”)<sup>1</sup>, and none of the Community Plan amendments were adopted at that time.

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<sup>1</sup> The “2019 General Use Permit” or “2019 GUP” refers to the GUP that Stanford University applied for in 2016 and withdrew the application in 2019. The environmental document associated with the 2019 GUP is titled the “Stanford University 2018 General Use Permit Final Environmental Impact Report.” The 2019 GUP and associated EIR were not adopted or certified.

At the February 11, 2020 Board of Supervisors meeting, the Board directed County staff to continue its work on the Community Plan update, which would include the following three studies to inform the update:

- Municipal Services Study,
- Graduate Student Housing Affordability Study, and
- Childcare Study.

### **Municipal Services Study**

The 1985 Land Use Policy Agreement and the 2000 Stanford Community Plan recognize Stanford's status as a municipal service provider. The 1985 Land Use Policy Agreement is among Stanford University, the County of Santa Clara, and the City of Palo Alto.

#### **The 1985 Land Use Policy Agreement states:**

Stanford intends to continue to provide all municipal services to its academic facilities in the unincorporated area of Santa Clara County.

#### **Furthermore, Policy SCP-GD 9 of the 2000 Stanford Community Plan states:**

The provision of urban services to the academic lands of Stanford University shall be the responsibility of the University. This may be accomplished through direct provision of such services by Stanford, payment of in-lieu fees, or appropriate contractual relationships with local jurisdictions.

The Municipal Services Study was prepared in coordination with Management Partners (now known as Baker Tilly International), a consulting firm that offers strategic planning, process improvement, organizational analysis, and other services for local governments. Management Partners engaged in questionnaires, a survey, and/or interviews with Stanford staff, County staff, City of Palo Alto staff, and Stanford graduate students. Management Partners was retained by the County to gather information about municipal services provided by Stanford and describe any existing gaps in service provision or delivery that may exist. In the analysis of municipal services, Management Partners compared the service data to that of the City of Palo Alto, in addition to another large private university in California, the University of Southern California (USC).

An administrative draft was shared with Stanford University and City of Palo Alto staff, per the 1985 Land Use Policy Agreement (Section 1.c). Jurisdictions adjacent to Stanford were also provided the administrative draft and were given the opportunity to provide input to County staff at a multi-jurisdictional meeting that took place on April 6, 2022. A public draft was released in mid-April, and a Municipal Services Study community meeting was held on April 26, 2022.

## Introduction

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The following is the list of key findings from the final Municipal Services Study:

1. The Municipal Services Study examines the data available for each of the 26 municipal services individually and concludes that the services provided are generally equivalent to those provided in other municipalities.
2. However, because the service delivery approach provided by Stanford is relatively unusual, the report offers recommendations aimed at improving the ability of Stanford community residents as well as County of Santa Clara officials to understand, measure, and evaluate service delivery.
3. The recommendations apply in most municipal service areas and relate to fiscal transparency and public accountability, although some sections have additional recommendations specific to challenges in those areas.
4. The recommendations also include a framework to document such services, which would be in keeping with public agency best practices. Recommended metrics are similar to those produced in the cities of San José, Palo Alto, and in the County of Santa Clara. These are shown in their budget documents and available on-line to the public. A summary of the recommendations was included in the report as Attachment A. A matrix of municipal services along with the service providers and desired service metrics was also included in the report as Attachment D.
5. The report recommended that the County of Santa Clara, Stanford University, and the City of Palo Alto (as well as other affected jurisdictions) work collaboratively to identify and equalize payments in lieu of property taxes (“PILOT”) for any municipal services or public-school services.

## Graduate Student Housing Affordability Study

Keyser Marston Associates (KMA) prepared the Graduate Student Housing Affordability Study. This analysis was prepared to evaluate whether there is evidence of housing affordability challenges among graduate students at Stanford University. The analysis estimates the share of graduate students who have a gap in financial resources to meet their housing and other living expenses. Findings reflect consideration of funding sources used by Stanford graduate students to finance their education including stipends, fellowships, loans, and parental support. The analysis also includes additional student loan debt and estimated funding through Stanford’s Graduate Family Grant and Graduate Student Aid Fund, for those eligible, as possible sources to address an estimated gap in resources.

This study uses data from the Stanford Student Survey on University Life and a Faculty and Staff Survey (“Stanford Student Survey on University Life” or “2021 SCC Survey”) that was released by the County in November 2021 requesting information for the Graduate Student Housing Affordability and Childcare Studies. In addition to survey questions informing these two studies, the surveys requested responses to questions pertaining to food sufficiency, dependent health care, mental health, and policing perceptions. County Staff and consultants received the raw data from the survey in January 2022.

An administrative draft of the Graduate Student Housing Affordability Study was shared with Stanford University and City of Palo Alto staff. A public draft was released in mid- May, and a Graduate Student Housing Affordability Study community meeting was held on May 19, 2022. Findings of this analysis are not specific to housing affordability. The analysis considers the ability to afford living expenses in the aggregate.

The following is a list of key findings from the final Graduate Student Housing Affordability Study:

1. Stanford provides housing to approximately 75% of graduate students. Rents for 85% of housing spaces are within a range affordable to households with Low or Moderate incomes. Despite this, some graduate students still experience affordability challenges.
2. 16% of graduate students responding to the 2021 SCC Survey experience frequent financial challenges and/or food insecurity to the extent they sometimes or often do not have enough to eat.
3. 10% of graduate students have inadequate resources to meet estimated living expenses, based on the 2021 SCC Survey.
4. 5% of graduate students have inadequate resources for housing and other living expenses after potential additional “gap” funding sources are considered. Potential gap funding sources include maximizing the use of student loans and Stanford’s Graduate Family Grant and Graduate Student Aid Fund programs. This 5% share of graduate students with a shortfall to meet living expenses after gap funding sources translates to an estimated 470 graduate students based on enrollment for the 2021-22 academic year. For these graduate students, the estimated average gap between available resources and living expenses exceeds \$20,000 per year.
5. Affordability challenges are most prevalent among international students, driven in part by the fact that the spouse of an international graduate student is permitted to come to the U.S. but typically not allowed to work based on visa restrictions, and by a lack of access to federal student loans.
6. Nearly 14% of graduate students with children have an estimated gap in resources to meet living expenses, triple that of graduate students without children. This estimate is after consideration of gap funding sources including Stanford’s Graduate Family Grant program, which provides up to \$20,000 to qualifying graduate students with children but is not estimated to be sufficient on its own to address the affordability challenges of eligible families.

## Childcare Study

The Childcare Study was prepared by Public Consulting Group (PCG). This review included original quantitative and qualitative research to learn more about the needs and suitability of the University’s current childcare offerings and comparison to a group of public and private peer institutions throughout the country. “Peer institutions” refers to those that:



## Introduction

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1. Operate within the Carnegie classification system as R1 institutions, which are doctoral universities with high levels of research,
2. Offer on-campus childcare services, and
3. Have campuses located in regions with similar costs of living.

PCG conducted surveys and focus groups among Stanford students, including undergraduate, graduate, professional degree, and PhD students, and Stanford faculty and staff, including administrative staff, faculty, and all post-doctoral scholars. An administrative draft was shared with Stanford University and City of Palo Alto staff. A public draft was released in mid-May 2022, and a Childcare Study community meeting was held on May 25, 2022.

The following is a summation of key findings from the final Childcare Study:

1. Stanford's on-campus childcare centers appear to offer similar levels of service and cost to that offered at peer institutions. It is important to state clearly that the services are only roughly comparable to services offered by peer institutions because, unlike those of the peer institutions, most of the University's on-campus childcare facilities have not been rated by third-party organizations/systems such as the National Association for the Education of Young Children (NAEYC) and the California Quality Rating and Improvement System (CA QRIS).
2. The University offers more childcare programs and slots per potential use than its peer institutions; however, there remains unmet needs in the populations served, according to graduate students, faculty, and staff who reported long wait times and an inability to access on-campus childcare.
3. Stanford's reported cost for on-campus childcare remains higher than the reported average childcare costs incurred by students, faculty, and staff for on- and off-campus childcare, combined. More than half of responding graduate students (60%), and faculty and staff (60%), ranked cost of childcare as "most concerning," making it the single most concerning issue for both groups.
4. The majority of Stanford graduate students, faculty, and staff ranked "providing more substantial childcare subsidies" as the most preferred form of additional childcare benefit, regardless of whether that benefit would be applied to on- or off-campus childcare facilities.

**The findings, conclusions, and recommendations of these three studies informed sections of this updated Stanford Community Plan.**

## Major Policy Directions of the Community Plan

The major policy directions of the Stanford Community Plan are expressed within each chapter's major Strategies. In general terms, the major policy directions include the following concepts and principles:

- a. Promote compact urban development together with conservation of natural resources;
- b. Allow Stanford flexibility to develop its lands within a framework that minimizes potential negative effects (“flexibility with accountability”);
- c. Accommodate development for academic uses and housing on lands only within an Academic Growth Boundary, or AGB, while limiting the uses and development potential for lands outside the AGB to conserve open space and natural resources;
- d. Differentiate the major land uses within the plan area according to areas in academic use, housing, and open space outside the AGB;
- e. Plan for and ensure that substantial new adequate housing development, on the Stanford campus, occurs before or concurrently with approval for increases in academic space and facilities;
- f. Meet mobility and access needs primarily through means other than major road improvements, including a continuation of the “no net new commute trips” policy in combination with a Vehicle Miles Traveled (VMT)-focused approach, appropriate integration of land use, transit services, transportation demand management, and performance standards for controlling the new trips which may be generated; and,
- g. Achieve the various conservation, public health, and safety goals by emphasizing preventive measures or avoidance of impacts, requiring mitigation for impacts that may occur, and promoting resource restoration.

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*Stanford Community Plan represents a continuation and evolution of well-established and successful policies.*

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In conclusion, the Stanford Community Plan represents a continuation and evolution of well-established and successful policies to guide the regulatory processes employed by the County that regulates and implements development on Stanford University lands within Santa Clara County jurisdiction.

The Community Plan supersedes the previous Stanford Chapter contained within Part 4, Book B of the General Plan for Urban Unincorporated Area Issues and Policies, as well as the land use policies for Stanford University Lands - Campus and Stanford University Lands - Academic Reserve and Open Space in Part 3, Book B of the General Plan.

As needed, the Community Plan may be amended over time to improve its usefulness and effectiveness to decision-makers, Stanford, and the general public.



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# Growth and Development

## Chapter Summary

This chapter of the Community Plan articulates the fundamental approach that the County will pursue when considering future growth on University-owned lands in unincorporated Santa Clara County.



Image 2: photo credit - Stanford.edu

This plan considers Stanford lands in Santa Clara County and identifies the portion of those lands which are most appropriate for future development. The County’s intent for development to achieve the primary General Plan policy directions of compact urban development and resource conservation. The primary mechanism to direct growth is the establishment of a long-term Academic Growth Boundary (AGB).

An important aspect of managing growth at Stanford is the coordination of land use decision making, consultation, and policies regarding annexation. This chapter reinforces the 1985 Land Use Policy Agreement, which is a tri-party agreement between the County, the City of Palo Alto, and Stanford University as it relates to the delivery of services, land uses, governmental organization, and cooperation. Finally, this chapter provides a basis for continued monitoring of Stanford’s development activities and mitigation of environmental impacts associated with growth and development.

Community Plan strategies for growth and development are:

**Strategy No. 1: Promote compact development and conservation of natural resources through use of an Academic Growth Boundary.**

**Strategy No. 2: Maintain Co-operative Planning Agreements and Implementation.**

**Strategy No. 3: Mitigate and Monitor the Impacts of Growth.**

## Background

### Location and Setting

#### Governmental Jurisdictions

Stanford University is located in Santa Clara and San Mateo counties, approximately 35 miles south of San Francisco and 20 miles north of San Jose, California. Stanford’s original land grant

## Chapter 1 – Growth and Development

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totals approximately 8,180 acres and is located in six jurisdictions: unincorporated Santa Clara and San Mateo counties, the cities of Palo Alto and Menlo Park, and the towns of Portola Valley and Woodside (see **Figure 1.1 Governmental Jurisdictions**). Approximately 4,000 acres containing Stanford’s academic, academic support, housing, open space and agricultural lands are located within unincorporated Santa Clara County (the distribution of Stanford lands is shown in **Table 1.1** below).

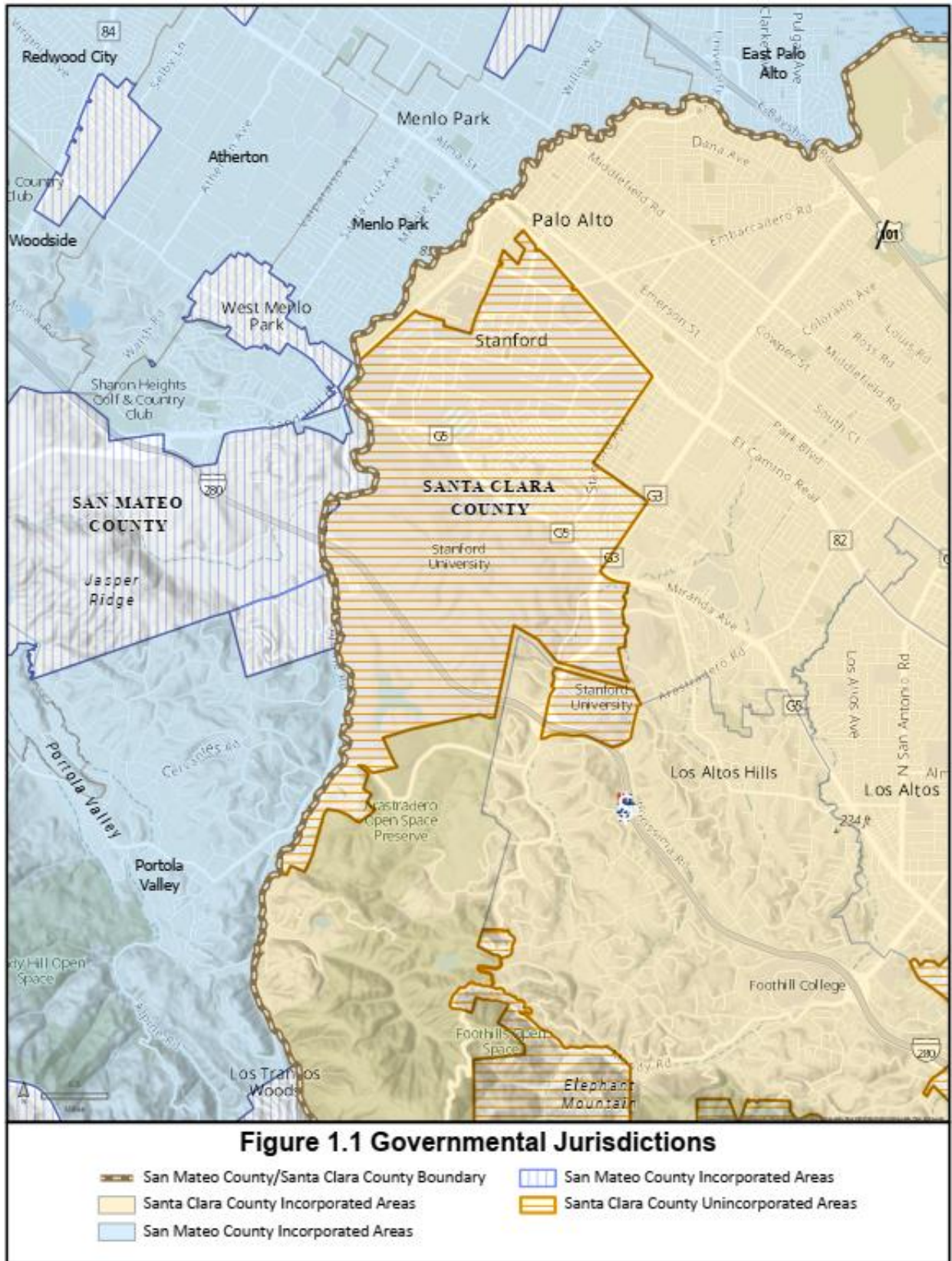
**Table 1.1 Distribution of Stanford Lands across Jurisdictions**

	Acres	Percent of Total
<b>Santa Clara County</b>		
Unincorporated	4,017	49%
Palo Alto	1,161	14%
<b>San Mateo County</b>		
Unincorporated	2,701	33%
Woodside	114	1%
Menlo Park	111	1%
Portola Valley	76	1%
<b>TOTAL</b>	<b>8,180</b>	

Source: Stanford University

Unincorporated Stanford lands in Santa Clara County and San Mateo County are within different spheres of influence. A “sphere of influence” is a planning boundary outside of an agency’s legal boundary (such as the city limit line) that designates the agency’s probable future boundary and service area, as determined by the Local Agency Formation Commission (LAFCO). Some portions of Stanford lands are within the City of Palo Alto’s urban service area and sphere of influence. All unincorporated San Mateo County lands are within a city sphere of influence. Due to the unique nature and history of Stanford, the rules, regulations, and policy agreements relating to urban service areas are applied differently for Stanford than for other areas of the County. **Error! Reference source not found.**

Figure 1.1 Governmental Jurisdictions



## Chapter 1 – Growth and Development

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In some cases, the uses on Stanford lands differ sharply between jurisdictions, most notably for those areas that are within the City of Palo Alto. These lands are expressly intended for interim non-academic uses that support the operation of the University (see Policy Context, below). Land uses within the City of Palo Alto include the Stanford University Medical Center, Stanford Shopping Center, Stanford Research Park, and apartment complexes. Lands in the San Mateo County jurisdictions are largely undeveloped, with the exception of the Stanford Linear Accelerator Center in unincorporated San Mateo County.

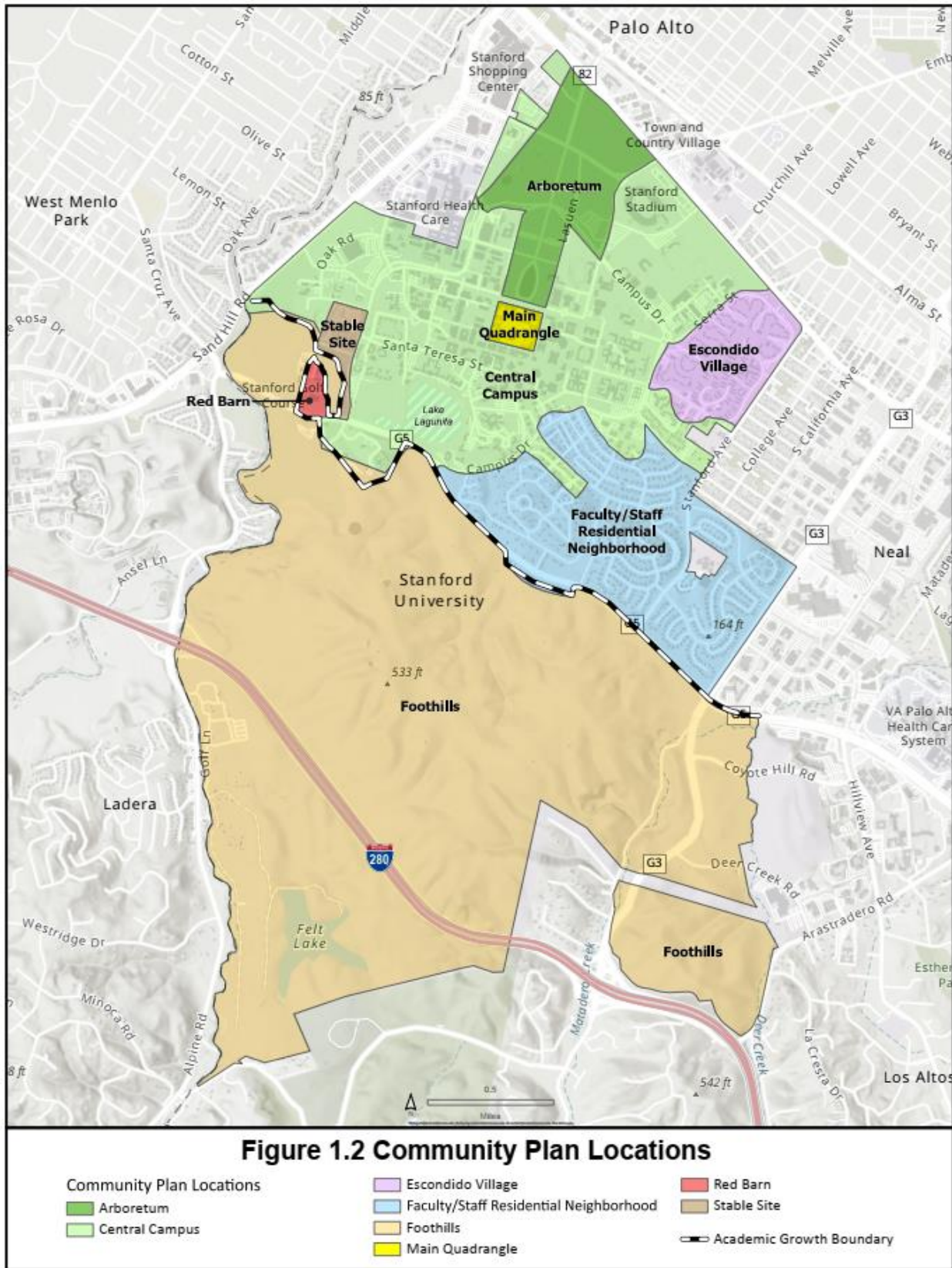
### Community Plan Area Physical Setting

Both developed and undeveloped areas of the Stanford campus are distinctive. Stanford is a complex and active place with a wide variety of activities taking place throughout the campus. With its extent of academic buildings, housing, academic and student support services, and cultural and athletic facilities, the campus has been compared by many to be the equivalent of a city.

The geographic distinction on the Stanford campus is between the central campus, where development is concentrated, and the foothills which have remained mostly undeveloped. Of the 4,017 acres of land in unincorporated Santa Clara County, 1,724 acres are north of Junipero Serra Boulevard and approximately 2,293 acres are located south of the roadway.

Within these two primary areas there are several important geographic areas and sites addressed throughout the Community Plan. These locations are defined on **Figure 1.2 Community Plan Locations**.

Figure 1.2 Community Plan Locations





### Policy Context for the Community Plan

Policies for Stanford are addressed in the Santa Clara County General Plan under the portion of the plan concerning urban unincorporated areas, recognizing the nature of the activities which take place at Stanford. However, Stanford is not subject to the General Plan strategies and policies for other urban unincorporated areas, which are “pockets” of unincorporated lands that are intended for future annexation. The Stanford University campus lands are unlike other urban unincorporated lands in Santa Clara County in a number of significant respects in that they:

- Are used for academic and academic support space, which includes housing;
- Are entirely under the ownership of a single landowner that
  - is both a major employer and a major provider of housing,
  - is responsible to provide all of its own urban services and facilities, and
  - has its own land use planning staff;
- Have limitations on the sale of their lands (due to restrictions in the Founding Grant);
- Are the subject of the 1985 Land Use Policy Agreement, a tri-party agreement between the County, the City of Palo Alto, and Stanford University; and,
- Encompass a unique integrated community whose members are all related, in one way or another, to the University.

Prior to the adoption of the Community Plan in 2000, Stanford’s policy framework was composed of:

- Santa Clara County General Plan Land Use Map designations and policies for Stanford;
- The 1985 Land Use Policy Agreement between Stanford, the City of Palo Alto, and the County; and,
- The 1989 General Use Permit, which stipulated the allowable amount of new development on Stanford lands and the conditions under which that development could occur.

#### 1985 Land Use Policy Agreement

Due to Stanford’s multi-jurisdictional setting and the need to consider issues concerning annexation as they specifically apply to Stanford, the County of Santa Clara, the City of Palo

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*The Land Use Policy Agreement states that the County, the City of Palo Alto, and Stanford agree that Stanford lands are held in perpetual trust for educational purposes and Stanford is responsible for providing its own municipal services.*

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Alto and Stanford University are parties to an agreement titled the 1985 Land Use Policy Agreement. This agreement sets forth the policies regarding land use, annexation, planning, and development of Stanford lands in Santa Clara County, and defines what uses may remain in the unincorporated County and what uses must be annexed to the City of Palo Alto.

The general policies of the Land Use Agreement outline Stanford University's uniqueness, and documents the agreement that all academic, academic support space, housing, open space, and agricultural uses should remain on unincorporated lands, while other non-academic uses on Stanford lands should be subject to city annexation. The Land Use Policy Agreement augments the sphere of influence by affording Palo Alto review opportunity for projects on all unincorporated Stanford lands (not just those within the delineated sphere of influence north of Junipero Serra Boulevard), and by identifying what types of uses are to remain unincorporated.

- **Academic Uses:** The Stanford Board of Trustees holds all Stanford lands for ultimate academic use. Unincorporated Stanford lands in Santa Clara County are subject to the County General Plan and Zoning Ordinance, as well as other land use approvals granted by the County. Pursuant to the 1985 Land Use Policy Agreement, the parties agree that neither seek annexation to Palo Alto of parcels designated for academic use, which also include academic support uses and housing.
- **Non-Academic Uses:** The Trustees allow non-academic use of certain designated parcels to produce income to support the University and its programs. These policies define "non-academic uses," state Stanford's intent to request annexation for parcels on which any non-academic use is proposed and describe the City of Palo Alto's review and approval procedure.

The Land Use Policy Agreement states that the County, the City of Palo Alto, and Stanford agree that Stanford lands "... are held in perpetual trust for educational purposes..." (Policy 1-a), and Stanford is responsible for providing its own (directly or by contract) municipal services. These policies also include agreements regarding multi-jurisdictional review procedures, which are to occur prior to any project or proposal.

The 1985 Land Use Policy Agreement also calls for maintenance of a document known as the Protocol, which outlines all adopted land use designations, regulation, restrictions, and review and referral procedures for land use and development on the Stanford campus. Revisions to the Protocol are made at a staff level with the most recent version occurring in 2000, after the Board of Supervisors approved the 2000 Community Plan and 2000 General Use Permit.

This Community Plan intends to maintain and enhance the 1985 Land Use Policy Agreement. The Protocol will need to be amended according to this policy agreement to reflect the strategies and policies of the Community Plan, as amended from time to time.

In light of the multi-jurisdictional agreement, unincorporated Stanford lands are exempted by the County of Santa Clara and the Land Use Policy Agreement from the following two major

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General Plan strategies generally applicable to urban unincorporated area:

- Unincorporated lands within city urban service areas should be annexed to the cities in whose urban service areas they are located.
- Land uses for unincorporated lands within city urban service areas should conform to the general plan of the city in whose urban service area they are located.

The needs and issues which are commonly addressed through the mechanisms of annexation, sphere of influence, and urban service area are instead addressed at Stanford through the 1985 Land Use Policy Agreement. The County normally requires most forms of new development in urban unincorporated areas to conform to the land use and density requirements of the applicable city's General Plan, with the expectation that these areas will be annexed at some point in the future.

Since academic, academic support and housing uses at Stanford are not intended for future annexation, they are not required to conform to the requirements of the City of Palo Alto. Dispensation from the Palo Alto Comprehensive Plan through the 1985 Land Use Policy Agreement also applies to the Palo Alto urban service area. By agreement of all parties, it is the County General Plan, of which this Community Plan is a part, defines the extent of urban growth at Stanford.

### Stanford Community Plan

The County determined in 2000, that a more deliberate planning instrument is needed to provide the County with a policy framework for decisions regarding development at Stanford, when faced with regional growth pressures impacting the quality of life in local communities. The Community Plan identifies policies and establishes land use designations that reflect the character and resources of the various Stanford lands in unincorporated Santa Clara County. The Community Plan is based on the need for a Stanford-specific policy framework within the context of the County's priorities for land use, growth and development, and other planning issues as expressed in the General Plan.

No portion of the Community Plan may be modified without the approval of a majority of members of the Santa Clara County Board of Supervisors, and modification of the AGB requires a four-fifths (4/5) vote of the Board. The Community Plan offers local communities a greater specificity in the planning and decision-making processes of both Stanford and ultimately the County. The General Use Permit serves within this framework as the general approval for a specified amount of development at Stanford.

### General Plan Policy Direction

This Community Plan is a part of and a supplement to the Santa Clara County General Plan. It is meant to be consistent with the General Plan and refine its strategies, policies, and implementation measures as they apply to Stanford. The Community Plan particularly

emphasizes and is based upon two fundamental and complementary principles expressed in the General Plan and related to growth and development:

- Compact and efficient urban development; and,
- Conservation of natural resources.

## Stanford University Development Trends

Ongoing expansion of academic programs and research opportunities at Stanford has also engendered a corresponding increase in building area on the campus. New development attributable to growth in academic buildings, support services, and student housing has mostly occurred since World War II.

Policy SCP-GD 12 of the 2000 Community Plan outlined that Stanford, in coordination with the County, would complete a Sustainable Development Study that would, in summary, 1) demonstrate how future development will be sited to prevent sprawl into the hillsides and provide long-term assurance of compact urban development, and 2) provide for protection and/or avoidance of sensitive plant and animal species and their habitats. This is referred to as the 2008 Sustainable Development Study (SDS). The SDS demonstrated that Stanford lands within the AGB demonstrated sufficient capacity to accommodate future campus growth through 2035. It explored long-term growth potential for Stanford lands through 2035 and demonstrated how future development could be sited within the AGB; addressed resource protection in the foothills through a sensitivity study; and identified principles and programs for environment sustainability in development and operation of the University.

The SDS demonstrated sufficient capacity of lands within Stanford’s Academic Growth Boundary (AGB) to accommodate a high growth rate scenario (300,000 square feet of academic and housing per year) through 2035 without the need to adjust the AGB. Later, the County determined that current planning needs require a longer-term assessment. This resulted in the 2018 Sustainable Development Study Supplement (SDSS).

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*Campus development can be contained within the AGB over the foreseeable future, thus protecting open space lands.*

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The 2018 SDSS assesses the long-term development capacity of the Stanford campus based on benchmark data from other research universities, anticipated development of surrounding communities, and resource constraints and other factors that may limit future growth. Beyond 2035, more than 500 acres of the Stanford campus have been identified that could theoretically be developed using a variety of land use intensification strategies, allowing up to 44 million square feet of total development on the campus over a period of 100 years or more.

This would nearly triple the existing density of the campus, demonstrating that campus development can be contained within the AGB over the foreseeable future, thus protecting

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these open space lands. The 2018 SDSS analyzed the following intensification strategies for development within the AGB:

- Redevelop Parking Facilities
- Redevelop Lower Density Areas
- Relocate Agricultural Lands and Facilities
- Relocate Athletic Facilities

The 2018 SDSS concludes that with implementation of these intensification strategies, Stanford land within the AGB could accommodate continued development at the historic rate (200,000 square feet of academic and housing per year) for 100 years or more if other constraints (including transportation capacity, water and housing supply, and wastewater treatment capacity) could be resolved.

The SDSS explains that there are a variety of physical, environmental, and societal constraints that could limit future development, and it is reasonable to expect that Stanford’s ability to manage these constraints, and societal and technological change would alter the rates of development outlined in the study. Both the SDSS and SDS do not approve development, but rather are planning exercises/studies.

**Table 1.2** shows the incremental and cumulative academic, academic support and student housing square footages from 1875-2022. The growth rate since 1960 has represented an average annual addition of approximately 200,000 square-feet (s.f.) of academic building area, academic support facilities, and student housing; however, this rate can vary considerably year-to-year.

Table 1.2 Incremental and Cumulative Square Footages From 1875-2022

Time Period	Academic Building Area Added (Square Feet)	Cumulative Academic Building Area	Student Housing Area Added (Square Feet)	Cumulative Student Housing Area	Total Cumulative Building Area
1875-1960	2,790,913	2,790,913	1,466,041	1,466,041	4,256,954
1961-1965	510,754	3,301,667	554,410	2,020,451	5,322,118
1966-1970	1,036,559	4,338,226	286,374	2,306,825	6,645,051
1971-1975	509,589	4,847,815	374,402	2,681,227	7,529,042
1976-1980	713,250	5,561,065	45,620	2,726,847	8,287,912
1981-1985	323,925	5,884,990	238,786	2,965,633	8,850,623
1986-1990	985,735	6,870,725	294,626	3,260,259	10,130,984
1991-1995	322,388	7,193,113	130,897	3,391,156	10,584,269
1996-2000	1,027,278	8,220,391	495,360	3,886,516	12,106,907
2001-2005	187,491	8,407,882	140,854	4,027,370	12,435,252
2006-2010	638,953	9,046,835	488,924	4,516,294	13,563,129
2011-2015	571,096	9,617,931	263,007	4,779,301	14,397,232
2016-2020	453,434	10,071,365	1,710,552	6,489,853	16,561,218
2021	-90,221	9,981,144	N/A	6,489,853	16,470,997
2022	-25,142	9,956,002	N/A	6,489,853	16,445,855
<b>TOTAL</b>	<b>9,956,002</b>		<b>6,489,853</b>		<b>16,445,855</b>
<b>Maximum Allowable Development:</b>					<b>17,300,000</b>

Source:

1875-2000 Data Obtained From Stanford University Land Use and Environmental Planning Office

2001-2022 Data Obtained From 2000 GUP Annual Report No. 22

## Zoning and General Use Permit

The General Use district or “A1” zoning district, as assigned per the County of Santa Clara Zoning Ordinance, the Special Purpose Base District, applied to Stanford University requires that a Use Permit be granted for development and operation of academic activities at Stanford. Since the 1960s, this Use Permit has been in the form of a “General Use Permit,” or GUP, for the University rather than a separate use permit for each building.

The 2000 GUP replaced the 1989 GUP after approximately 10 years, and it is the permit under which Stanford continues its academic and support uses, and authorizes the University to develop the following facilities:

- Academic and academic-support facilities (up to an additional 2,035,000 net s.f. plus the square footage remaining under the 1989 GUP)
- Childcare or community centers (an additional 40,000 s.f.)

- Temporary trailers and surge space (up to 50,000 s.f.)
- Parking structures and lots (2,300 net new parking spaces)
- Housing (3,018 housing units, increased to 4,468 housing units in 2016)

As of 2023, the 2000 GUP is still in effect, with some amendments over the past 20 years. To provide for more timely consideration and comprehensive updates, future GUPs shall be updated every 10 years, with both annual monitoring and periodic reports occurring throughout that time. The frequency and content of the periodic reports shall be determined by the GUP conditions of approval and shall serve to document and summarize development at Stanford University, GUP compliance, and indicate any recommended opportunities for amendments or clarifications of the GUP by the County. Guidelines for these reports are outlined in Strategy No. 3 of this chapter.

## Strategies, Policies, and Implementation

### Strategy No. 1: Promote compact development and conservation of natural resources through use of an Academic Growth Boundary

The County General Plan promotes the use of long-term urban growth boundaries by cities to delineate areas intended for future urbanization from those areas not intended for future urban use. Unlike an urban service area boundary, which typically indicates the areas in which a city is able and willing to provide urban services in the short term (5 years), an urban growth boundary is meant to provide adequate land to accommodate urban development for a significantly longer time period. The delineation of urban growth boundaries can promote compact urban development and conservation of natural resources by (a) focusing development within existing urban areas and (b) excluding important habitat, hazard, or open space areas from the urban growth boundary area.

The General Plan identifies considerations for the establishment and periodic review of urban growth boundaries between the County and incorporated cities.

The Community Plan continues the use of an urban growth boundary at Stanford in the form of the Academic Growth Boundary (AGB), see **Figure 1.3 Academic Growth Boundary**. The concept of the AGB, as it applies to Stanford is a basic one: development must occur within the AGB, with lands outside the AGB remaining in open space.

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*The delineation of urban growth boundaries can promote compact urban development and conservation of natural resources.*

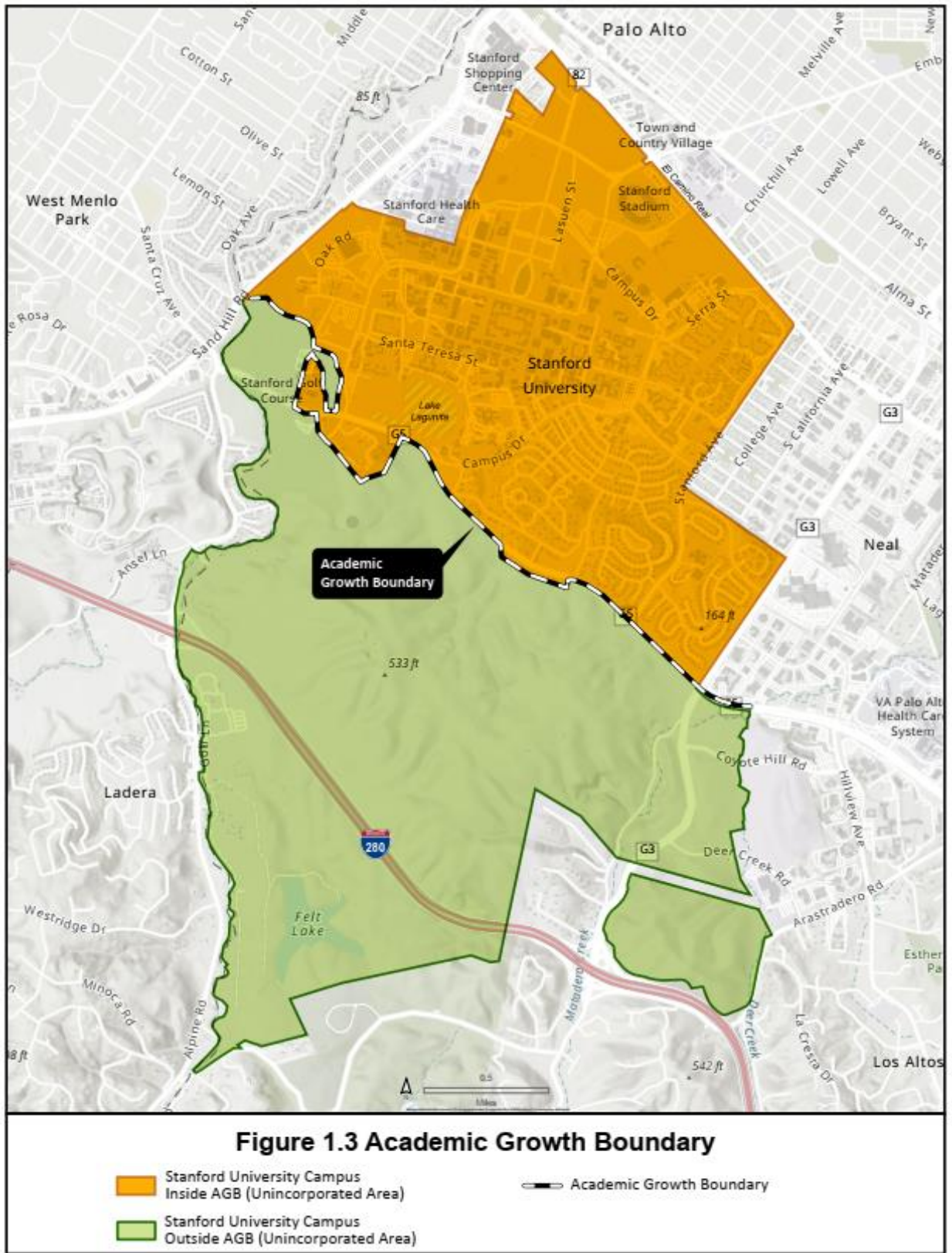
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Currently, there are 1,724 acres of land within the AGB, and 2,293 acres of land outside the

AGB. The AGB is the primary mechanism for promoting compact urban development and resource conservation in the Community Plan, and it serves as the basis for associated policies throughout the plan that reinforce this basic demarcation line.



Figure 1.3 Academic Growth Boundary



### Academic Growth Boundary Location

The Academic Growth Boundary generally parallels existing developed areas (see **Figure 1.3 Academic Growth Boundary**). The purpose of this location is to direct all new development to infill sites rather than expansion areas, allowing for a compact form of urban development that promotes use of non-auto transportation modes and that conserves land and other natural resources. Over time, this location will primarily result in a central campus at Stanford that is developed more intensively than the campus today. The location of the AGB also allows for a variety of settings to meet different academic and research needs.

Throughout the Community Plan, areas within the AGB (generally north of Junipero Serra Boulevard) are considered “central campus” and the areas outside the AGB (generally south of Junipero Serra Boulevard) are considered “foothills” (see **Figure 1.2 Community Plan Locations**).

### Development Policies

Allowable development for areas within and outside the Academic Growth Boundary is defined in the Land Use chapter of the Community Plan. Different land use designations are applied in those areas that direct development to land inside the growth boundary. Essentially all uses associated with the educational and residential function of the campus are directed inside the boundary, while areas outside the boundary are reserved for open space and academic activities that require the foothill setting for their basic functioning. A major existing use which is outside the AGB is the Stanford Golf Course, which is considered an open space use under the Community Plan.

### Academic Growth Boundary Timing

The Academic Growth Boundary is intended to provide a planning boundary for academic, academic support, and housing development on the Stanford campus on a long-term basis if planned development can be accommodated within its boundaries. The land within the AGB totals 1,724 acres (developable), and the land outside the AGB totals 2,293 acres (open space). The AGB will remain in the established location for a period of at least 99 years. The Community Plan requires a super-majority vote of four-fifths (4/5) of all members of the Board of Supervisors for any modification to the AGB location during this 99-year time period, in contrast to the simple Board majority required for other General Plan amendments.

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*The AGB should remain in its current location for a minimum of 99 years.*

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Additional growth and development beyond what is authorized in this Community Plan and the General Use Permit requires an amendment to the Community Plan and review under the California Environmental Quality Act (CEQA). The AGB should remain in its current location for a minimum of 99 years, and indefinitely so long as it provides adequate area to accommodate University development in a compact urban form. A review of the AGB should

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be conducted periodically to confirm that it continues to provide adequate development potential in its current location.

While the current location of the AGB should remain for a minimum of 99 years, should a request to consider an amendment sooner, the following factors shall be considered:

- University development patterns in the past and recent trends;
- Stanford growth projections and potential constraints to growth other than available area within the AGB;
- Strategies to increase efficient use of available land within the AGB;
- Feasibility of accommodating future growth within the AGB;
- Implications of AGB expansion for resource conservation.

Any modification of the AGB that would expand academic growth shall require a supermajority vote of the Board of Supervisors (four-fifths (4/5) vote required) and a finding, based on the above factors, that future development cannot be feasibly accommodated within the existing AGB.

This AGB serves several purposes, including:

- It provides for an adequate amount of additional building area to serve Stanford's needs over the long term.
- Encourages the efficient and sustainable use of Stanford lands within the AGB;
- Promotes a concentration of people and activity conducive to the use of transit and other non-automobile modes of transportation; and,
- Preserves open space, protects natural resources and scenic vistas, and avoids geologic hazards in foothill areas outside the AGB.

Actual development and population growth proposals by Stanford, both in the form of General Use Permit applications and as applications for individual building projects under the GUP, will continue to be evaluated for their environmental and policy impacts by County staff, the Planning Commission, and the Board of Supervisors.

Accommodating all future additional development within the AGB may require exploration of new areas for development in the future, such as the area of the west campus currently expected to remain undeveloped according to the development agreement between the City of Palo Alto and Stanford for the Sand Hill Road Corridor Projects.

**Table 1.3** compares campus development (cumulative academic, academic support, and student housing) within the AGB in 2000 and 2021. It does not include faculty and staff housing, or land designated to faculty and staff residential areas. Additional student housing over and above the limits in **Table 1.3** can be constructed in compliance with a certified environmental

document and approved General Use Permit, and other required permits and approvals. Development in residential areas is regulated in the Community Plan under a different land use designation that defines allowable residential density for these areas.

**Table 1.3 Academic Growth Boundary/Central Campus Development**

<b>Land Area (Excluding Faculty/Staff Residential Areas)</b>	1,370 acres
<b>Building Area (2000)</b>	12,106,907 Square Feet
<b>Building Area (2021)</b>	16,470,997 Square Feet
<b>Floor Area Ratio (2000)</b>	0.20
<b>Floor Area Ratio (2021)</b>	0.28

Source: 2000 GUP Annual Report No. 21

### Community Plan Policies Supporting Academic Growth Boundary

Table 1.4 describes some means by which the Academic Growth Boundary, and the associated concepts of compact urban development and resource conservation, are reinforced in other chapters of the Community Plan.

**Table 1.4 Community Plan Reinforcement of Academic Growth Boundary**

<b>Chapter</b>	<b>AGB Reinforcement</b>
<b>Land Use</b>	Land Use designations within and outside the AGB
<b>Housing</b>	Identification of housing sites within the AGB; promotion of higher density
<b>Open Space</b>	Protection of open space outside the AGB; promotion of balance between high intensity development and open space inside the AGB
<b>Circulation</b>	“No net new commute trips” and reverse commute trips monitoring during the peak hour and peak period, and Vehicle Miles Traveled (VMT) standards, which promote compact development to allow for use of transit, bicycle, and pedestrian networks

### Policies

#### SCP-GD 1

Establish and maintain an Academic Growth Boundary (AGB) as shown on Figure 1.3. Direct future development on Stanford lands within the AGB, consistent with the Community Plan land use designations.

#### SCP-GD 2

Retain the location of the Academic Growth Boundary (AGB) as shown in Figure 1.3 for a 99-year period (until December 31, 2122).

### SCP-GD 3

Modification of the location of the Academic Growth Boundary (AGB) within 99 years shall only be allowed upon a four-fifths vote of the Board of Supervisors based upon the following factors:

- a. Development of new academic facilities or housing cannot be feasibly accommodated within the boundaries of the existing AGB or on other property owned by Stanford in reasonable proximity to the Stanford campus.
- b. Development of new academic facilities or housing outside of the existing AGB will meet all transportation policies of the Stanford Community Plan and transportation requirements of the current General Use Permit (GUP).
- c. Adequate urban services and infrastructure can be provided to the proposed new academic facilities or housing outside of the existing AGB.
- d. Adequate water supplies are available to serve the expanded AGB without adversely affecting the water supplies to any other existing users.
- e. Implications of AGB expansion for resource conservation.

### SCP-GD 4

The design and intensity of growth within the Academic Growth Boundary (AGB) should facilitate transit usage. There should be a mixture of uses to allow for a high degree of pedestrian and bike trips. The location of uses should facilitate non-auto trips.

### SCP-GD 5

The design and intensity of development outside the Academic Growth Boundary (AGB) should be very low intensity supporting environmental restoration, utilities, academic field research, research needing remote locations, agricultural and outdoor recreational uses.

### SCP-GD 6

Development within the Academic Growth Boundary (AGB) may only be permitted through a General Use Permit (GUP) approved by the County. Additional growth and development within the AGB beyond what is authorized by the GUP shall not be allowed without a certified environmental document and approved GUP.

### SCP-GD 7

Maximum allowable development within the Community Plan Area for academic and academic support spaces (including student housing) shall comply with the following, unless authorized through an amendment to this Community Plan and a concurrent General Use Permit (GUP) application: Maximum 17,300,000 square feet, which includes academic and academic support space, and student housing. The 17,300,000 square feet does not include faculty/staff housing.

**SCP-GD 8**

Encourage new housing consistent with the County’s list of housing opportunity sites within the Housing Element and applicable zoning.

**Implementation Measures**

**SCP-GD (i) 1**

Require that Stanford, annually, prepare and submit an assessment of how annual construction from the previous year implements ‘intensification strategies’ to development within the Academic Growth Boundary (AGB).

**Strategy No. 2: Engage in Cooperative Planning and Implementation**

The policies associated with this strategy articulate and reinforce the decision-making and cooperative arrangements among Stanford, the City of Palo Alto, and the County of Santa Clara, which have been in place for several decades. These policies clearly articulate a departure from General Plan policies for other urban unincorporated areas of the County; however, because the County’s intentions regarding annexation, use regulation, and service provision differ from other urban areas, it is appropriate that specialized policies and consultation procedures apply to Stanford.

The 1985 Land Use Policy Agreement stipulates that Stanford will provide all municipal services to unincorporated portions of Stanford lands, including contractual arrangements for services as needed. The Community Plan and General Use Permit create a need to ensure that service use by Stanford residents and Stanford’s provision or contracting of services, are consistent with one another.

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*The Community Plan represents a commitment to quality stewardship of a unique regional asset.*

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The policies also reflect the County’s desire to understand the University’s long-term development plans so that such development may accomplish the University’s academic mission in a manner consistent with quality planning practices and the County’s planning objectives. The Community Plan represents a commitment to quality stewardship of a unique regional asset.

To provide for consideration of these issues, Stanford prepared in cooperation with the County Planning Office, the 2008 Sustainable Development Study (SDS) covering all of its unincorporated lands in Santa Clara County. The County then prepared the 2018 Sustainable Development Study Supplement (SDSS).

The County may, at Stanford’s expense, choose to do future analysis to supplement the SDS and the SDSS, through a major modification to the GUP and/or a community plan amendment. No CEQA analysis was done on the intensification strategies in the SDS or SDSS; therefore, the

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intensification strategies have not been evaluated under CEQA and should not be used to justify development, unless CEQA analysis is conducted.

### Policies

#### SCP-GD 9

The use and development of Stanford lands in the unincorporated area of Santa Clara County shall be consistent with:

- the County General Plan, including this Community Plan;
- the County Zoning Ordinance;
- a Use Permit known as the Stanford University General Use Permit;
- other Use Permits and approvals as required, granted by the County within the parameters of the Zoning Ordinance and the General Use Permit; and,
- the 1985 Land Use Policy Agreement among the County, the City of Palo Alto, and Stanford University.

#### SCP-GD 10

Academic and related development on unincorporated lands of Stanford University within Palo Alto's urban service area shall not be required to conform to the City of Palo Alto's Comprehensive Plan.

#### SCP-GD 11

The provision of urban services to the academic lands of Stanford University shall be the responsibility of the University, based on the 1985 Land Use Policy Agreement and an evaluation prepared by the County. This may be accomplished through direct provision of such services by Stanford, payment of in-lieu or impact fees, or appropriate contractual relationships with local jurisdictions.

#### SCP-GD 12

Annexation of Stanford lands shall be in accordance with the 1985 Land Use Policy Agreement:

- Academic land uses, and housing for faculty, staff, and students, for which the University provides or obtains its own services, will not be required to annex to a city.
- Open space and agricultural uses of land will remain unincorporated.
- Other non-academic uses of University land should be subject, in appropriate cases, to city annexation, as agreed to in the 1985 Land Use Policy Agreement.

#### SCP-GD 13

In accordance with the adopted 1985 Land Use Policy Agreement and Protocol, provide opportunities for the City of Palo Alto to review and comment upon projects and proposals involving Stanford University that may affect the City.

**SCP-GD 14**

Any future Sustainable Development Study, and supplements thereof shall accomplish the following:

- Demonstrate how future development could be sited to prevent sprawl into the hillsides, contain development in clustered areas, and provide long-term assurance of compact urban development; and
- Identify concepts for protection and/ or avoidance of sensitive plant and animal species and their habitats, creeks and riparian areas, drainage areas, watersheds, scenic viewsheds, and geologic features such as steep or unstable slopes, and faults.

**Implementation Measures**

**SCP-GD (i) 2**

Revise the Protocol with a report to the Board of Supervisors, which is maintained under the stipulations of the 1985 Land Use Policy Agreement, to reflect changes in land use policies and review procedures resulting from the Community Plan, and respective modifications.

**SCP-GD (i) 3**

Identify urban service levels and service needs of Stanford residents. If Stanford is not providing an appropriate level of urban services to its residents, require that Stanford either provide any needed municipal services, pay in-lieu fees, or contract with the appropriate agencies to provide them. Contractual agreements or services required by the County will recognize that individuals commonly use services independent of jurisdictional boundaries, that jurisdictions may employ policies that give priority to their residents for service use, and that service levels differ among jurisdictions.

**SCP-GD (i) 4**

Develop reimbursement agreements between the University and the City of Palo Alto, the County and other jurisdictions for fair share costs of municipal services provided to Stanford as determined by a nexus study and based on current and projected costs for providing municipal services. Include unreimbursed services provided to properties located both on campus and those located in adjacent cities. Include reimbursement for additional expenses resulting from large University events.

**SCP-GD (i) 5**

Stanford shall provide and maintain a publicly available Municipal Services website that lists all of the municipal service areas identified in the Municipal Services Study, along with the appropriate contact information for those services. If multiple entities provide portions of a service, the website shall indicate that distinction and provide contact information for each provider.



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### SCP-GD (i) 6

Stanford shall provide complete service and performance metrics for all municipal services identified in Attachment A of this Community Plan, for the last three years, along with annual updates. Stanford shall provide this information on the Municipal Services website.

### SCP-GD (i) 7

Stanford shall provide and maintain information on the Municipal Services website for each service area that includes direction on how the public may provide immediate and direct feedback to the service provider and informs the public of how to participate in, or access, any related customer satisfaction surveys. Stanford shall also provide a feedback form through the Municipal Services website where the public can provide input on municipal service concerns. Stanford shall provide a compilation of the feedback received through the Municipal Services website to the County on an annual basis.

### SCP-GD (i) 8

The County should perform an assessment of Stanford residents' satisfaction with animal control services provided by the County.

### SCP-GD (i) 9

Require a joint County and Stanford evaluation of survey results and analysis to determine if Stanford should contract with the City of Palo Alto, which has a fully functioning animal care system, for more convenient service to Stanford residents.

### SCP-GD (i) 10

Stanford shall pay for their share of expenses with implementation of new, or improvements made to, fire emergency preparedness measures.

### SCP-GD (i) 11

The County and Stanford shall collaborate to address food insecurity issues for Stanford affiliates.

### SCP-GD (i) 12

Develop an agreement between the County, the City of Palo Alto, and Stanford for additional shared use of University fields and recreational resources.

### SCP-GD (i) 13

Stanford shall provide fair-share maintenance funding for Palo Alto city parks used by Stanford affiliates.

### SCP-GD (i) 14

The County, Stanford, and the Palo Alto Unified School District (PAUSD) should work collaboratively to identify and equalize payments in lieu of property taxes (PILOT) for any public school service provided to the Stanford community.

### SCP-GD (i) 15

Stanford shall improve access and transparency of campus childcare services by:

- Participating in the California Quality Rating and Improvement System (CA QRIS), or a nationally-recognized system by an entity such as the National Association for the Education of Young Children (NAEYC), and making this information on program quality readily available to all students, faculty, and staff;
- Increasing transparency and reducing redundancy for on-campus childcare applications;
- Conducting ongoing childcare needs assessments by an independent, outside evaluator;
- Providing greater information to Stanford affiliates about off-campus childcare alternatives; and
- Designing childcare benefits specifically for graduate students.

### **Strategy No. 3: Mitigate and Monitor the Impacts of Growth**

Growth under the Community Plan has the potential to result in impacts to the campus, surrounding communities and the natural environment. These impacts have been and will continue to be analyzed in accordance with the requirements of the California Environmental Quality Act (CEQA), and mitigation measures for those impacts have been identified. The policies and implementation measures in the Community Plan and the conditions of the General Use Permit (GUP) incorporate both mitigation measures for environmental impacts and other policy-level considerations.

Under the GUP, Stanford will be required to obtain additional approval for each individual building or project proposed. Depending on the nature of the project, each approval may require additional environmental review. Additional conditions will be required on a project-specific basis that are consistent with the conditions of the GUP.

Stanford's compliance with the GUP is monitored through an annual report process. The County intends to continue to monitor implementation of development under the approved GUP through an annual report prepared by the County. The preparation of the report shall be funded by Stanford. This report will need to track Stanford's compliance with each of the individual conditions of the GUP, for topics such as transportation, building area, housing, population growth, and habitat protection.

The conditions of the GUP may also require periodic reporting to document and summarize development at Stanford University, GUP compliance, and indicate any recommended opportunities for amendments or clarifications of the GUPs by the County. For example, such periodic review could enable a more immediate response to emergency declarations, compliance issues, or shifts in campus programming.

The County intends to ensure that ongoing development on the campus meets the policies under the Community Plan by requiring that Stanford demonstrate adherence to traffic and

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development policies prior to development permitted under future General Use Permits. It is important that future monitoring and reporting procedures be both verifiable and understandable. An additional aspect of monitoring will be ongoing communication between the County Planning Office and the local community regarding development at Stanford.

### Policies

#### SCP-GD 15

Stanford University will mitigate environmental impacts of its growth and development in accordance with the conditions of the General Use Permit (GUP) and mitigation monitoring program for the Community Plan and GUP.

#### SCP-GD 16

Review Stanford's compliance with mitigation requirements and conditions of approval of the General Use Permit (GUP) through the mitigation monitoring reporting program and annual reporting.

#### SCP-GD 17

Promote ongoing exchange of information between the County and the local community regarding development activity at Stanford through the Community Resource Group (CRG).

#### SCP-GD 18

The General Use Permit (GUP) shall be updated every 10 years with periodic progress reports as determined by the GUP conditions of approval. The Board of Supervisors may consider setting a different timeframe during its review of the next GUP application.

### Implementation Measures

#### SCP-GD (i) 16

Prepare annual reports to evaluate Stanford's compliance with the conditions of the General Use Permit (GUP) and progress towards meeting the implementation recommendations of the Community Plan. Preparation of the report shall be funded by Stanford. The annual report shall be presented to the Community Resource Group (CRG) at its first quarterly meeting each year, and shall then be submitted to the Planning Commission no later than June of each year. The County will establish other periodic reviews through the GUP to ensure compliance with all conditions of approval and mitigation measures.

#### SCP-GD (i) 17

Through the General Use Permit (GUP) conditions of approval, establish a procedure and mechanism to implement phased approvals (for example, every 5 years) within the GUP approval.

**SCP-GD (i) 18**

Review and evaluate applications for individual building projects under the General Use Permit (GUP), and any other use permit applications, for consistency with the Community Plan, the conditions of the GUP, and all other relevant County policies and requirements.

**SCP-GD (i) 19**

Maintain a Community Resource Group (CRG) comprised of 8-12 persons. The CRG members shall be selected by the County Department Planning and Development in consultation with the County Supervisor for the Fifth Supervisorial District. The CRG will meet at least quarterly and will serve as a mechanism for exchange of information and perspectives on Stanford development issues but will have no formal role as an advisory body.

**SCP-GD (i) 20**

The County shall prepare periodic reports of the General Use Permit (GUP) to document and summarize development at Stanford University, GUP compliance, and indicate any recommended opportunities for amendments or clarifications of the GUP by the County.



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# Land Use

## Chapter Summary

Land use, and the policies that govern it, contribute fundamentally to the character and form of a community. At Stanford, the combination and arrangement of land uses form a community that is self-contained for many of its functions, but which is also part of a larger regional setting.

At the countywide level, institutions like Stanford are designated as “Major Educational and Institutional Uses” on the General Plan Land Use Map. This Land Use Plan designation

differentiates universities and similar institutions

from other major categories or classifications of land use. Policy R-LU 63 of the County’s General Plan states the description and intent of the institutional designation:

*The Major Educational and Institutional Uses designation is applied to lands belonging to a university, religious order, or private institution, used as a place of learning, an academic reserve for future university use, a seminary, or a research facility.*



Image 1: photo credit - M-Group

With the establishment of the Community Plan, Stanford lands are further divided into a set of sub-categories of land use. Designations applied to lands within the Academic Growth Boundary (AGB) include:

- Academic Campus,
- Campus Open Space,
- Campus Residential - Low Density,
- Campus Residential - Medium Density, and
- Public School.

Two additional designations have been established to apply to lands outside the Academic Growth Boundary:

- Open Space/Field Research, and
- Special Conservation Area.

Consistent with the format of the General Plan’s Land Use Chapter, the policies in this chapter provide basic descriptions of the purpose of each land use designation, policy statements indicating the range of allowable uses, and development-related policies. Other strategies and policies for the overall form and extent of campus growth are contained in the Growth and

Development chapter.

Stanford was founded as and remains a residential university, with academic, residential, athletic, campus serving commercial, and a variety of other land uses. Maintaining appropriate and adequate arrangements and inter-relationships between these uses, correlated with the transportation network, is as essential to the function and well-being of the University as an entity as it is to the function of any urban area. Furthermore, the built and open space environments of the campus lands complement each other and function together to define the campus' unique sense of place. As Stanford grows and changes over time and campus land use intensifies, it is important to maintain these inter-relationships and guide development. The most appropriate and optimal development locations are selected without sacrificing those qualities and areas which contribute to the quality of life on Stanford University land.

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*The built and open space environments of the campus lands complement each other and function together to define the campus' unique sense of place.*

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### Background

Academic buildings and land uses, student and faculty/staff residences, student and community services, and other types of land uses are closely integrated on the Stanford campus. However, the Campus does contain a distinguishable land use pattern, based on the original layout for the overall campus design (see **Figure 2.1 Generalized Land Use Patterns**).

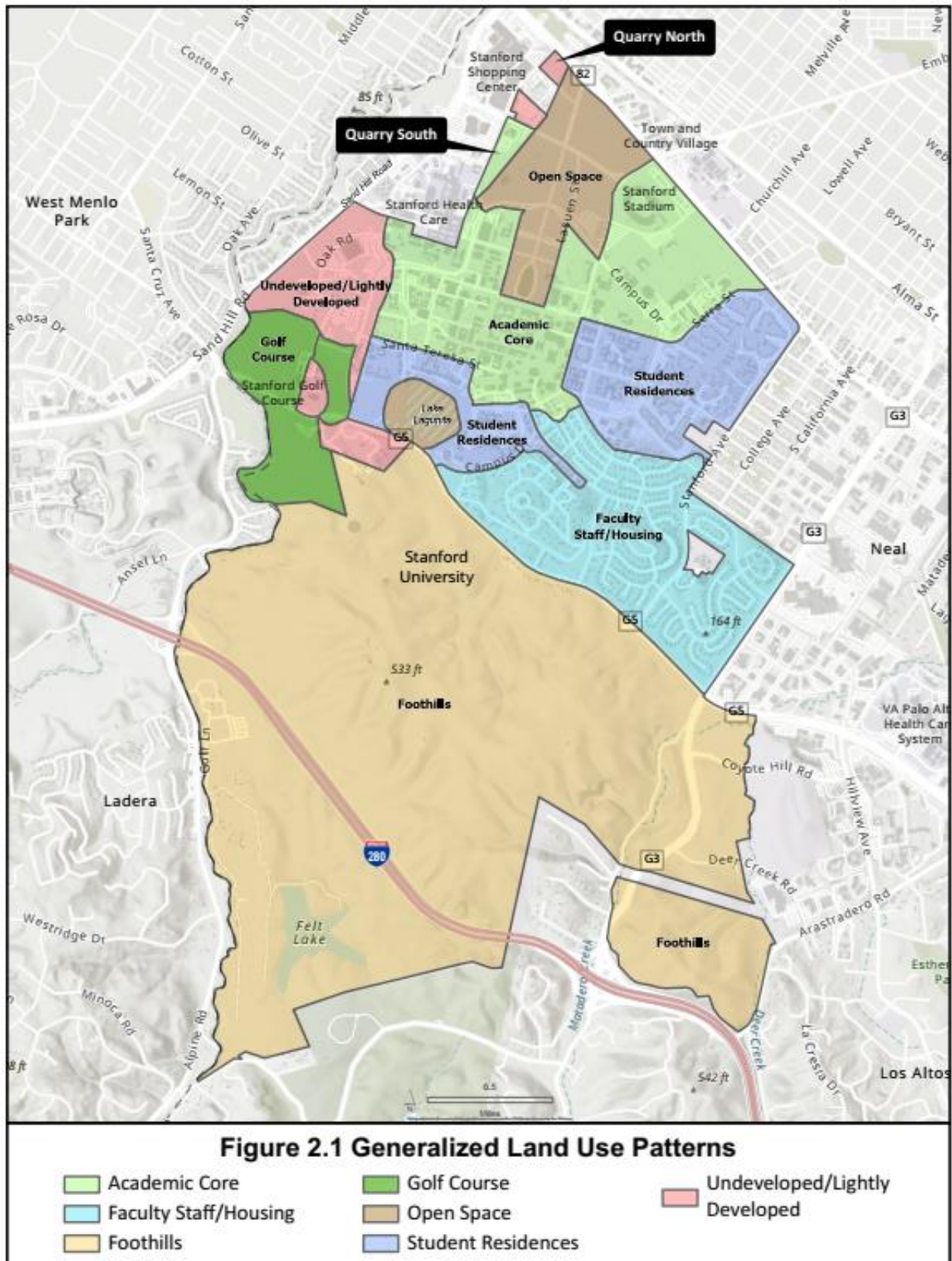
- The developed portion of the campus is primarily contained between Junipero Serra Boulevard and El Camino Real.
- Uses within the central campus are in a generally concentric arrangement of residences around a core of academic buildings.
- Uses with a close relationship to one another, such as athletic facilities or science and medical buildings, are clustered together.
- Faculty and staff housing are concentrated in the southeastern corner of the central campus.
- Despite the highly developed nature of most of the central campus, important and extensive open space or undeveloped areas remain.

The clearest land use distinction on unincorporated Stanford land in Santa Clara County is between the developed central campus and the largely undeveloped foothills. Historically, these two areas were assigned separate land use designations, or sub-categories of the Major Educational and Institutional Uses designation, which previously served as the only differentiation in land use policy for the campus at the General Plan level.

This approach provided extensive flexibility for Stanford to arrange and integrate different land uses, particularly in the central campus, but it did not recognize the many different land uses which do exist at Stanford. Nor did it necessarily provide much certainty or future guidance regarding long term land use patterns, which is the principal purpose of land use elements in general plans.



Figure 2.1 Generalized Land Use Patterns



The concept contained in the Community Plan builds upon the former approach by establishing an Academic Growth Boundary (AGB) to reinforce the distinction between the urbanized campus area and the undeveloped portions of the foothill lands, while maintaining a significant amount of flexibility for the use of lands within the AGB. The Land Use Diagram indicating the locations of the land use designations is included as **Figure 2.2 Land Use Designations**.

The Community Plan Area is also characterized by its ten Development Districts. As illustrated in **Figure 2.3 Development Districts**, the Foothills district is the only district outside of the AGB. The other nine Development Districts are inside the AGB. The Development Districts are as follows:

- West Campus
- Lathrop
- Foothills
- Lagunita
- Campus Center
- Quarry
- Arboretum
- DAPER & Administrative
- East Campus
- San Juan

The building area allocated for each development district is outlined in the General Use Permit. As discussed in the Growth and Development chapter, the current cumulative building area on campus (cumulative academic, academic support, and student housing) is approximately 16.45 million gross square feet (s.f.).

Figure 2.2 Land Use Designations

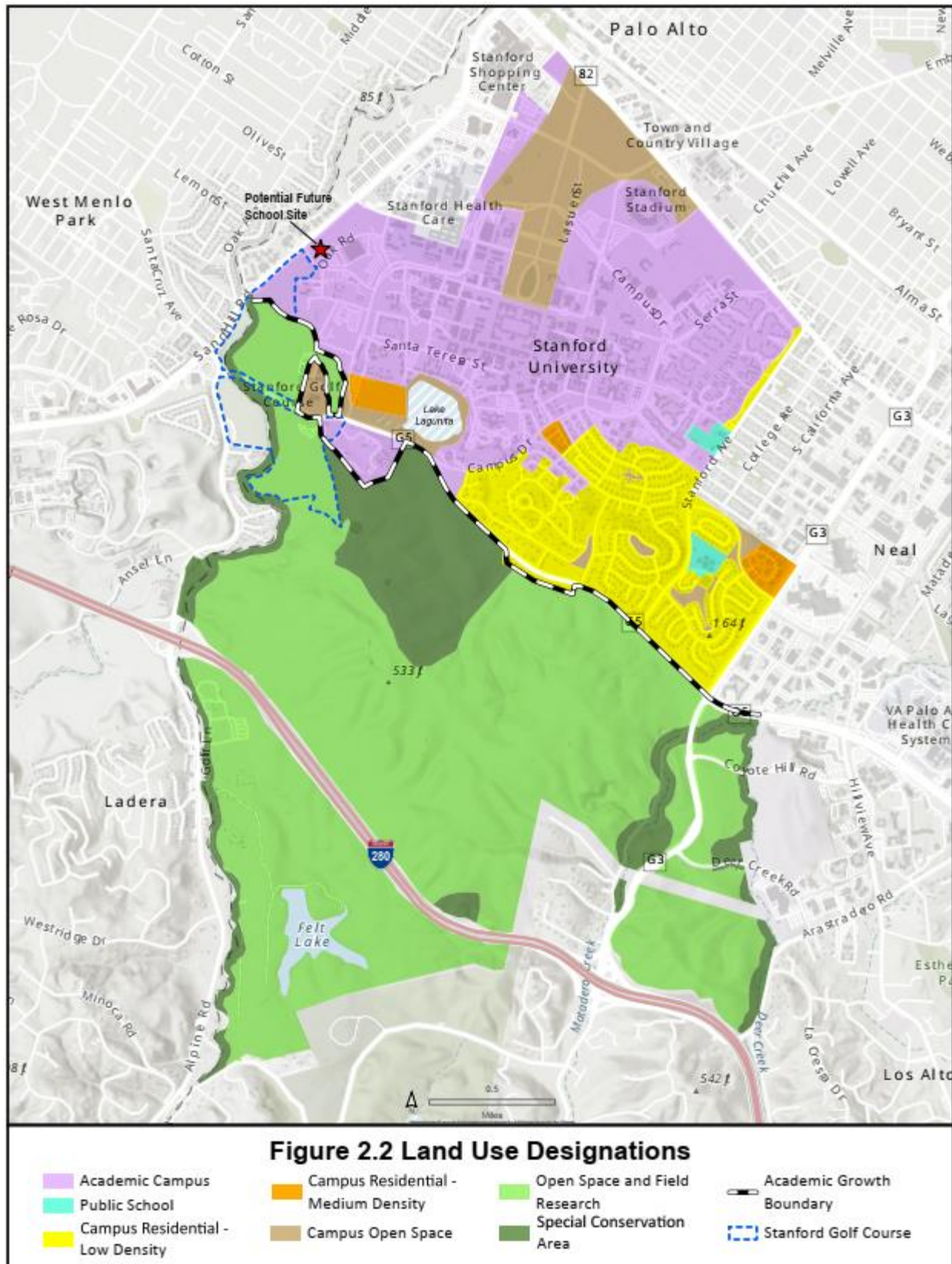
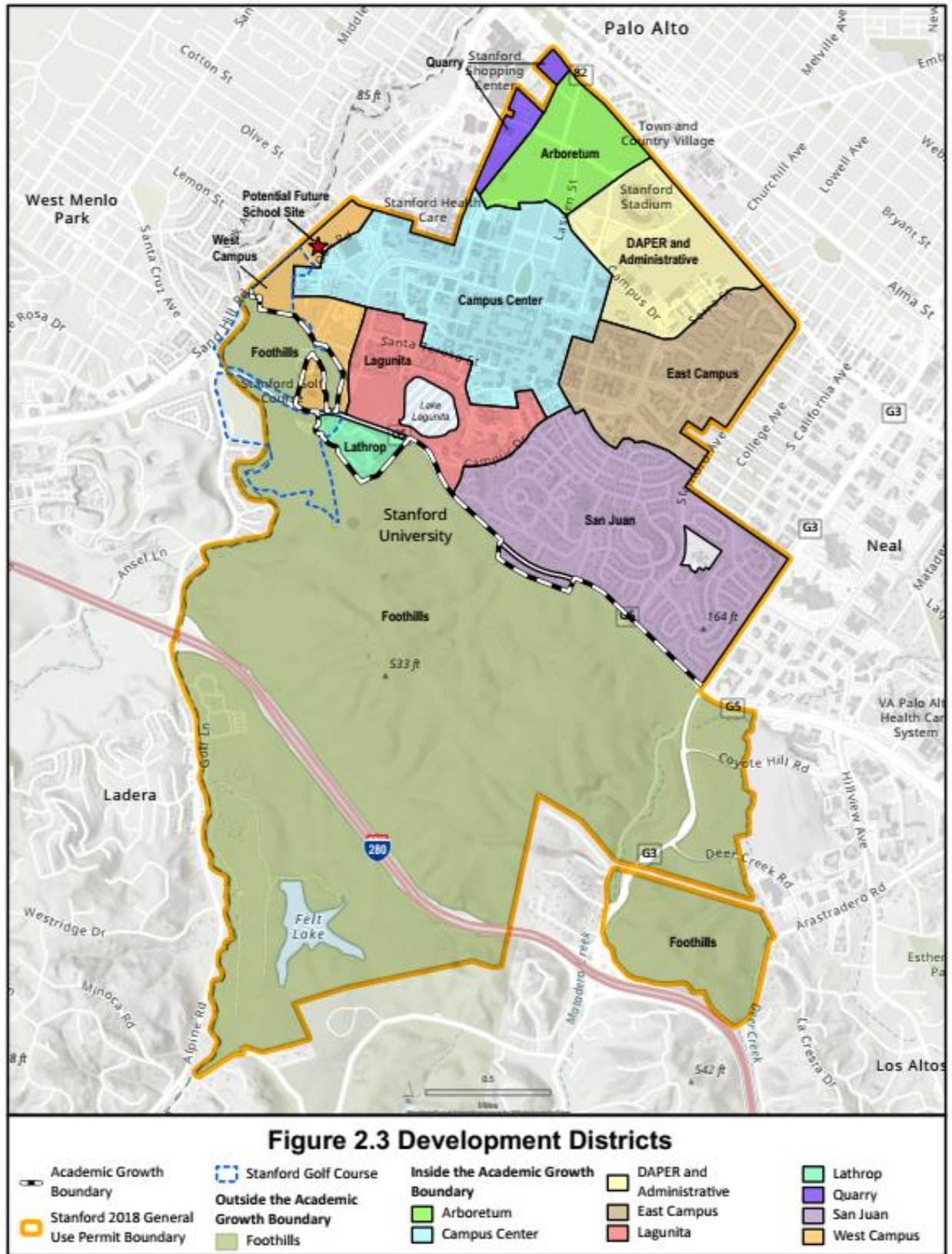


Figure 2.3 Development Districts



### Lands inside the AGB

Within the Academic Growth Boundary (AGB), the land use designations balance the need to maintain the proximity of related uses with the desire to conserve the character of some individual land uses and areas. Consequently, the concept of an “Academic Campus” land use designation, which encompasses areas with academic buildings, student housing, and student and academic support services, is retained from the previous designations. Additional designations for faculty/staff housing and for protected central campus open space are also provided. On-campus public schools are recognized as a separate land use.

Population density inside the AGB is indirectly controlled through limits on academic and residential development. In faculty/staff residential areas, residential population densities are provided through the Campus Residential-Low Density and Campus Residential-Medium Density land use designations. Based on 2021 Census data for Santa Clara County, the persons per household (2016-2020) average is 2.97. The Low-Density designation limits development to eight units per acre, which results in approximately 24 people per acre. The Medium Density designation limits development to 15 units per acre, which results in approximately 45 people per acre.

Higher density faculty/staff housing may be developed within the Academic Campus areas at densities that are 30 du/ac or higher. The Housing Element identifies specific opportunity sites where this housing is planned for. Near transit stations, development is anticipated in a range of 60 to 100 du/ac.

### Lands outside the AGB

The land use designation established for this portion of Stanford lands reflects its general open space character. In keeping with the concept of the AGB, the Community Plan Growth and Development policies, the Stanford University Habitat Conservation Plan, and the zoning designations under the County Zoning Ordinance, future use of this area is limited to field research-related activities, utilities and public facilities, grazing and other low-intensity agricultural uses, specialized facilities and installations that require a remote setting, and open space uses. In keeping with the concept of the AGB and the Community Plan Growth and Development policies, the future use of this area is limited to field research related activities and open space uses. Greater emphasis is placed on conserving the open space character of the land, and an additional designation, Special Conservation Areas, provides even greater protection to the most environmentally sensitive areas.

The individual land use plan designations that follow describe the uses that are allowed on Stanford lands. The designations correspond to those depicted on **Figure 2.2 – Land Use Designations**. All allowable uses are consistent with the policies of the 1985 Land Use Policy Agreement between the County, the City of Palo Alto, and Stanford.

### **Statement of standards of population density and building intensity for lands outside the AGB:**

For lands outside the AGB, the population density and building intensity are expected to be very low due to the nature of the uses allowed in the Open Space/Field Research and Special Conservation Area designations. The maximum allowable development on these lands is 15,000 square feet. No additional population is included within these land use designations because it is already included in the population totals for land designations inside the AGB.

## **Strategies, Policies, and Implementations**

### **Academic Campus**

The Academic Campus designation applies to lands in current or intended academic use. Academic use includes both facilities used for teaching or research activities and the wide range of uses which support academic activity, such as administrative offices, athletic facilities, student housing, and student and administrative support services. This designation is meant to provide Stanford with the opportunity to locate these uses in relation to one another according to the University's programmatic needs.

### **Policies**

#### **SCP-LU 1**

Allowable uses within the Academic Campus designation include:

- a. instruction and research (including teaching hospital facilities);
- b. administrative facilities;
- c. high density housing intended for students, postgraduate fellows, and medical residents;
- d. high density housing for Stanford faculty/ staff, and other workers;
- e. athletics, physical education, and recreation facilities;
- f. support services (such as childcare facilities, the bookstore, and the post office);
- g. infrastructure, storage, and maintenance facilities;
- h. cultural facilities associated with the University; and,
- i. non-profit research institutions with close academic ties to the University.

### SCP-LU 2

Development intensity of individual facilities may vary with the type of allowed use. Maximum cumulative development amount permitted through the Stanford General Use Permit (GUP) and Community Plan (See Growth and Development Chapter) is 17,300,000 square feet of academic development. Any additional increase in development would require a Community Plan amendment and concurrent GUP application. Housing for faculty and staff at densities above 30 units per acre may be developed within the Academic Campus land use designation. Actual project approvals occur upon approval of Architectural and Site Approval (ASA), unless it is located in a designated housing opportunity site in the Housing Element.

### SCP-LU 3

The County should periodically evaluate zoning designations to ensure that they conform and are consistent with Community Plan policies and land use designations.

### SCP-LU 4

Development must be consistent with the 1985 Land Use Policy Agreement, amended as needed, with regard to allowable uses and provision of services.

### SCP-LU 5

Maintain appropriate clustering requirements for development in the Lathrop Development District, located south of Junipero Serra Boulevard, within the Academic Growth Boundary (AGB). Development in the Lathrop Development District shall occur only on the lands identified as Lathrop District Developable Areas. Structures which are not for the purpose of occupancy, such as fences or golf course access bridges, may be permitted in other areas of the Lathrop Development District in accordance with the requirements of the County of Santa Clara Zoning Ordinance.

## Implementation Measures

### SCP-LU (i) 1

The County will periodically evaluate the use of the A1, General Use Zoning District for areas under the Academic Campus land use designation as an appropriate implementation tool in relation to allowable uses, development standards, and land use intensity controls, and conditions governed further through the General Use Permit (GUP).

### SCP-LU (i) 2

Revise the County of Santa Clara Zoning Ordinance to allow faculty/staff residential development on Stanford lands zoned A1 at a minimum density of 30 du/ac.

### SCP-LU (i) 3

The County shall evaluate and recommend amendments to the Lathrop District Developable Areas boundary to include lands that have been disturbed by prior development or site improvement.

## Campus Residential – Low Density (CR-L)

The Campus Residential-Low Density designation applies to lands immediately adjacent to the Academic Campus area that have a low-density residential character and are used for housing University faculty, staff, and other workers. These areas are an important housing resource that allows Stanford faculty, staff, and other workers to live in close proximity to the academic portions of the campus. This designation applies to existing low-density residential neighborhoods and to new residential areas where lower density of development is desired for compatibility with adjacent development.

### Policies

#### SCP-LU 6

Uses within the Campus Residential-Low Density designation shall be primarily residential, with some provision for limited commercial services oriented to the residential neighborhood. Allowable uses include:

- a. Single-family housing, duplexes, and townhouses available as residences for University faculty/staff and other workers
- b. Residential support services such as childcare or convenience commercial facilities at a neighborhood-serving level.

#### SCP-LU 7

Residential density up to 8 units per acre is permitted within the Campus Residential-Low Density designation, with potential for clustering individual units to provide public or private open space. This residential density yields a population density up to 24 persons per acre.

#### SCP-LU 8

Residential support services shall be of a scale consistent with and appropriate to the surrounding neighborhood.

### Implementation Measures

#### SCP-LU (i) 4

Evaluate existing zoning designations and related development standards to ensure Community Plan goals are being implemented for the Campus Residential-Low Density areas, known as the faculty/staff subdivision or San Juan Residential District. The County shall evaluate the land development regulations and zoning as appropriate.

## Campus Residential – Medium Density (CR-M)

The Campus Residential-Medium Density designation applies to lands immediately adjacent to the Academic Campus area that have a higher density residential character and are used for housing University faculty, staff and other workers. These areas are an important housing resource that provides housing opportunities for faculty, staff and other workers and which promote the more efficient use of land for residential development. This designation applies



primarily to new residential areas which provide opportunities for a more compact development pattern than the existing single-family residential neighborhoods.

### SCP-LU 9

Uses in the Campus Residential-Medium Density designation shall primarily be residential, supplemented by services oriented to the residential neighborhood. Allowable uses include:

- a. Single-family housing, duplexes, townhouses, condominiums, flats, and apartments available to University faculty, staff and other workers.
- b. Residential support services such as childcare, recreation services, or convenience commercial facilities.

### SCP-LU 10

Residential density between 8 and 15 units per acre is permitted within the Campus Residential-Medium Density designation, with potential for clustering individual units to provide public or private open space.

### SCP-LU 11

Residential support services shall be of a scale consistent with and appropriate to the surrounding neighborhood.

## Implementation Measures

None

## Campus Open Space (COS)

The Campus Open Space designation applies to open spaces essential to the historic form and character of the campus (including Palm Drive, the Oval, the Arboretum, the Red Barn area, and Lake Lagunita). It also applies to designated parks within residential neighborhoods and to important and substantial resource conservation areas such as wetlands or habitat conservation areas within the central campus.

## Policies

### SCP-LU 12

Uses in the Campus Open Space designation must retain land in open space and must be consistent with the individual character of each area included in this designation. These areas shall be maintained as park-like areas, unimproved open space, landscape buffers, riparian corridors, and conservation areas. Temporary activities of a limited nature that are in keeping with the open space character are also permitted. Examples include limited duration special events or general recreational activities, such as those regularly occurring in the Oval area.

**SCP-LU 13**

No new permanent buildings or structures for occupancy are permitted within the Campus Open Space designation. Any non-conforming uses or buildings are subject to the County Code Chapter 4.50. Landscaping structures or features, such as walls, fences, arbors, fountains, and statues or other forms of public art, are allowed.

**SCP-LU 14**

Temporary structures associated with appropriate temporary activities may be allowed within the Campus Open Space designation, such as concession stands, tents, or similar structures. However, no temporary use which results in the degradation of biological resources is permitted.

**Implementation Measures**

**SCP-LU (i) 5**

The County will enact and apply a new appropriate zoning district for Campus Open Space that will be applied to the Arboretum area covered under the Campus Open Space land use designation.

**SCP-LU (i) 6**

In coordination with the County, require that Stanford prepare and submit to the Board of Supervisors for approval of a study to document historic landscapes on campus.

**Public School (PS)**

The Public School (PS) designation applies to land used as public schools, such as the Lucille M. Nixon and Escondido Elementary schools located on the Stanford Campus.

The “potential future public school site” has been relocated from its prior planned location outside of the Academic Growth Boundary (AGB), to be inside the AGB on the west side of campus. The “potential future public school site” location is in the West Campus Development District, not including any portion of the Stanford Golf Course (see **Figure 2.3 Development Districts**). This area is within the AGB proximate to faculty, staff, postgraduate fellows, and other worker housing locations to facilitate planning for a new public elementary school, as appropriate.

**Policies**

**SCP-LU 15**

The use of these Public School (PS) lands is limited to public school facilities, including appropriate buildings, parking, playgrounds, and athletics fields.

**SCP-LU 16**

Stanford and the appropriate school district shall make every effort to develop school sites in an efficient manner consistent with the environmental setting of the site.

### SCP-LU 17

Stanford and each school district shall seek and promote opportunities for cooperative use of facilities, as appropriate.

### SCP-LU 18

If Stanford land used for a public school is no longer required for school use at any time in the future, it may be converted to another use by the University if redesignated for the intended use through the Community Plan amendment process.

### SCP-LU 19

The potential future school site in the West Campus Development District, but not within the Stanford Golf Course, may be relocated with approval by the Board of Supervisors if the need for a school at a different location of the campus is warranted by future development patterns.

## Implementation Measures

### SCP-LU (i) 7

Stanford may develop the area designated for use as a future public school for a non-public school purpose if the Board of Supervisors finds:

- a. Stanford has demonstrated its use of the area is necessary in order to implement the development authorized under the applicable General Use Permit (GUP);
- b. No other areas within the Academic Growth Boundary (AGB) are feasible for such development; and
- c. Another area within the AGB has been designated for future use as a public school by the Board.

## Open Space and Field Research (OS/FR)

The Open Space and Field Research designation applies to undeveloped lands outside the Academic Growth Boundary (AGB). These lands are important for their environmental resources and for their role in creating an open space setting for the campus and the region. They also serve as a resource for field research and research related activities dependent on the undeveloped foothill environment.

## Policies

### SCP-LU 20

Lands within the Open Space and Field Research designation are not eligible for uses other than those permitted under the policies of this land use designation except through a Community Plan amendment to change the land use designation of the property. If any of the Open Space and Field Research lands are proposed for a land use designation which is intended to be applied only to lands within the Academic Growth Boundary (AGB), the proposed amendment must include a modification of the AGB. Proposals to modify the AGB must be in accordance with the applicable policies governing its amendment contained within the Growth and

Development Chapter.

**SCP-LU 21**

The Open Space and Field Research designation does not include lands in which special biological resources or hazards exist and which are inappropriate for development under County, State, or Federal laws, regulations, or policies (see Special Conservation Areas designation).

**SCP-LU 22**

Allowable land uses within the Open Space and Field Research designation include:

- a. field study research activities;
- b. utility infrastructure and public facilities, consistent with the use classification of “Utilities and Public Facilities,” and in keeping with the predominantly natural appearance of the foothill setting;
- c. grazing and other low intensity agricultural uses;
- d. outdoor recreational activities which are consistent with protection of environmental resources (e.g., not construction or operation of a new golf course) and with appropriate policies regarding foothill access;
- e. specialized facilities and installations that by their nature require a remote or natural setting, such as astronomical or other antennae installations or structures accessory to field research activities;
- f. commercial antennas, wireless telecommunications facilities, and composting and wood recycling facilities; and,
- g. environmental restoration.

**SCP-LU 23**

No permanent buildings or structures are allowed within the Open Space and Field Research designation, other than utility infrastructure and a limited number of small, specialized facilities or installations that support permitted or existing activities, or require a remote, natural setting and cannot be feasibly located within the Academic Growth Boundary (AGB).

**SCP-LU 24**

Existing non-conforming uses within the Open Space and Field Research designation, are allowed to remain, in accordance with the County’s requirements for non-conforming structures. Remodeling or reconstruction of existing facilities after a natural disaster may be allowed, but no further expansion is permitted. Modification of the configuration of the golf course generally within its existing boundaries is permitted.

### SCP-LU 25

Allowable development shall be clustered as feasible within the Open Space and Field Research designation, primarily in areas with low environmental sensitivity, to preserve expanses of open space, environmentally sensitive areas, and scenic vistas.

### Implementation Measures

None

## Special Conservation Area

The Special Conservation Areas designation applies to lands south of Junipero Serra Boulevard which is deemed unsuitable for development due to natural resource and development constraints. Accordingly, no physical development may occur in these areas other than that which supports conservation efforts or is required for safety reasons, or as authorized by the County Zoning Ordinance.

### Policies

#### SCP-LU 26

The Special Conservation Areas include areas with the following environmental constraints:

- a. Steep or unstable slopes;
- b. Seismic or other geologic hazard zones;
- c. Riparian areas extending 150 feet from the top of creek banks; and,
- d. Sensitive habitat areas, particularly for special status species.

#### SCP-LU 27

The use of the Special Conservation Areas is limited to conservation activities and habitat management, field environmental studies, and appropriate agricultural uses. Recreational use may be allowed if it is consistent with the particular environmental constraints of an area. Access for recreational use may be restricted.

#### SCP-LU 28

No new permanent development in the form of buildings or structures is allowed within the Special Conservation Areas, other than safety facilities, utilities, construction, modification, and maintenance of improvements to support conservation efforts, small markers or other identifiers indicating the presence of sensitive resources (such as Native American remains), new signs, bridges, and fences provided that they are constructed in accordance with the terms of the Stanford University Special Conservation Area Plan and Stanford University Habitat Conservation Plan. Existing non-conforming uses are allowed to remain, in accordance with the County's requirements for non-conforming structures.

**SCP-LU 29**

Promote management of the Special Conservation Areas to protect natural habitats, preserve sensitive species, promote public safety, and minimize human impacts in conformance with the Stanford University Special Conservation Area Plan approved by the County and the requirements of the Stanford University Habitat Conservation Plan approved by the U.S. Fish and Wildlife Service.

**Implementation Measures**

**SCP-LU (i) 8**

The County will review and comment on any proposed program, planned activities, or policy for recreational access to lands within the Special Conservation Areas designation in a manner consistent with the provisions of Stanford University Special Conservation Area Plan, the requirements of the SCA – Special Conservation Areas Zoning District, and the Stanford University Habitat Conservation Plan.



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# Housing

## Chapter Summary

Housing is a regional issue of concern. It is of great importance throughout Santa Clara County and specifically to undergraduate students, graduate students, faculty, staff, postgraduate fellows, other workers, and the community at large in the northern portion of Santa Clara County, where Stanford University is located. Countywide, housing supply and affordability issues have been of paramount importance for decades. The effect of the housing market on Stanford as well as the university's effect on local housing demand is of particular concern to the County and the University for several reasons.



Image 2: photo credit - Stanford.edu

- The University has a large population of graduate students with very limited incomes who are at a severe disadvantage in the local rental market.
- Faculty, staff, postgraduate fellows, and other workers must compete for rental and ownership housing with other area residents. Unlike other Santa Clara County industries, where an individual employer is likely to compete with other local employers for workers, Stanford is competing for its faculty and staff with other universities which are generally located in areas with more affordable housing markets. Stanford considers the housing market as a significant obstacle in its recruiting and retention efforts for graduate students, faculty and staff.
- Undergraduate students, graduate students, faculty, staff, postgraduate fellows, and other workers that cannot afford to live in the vicinity of the Stanford campus must often commute very long distances to their classes and jobs at Stanford, leading to worsening traffic and greater personal stress affecting social and behavioral health.

Since its founding, Stanford University has taken steps to address the housing needs of its students and faculty many times, due to the limitations of the housing market and Stanford's nature as a residential university. However, as the limited housing supply and decreasing affordability trends within Santa Clara County and the Stanford area intensify, it is in the interest of both Stanford University and the County to ensure balance between housing demand and supply as it pertains to Stanford University's development.

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*The linkage policy requires housing to be developed concurrent with or prior to new academic and academic support development.*

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Stanford lands represent one of the most important opportunities in the County to improve the balance between jobs and housing, due to the potential to provide housing on Stanford lands for University populations. While housing on Stanford lands is directly accessible only to Stanford undergraduate and graduate students, faculty, staff, postgraduate fellows, and other workers, it also benefits the wider community by relieving the additional pressure Stanford affiliates would otherwise place on the local housing market. To that end, development of additional housing on the campus is a fundamental policy direction of this Community Plan.

A primary means of ensuring the construction of needed housing identified in the Community Plan is a linkage policy that requires housing to be developed concurrent with or prior to new academic and academic support development. The linkage policy is essential for mitigating housing impacts of anticipated development as well as meeting transportation-related goals described in the Circulation Chapter.

The following strategies are included in the Stanford Community Plan to address Stanford's housing needs and to indicate the overall policy direction for Stanford with respect to housing issues:

### **Strategy No. 1: Increase the Supply and Affordability of Housing**

- Sub-Strategy 1A:** Plan for an Adequate and Balanced Housing Supply
- Sub-Strategy 1B:** Facilitate and Expedite Needed Residential Development
- Sub-Strategy 1C:** Augment Affordability Programs and Funding

### **Strategy No. 2: Ensure Compatibility of New Housing with Existing Neighborhoods**

## **Background**

### **Housing Demand and Supply – Regional and Countywide Historical Context**

The issues of housing supply and affordability at the countywide level are discussed extensively in the County's Housing Element. Housing issues have been at the forefront of the County's planning challenges for decades. At the heart of the County's housing issues is the jobs/housing imbalance. This imbalance is a multi-faceted problem which involves inadequate numbers of dwelling units to serve those who work and wish to reside in the County, housing which is not affordable to many households, and increasing distances between housing and job locations at a countywide and regional level.

As documented by the Association of Bay Area Governments (ABAG), the Midpeninsula subregion also has a substantial imbalance between jobs and housing. These problems are particularly acute in the northern portion of Santa Clara County and the southern portion of San Mateo County, which have long been particularly job-rich areas. The adverse social,

economic, and environmental effects of this general imbalance are well-recognized and are compounded by each cycle of major economic growth. This imbalance between jobs and housing acutely affects both the local housing market and traffic congestion.

Increased employment and population growth has also resulted in ever increasing prices of market rate housing. This has resulted in the need for new housing at all income levels. According to the Regional Housing Needs Allocation (RHNA) provided by ABAG per California law, there is a severe shortage of housing in both Santa Clara County and the region that is affordable to Extremely Low-, Very Low-, Low-, and Moderate-Income Households. As a result, the Santa Clara County 2023-2031 Housing Element must meet a RHNA requirement of 3,125 housing units, with specific below market affordability requirements of 508 new Moderate-Income units, 477 new Low-Income units, and 828 new Very Low-Income units within the unincorporated area of the County.

Like other jurisdictions in the region, the County has adopted local land use ordinances to encourage the production of affordable housing. In September 2018, the County of Santa Clara adopted the Inclusionary Housing Zoning Ordinance (NS-1200.368) and the Affordable Housing Impact Mitigation Fee Ordinance (NS-300.929).

These ordinances specifically relate to Stanford University by requiring that a portion of all market rate housing constructed on-campus be set aside for restricted affordable housing and that the County receive payment of a housing impact fee on each net new square foot of academic and academic support development. The collection of this impact fee would fund new affordable housing projects within a 6-mile radius of the campus. However, this Community Plan update takes a different approach and includes a policy to require all new affordable housing be located on campus or nearby Stanford lands (SCP-H (i) 3) due to the historic inability of in-lieu fees to provide adequate resources to fully fund new housing developments.

The strategies in the Community Plan go beyond the policies and programs of the County's Housing Element because they focus on the specific supply and demand issues of housing Stanford faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.

To address these issues, the County's Housing Element includes three locations on the Stanford campus as housing opportunity sites, Quarry-El Camino, Quarry-Arboretum and Escondido Village. These sites provide an opportunity for Stanford to locate housing consistent with the

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*The strategies in the Community Plan go beyond the policies and programs of the County's Housing Element because they focus on the specific supply and demand issues of housing Stanford faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.*

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County’s Housing Element and not preclude the identification of other future locations for housing on campus and inside the Academic Growth Boundary (AGB), particularly within the Academic Campus land use designation. The Community Plan may also be amended to identify other areas appropriate for housing development over time to facilitate appropriate housing development.

### Housing in the Stanford Area

The communities within the Stanford area include the cities of Palo Alto, Menlo Park, Atherton, Woodside, Portola Valley, Los Altos Hills, Los Altos, East Palo Alto, Redwood City, and Mountain View. Stanford students, faculty, staff, postgraduate fellows, and other workers who seek housing in this area encounter common challenges: high housing costs and relatively few housing units available for sale or for rent. High household incomes, good school districts, climate, geographic location, amenities, and other factors make the Stanford area one of the most desirable and in-demand locations in the Bay Area.

The jobs/housing imbalance that is characteristic of Silicon Valley and Santa Clara County, as documented by ABAG, is most acute in the Stanford area. During the 1990s, when Silicon Valley experienced a notably strong economic growth cycle, the number of jobs in Palo Alto and Menlo Park increased by approximately 12,000, while the number of housing units increased by only 1,060 (California Department of Finance, ABAG Projections 2000). Since that time, the incomes and wealth creation associated with the high technology industries in this area have continued to result in an ability and willingness to pay the high housing prices in these highly desirable communities.

Collectively the ongoing scarcity of housing, combined with very high prices, and limited affordable homes, are compelling factors in the housing situation for the Stanford area. Most recent data from the U.S. Census and the U.S. Bureau of Labor Statistics indicate that from 2010 to 2021,

- the population of Santa Clara County increased by 5.8% (from 1,781,642 to 1,885,508),
- employment increased by 18.2% (from 837,900 to 1,005,900), and
- the number of housing units increased by 9.7% (from 631,920 to 693,240).

This information indicates that the jobs/housing imbalance Countywide increased from 1.36 jobs per housing unit in 2010 to 1.47 jobs per housing unit in 2021.

Other communities within the Midpeninsula subregion also continue to experience a substantial imbalance between jobs and housing. According to Housing Needs Data Packets prepared by ABAG and the Metropolitan Transportation Commission (MTC), all of the communities within the Stanford area experienced an increase in their jobs/housing imbalance between 2002 and 2018, with the exception of Los Altos Hills. The two cities in this area with the highest ratio of jobs to households in 2018 were Palo Alto (4.0 jobs per household) and Menlo Park (3.72 jobs per household), followed closely by Mountain View (2.74 jobs per household) and Redwood

City (2.35 jobs per household). This imbalance between jobs and housing acutely affects both the local housing market and traffic congestion.

These basic calculations are intended to convey only an approximate indication of the severity of the jobs/housing imbalance within the Stanford area. The ratios address only those units needed by those employed in Santa Clara County, and do not include students and retirees. Even as the Silicon Valley economy experiences fluctuations in growth trends, vacancy rates in the County remain low. Furthermore, availability of for sale housing remains far below demand.

The housing supply and affordability concerns that are experienced countywide have a particularly strong effect on Stanford lands due to the high housing prices in the immediate area, the large population of students with low incomes, and Stanford’s need to compete for faculty with universities in more affordable parts of the country.

As a residential university, Stanford has historically provided two types of housing on Stanford lands; housing for students and housing for faculty and staff. While this effort has helped to alleviate some of the university’s housing challenges, as discussed throughout this chapter further efforts are necessary. Off-campus housing solutions pursued by the University reduces housing opportunities in the nearby communities by removing new or existing units from the local market and restricting most Stanford-owned housing to Stanford affiliates only.

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*Additional housing on the campus enables Stanford to meet transportation-related goals described in the Circulation chapter.*

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Additional housing on the campus not only provides housing near jobs and augments the local and regional housing supply, but it also contributes to regional commute trip reduction and enables Stanford to meet transportation-related goals described in the Circulation chapter.

### **Current Campus Housing Types – Student Housing**

Student housing for undergraduates and graduate students is closely integrated within the campus core, reflecting the University’s programmatic emphasis on an educational environment that extends to the residences.

As indicated in **Table 3.1**, the number of total students, including undergraduates and graduates, that reside on campus has grown by approximately 65% since the issuance of the 1989 GUP to 2021. This increase reflects growth attributed to the development of new housing units, as well as re-configuring existing units to accommodate a greater number of units. As described in the Growth and Development chapter, academic building area, academic support facilities, and student housing has cumulatively grown at an average rate of approximately 200,000 s.f. per year since 1960. The average annual addition of student housing since 1960 is

## Chapter 3 – Housing

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82,400 s.f.

The 2000 GUP authorized the University to develop 3,018 housing units with allocations for faculty and staff, graduate and undergraduate students, and postdoctoral and medical students. This was increased to 4,468 units in 2016.

**Table 3.1 Number of Students Residing on Campus**

1989	2000	2015	2018	2021
8,422	9,353	11,402	11,822	13,855

Source: Stanford University Land Use and Environmental Planning Office, Faculty Staff Housing, and Residential and Dining Enterprises.

Undergraduates primarily live in dormitories, remain on campus only during the academic year and will likely relocate to new residences the following term. According to Stanford’s published facts about campus life, entering undergraduate first-year students are guaranteed housing for four years. Of these eligible students, approximately 97% reside in one of the university’s 80 housing facilities.

Graduate students include individuals enrolled in a doctoral program, an academic master’s degree program, or a professional degree program. These students live primarily in apartments and often occupy their apartments year-round for multiple years while they obtain their degrees. Graduate student housing is mostly concentrated on the east side of campus, primarily in Escondido Village. Stanford’s published inventory of on- and off-campus graduate student housing as of the 2021-22 academic year is estimated to accommodate approximately 80% of reported graduate student enrollment.

At the direction of the County Board of Supervisors, the County commissioned a study on Graduate Student Housing Affordability by Keyser Marston Associates (“KMA Study”) during the preparation of this Community Plan. The KMA study, released in May 2022, evaluated whether there is evidence of housing affordability challenges among Stanford’s graduate student population. The KMA study found that Stanford provides housing to approximately 75% of its graduate students and that while 85% of housing spaces were rented within a range of affordability to low- and moderate-income households, some students still reported experiencing affordability challenges.

As of the 2021-22 academic year, Stanford has a published inventory of approximately 7,158 housing spaces available to graduate students. Spaces reserved specifically for graduate students in single-person households represent approximately 83% (5,946) of the total. Of these spaces, approximately 80% are private rooms in a shared apartment and 20% are studio units designated for single person occupancy. The remaining inventory of graduate housing spaces, approximately 17%, consist of the entire housing unit and are reserved for couples and households with children under 18.

The KMA study estimated that during the 2021-22 academic year 70% of Stanford’s graduate student population were single person households, while the remaining 30% were multi-person households, including singles with children and couples with or without children. This estimation reflects a misalignment between supply and demand of housing for Stanford graduate students, relative to household size, where the demand for multi-person family housing spaces is nearly double the supply. As a result, Stanford graduate student households that reflect couples or families with children under 18, may not be adequately served by university housing and must compete for other limited low-income housing opportunities in the Bay Area housing market and commute from more affordable areas.

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*The Community Plan encourages on-campus housing and the expansion of financial assistance for graduate students with children.*

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To offset housing costs the KMA study acknowledges that Stanford provides “gap” funding sources including Stanford’s Graduate Family Grant and Graduate Student Aid Fund programs. However, even after considering gap funding sources of up to \$20,000; approximately 14% of graduate students with children have an estimated gap in resources to meet living expenses triple that of graduate students without children.

In response to the findings from the KMA study this chapter includes policies that locates all future student housing on campus, encourages on-campus housing for graduate students with children, and encourages the expansion of financial assistance for graduate students with special consideration for households with children.

### **Current Campus Housing Types – Faculty and Staff Housing**

On-campus housing opportunities are also available to active faculty, retired faculty, surviving faculty spouses, and senior staff. Currently, 937 on-campus units are available to faculty and staff. Most of these homes are situated in the San Juan neighborhood, located at the southeast area of the campus. These homes are on long term ground leases of 51 to 99 years, whereby the occupants lease the land and improvements from the University. The University also gives priority to faculty and staff for rental housing it owns outside unincorporated Santa Clara County, including Stanford West Apartments, Vi at Palo Alto Senior Housing, and Mayfield Place.

Stanford affiliates not housed on the campus or in other Stanford housing seek private market housing and commute to the campus from surrounding communities and from all over the Bay Area. For faculty, staff, postgraduate fellows, and other workers who live off campus, but are not accommodated by Stanford housing, the high rents in neighboring Palo Alto and Menlo Park may mean they must look further out to find housing. This chapter requires housing designated for extremely low-, very low-, low-, moderate-income and above moderate-income persons that are faculty, staff, postgraduate fellows, other workers.

### Housing Affordability Programs

The University has a variety of housing assistance loan programs intended to address the difference in the cost of home ownership in the Stanford area and areas in proximity to other major research universities. These programs include the Graduate Family Grant and Graduate Student Aid Fund programs, previously noted. The University is aware of the ongoing regional affordability challenges and their impact on the Stanford community. In an effort to learn more about these challenges Stanford formed an Affordability Task Force in 2018 with the goal to gather community input through surveys and focus groups. As a result of this effort, in January 2022, Stanford announced the following affordability enhancements:

- A 3% increase to base-salary for regular benefits-eligible faculty and staff, to take effect on March 1, 2022.
- A \$2,750 (max) stipend for regular benefits-eligible staff earning a base pay of \$150,000 or less, annually, that were required to be physically present and perform all work duties on-site between February and December 2022.
- Subsidies covering up to 100% coverage of Cardinal Care health insurance for eligible graduate students supported on assistantships and fellowships, effective September 2022. (Coverage cost \$6,192 for the 2021-22 term.)
- An increase to the maximum annual family grant for eligible graduate students from \$15,000 to \$20,000, and the amount for postdocs from \$5,000 to \$10,000.
- Launch of a pilot program that provides short-term market-rate rental housing for newly arriving postdoctoral scholars. The furnished housing units are at the Hawthorne Apartments in Palo Alto and available for 2-month minimum and 4-month maximum leases.
- A series of one-time grants for early-career, pre-tenure faculty with financial needs. The support options include an additional year on the tenure clock, a “post-pandemic leave quarter,” a taxable salary grant up to \$30,000 for childcare expenses incurred during the pandemic, or research grants up to \$100,000.
- Enhancements to faculty housing assistance, including the Housing Allowance Program and the Restricted Ground Lease purchase program.

While these initiatives are improvements to Stanford’s gap financing efforts, the challenge of meeting the university’s demand for housing and minimizing the effects of increasing competition for market rate and affordable units in neighboring communities remain. The Strategies, Policies, and Implementation Measures that follow in this chapter aim to address these persistent housing and affordability issues directly on Stanford lands in unincorporated Santa Clara County.

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## Strategies, Policies and Implementation

### Strategy No. 1: Increase the Supply and Affordability of Housing

This strategy expresses the fundamental objective of the Community Plan to increase the supply of housing on campus to meet the need generated by the Stanford University institution of higher learning and research. The Stanford campus provides a significant opportunity for new housing to be planned for and developed in Santa Clara County. Accordingly, Strategy No. 1 aligns with the strategies contained within the Housing Element for countywide housing objective. These strategies involve planning for housing, facilitating and expediting construction of needed housing, and augmenting affordability programs.

#### Linkage Policy

The principal means for assuring that additional housing supply is constructed in a timely manner is referred to as the “linkage policy” in the Community Plan. This policy requires that Stanford construct significant proportions of the potential housing units identified within the Housing Chapter of the Community Plan prior to, or concurrently with, approved increases in academic and academic support space. Additionally, a portion of that housing would be affordable to households at moderate-income levels and below.

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*The linkage policy ensures that Stanford can achieve transportation-related Community Plan goals and performance standards.*

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To implement the linkage policy, the General Use Permit (GUP), which serves to implement the Community Plan, would contain specific provisions to require that approval of proposed increases in net new academic and academic support space may be granted only on condition that a specified amount and type of housing supply will be constructed concurrently. Such mechanisms ensure that approvals for net new academic and academic support space do not exacerbate already significant housing supply and affordability deficiencies in the regional housing market.

A linkage policy also ensures that Stanford can achieve transportation-related Community Plan goals and performance standards. Appropriate housing/academic linkage requirements are determined through the preparation of a nexus study upon submittal of a GUP application that would accomplish the following:

- Identify the increase in campus population with the proposed GUP application, including all faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.
- Estimate the number of housing units or spaces needed to accommodate the increased population.
- Estimate the distribution of household incomes for each major category of added



population.

- Determine the number of housing units by affordability category and type that are needed to accommodate the added worker and student population.

The County acknowledges that there are a number of contingencies which can affect the feasibility of completing housing development within a specific time period. Funding, competing academic priorities, and other factors play a role. It is also important for the County to acknowledge its responsibility for housing development in the timely processing and approval of housing proposals.

However, in light of overall housing trends and County General Plan policy, it is essential that the County assure that housing development proposed in the Community Plan be constructed in manner concurrent with academic and academic support development approved through the life of the GUP.

Approval of significant new academic and academic support development without such requirements could exacerbate housing shortages by adding population without augmenting housing supply. Furthermore, existing General Plan policies call upon all jurisdictions in the County to address the continuing imbalances between employment-related land uses and housing. Providing housing commensurate with new academic and academic support development is therefore consistent with the policies of the Countywide Growth and Development Chapter and Housing Chapter of the General Plan.

### ***Sub-Strategy No. 1A: Plan for an Adequate and Balanced Housing Supply***

Planning for an adequate and balanced housing supply involves providing both diverse housing types that meet various Stanford population needs, as well as housing that is affordable to target populations.

Strategy No. 1A emphasizes the importance of designating lands for housing development, as a necessary precursor to actual housing production. The diversity of the Stanford community and the groups in need of housing requires a multifaceted approach to housing development that enhances Stanford's already varied housing stock.

Traditionally, only students and faculty have been prioritized for housing. However, the Community Plan requires increased housing supply to undergraduate and graduate students, post-doctoral fellows, faculty, staff, and other workers, upon further development of the campus.

This Community Plan further recognizes the differing characteristics between student housing and faculty/staff housing. Student housing consists of dormitories and apartments that surround the academic portions of the campus. Its occupants are more transitional, with students moving on a frequent basis and heavily involved in activities throughout the campus. The nature of this housing is reflected in its inclusion in the Academic Campus land use designation, which allows for flexibility in the location and use of new student housing by not separating it from the academic and academic support uses. As the Community Plan calls for more housing of additional workers who were not previously provided for, the plan is flexible on the location of housing within the Academic Campus area for housing of all types.

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*The Community Plan requires increased housing supply to undergraduate and graduate students, post-doctoral fellows, faculty, staff, and other workers, upon further development of the campus.*

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In contrast to the existing student housing areas, the San Juan District faculty and staff residential area more closely reflects a traditional residential neighborhood. The density of most single-family portions of the San Juan Residential District is generally 3-5 units per acre, although some lots exceed one acre in size. There are two multi-family condominium complexes of approximately 15 units per acre and one complex of attached townhomes. Faculty and staff housing on the campus is almost entirely owner-occupied through long-term leases. New housing for staff and other workers will be encouraged in both the existing residential areas as well as suitable locations throughout the campus.

In recognition of the University and residents' interest in maintaining the character of the San Juan Residential District area, the Community Plan contains separate land use designations for these portions of the campus to distinguish them from the academic core area. These two land use designations for low- and medium-density housing allow up to 8 and 15 units per acre, respectively (see Land Use Chapter). Higher density faculty/staff housing is a permitted use in the Academic Campus land use designation. With these designations, the Community Plan emphasizes higher densities than that characteristic of existing single-family areas in an effort to use land more efficiently and promote production of more affordable housing.

## **Policies**

### **SCP-H 1**

Promote diverse housing types and supply adequate housing to meet the needs of faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.

### **SCP-H 2**

Designate sufficient campus land at minimum densities for faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.

### SCP-H 3

Maintain and increase undergraduate and graduate student housing as an integral part of the Academic Campus land use designation, and locate the housing in proximity to related schools, colleges, and research facilities.

### SCP-H 4

Within the Academic Campus land use designation, develop housing at minimum densities (30 du/ac) that makes efficient use of land and enhances the affordability of housing.

### SCP-H 5

Balance net new academic and academic support development with adequate housing, as documented by a linkage policy nexus study. The County shall contract with a third-party to provide a housing-linkage nexus study upon submittal of a General Use Permit (GUP) application by the University. The nexus study shall be completed before the GUP application is approved. The information provided in the nexus study shall be consistent with the requests in the GUP application and shall demonstrate that net new academic and academic support space do not exacerbate the housing supply imbalance and affordability deficiencies in the regional housing market. The nexus study may include innovative operational and academic strategies, such as, but not limited to, remote and telework practices. The study shall provide a timeline for the phasing of proposed development. A certificate of completion for any non-residential academic development may not be issued until the required housing units intended to balance said non-residential academic development receive a final inspection.

### SCP-H 6

A nexus study shall determine required housing based on the income-levels of anticipated employees, including post-doctoral and graduate students.

## Implementation Measures

### SCP-H (i) 1

Ensure that faculty, staff, postgraduate fellows, other worker, undergraduate student, and graduate student housing is included as a permitted use both within the Academic Campus land use designation and on Stanford lands zoned A1.

### SCP-H (i) 2

Affordable housing provided over and above a nexus study determined amount is encouraged. Future General Use Permit (GUP) conditions of approval shall allow for additional affordable units over the required housing linkage policy units by providing a corresponding reduction in the number of required market rate units, as long as the total number of identified linkage policy units are provided for all net square feet of new academic and academic support uses.

**SCP-H (i) 3**

All required housing, both affordable and market rate, is required to be located on campus or on contiguous original land grant Stanford lands. A minimum of 75 percent of the housing shall be on campus and up to 25 percent may be off campus on original land grant Stanford lands in Palo Alto contiguous to the Community Plan Area. On that off-campus land in the City of Palo Alto, Stanford may offer any housing unit required by the SCP, that is not utilized by Stanford affiliates, to the general public.

**SCP-H (i) 4**

Provide 100 percent of all needed housing for new undergraduate and graduate students. Any graduate student housing unit that is not utilized by graduate students, may become available to faculty, staff, postgraduate fellows, and other workers.

**SCP-H (i) 5**

In order to implement the linkage policy, a major modification of the General Use Permit (GUP) shall include any increase in net square feet of new academic and academic support uses that would generate an increase in housing demand. The number of housing units required shall be determined by a nexus study and based on the proposed new academic and academic support development.

**SCP-H (i) 6**

Amend the Zoning Ordinance to establish housing at minimum densities (30 du/ac) within the Academic Campus land use designation, to make efficient use of land and enhances the affordability of housing.

***Sub-Strategy No. 1B: Facilitate and Expedite Needed Residential Development***

Once residential development sites are planned, the timing and enabling of housing construction are important considerations. Identifying land available for potential housing development provides the basis for housing development. Additional mechanisms at both the plan and implementation levels are needed to ensure that designated sites are developed in a timely manner. A variety of tools are available to facilitate and expedite needed residential development.

**Streamlining Permit Applications and Approval Processes**

Streamlining of environmental review and permitting processes are two means of facilitating housing development. The Community Plan and General Use Permit (GUP) afford the opportunity to minimize subsequent environmental review of individual projects by means of a program-level EIR to provide initial CEQA review for anticipated projects.

Time savings may also be achieved in the permitting of individual projects by coordinating to ensure that applications for Architecture and Site Approval (ASA) or for building permits are as

complete and adequate as possible upon submittal. Other streamlining mechanisms are aimed at facilitating the planning and approval of new housing; these would include measures allowing consideration of General Plan amendments for additional areas within the AGB to be designated Campus Residential without first gaining Board of Supervisors approval of consideration of the amendment, as is required for other types of General Plan amendments. The Board would retain authority for final approval of the General Plan amendment.

### Housing in Other Jurisdictions

The location of required housing for faculty, staff, postgraduate fellows, and other workers on the Stanford campus promotes a development pattern that minimizes commute trips to and from the University and promotes pedestrian and bicycle trips.

Although the County of Santa Clara does not regulate the use of Stanford-owned land that is located within the surrounding cities or San Mateo County, the County recognizes that housing on Stanford lands in other jurisdictions can contribute to the supply of housing needed to serve the growing University population.

The 1985 Land Use Policy Agreement calls for a coordinated planning approach for addressing issues that affect the County, the City of Palo Alto, and the University. The Community Plan policies are meant to prioritize housing development on the Stanford University campus and encourage housing development on all appropriate original land grant Stanford lands within the City of Palo Alto.

### Policies

#### SCP-H 7

Recognize the connection between expansion of academic and academic support facilities and the resultant increase in housing demand, as well as the immediate need for additional on-campus housing to meet current demand.

#### SCP- H 8

Through the General Use Permit (GUP), permit development of additional on-campus housing, including housing for designated extremely low-, very low-, low-, moderate-income and above moderate-income persons and faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.

#### SCP - H 9

Require that new housing development occur commensurate with population growth and academic and academics support development approvals on campus. Through future major modifications of a General Use Permit (GUP), establish conditions of approval to require construction of needed housing prior to or concurrently with approval for increases in academic and academic support space.

**SCP - H 10**

Streamline the review and approval of housing projects to the extent possible, consistent with County standards, land use policy, and State law.

**SCP - H 11**

Support Stanford's efforts to develop housing on original land grant Stanford lands contiguous with the Community Plan Area, particularly housing specifically targeted to Stanford faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students.

**Implementation Measures**

**SCP-H (i) 7**

Streamline and formalize permit processes, such as pre-design consultations where appropriate, and develop new mechanisms which would help facilitate County review.

**SCP-H (i) 8**

The County shall develop a streamlined approval process for on-campus housing within ½-mile of a public transit station or high-capacity transit stop.

**SCP-H (i) 9**

Allow County Planning Office consideration of applications for General Plan amendments to create additional Campus Residential areas inside the Academic Growth Boundary (AGB) without requiring that the Board approve the consideration in the annual General Plan amendment review process. The Board will retain authority for final approval of the General Plan amendment, after considering the Planning Commission's recommendation.

**SCP-H (i) 10**

Ministerially approve housing identified in previous and current Housing Elements as a designated opportunity site, based on objective standards. Quarry-El Camino, Quarry-Arboretum, and Escondido Village are identified in the previous and current Housing Elements.

**SCP-H (i) 11**

Adopt objective design guidelines for areas on campus eligible for streamlined permitting review.

**SCP-H (i) 12**

The County should consider more extensive utilization of on-campus permit streamlining, after implementing and processing streamlined projects identified as housing opportunity sites in the SCP and a certified Housing Element.

***Sub-Strategy No. 1C: Augment Affordability Programs and Funding***

For housing to meet the needs of its target population, its price must be consistent with the

income of the intended residents. Affordability needs vary greatly with the population served; housing can be considered “affordable” by accepted regulatory agencies but can still be too expensive for specific populations. Graduate students and postdoctoral fellows at Stanford are two groups whose incomes are substantially below the County median used to calculate affordability for purposes of government-sponsored housing assistance programs.

To provide an affordability analysis of graduate student housing, the KMA study reviewed data from a 2021 survey (“2021 SCC Survey”) conducted by the Public Consulting Group on behalf of the County and in coordination with the Stanford Graduate Student Council, as well as other graduate student organizations. A key finding from the KMA study indicates that 5% of graduate student respondents (approximately 470 students) reported having inadequate resources for housing and other living expenses after potential additional gap funding sources were considered. The KMA study attributes this difficulty in gap financing to the size of the gap, estimated to exceed \$20,000 per year.

All of Stanford’s graduate student housing is affordable to the target population according to the standards related to area median income (AMI) supplied by the Federal government. The income range of this population requires that housing be priced accordingly, or it could not be occupied by graduate students. As a result, construction of new housing for this population is subsidized by the University.

Planning for this housing must consider the affordability implications for both the graduate students and the University.

The postgraduate fellow/hospital resident housing program also serves a population earning substantially less than the AMI.

Promotion of housing affordability is more complex for faculty and staff housing as it has traditionally been developed by the University. One important mechanism for promoting housing affordability is to reduce the cost of each unit through higher density, which is planned for most of the new housing under this plan. Additionally, restricted affordable ownership units can be created to serve multiple households over time, with re-sales completed to eligible buyers.

One approach to meeting this challenge would involve increasing the supply of on-campus rental housing for faculty, staff, postgraduate fellows, and other workers. Stanford could therefore control future rental prices and could retain a portion of such rental housing for designated populations.

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*New policies under this Community Plan update require that new housing be provided at all staff levels based on the new housing demand created by net new campus development.*

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Stanford’s residential assistance programs are an important mechanism to make housing more affordable for eligible participants purchasing homes. The eligibility requirements for these programs reflect the University’s educational objectives in their availability to faculty and senior staff.

However, other staff members, many of whom are in need of more affordable housing, are not currently eligible for the programs or for on-campus housing. New policies under this Community Plan update require that new housing be provided at all staff levels based on the new housing demand created by net new campus development.

As indicated above, the University’s primary means of promoting housing affordability to faculty and staff is in the form of subsidies and direct financial assistance. Increasing assistance levels to those for whom assistance has traditionally been provided, such as faculty, or extending financial assistance to those who have not previously been eligible for such programs, will require a substantial increase in funding to those programs. The County supports increasing the funding of such programs by Stanford to the maximum extent feasible.

### **Policies**

#### **SCP-H 12**

Encourage Stanford to continue and expand financial assistance for housing to faculty, staff, postgraduate fellows, and other workers through Stanford rental and home buying assistance.

#### **SCP-H 13**

Encourage Stanford to continue and expand financial assistance for graduate students with special consideration for households with children, such as the Graduate Family Grant Program.

#### **SCP-H 14**

Promote the creation of new affordable housing:

- Continue the Housing Linkage Policy,
- Maintain and implement the County’s Inclusionary Housing Ordinance,
- Utilize the General Use Permit (GUP) process for Stanford to provide a sufficient level of affordable housing to meet the affordable housing needs generated by new academic and academic support development and housing; and,
- Require the construction of affordable housing to satisfy the Housing Linkage Policy for development demands of new academic and academic support space.

#### **SCP-H 15**

Encourage Stanford to extend housing assistance to faculty, staff, postgraduate fellows, and other workers which have previously not been eligible.



### SCP-H 16

Provide on-campus housing eligibility to populations which have previously not been eligible (i.e. staff, postgraduate fellows, other workers, etc.).

### Implementation Measures

#### SCP-H (i) 13

Monitor the effectiveness of housing ordinances and update as needed:

- Inclusionary Housing for the unincorporated areas of the County of Santa Clara Ordinance
- Stanford University Community Plan Area Academic Space Affordable Housing Impact Mitigation Fee Ordinance

#### SCP-H (i) 14

Amend the *Affordable Housing Impact Mitigation Fee Ordinance* to make it operative upon action by the Board of Supervisors.

#### SCP-H (i) 15

Encourage Stanford to provide more affordable on-campus housing for graduate students with children.

#### SCP-H (i) 16

Stanford should work with the Stanford Graduate Student Council (GSC) on increased transit access. Examples of this include: Restore and expand Marguerite services, including Shopping Express and late-night N & O lines; provide graduate student access to fully subsidized Caltrain monthly passes and the VTA SmartPass.

#### SCP-H (i) 17

Stanford should, in collaboration with the Graduate Student Council (GSC), conduct additional surveys of graduate students. Examples of this include: food insecurity, housing affordability, childcare and other costs of living.

## Strategy No. 2: Ensure Compatibility of New Housing with Existing Neighborhoods

The residential character of both the faculty and staff neighborhoods and the student housing areas contributes to the quality and experience of the campus and the lives of its residents. Residential neighborhoods are characterized not only by the houses or apartments they contain, but by their range of uses and the visual character provided by the density, infrastructure, and landscaping. Easy access to complementary services and transportation facilities can help reduce the need for automobile trips and enhance the residential quality of life.

Some important discussion topics regarding the residential character of the campus have been raised by various groups of campus residents.

- Existing residential neighborhoods present opportunities to expand the range of uses in easy walking distance of residents. Places to shop for food, eat, gather, and engage in recreational activities could have the dual benefits of reducing the need to travel off campus and enhancing the quality of life for residents. For example, graduate students have expressed a desire for retail and recreational opportunities convenient to their residential areas. Childcare is also a valued amenity that can directly serve neighborhood residents. Due to the potential of such amenities to reduce automobile trips, policies promoting an appropriate mix of such uses are also included in the Circulation Chapter.
- Parks and open spaces in the faculty/staff areas are a valued recreational amenity for many residents. These spaces are considered neighborhood institutions but have had no formal protection from development in the past. For more detailed discussion of parks, refer to the Open Space Chapter.
- Accessory Dwelling Units (ADUs). The County strongly encourages the University to allow and encourage the construction of ADUs within the Faculty Staff Subdivision in order to expand the range of housing types available on campus.

These considerations are also applicable to new residential areas, which provide enhanced opportunities for the creation of a balanced range of uses in neighborhoods. The importance of ensuring compatibility of new housing with existing neighborhoods also extends to the off-campus environs of Palo Alto and Menlo Park located immediately adjacent to many of the potential sites for new or more intensely developed housing on the periphery of the campus.

With respect to potential new or additional housing along the Palo Alto and Menlo Park interfaces, community members have raised concerns about maintaining compatibility with existing neighborhoods and preservation of campus open space or athletic fields that serves as a buffer between the University and the surrounding community. As with the concerns expressed by campus residents, the concerns of off-campus residents, too, need to be balanced with the imperative to increase the housing supply and affordability.

### **Policies**

#### **SCP-H 17**

Promote location of housing near compatible and neighborhood-serving support uses and facilities, such as childcare, shopping, and recreation, and promote inclusion of such neighborhood-serving facilities in housing areas, as appropriate.

#### **SCP-H 18**

Plan housing areas and facilities to take maximum advantage of existing and planned transportation services and facilities.

### SCP-H 19

Balance concerns about the compatibility of new housing development in existing neighborhoods with the need for increased housing supply and improved affordability.

### SCP-H 20

Provide and maintain parks and related facilities in Campus Residential areas (see Open Space Chapter).

### SCP-H 21

In collaboration with Stanford, encourage compatibility of new housing development on the campus periphery with existing off-campus neighborhoods through application of design guidelines that incorporate objective development standards consistent with State law.

### SCP-H 22

Seek a balance between the maintenance of open space buffers between the University and Menlo Park and Palo Alto with the need for increased housing supply and improved affordability (see Open Space Chapter).

### SCP-H 23

Accessory Dwelling Units (ADUs). Encourage Stanford to allow ADUs within the faculty/staff subdivision consistent with state law and County regulations.

## Implementation Measures

### SCP-H (i) 18

Maintain zoning consistent with the General Plan designations for Campus Residential- Low Density and Campus Residential-Moderate Density (see Land Use). This zoning may incorporate height limits, lot coverage, floor area ratios, lot widths/frontage and setback requirements for appropriate compatibility with both existing Stanford neighborhoods and adjacent off-campus neighborhoods in Palo Alto and Menlo Park.

### SCP-H (i) 19

Identify opportunities for creation of compact development through the provision of childcare facilities, commercial services, recreational facilities, or other types of support services in residential areas.

### SCP-H (i) 20

Encourage and, as appropriate, require support facilities to serve residential areas through both the General Use Permit (GUP) and through subsequent review of individual projects based on the findings of a feasibility study, with the methodology defined by the County.

**SCP-H (i) 21**

Recognize and enhance the physical character of existing and new residential areas through the adoption of design guidelines and objective standards.



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# Circulation

## Chapter Summary

One of the greatest challenges that jurisdictions throughout the Bay Area have faced as they try to alleviate local congestion is the degree to which the existing patterns of land use and development undermine efforts to reduce dependence on the single-occupant automobile. The objective of circulation systems is to allow for access and mobility, while congestion impedes achievement of this objective.



Image 3: photo credit - M-Group

The Stanford University campus is a unique setting in which many of the limitations found elsewhere of land use, density, transit accessibility are reduced. Mechanisms for coordinated problem-solving have been put into place, thereby creating opportunities for walking, bicycling, and transit uses.

This chapter of the Community Plan seeks to further improve upon the strong track record developed through the 2000 Community Plan. The next phase of building on the transportation potential of Stanford and its surrounding communities, is through a Vehicle Miles Traveled (VMT)-focused approach in addition to the long-standing “no net new commute trips” performance standard for the campus.

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*The Stanford University campus is a unique setting in which many of the limitations found elsewhere of land use, density, transit accessibility are reduced.*

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The plan defines this approach as no additional trips above a measured base level, established by monitoring data, during the peak hour and peak period commute times in the campus commute direction, as well as in the reverse commute direction. This results in the following three distinct transportation performance standards that will allow the University to continue to grow and evolve to serve its mission, while not substantially adding more traffic and VMT:

- **Vehicle Miles Traveled (VMT).** As of July 1, 2020, VMT is the required metric to evaluate transportation impacts under CEQA (Senate Bill 743). SB 743 encourages alternative modes of transportation, such as walking and biking, better access to daily destinations, reduction in commute times, less sprawl, and will improve air quality resulting from less auto emissions.
- **No net new commute trips (NNNCT).** This performance standard is defined as no

additional trips above a measured base line during the AM and PM peak-hour (1 hour), in the predominate commute direction, and has been in effect since 2001. The AM and PM peak-period (3 hours or more) standard is new with this plan update and is during the peak commute. This standard ensures that there will be no additional automobile trips over an established baseline determined by the Stanford Traffic Monitoring Program which includes extensive data collection efforts including cordon counts<sup>2</sup>, parking counts, parking ratios, cut through traffic percentages, and trip credits recorded on an annual basis since 2001.

- **Reverse Trips.** This performance standard controls the growth in reverse commute trips, the trips in the opposite direction of the predominate commute direction, so as to not contribute substantially to local area congestion. This applies to the peak hour (1 hour) and the peak period (3 hours).

The VMT-focused approach works collaboratively with the “no net new commute trips” and reverse trip performances standards. Meeting these standards will require a combination of land use planning, transportation demand management (TDM) and roadway system improvement efforts, that together will form a comprehensive circulation system and allow people to function without single-occupancy cars on a daily basis.

- **Land use.** On-campus housing will reduce the need for new commute trips to the campus. The availability of convenient support services on the campus is also crucial for reducing automobile trips.
- **Transportation Demand Management (TDM).** The innovation and effectiveness of Stanford’s current TDM programs are widely recognized, but new opportunities will need to be identified to continue meeting the “no net new commute trips” standard. While most TDM programs are directly commute-related, non-commute alternatives also need to be provided to allow workers to commute without cars and still be able to meet their daily needs.
- **Roadway system improvements.** Efforts such as traffic-calming improvements, pedestrian and bicycle infrastructure, roundabouts, and intersection and limited street widenings, are necessary for a functioning complete streets system and can reduce congestion and associated social and environmental impacts in specific locations.

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<sup>2</sup> A boundary, or cordon, was established around the campus to identify campus entryways where vehicle trips could be measured into and out of the campus (Stanford Traffic Cordon Count Credit Guidelines, 10/28/03 revised 3/19/04).

To provide focus for these various efforts, the guiding Community Plan strategies for Circulation are:

**Strategy No. 1: Avoid worsening of traffic congestion through land use and transportation demand management.**

**Strategy No. 2: Alleviate local congestion.**

**Strategy No. 3: Alleviate local congestion during special events.**

## Background

As congestion grows throughout the Bay Area, employers, government agencies, and the general public are increasingly concerned with the inability of existing roadways to meet current and future needs, especially as the demand for housing increases to accommodate job and population growth. While expansion of roads and intersections can help temporarily ease congestion, better use of the existing road system through less use of single-occupant automobiles is needed to avoid the social and economic costs of added roads.

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*The increasing intensity of development on and around the Stanford campus can be offset by the high level of transportation accessibility in the area.*

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The closely integrated nature of the uses within the Stanford area and the wide range of activities that take place on and around the campus have made traffic congestion a fact of everyday life in the region. Increasing intensity in the use of land has led to substantial concerns about traffic levels in the area immediately surrounding the University. On a more regional level, long-distance commutes from distant counties have become more common as rising housing prices and increasing demand for a fixed amount of housing force local employees to live farther from their workplaces. Commuters in ever-increasing numbers spend more time on freeways each day.

The increasing intensity of development on and around the Stanford campus can be offset by the high level of transportation accessibility in the area. Many locations, including the campus, have a number of amenities that make it possible to move to and around the area without using cars, thereby decreasing the potential for local congestion. These amenities include:

- A well-integrated mix of land uses, with employment and service opportunities in close proximity to housing;
- An environment that is pleasant and accessible to pedestrians and bicyclists; and,
- A variety of convenient transit services accessing major activity centers.

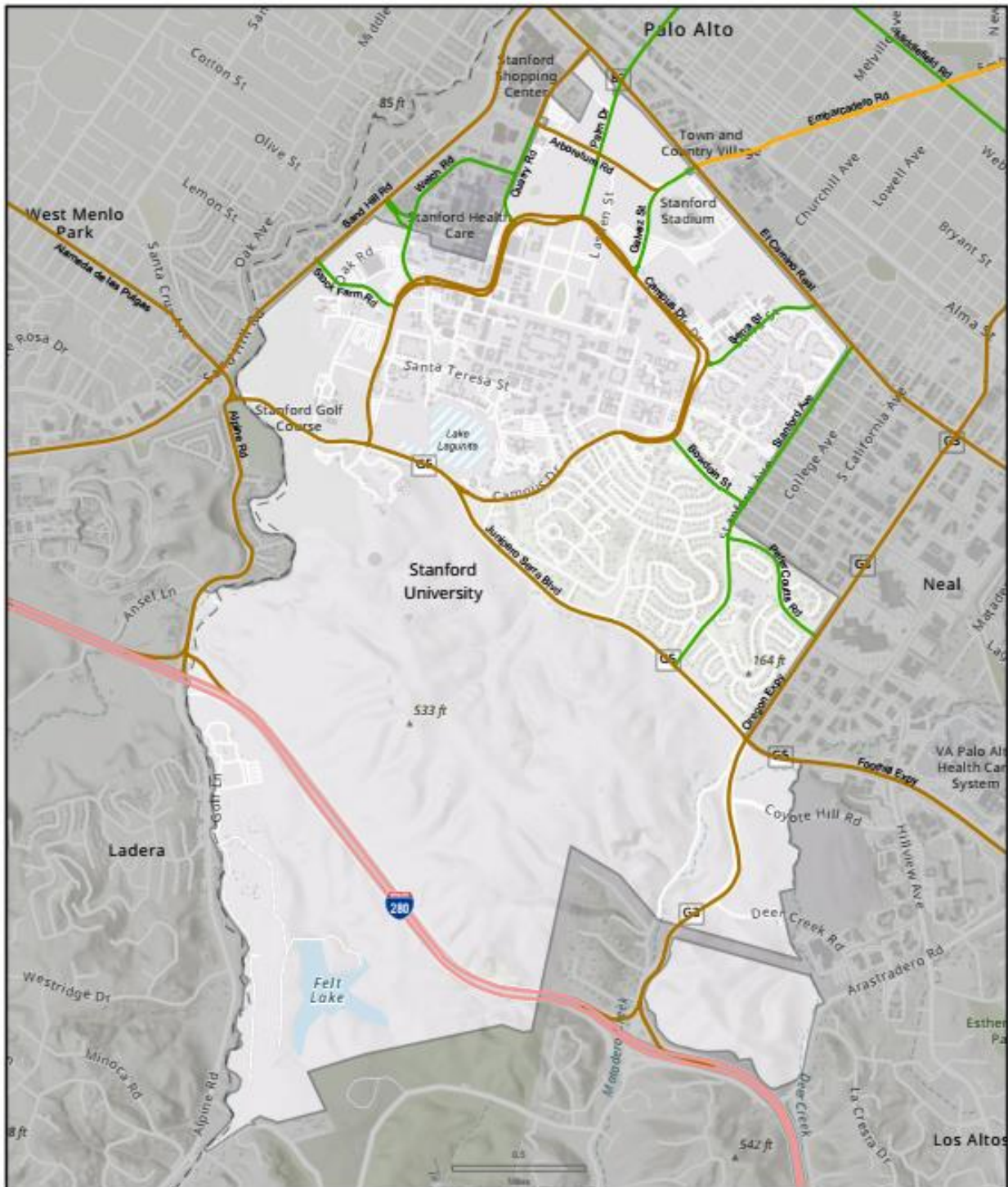


The Community Plan strategies, policies and implementation measures for circulation focus on enhancing the amenities to allow for new development to occur without corresponding increases in traffic to and on the campus, and on expanding the existing monitoring program to reduce the negative traffic impacts on the surrounding communities produced by the desired new residential development's reverse commute trips.

### **Stanford's Land Use and Circulation System**

Stanford's circulation system operates within the context of a larger regional system (see **Figure 4.1 Regional Circulation Context**). Local campus roadways provide links between academic facilities and on-campus residences. Collector roadways on the campus operate as a traditional street network, providing connections from local on-campus roadways to the collectors and arterials surrounding the campus.

Figure 4.1 Regional Circulation Context



**Figure 4.1 Regional Circulation Context**

- Freeways
- Residential Arterial
- Arterials
- Collector Street

### Circulation Systems Supporting Stanford

Stanford students, employees and visitors regularly use road networks and transit systems and private services administered by a variety of agencies in the travels to and from campus. These systems are described in greater detail below.

#### Transit

- Caltrain serves north-south Peninsula travel and the cities of San Francisco and San Jose. This rail service is operated by the Caltrain Joint Powers Board with Palo Alto stations at University Avenue and California Avenue. Both stations are highly accessible to residential and employment areas and are heavily used. The University Avenue Station is ranked second and the California Avenue Station is ranked eighth of the system’s 32 stations in terms of ridership. There is also a “Stanford Special Events only Station” that serves the campus, primarily for large athletic events.
- Regional bus routes operated by the Santa Clara Valley Transportation Authority, Dumbarton Express, AC Transit, and San Mateo County Transit (SamTrans) stop at the Palo Alto intermodal Transit Center, which is one-mile from Stanford’s main quad.
- Marguerite is a free shuttle system operated by Stanford University and serves both intra-campus routes and off-campus destinations such as the University Avenue Caltrain stations. According to Stanford, the Marguerite has 41 all-electric buses in its fleet (all equipped with bicycle racks), 19 routes, and has operated over two million miles. Prior to the pandemic in 2019, 2.74 million passengers rode the Marguerite. Stanford Transportation continued to offer service on 50% of its shuttle routes during the pandemic. Following the return to campus in fall of 2021, ridership steadily increased to nearly 640,000 passengers. Marguerite ridership is on track to double that number to 1.3 million passengers in 2022.

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*Marguerite ridership is on track to double from 2021 levels to 1.3 million passengers in 2022.*

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#### Roadways & Networks

- Local and arterial street, bicycle, and pedestrian networks are maintained by surrounding cities.
- Interstate 280, US 101, and State Route 82 (El Camino Real) are maintained by the California Department of Transportation (Caltrans)

#### Ride Share, Ride Hailing & Delivery Services

- Stanford students, employees, and visitors use ride share systems and ride share hailing services to travel to and from campus.
- Delivery services deliver food, goods, and services to campus, when requested by Stanford students, employees, and visitors.

## Traffic Congestion and Stanford University

Traffic congestion is of major concern throughout Santa Clara County. In addition to the inconvenience of traffic congestion, extensive use of single-occupant automobiles poses serious threats to the environment, requires extensive amounts of land to accommodate automobiles, and is expensive for both individuals and the public. The Stanford campus exists within an area with significant traffic generating destinations that has been and will continue to be attributable to both Stanford and other traffic generators in Palo Alto, Menlo Park, and other surrounding jurisdictions.

Several important campus access roads such as Embarcadero Road/Galvez Street, University Avenue/Palm Drive, Sand Hill Road, and Alpine Road carry significant amounts of traffic each day. The most heavily traveled roadway in the campus vicinity is El Camino Real (SR 82). The traffic throughout the area can be a significant problem for many of the residents and visitors.

In 2016, the average daytime population of the campus, which includes students, faculty and staff on unincorporated lands, was approximately 32,051 persons. The resident population of the campus was approximately 15,338 (Source: 2018 General Use Permit Circulated Draft Environmental Impact Report/Stanford University Land Use and Environmental Planning Office, in consultation with the Stanford Office of Institutional Research and Decision Support). This reduces the potential of campus residents to contribute to commute traffic.

In addition to the University's contribution to routine commute hour congestion and VMT, the hosting of special events during non-peak hours contributes to both on- and off-site congestion. The University frequently uses its public safety personnel and others to direct traffic entering and leaving the campus during special events. This approach helps mitigate but does not avoid the congestion resulting from the large number of visitors who arrive and depart from the campus within a relatively short timeframe.

## Traffic Monitoring Program

Using the data provided by the Stanford Traffic Monitoring Program, the strategies in this chapter aim to expand the existing program to reduce, to the extent possible, the negative traffic impacts on the surrounding communities produced by the desired new development's reverse commute trips. The Stanford Traffic Monitoring Program includes extensive data collection efforts including cordon counts, parking counts, parking ratios, cut through traffic percentages, and trip credits recorded on an annual basis since 2001.

The methodology for the annual traffic monitoring program pursuant to a major modification of the GUP to assess compliance with the no net new commute trips, peak periods and reverse commute trips performance standards, is as follows:

1. Continue use of the 2001 "Baseline" for the no net new commute trips one hour performance standard.

2. Establish the “Baseline” for the new performance standards.
3. Adjust all “Baselines” or thresholds to accommodate trips to and from housing built on Housing Element opportunity sites.
4. Annual Cordon Count.
5. Apply cut through trips and hospital parking adjustments.
6. Apply Trip Credits.
7. Determination of meeting transportation performance standards.

## Strategies, Policies and Implementation

### Strategy No. 1: Avoid worsening of traffic congestion through land use and Transportation Demand Management

The “no net new commute trips” and “reverse trips” standards combined with a VMT-focused approach are at the core of the transportation policies and implementation actions expressed in this plan. Achievement of these standards will require a comprehensive system that makes it possible for individuals to meet their transportation needs without using a vehicle. Such a system involves both land use solutions to bring a variety of uses together and thereby reduce the number of activities that require vehicle use, as well as a range of alternative means of transportation that can meet a variety of needs. Options will also need to be provided to make it possible for individuals to function throughout the day without their vehicles.

The County has provided Stanford considerable flexibility to achieve commute trip reduction within the overall goals. The monitoring system allowed for both land use and transportation demand management approaches, and it maintains the County’s

role of establishing the overall performance standards, while allowing Stanford to use a variety of mechanisms and innovate as appropriate to meet the standards.

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*The “no net new commute trips” and “reverse trips” standards combined with a VMT-focused approach are at the core of the transportation policies and implementation actions expressed in this plan.*

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### Land Use and Trip Reduction

An important land use pattern that supports non-auto transportation is the location of housing close to jobs and services. Stanford is a residential university with significant land holdings, allowing faculty, staff, postgraduate fellows, other workers, undergraduate students, and graduate students to live in close proximity to one another and to the academic facilities on the campus.

Integration of academic, residential and supporting land use, and the concentration of uses in

the central campus are strategies for supporting travel alternatives to the single occupant vehicle. One reason behind the Community Plan’s emphasis on on-campus housing is the potential to reduce commute trips by locating more housing close to the University’s jobs, classrooms and laboratories.

The existing concentration of uses in the central campus allows for a circulation system that is well integrated with the campus land use pattern, enhancing the ability of those on campus to use travel alternatives. Comprehensive pedestrian and bicycle circulation systems and transit services to, from, and throughout the campus contribute to the ease with which people are able to move about without an automobile (see **Figure 4.2 Primary Pedestrian Pathways and Bikeways** and **Figure 4.3 Local Transit Services**).

While uses within the campus are well-concentrated, the campus as a whole is relatively isolated from many service destinations within the surrounding communities. This separation between the campus and the adjacent cities is partially by design. The Arboretum, which separates Stanford from downtown Palo Alto, was an important component of Leland and Jane Stanford’s original campus layout, in collaboration with F.L. Olmsted. In other cases, the isolation results from the nature of the uses that border the campus, such as the Stanford Research Park and Stanford Shopping Center. Areas which currently separate the developed portions of the campus, such as the Quarry District, and which are conveniently located for both on- and off-campus activities, transit, and retail, should be a high priority for new housing.

### **Transportation Demand Management**

The range of transportation alternatives that can be provided by the private and public sectors to reduce congestion through peak hour trip reduction is collectively known as Transportation Demand Management (TDM). According to the 2020 American Community Survey by the U.S. Census, 81.2% of all commute trips in the County were made in single-occupant automobiles.

Because of the unique nature of the population, activities, and opportunities for mixed land uses on the campus, Stanford can and does achieve a much higher rate of alternative transportation mode use. Stanford’s TDM program is the most extensive in the County, and it includes services ranging from informational website to a free shuttle system running throughout the campus and to major off-campus destinations. TDM at Stanford goes well beyond basic programs that make other transportation modes more available or easier to use; for example, Stanford is the only major employer in the northern portion of the County that charges employees for parking and has instituted a policy prohibiting a portion of campus residents (freshman students) from keeping cars on campus. The current system under the General Use Permit (GUP) of maintaining a “performance standard” (i.e., no net new commute trips) without mandating specific TDM programs has allowed Stanford to modify its programs as the University’s needs change over time and as Stanford learns more about the effectiveness of individual measures.

Figure 4.2 Primary Pedestrian Pathways and Bikeways

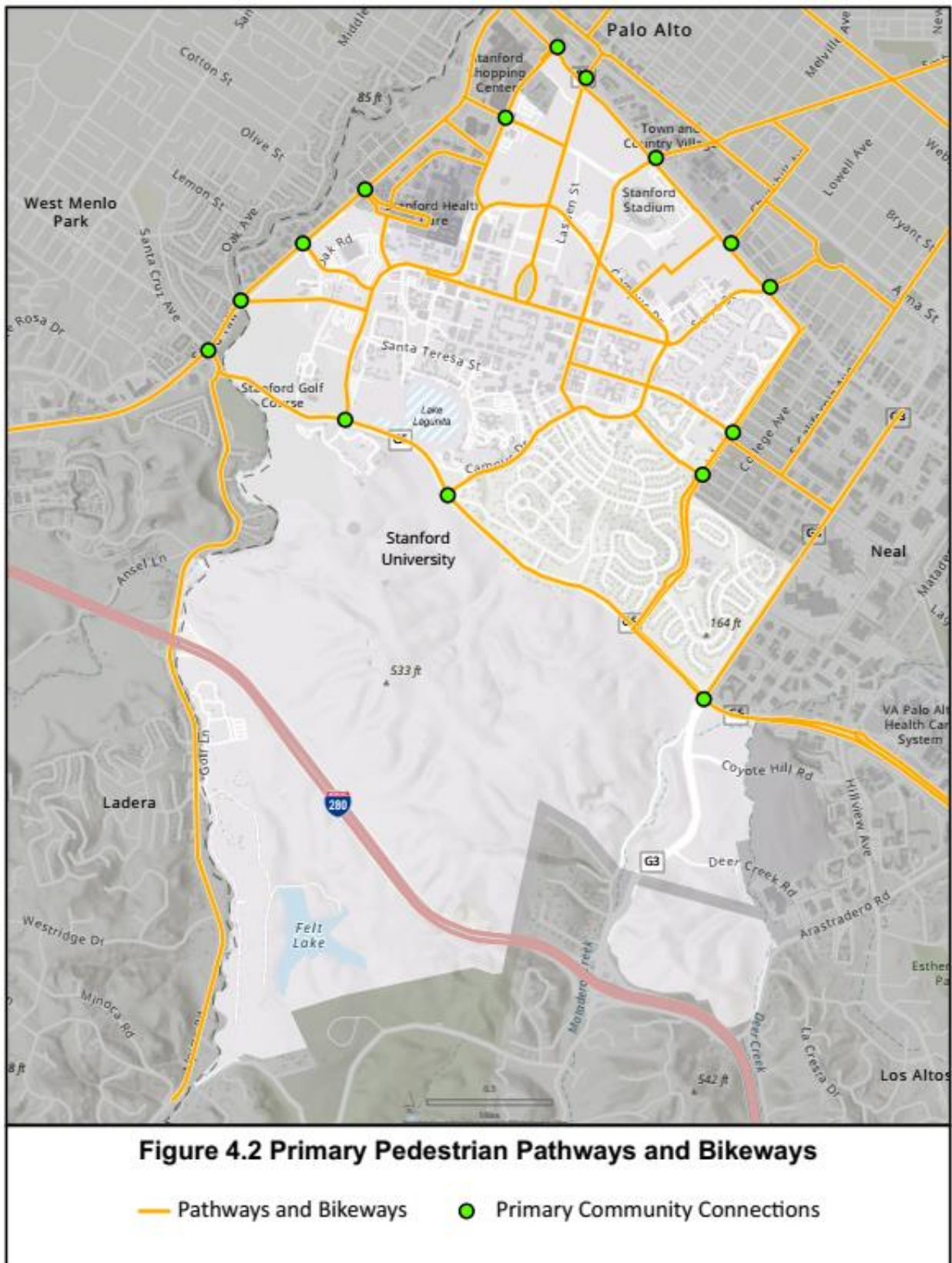
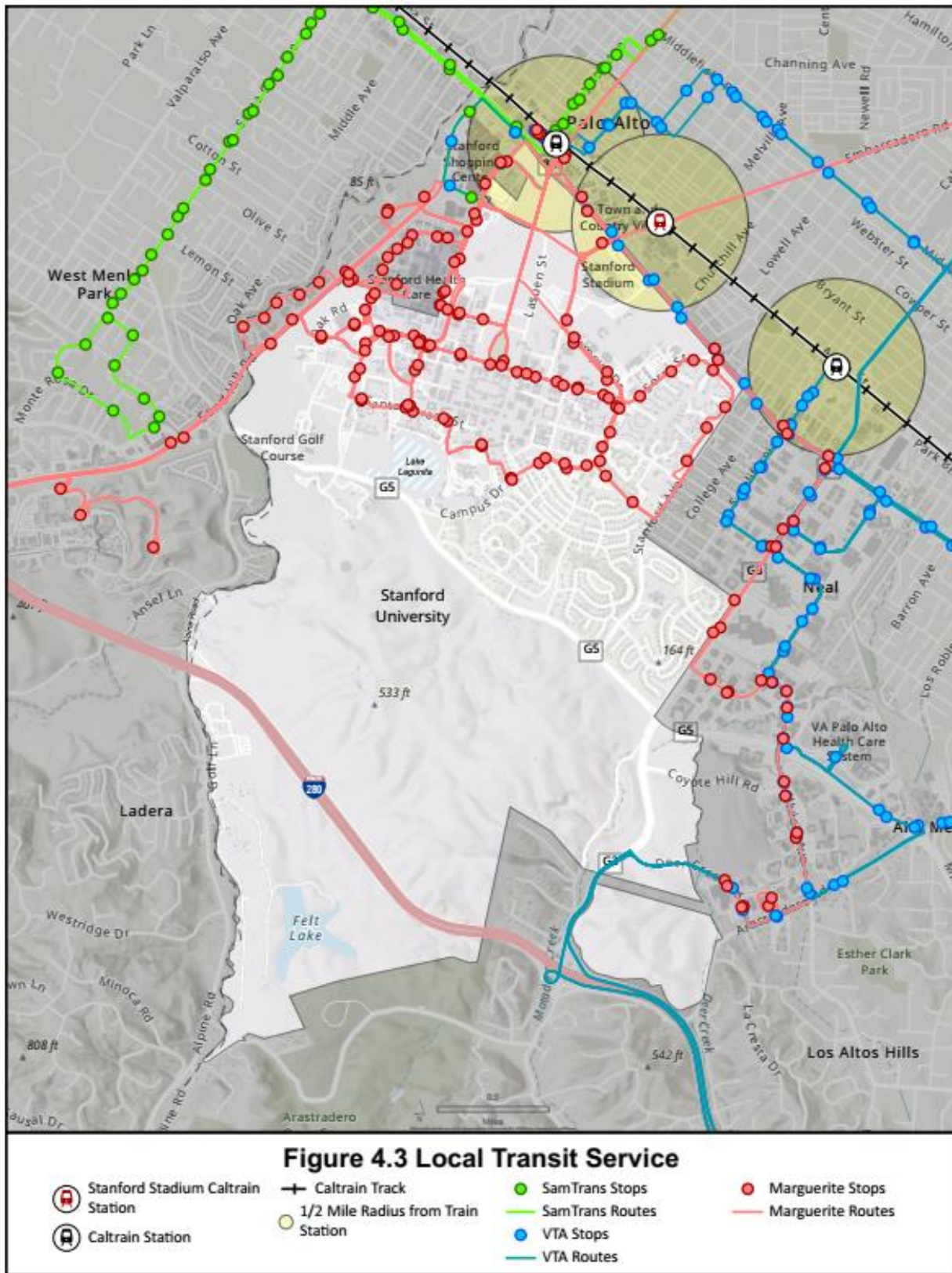


Figure 4.3 Local Transit Service





### Parking

Some transportation demand management programs, particularly parking fees and shortages, can affect neighborhoods adjacent to the campus through parking “spillover.” However, oversupply of parking on the campus could undermine efforts to encourage alternative transportation mode use. Any negative external impacts of individual transportation demand management strategies will need to be considered and balanced by the University and the County.

Provision of on-campus housing can help reduce the need for additional commuter-based parking, as on-campus residents would not require commute-related parking. The Community Plan seeks to moderate expansion of the current parking supply, particularly as the potential impacts of a limited parking supply can be addressed through other means (such as residential parking permit programs in neighborhoods near the campus).

Parking is distributed throughout the Stanford campus, with the exception of the pedestrian campus core. The campus includes parking structures and surface lots. Paid visitor parking is provided in most of the larger lots and structures. In the reporting period for Annual Report No. 21, changes in parking resulted in an estimated net increase of 1,716 parking spaces on the campus for a total cumulative increase since September 1, 2000, of 580 spaces. Changes in parking occurred in the Campus Center, West Campus, Quarry, DAPER, and East Campus.

While there have been new parking structures constructed under the 2000 General Use Permit (GUP), they have largely replaced other parking facilities on campus. Stanford has replaced surface parking in the campus core with structures outside the campus core, with the goal of removing vehicles from the pedestrian areas of campus and maximizing opportunities for infill development.

### Current Stanford Transportation Demand Management (TDM) Programs

The following list summarizes programs that are current TDM strategies applied by the university:

#### Marguerite Shuttle System

- Free local shuttle bus system
- 41 battery-electric and 8 diesel (backup) buses in a 19-route system
- Service to University Avenue train station (Stanford Station used for special events), El Camino bus stops, Palo Alto and Menlo Park shopping districts, as well as on-campus travel

#### Carpool/Vanpools

- Full-time Stanford Employee Transportation Coordinator
- Vanpools to San Francisco, Fremont, San Jose, Santa Cruz, Morgan Hill, Manteca,

Fairfield, and stops along those corridors

### **Bicycle Support**

- Secure bicycle parking and clothes lockers
- Bike maintenance facilities, safety classes, discounted equipment

### **Stanford Transportation Website**

- Shuttle time information
- Ridesharing options and opportunities
- Parking permits
- Bike program information
- Transit pass benefits
- Real-time transit information and route maps
- Charter services
- Accessible Transportation Options

### **Parking Programs**

- Parking fees imposed
- Freshman prohibited from having vehicles
- Parking restrictions

### **Emergency Ride Home Program**

- Safety net for emergencies
- Provides free rideshare or car rentals

### **Vehicle Rentals/Car Sharing**

- Short- or long-term rental discounts are offered for Stanford affiliates

### **Transit Passes**

- Free Caltrain Go Passes to eligible hospital and University commuters
- The Go Pass allows unlimited travel on Caltrain between all zones
- Free VTA Smart Passes offered to eligible hospital and University commuters; the Smart Pass allows unlimited travel on VTA buses and light rail
- Free AC Transit Easy Passes allows unlimited travel on AC Transit lines for East Bay residents

### Education and Information Programs

- Provides education and information designed to encourage use of alternative transportation modes

### Charter Bus Services

- Charter bus services for large groups offered for on or off campus destinations, at a low cost to the campus community

### Off-Campus Trip Reduction Efforts

Recognizing the extreme challenge for Stanford to meet the “no net new commute trips” standard in the future, the Community Plan provides an additional mechanism for trip reduction efforts by the University through policies and implementation programs that recognize Stanford’s future participation in trip reduction efforts that occur in other jurisdictions. For example, a comprehensive trip reduction program for the Stanford Research Park operated in conjunction with the City of Palo Alto and the Research Park leaseholders and employers.

The Community Plan provides the mechanism for the County to recognize Stanford’s participation in such effort as an appropriate credit toward the “no net new commute trips” standard. The Plan provides for such recognition because:

- Stanford’s current rate of alternative transportation mode use is high, and additional efforts may prove to have reached the point of “diminishing returns” with regard to their effectiveness. In contrast, other workers in the region may prove to be more receptive to TDM programs because there are fewer programs now available to them.
- Both Stanford’s resources and the resources of neighboring cities may be more effectively leveraged in combination with one another than if they are devoted to separate programs.
- Cooperative measures that address traffic on streets around the campus may be of as much or more benefit to surrounding communities than measures directed only at Stanford residents and employees.

The County will carefully monitor Stanford’s participation and the effectiveness of such programs and may choose to grant Stanford commute trip credit towards achievement of the “no net new commute trips” standard for such efforts.

### Policies

#### SCP-C 1

Apply a “no net new commute trips” performance standard for campus-related trips in the peak commute and “reverse commute” directions, during the morning and evening peak hours and the “3-hour peak periods” to the fullest extent feasible and allowed by law.

**SCP-C 2**

To encourage addition of transit-oriented housing, accommodate trips to and from housing built on opportunity sites identified in the Housing Element when calculating the “no net new commute trips” and “reverse trips” performance standards.

**SCP-C 3**

Reduce automobile dependency and greenhouse gas emissions through a reduction of Vehicle Miles Traveled (VMT)-focused approach which includes land uses and street system designs that support reduced vehicle use.

**SCP-C 4**

Encourage addition of housing consistent with housing policies in locations convenient to transit, jobs within the Community Plan area and contiguous Stanford land in other jurisdictions (i.e., Palo Alto) in order to reduce the need for vehicular trips.

**SCP-C 5**

Enhance pedestrian and bicycle networks and safe routes to school and through the campus.

**SCP-C 6**

Support and encourage regular modification of Stanford’s Transportation Demand Management (TDM) program to allow for changes in user needs and in available services over time.

**SCP-C 7**

Regulate parking supply as a mechanism for transportation demand management to encourage non-automobile trips, while avoiding spillover of parking into neighborhoods near the campus.

**SCP-C 8**

In addition to meeting the no net new commute trips performance standard, minimize automobile travel at non-commute times and in non-commute directions.

**SCP-C 9**

Maintain the trip credit system for verified or modeled vehicle trip reduction projects and programs that improve off-campus motor vehicle trip reduction completed or funded by Stanford within geographic area impacted by Stanford-related traffic.

**SCP-C 10**

Encourage Stanford to provide appropriate supporting services, such as childcare and convenience retail, in new and existing residential areas or neighborhoods in order to reduce the need for vehicular travel.

### SCP-C 11

Encourage broader access to Transportation Demand Management (TDM) programs for all Stanford campus workers, users, and visitors.

### SCP-C 12

Encourage Stanford to maintain public access through campus to support the existing connections of the street system (i.e. Campus Drive, Quarry Road, Palm Drive, Galvez Street, Serra Street, and Stock Farm Road) with the surrounding off-campus areas to facilitate efficient and dispersed traffic patterns.

### SCP-C 13

Encourage Stanford to coordinate with Transportation Network Companies (TNCs) to adjust their geolocation technology with the aim to direct passengers originating trips from on campus to meet their drivers at designated loading zones.

### SCP-C 14

Encourage Stanford to explore integrated digital platforms for transportation services which would allow users to consume multiple aspects of transportation services through a single platform.

### SCP-C 15

Encourage non-single occupant vehicle (SOV) travel by subsidizing the cost of carpooling, vanpooling, and transit for first/last mile trips.

## Implementation Measures

### SCP-C (i) 1

Adopt and maintain zoning regulations that support the reduction of automobile dependency and greenhouse gas emissions.

### SCP-C (i) 2

Locate supporting services such as childcare and convenience retail in new and existing graduate student and faculty and staff residential neighborhoods in order to reduce the need for vehicular travel. Review applications for new residential development for provision of supporting services to determine if additional supporting services are needed.

### SCP-C (i) 3

Review development project applications for access to and integration with the overall system of bikeways and pedestrian pathways both on and off campus. Particularly consider this issue for development with regard to enhancement of pedestrian access to the Palo Alto Transit Center, Stanford Special Event Station, California Avenue Station and El Camino Real.

**SCP-C (i) 4**

Establish a system for direct, independent, and verifiable monitoring of Stanford’s level of achievement with the “no net new commute trips,” “3-hour peak period trips,” “reverse trips,” and Vehicle Miles Traveled (VMT) performance standards through the annual monitoring procedure. Specific thresholds shall be determined at time of General Use Permit (GUP) approval or modification. For any housing built on opportunity sites identified in the Housing Element, trip thresholds shall be adjusted to allow an increase in trips equal to the number of affordable units multiplied by the trip rates for Multifamily Housing (Mid-Rise) Close to Rail Transit (221), as identified in the Institute of Transportation Engineers’ *Trip Generation Manual*, 11<sup>th</sup> edition, or successor editions.

**SCP-C (i) 5**

Review the Transportation Demand Management (TDM) system on an annual basis and consult with Stanford, and adjacent communities as appropriate, to ensure that new needs or opportunities are considered. Incorporate the following considerations into the review process:

- TDM strategies shall be primarily aimed at reducing the number of cars entering the campus during the morning peak hours and leaving during the evening peak hours and reducing Vehicle Miles Traveled (VMT) to meet reduction levels determined at time of General Use Permit (GUP) approval or major modification.
- Programs serving intra-campus or off-peak travel shall be primarily aimed at making it possible for employees and residents to conduct their daily activities without a car.

**SCP-C (i) 6**

Encourage Stanford to identify opportunities and develop proposals for participation in off-campus trip reduction efforts by public agencies and other private entities. Apply verified or modeled trip reduction credits to the annual calculation of Stanford’s compliance with the “no net new commute trips,” “reverse trips” and/or Vehicle Miles Traveled (VMT) performance standards, as appropriate.

**SCP-C (i) 7**

Promote a development pattern that reduces automobile dependency and greenhouse gas emissions through the following approaches:

- New academic and on-campus residential development shall occur within the Academic Growth Boundary (AGB).
- Encourage location of new development near existing transit services, particularly if extension of transit service to the new facilities would otherwise be infeasible or impractical.

### SCP-C (i) 8

Enhance safe and efficient pedestrian and bicycle access through the campus, incorporating “complete streets” design principles that support their use, including wide bike lanes and sidewalks, bicycle facilities, bike circles, roundabouts, marked crosswalks, crossing opportunities, buffer from vehicle traffic, median islands, streetscape, bus stops, tree shading, landscape treatments, appropriate rest stops, signage, wayfinding, and routes that connect different land uses (academic, residential, supportive commercial), and facilitate mobility on and off campus.

### SCP-C (i) 9

Plan, design, and implement pedestrian and bicycle paths that provide safe routes to schools, incorporating design principles and routes that connect residences to existing and designated school sites.

### SCP-C (i) 10

Support the facilitation of delivery services by providing areas in centralized locations for receipt of deliveries that offer one of the following: lockers for delivery services, temporary storage for package deliveries, and/or other delivery supportive measures as proposed that may reduce Vehicle Miles Traveled (VMT) by reducing the number of trips that may otherwise have been by delivery vehicles.

## Strategy No. 2: Alleviate local congestion in and around the Community Plan Area.

The Community Plan emphasizes on-campus housing and commute trip reduction as mechanisms to lower Vehicle Miles Traveled (VMT) and alleviate the potential effects of development at Stanford on the local street system. These approaches are meant to reduce congestion at a regional level, by making it possible for more Stanford students and employees to live within walking or biking distance of their place of work, and to reduce Stanford’s contribution to peak traffic levels.

However, growth which occurs under the Community Plan will still affect the local street system. The addition of residents and employees to the campus community will increase the number of people in the area, creating more potential for congestion due to non-commute related trips. Some household members of Stanford-affiliated campus residents likely commute away from the campus to reach their workplaces and other non-work-related household trips. Special events at the campus during evenings and weekends have created, and will likely continue to create, traffic congestion on streets that access the campus.

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*The Community Plan makes it possible for more Stanford students and employees to live within walking or biking distance of their place of work.*

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While the increased traffic resulting from these activities does not outweigh the benefits of on-campus housing and commute trip reduction, the potential for this added traffic to inconvenience local residents needs to be considered and addressed accordingly. Current General Plan policies indicate that where local level of service impacts are unavoidable, particularly at locations that already have a poor level of service, making system-wide multi-modal improvements (such as transit enhancements) that provide regional benefits is an appropriate response.

However, in some situations, street system alterations such as widening roads or adding dedicated turning lanes at intersections may also be needed. In many locations surrounding the campus, such alterations may either be infeasible or undesirable.

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*As a goal, the General Plan calls for 35% of all trips to occur in ways other than the single-occupant automobile. Stanford has far exceeded this goal for many years.*

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### **Congestion Management**

The balance between land use and congestion is coordinated through the Congestion Management Program of the Santa Clara Valley Transportation Authority (VTA). The Congestion Management Program (CMP) works to maintain service levels on a designated network of roadways in the County. The CMP recognizes the potential for development in congested areas to create traffic that exceeds service level standards, particularly in locations that are highly accessible to transit, and therefore, desirable for higher density development, and sets direction for land use planning in these areas to focus on expanded capabilities for alternative transportation modes.

Following the direction set by the VTA, the County General Plan emphasizes the concept of transportation demand management (TDM) and the tradeoffs between local and regional congestion (see Circulation chapter of the Santa Clara County General Plan). As a goal, the General Plan calls for 35% of all trips to occur in ways other than the single-occupant automobile. Stanford has far exceeded this goal for many years.

### **System Capacity Expansion**

Local congestion can be reduced in two primary ways: 1) reducing the number of cars, or 2) expanding a street or intersection to allow more cars to pass through it more easily.

Although the County's preferred approach at Stanford is to pursue trip reduction, there are some situations where system expansion may be needed to alleviate "bottlenecks" that would indicate system problems and contribute unduly to the social and environmental costs of traffic congestion.

In the Stanford area, traffic can be attributed partially to University activities and partially to other traffic generators, both on and off Stanford-owned land. When system expansions are needed, Stanford's growth and traffic impact shall be considered, and Stanford's responsibility for contributing to the cost of the projects should be proportional to its impact.



## Chapter 4 – Circulation

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At Stanford, the transportation performance standards are designed to reduce the effects of growth at Stanford from impacting the transportation network. However, localized congestion may occur at specific locations as land uses and daily activities change over time.

Expansion of roadway capacity that involves modification of intersections is in most cases considered a mechanism when only done in combination with improving transit, bicycle, and pedestrian facilities to facilitate non-auto trip making. Stanford's participation in the trip credit program can assist in providing partial or full funding for these types of street improvements. Trip credits would be proportionate to the amount of funding provided by the University.

The following policies and implementation recommendations emphasize a set of priorities for consideration when considering roadway modifications:

- **Maintain the street hierarchy.** Efforts to increase through traffic capacity should be focused on appropriate streets that serve as important intra-campus or off-campus linkages.
- **Use the internal campus street system.** As much as possible, the internal campus street system, rather than roads bordering on areas outside the central campus should be used. The campus road system should be maintained and upgraded as needed to accommodate appropriate trips.
- **Recognize surrounding land uses.** Streets should be designed and operated in a manner consistent with the types of development they serve.
- **Consider jurisdictional priorities.** Different jurisdictions affected by Stanford traffic have different priorities for street expansion. Coordination between the County, Stanford, and the appropriate jurisdiction is needed to determine the most appropriate strategy for addressing the congestion.
- **Maintain a proportional approach.** Stanford should be responsible for its fair share of necessary expansion of off-campus roads and intersections based on the trip credit program and guidelines.
- **Think beyond cars.** Modifications, system, and network improvements for transit, walking and bicycles can complement Stanford's on-campus transportation demand management efforts in reducing trips and congestion. Look to invest in completing local and regional transit, bicycle, and pedestrian networks along routes to, from, and through the campus.

### Policies

#### SCP-C 16

Where feasible and consistent with other Community Plan policies, maintain consistency with the procedures and adopted policies of the appropriate jurisdiction when evaluating off-campus local intersection service levels and defining mechanisms for addressing impacts.

**SCP-C 17**

Modify street and intersection capacity and configuration in a manner that prioritizes and improves access and circulation for pedestrians, transit, and bicycles instead of or in addition to system expansions that prioritize or encourage automobiles, consistent with surrounding land uses.

**SCP-C 18**

Prioritize use and improvement of the internal campus multi-modal circulation system over roadways on the campus edges.

**SCP-C 19**

Consult with jurisdictions surrounding the campus regarding the potential traffic impacts of new development and activities at Stanford, and work with the jurisdictions to reduce potential effects on neighborhoods surrounding the campus.

**SCP-C 20**

Expand the trip credit area to include areas that experience campus related traffic including, but not limited to, the Belle Haven and Bayfront areas in Menlo Park and East Palo Alto that experience Stanford related commute traffic.

**SCP-C 21**

To facilitate the identification of traffic concerns and preferred mitigation approaches, upon receipt and initial processing of any application for development on a housing opportunity site within the Stanford Community Plan, the County shall mail notices to all property owners of any parcel located within 1,000 feet of the boundaries of the subject property.

**Implementation Measures**

**SCP-C (i) 11**

Require street network and design improvements on the campus that will ease traffic flow and internal circulation, particularly in situations where such capacity expansion would make on-campus routes preferable to off-campus roadways.

**SCP-C (i) 12**

If Stanford does not meet the “no net new commute trips,” “3-hour peak period trips,” “reverse trips,” or Vehicle Miles Traveled (VMT) performance standards for new development on campus over any two years out of a consecutive three-year period, require Stanford to:

- 1) Plan and fund verifiable or modeled offsetting transportation trip credits as approved by the County; or,
- 2) Provide equivalent funding toward other transportation impact mitigation efforts in consultation with Santa Clara Valley Transportation Authority (VTA) and the City of

Palo Alto, or other agencies within the “cordon credit area,” to a degree proportional to the number of trips over the identified trip thresholds, as verified by the County.

- 3) If Stanford does not fully offset its performance standard exceedances through items 1) and 2), the County shall not approve any additional development permits until Stanford fully offsets its exceedances.
- 4) If Stanford and the County enter into a compliance agreement pursuant to which Stanford agrees to fully offset all of its exceedances no later than two years after the exceedances occurred, the County may exercise its discretion to approve additional development permits during the two-year compliance period.

### **SCP-C (i) 13**

Cooperate with the Congestion Management Agency, which for the County of Santa Clara is the Valley Transportation Authority (VTA), in implementing deficiency plans, where needed, for Congestion Management Program system roadways and intersections in proximity to the Stanford campus.

### **SCP-C (i) 14**

Continue to improve Junipero Serra Boulevard to reduce speeding, enhance bicycle, pedestrian and motorist safety, address the needs of residents taking access from the street, improve migration opportunities for the California tiger salamander, and maintain the scenic character of the roadway.

### **SCP-C (i) 15**

The County and Stanford shall cooperatively work with surrounding jurisdictions and Santa Clara Valley Transportation Authority (VTA) to develop solutions to regional transportation problems.

## **Strategy No. 3: Alleviate local congestion from special events.**

Stanford hosts a variety of special events. While generally not held during peak commute hours, these events draw large numbers of visitors to campus. Because these visitors tend to arrive in a compressed timeframe, they often overwhelm the local transportation infrastructure. The Community Plan addresses these impacts with the following policies and implementation measures.

### **Policies**

#### **SCP-C 22**

Stanford will identify opportunities with transit agencies, including but not limited to Santa Clara Valley Transportation Authority (VTA) and Caltrain to promote the use of public transit and Stanford shuttle service for special events at Stanford.

**SCP-C 23**

Stanford will work with neighboring jurisdictions to manage special event traffic.

**SCP-C 24**

Stanford will provide advance notification of events expected to draw large crowds to on-campus residents and the surrounding community.

**SCP-C 25**

Stanford will consult with jurisdictions surrounding the campus regarding the potential non-commute traffic impacts of special events at Stanford, and work with the jurisdictions to reduce potential effects on neighborhoods surrounding the campus.

**Implementation Measures**

**SCP-C (i) 16**

Require Stanford to establish and maintain communication mechanisms for special events (social media, hotline, and website) that on-campus residents and the general public can access for information regarding upcoming special events and available public transit and Stanford shuttle transportation options.

**SCP-C (i) 17**

Require Stanford to provide the public with notice of special events that meet or exceed 8,500 persons in newspapers of local circulation in the Palo Alto and Menlo Park area and on prominent social media channels at least 10 days prior to the event. For special events that meet or exceed 5,000 persons, Stanford will institute a list serve for interested parties that wish to be notified of such events.

**SCP-C (i) 18**

Stanford shall comply with all requirements of the County and nearby cities for the management of traffic and parking associated with special events.

**SCP-C (i) 19**

Require Stanford to coordinate the management of traffic and parking associated with special events with surrounding jurisdictions based on a Special Event Management Plan, which includes traffic and parking, reviewed and approved by the County.



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# Open Space

## Chapter Summary

Open Space is a defining feature of Santa Clara County, and a resource that is becoming increasingly valued with the expansion and intensification of urban areas. At Stanford, formal open space and natural open spaces define the visual character of the campus and frame the academic core. Open spaces, particularly the foothills south of Junipero Serra Boulevard, are visible almost everywhere on the campus and from many locations in surrounding communities.

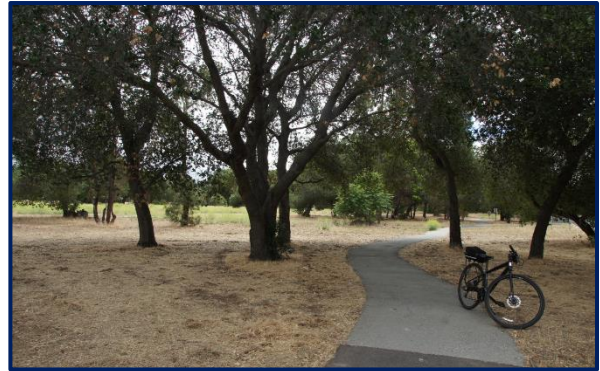


Image 4: photo credit - M-Group

Preservation of open space and the natural character of undeveloped lands is a prominent goal of the Santa Clara County General Plan policies. The Academic Growth Boundary (AGB) will serve to define lands which are to be retained as open areas from those areas which should be targeted for future development. The strategies, policies and implementation measures in this chapter create a framework for open space protection based on a differentiation of open lands according to their location within or outside the AGB:

- Outside the AGB, land is to remain undeveloped except for uses associated with research activities that require a remote or foothill setting for their functioning. Recreational use of the areas outside the AGB is promoted through dedication of trails consistent with the Countywide Trails Master Plan.
- Future development should be targeted to areas inside the AGB. While some areas inside the AGB are currently undeveloped yet suitable for future development, others are to be preserved as campus open space, biological resource areas, or as recreational resources. On the whole, a balance between development, open space, and recreational facilities needs to be achieved.

This Community Plan establishes ways to maintain the open lands in a manner consistent with both County goals and policies and Stanford's interests as a private property owner. To that end, this chapter incorporates land use strategies that preserve the character of these lands and conservation of all Stanford resources into the future, while retaining them under University ownership.

Strategies for open space preservation include:

**Strategy No. 1: Locate additional development inside the Academic Growth Boundary**

**Strategy No. 2: Balance recreational use and environmental objectives**

**Strategy No. 3: Plan for parks and open space land within the Academic Growth Boundary**

### Background

Open space at Stanford performs a multitude of functions beneficial to both the University and the community at large, including:

- preservation of natural habitats,
- protection of sensitive species of animals and plants,
- protection of watersheds and flood control,
- preventing development in hazard areas,
- preservation of scenic vistas,
- provision of respite areas and recreational opportunities, and
- buffers to define urban form.

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*This Community Plan establishes ways to maintain the open lands in a manner consistent with both County goals and policies and Stanford's interests as a private property owner.*

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At Stanford, open space serves the additional purposes of supporting teaching and research, while preserving the beauty and character of the campus.

### Types of Open Space

The concept of “open space” applies to several types of land that serve a variety of purposes. At Stanford, open lands are located in both relatively flat areas within and bordering the central campus and in the foothills south of Junipero Serra Boulevard. Lands outside the Academic Growth Boundary (AGB) are to remain undeveloped except for field research purposes.

Within the AGB, some undeveloped lands are intended and targeted for future development, while others are meant to remain as open space that helps define the built university and is a key element in the campus design (see **Figure 5.1 Types of Open Spaces**).

Figure 5.1 Types of Open Spaces



Figure 5.1 Types of Open Space

- Academic Growth Boundary
- Open Space Outside AGB
- Open Space within AGB
- Undeveloped Lands



## Open Space Outside the Academic Growth Boundary

### Current Use and Setting

Stanford’s lands outside the Academic Growth Boundary (AGB) consist of undeveloped lands known as “the foothills,” comprising approximately half of the Community Plan area and two-thirds of the University’s total 8,180 acres. The future of these lands has been an issue of ongoing concern for both Stanford and the community.

These lands, which extend southwest of Junipero Serra Boulevard across I-280 and into San Mateo County, are comprised of grasslands, oak woodlands, and riparian areas. The area is largely undeveloped and used for low-intensity research agricultural leases, and recreation. It is also home to utility installations and the eighteen-hole Stanford Golf Course. The Stanford Linear Accelerator Center and the 1,200-acre Jasper Ridge Biological Preserve are in San Mateo County.

Past land use policies for the foothills have included a General Plan designation of Academic Reserve and Open Space (which limits allowable uses to low-intensity activities in keeping with the character of the land).

Other jurisdictions with Stanford lands have established land use policies for undeveloped Stanford foothill lands. Most of the undeveloped land in San Mateo County is designated Institutional/General Open Space/Future Study in the San Mateo County General Plan.

The City of Palo Alto maintains three scenic easements on a portion of Coyote Hill in the Stanford Research Park, south of Foothill Avenue. Two easements expired in 2002 and 2010, while the third one has an expiration date 2041 and is automatically extended by a year each January 1<sup>st</sup> unless the University gives the City notice of non-renewal.

By providing undeveloped settings for research and teaching, foothill open space at Stanford directly supports specific academic programs. Astrophysics, conservation biology, civil and environmental engineering and art are examples of academic programs directly supported by opportunities provided by open space in the foothills.

### Competing Concerns and Priorities: Open Space Protection and Recreational Use

The Stanford foothills are recognized throughout the Midpeninsula as a valuable open space resource. However, the potential for future development of these lands has been a contentious issue for several decades. Stanford’s internal policies call for the maintenance of land for possible future academic use.

On the regional level, the Stanford foothills are a functional component of the open space system that forms a visual and environmental backdrop for northern Santa Clara County. A combination of County and city parks, publicly-owned watersheds, and preserves owned by

the Midpeninsula Regional Open Space District north and south of Stanford lands create a chain of open space along the ridges of the Santa Cruz Mountains. Conversely, Stanford’s immediate surroundings in the foothills include land which is primarily in residential use in Los Altos, Los Altos Hills, Palo Alto, Portola Valley, and Menlo Park, making the Stanford foothills a rare example of open space adjacent to the urbanized area. The extensive development that has occurred in these jurisdictions has caused many of these neighbors to place a high value on guarantees for long-term or permanent protection of the Stanford foothills.

Recreational use of Stanford land is enjoyed by residents of the Stanford campus and neighboring communities. The proximity of the Stanford foothills to the developed areas of the Midpeninsula make it a popular destination. Use of these lands is allowed by permission of the University. Recreational use of the foothills raises several associated issues:

- While the foothills are a popular recreation destination and used in the manner of a park by many visitors, they are not publicly owned or operated. Stanford does not provide the amenities that are normally associated with public trails and does not patrol the area to prevent visitors from leaving designated trails or manage the land as a recreation area. As a result, recreational use may contribute to trail and environmental degradation.
- Trail user parking is a particular concern to residents of the neighboring faculty/staff subdivision. As a result, Stanford instituted a residential parking permit program in this neighborhood, and trail users have been parking along Stanford Avenue, which is a County-maintained road. As a result of continued resident concerns, the speed limit has been reduced and the County has modified the road to manage parking but has continued to allow public parking along portions of the street.
- Visitor access to environmentally sensitive areas, particularly riparian areas which are home to special status species, has the potential to result in degradation of habitat and direct impacts on animals, as well as adverse effects on research, education, and restoration efforts.

Maintaining natural resources in the foothills will require achievement of a balance between environmental protection and access to open space.

## Open Space within the Academic Growth Boundary

### Current Use and Setting

Inside the Academic Growth Boundary (AGB), open spaces and undeveloped areas serve a variety of purposes:

- **Campus-defining open space.** Open spaces help define the form of the main campus. Major on-campus open spaces include the Oval, Palm Drive, the Arboretum, and Lake

Lagunita. Several of these spaces serve additional purposes, such as storm water detention in the Arboretum and California tiger salamander habitat in Lake Lagunita.

- **Undeveloped central campus land.** Undeveloped tracts of varying size remain north of Junipero Serra Boulevard, primarily on the west side of the campus and in the faculty/staff subdivision. Some of these areas are planned for future residential development, while others could provide opportunities for new academic buildings.
- **Athletic fields.** Stanford maintains extensive athletic facilities, including playing fields located primarily in two areas (near El Camino Real and in the western portion of the campus near Sand Hill Road). These playing fields are programmed for use through the Department of Athletics, Physical Education and Recreation.
- **Recreational facilities.** Formal and informal recreation facilities such as Wilbur field and playgrounds in Escondido Village and the faculty/staff subdivision, are provided to serve campus residents. The golf driving range and the Stanford Golf Course (located outside the AGB) provide recreational opportunities to both Stanford students and others.
- **Buffer.** Undeveloped tracts along the Palo Alto and Menlo Park borders on Sand Hill Road, Stanford Avenue, and El Camino Real currently provide a buffer between the urban core of the University and the surrounding communities. Some of these areas are planned for future residential development while others will continue to provide a buffer.

### Open Space Protection Policies

In the past, open space protection at Stanford has occurred through General Plan land use designations, zoning designations, and through conditions of the General Use Permit (GUP).

The Stanford Community Plan identifies two different types of lands that serve both academic and open space purposes. Within the AGB, the Community Plan identifies Campus Open Space. Among other locations, these areas include the Oval, the Arboretum, and the area surrounding Lagunita.

Outside the AGB, the Stanford Community Plan identifies Open Space and Field Research and Special Conservation Areas. In 2003, the County of Santa Clara Board of Supervisors adopted new zoning for the Open Space and Field Research (OS/F) district. Under the OS/F zoning, a viewshed analysis is required for any project that requires Architecture and Site Approval.

In addition, County of Santa Clara Planning Commission approval is needed for buildings and structures over 1,000 square feet; towers and antenna over 35 feet tall that are located in a high visibility zone or corridor; and projects with environmental impacts that cannot be mitigated to less-than-significant levels.

The City of Palo Alto and Stanford entered into a development agreement in 1997 for projects along Sand Hill Road, inside the city limits, which also affects the land along Sand Hill Road that is located in the unincorporated portion of the County. Among many other stipulations, this agreement specifies that no use other than athletic fields may be developed along Sand Hill Road from Junipero Serra Boulevard to Pasteur Drive and east to Campus Drive West.

The exception to this arrangement was that housing may be developed east of Fremont Road in the area known as the Stable Site. This agreement was in effect until 2020 and is no longer in effect. The development agreement resulted from a negotiation between Stanford and the City of Palo Alto, and involved an agreement by Stanford not to pursue certain activities rather than a condition or limitation imposed by the County.

### Competing Concerns and Priorities

The open spaces within the AGB are subject to a variety of development pressures. While some of the areas are viewed as undeveloped lands which could be appropriate for future development, others provide important resources as open lands within the urban setting. Competing concerns and priorities for some of the open lands within the AGB include:

- The Arboretum is seen by many as the initial defining landscape at the main entrance of the University and as an open space buffer from the urban environs of Palo Alto.
- Lake Lagunita is the most critical and highest value habitat of the California tiger salamander at Stanford. Undeveloped lands surrounding the lake have been identified as potential future sites for housing and expansion of the academic campus.
- While existing athletic facilities and recreational areas for students are not generally proposed for development at this time, the Academic Campus designation applied to much of this area does allow for the future development of these open areas through the definition of allowable uses.
- Development of faculty/staff/other workers housing could require relocation of the Driving Range to a site adjacent to the golf course.
- Faculty/staff/other workers and student housing may be proposed on the Stanford Avenue and El Camino Real frontages which currently serve to buffer development on Stanford's campus from the surrounding community.

## Strategies, Policies, and Implementation

### Strategy No. 1: Locate additional development inside the Academic Growth Boundary

The maintenance of the open space in the Stanford foothills is a central strategy for meeting the General Plan objectives of resource conservation and compact urban development.

Concentration of the development of academic, academic support and housing inside the Academic Growth Boundary (AGB) allows for retention of the open space character of the land outside of the AGB, while continuing to meet the University's land use objectives.

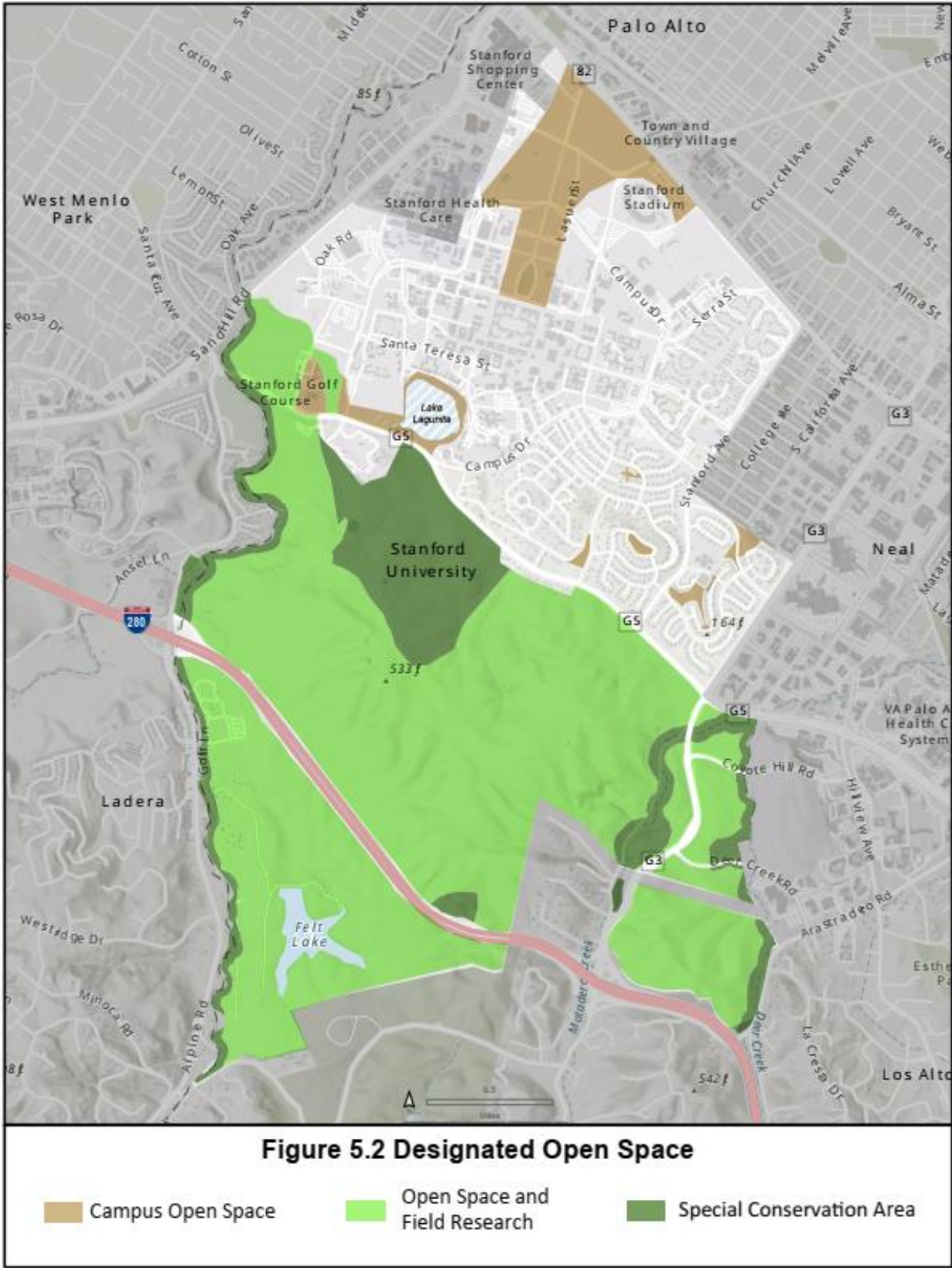
This strategy incorporates open space into the overall campus development approach, recognizing the area outside the AGB as an integral part of the campus environment that balances and moderates the intensity of the academic core. Efforts to preserve the foothills will require additional concentration and intensification of the central campus core.

Conversely, maintaining the central campus as the focus of all new development will allow the foothills to remain in their natural state. The implementation measures discuss mechanisms for achieving long-term open space protection in the foothills that build on the overall land use strategy. Such measures include conservation easements in critical habitat areas and identification of opportunities to secure Stanford's commitment to open space protection.

This plan recognizes the need to protect open space in the Stanford foothills through the "Open Space and Field Research" land use designation, which allows for activities that support research and teaching requiring a remote or foothill setting for their functioning. Locations which are categorically not suited for development, such as habitats for rare species and geologic hazard areas, are designated as Special Conservation Area and are completely restricted in terms of use and development.

This strategy and the associated policies and implementation recommendations reflect those policies articulated elsewhere in the Community Plan, particularly in the Growth and Development, Land Use, and Resource Conservation chapters. The policies are reiterated here to emphasize their value from the perspective of open space preservation. **Figure 5.2 Designated Open Space**, indicates those open space lands formally protected through Community Plan land use designations or other existing arrangements.

Figure 5.2 Designated Open Space



### Policies

#### SCP-OS 1

Locate development inside the Academic Growth Boundary (AGB), allowing lands outside the boundary to continue as open space.

#### SCP-OS 2

Allow only field research, a limited number of small, specialized facilities or installations that support permitted or existing activities, and other uses that require a remote or foothill setting for their functioning in areas outside the Academic Growth Boundary (AGB). Do not permit any new development that is not associated with such uses (see Land Use Chapter). Section E2-b of the 2000 Stanford University General Use Permit establishes that a cumulative maximum of 15,000 square feet of building area may be located in the Foothills district in a manner consistent with the General Plan and zoning. This amount may not be increased and shall be accompanied by an identified corresponding equivalent decrease in allotted building area in the other development districts. No individual building or facility may exceed 5,000 square feet in size.

#### SCP-OS 3

Preserve special conservation areas where they have been identified under the Special Conservation Area land use designation.

### Implementation Measures

#### SCP-OS (i) 1

Prioritize and use infill sites and areas with potential for redevelopment within the Academic Growth Boundary (AGB) as locations for new development.

#### SCP-OS (i) 2

Require easements as appropriate in Special Conservation Areas. Locate easements in areas which serve critical habitat needs.

#### SCP-OS (i) 3

Identify and pursue opportunities to remove existing obstacles to development within the Academic Growth Boundary (AGB) in exchange for easement protection of lands outside the AGB.

### Strategy No. 2: Balance recreational use and environmental objectives

Through its Countywide Trails Master Plan, the County has created the mechanisms to provide a comprehensive trail system throughout Santa Clara County. The plan articulates County policies for the location, management, dedication and use of trails.

Because Stanford lands border on a number of designated preserves and parklands, the Trails Master Plan identifies trail linkages in the regional trail system which cross Stanford lands.

These trails are intended to provide links between developed urban areas and open space in the foothills and baylands. The Community Plan incorporates trails in accordance with the Countywide Trails Master Plan.

The Trails Master Plan identifies the following linkages on Stanford lands; actual alignments of these links must be designed to protect sensitive habitat areas, and on-going academic, agricultural, and residential uses. (See **Figure 5.3 County Trails Master Plan Designated Trails**):

- Route S1 is shown as a “sub-regional route on other public lands” in the Matadero Creek/Page Mill Road corridor and is partially on a public road. The alignment follows Matadero Creek and Old Page Mill Road in the Stanford Community Plan area.
- The connector route C1, in the San Francisquito/Los Trancos Creek corridors, is designated as a “trail route within private property.” The alignment generally follows the creeks and Alpine Road.

Since 2000, Stanford has completed all of the County’s requirements for dedication and construction of trails shown on the 1995 Countywide Trails Master Plan. Stanford dedicated easements for and completed the S1 Trail within Santa Clara County in 2011. Stanford also reached agreement with Portola Valley and constructed the portion of the C1 Trail that is located in Portola Valley in 2011. Stanford reached agreement with Los Altos Hills and constructed the C2 Trail in 2013.

The only jurisdiction that did not accept funding was San Mateo County. The Trails Agreement anticipated this potential outcome and required that, in such an event, Stanford would instead pay the County of Santa Clara the amount it was required to offer San Mateo County to construct the portion of the C1 Trail that is located in San Mateo County. To satisfy this requirement, Stanford paid \$10.4 million to the County Santa Clara in 2014 which was placed into a County Recreation Fund.



Figure 5.3 County Trails Master Plan Designated Trails



The County of Santa Clara Board of Supervisors conducted a proposal process to award the \$10.4 million in funding (County Recreation Fund) that it received from Stanford in lieu of constructing the C1 trail segment in San Mateo County. Various trail projects have been funded.

Stanford has completed all of the County’s requirements for dedication and construction of the trails shown on the 1995 Countywide Trails Master Plan.

### **Policies**

#### **SCP-OS 4**

Require dedication of trails on Stanford land as specified in the Countywide Trails Master Plan, consistent with environmental objectives, academic uses and with the priorities of the County Parks and Recreation Department.

#### **SCP-OS 5**

Protect sensitive habitat areas, areas used for academic purposes, and areas under active agricultural use in the alignment and design of trails.

#### **SCP-OS 6**

Plan for, design, and develop trails on Stanford lands in a manner consistent with the policies articulated in the Countywide Trails Master Plan.

#### **SCP-OS 7**

Minimize impacts of recreational activities on academic uses and environmental resources.

#### **SCP-OS 8**

Encourage Stanford to work with the community to allow public access to trails not included in the County Trails Master Plan in a way that minimizes impacts on academic uses and environmental resources.

### **Implementation Measures**

#### **SCP-OS (i) 4**

Coordinate efforts among Stanford and local agencies to define more precise trail alignments for the trails crossing Stanford lands as described in the Countywide Trails Master Plan, and to determine terms for trail development, maintenance, and liability.

#### **SCP-OS (i) 5**

Restrict access to sensitive habitat or hazardous areas, locations under ecological restoration, and research sites.

#### **SCP-OS (i) 6**

Develop programs to protect and restore overused or misused recreational areas.

### Strategy No. 3: Plan for parks and open space land within the Academic Growth Boundary

The interplay between buildings and open space is an important distinguishing visual feature of the Stanford campus. The Stanford campus continually presents contrasts between intensive development and open space, and between formal and defined open space settings and informal, natural areas that evoke Stanford’s natural setting.

The Community Plan identifies the areas within the Academic Growth Boundary (AGB) as the location for future development, maintaining the foothills as open space. As development of the academic core intensifies, treatment of open space areas becomes increasingly important for maintenance of the essential character of Stanford. In addition, implicit in the stated objective of maintaining Stanford as a residential campus is the provision of all of the physical elements of a complete residential community.

Planning for expansion of the basic academic, academic support and housing facilities should include open space necessary for a balanced environment. The competing concerns for open space on the campus, and the need to protect significant open spaces, is the basis behind the Campus Open Space land use designation. Undeveloped lands or open spaces which are not specifically protected through the Campus Open Space designation are addressed through Community Plan policies that will help ensure the availability of adequate amounts of open land for recreational use and to balance built areas. **Figure 5.2 Designated Open Space**, indicates those open space lands formally protected through Community Plan land use designations.

Recognizing the different types and roles of central campus open space, the Community Plan stipulates a variety of measures for protecting and enhancing these spaces:

- **Form-giving open space features:** Potentially historic open space and landscape features which are essential to the character of the campus are designated Campus Open Space in the Community Plan (see Land Use Chapter). This designation also applies to areas within the Academic Growth Boundary (AGB) which are essential to the habitat value of critical natural areas located within the AGB.
- **Parks in residential areas:** Areas which have long been used as parks and playgrounds in the faculty/staff subdivision are a valued amenity for the resident community and are also designated Campus Open Space in the Community Plan. These designated Campus Open Space areas within and adjacent to the San Juan Residential District total 18.4 acres. This space can be considered adequate for a faculty/staff population of 3,680 according to the 5 acres per 1,000 residents standard recognized by the State of California as the maximum amount of park area that can be required in a new subdivision.

- **Athletic fields:** Athletic and recreational facilities also function as open space. The designated athletic facilities, intramural playfields, and informal fields near residences directly support academic and residential programs and are included in the Academic Campus designation. Community Plan policies call for provision of adequate outdoor athletic facilities to support the student population.
- **Buffers:** Undeveloped land on the periphery of campus both defines the gateway to the campus and provides a buffer to the surrounding community from the University’s development. These buffer areas carry a variety of land use designations. Many of the important frontages are designated Campus Open Space. Others with some potential for development are designated Residential or Academic Campus. Community Plan policies call for the need to balance new development with the importance of maintaining adequate open space buffers along the interfaces with neighboring off-campus communities.

### Policies

#### SCP-OS 9

Identify and preserve significant open space through use of the Campus Open Space designation in order to maintain the quality and character of the central campus.

#### SCP-OS 10

Require Stanford to maintain recreational open space to meet existing and future recreational needs of the Stanford community.

#### SCP-OS 11

Balance concerns about the maintenance of buffers between the University and Cities of Palo Alto and Menlo Park with the need for increased housing supply and improved affordability (see Housing Chapter).

#### SCP-OS 12

Park and recreation areas should be designed and landscaped, incorporating safety features, and maintained in accordance with County requirements.

### Implementation Measures

#### SCP-OS (i) 7

Identify, protect, and restore historic campus open space features essential to the organizing principles of the campus plan.

## Chapter 5 – Open Space

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### **SCP-OS (i) 8**

Require Stanford to provide sufficient campus parks and open space in the residential areas, at the rate of 5 acres for 1,000 population. The population served varies by residential area, and may include faculty, staff, students, and other household members.

### **SCP-OS (i) 9**

Review development applications for continued provision of recreational and athletic facilities convenient to student residences and in adequate amounts to serve student needs.

### **SCP-OS (i) 10**

Incorporate open space in redevelopment of the core campus.

### **SCP-OS (i) 11**

Review development applications in the Academic Campus land use designation for continued provision of buffer between development on the campus and surrounding off-campus communities.

# Resource Conservation

## Chapter Summary

Stanford contains a great wealth of natural resources which the Community Plan aims to preserve and protect in a manner that balances conservation and development of the campus.

Resources include plant and wildlife species, creeks and other special habitat areas, water resources, historic and prehistoric resources, and visual resources. All types of resources contribute to the natural and built environment of the campus.



Image 5: photo credit - M-Group

Many types of resources are protected through various state and federal laws. The policies and implementation recommendations in this chapter reinforce, enhance, and supplement these mandated resource conservation approaches for the particular natural and built environment of Stanford lands.

This chapter of the Stanford Community Plan addresses a range of resource conservation subjects, and each has a subsection of the chapter devoted to it. These subsections include:

- Habitat and Biodiversity,
- Water Quality and Watershed Management,
- Heritage Resources, and
- Scenic Resources.

Other Resource Conservation topic areas are discussed in the County of Santa Clara’s General Plan, including Water Supply, Agricultural Resources, Mineral Resources, Solid Waste Management, and Energy Resources, in sufficient detail to guide activities at Stanford.

**Community Plan strategies for resource conservation are:**

### Habitat and Biodiversity

**Strategy No. 1: Improve Current Knowledge and Awareness of Habitats and Natural Areas**

**Strategy No. 2: Protect the Biological Integrity of Habitat Areas and Adequately Mitigate Impact**

**Strategy No. 3: Encourage and Promote Habitat Restoration**

### Water Quality and Watershed Management

- Strategy No. 4: **Reduce Non-Point Source Pollution**
- Strategy No. 5: **Enhance and Restore Wetlands, Riparian Areas, and other Habitats that Improve Watershed Quality**
- Strategy No. 6: **Prepare and Implement Comprehensive Watershed Management Plans**

### Heritage Resources

- Strategy No. 7: **Inventory and Evaluate Heritage Resources**
- Strategy No. 8: **Protect Heritage Resources Through Avoidance, Adaptive Reuse and Sensitive Planning and Design**

### Scenic Resources

- Strategy No. 9: **Employ Growth and Development Policies That Conserve Scenic Resources**
- Strategy No. 10: **Maintain and Enhance the Scenic Values of Urbanized Area Settings**

## Background

While the concept of resource conservation encompasses a diverse set of topics that involve both the built and the natural environment, there are common themes that bring these issues together. These themes are expressed in the General Plan but are discussed in this Community Plan to provide a sense of their application to Stanford and the importance of resource conservation in the overall approach to development on University lands:

- **Value:** Stanford’s resources discussed in this chapter all provide a variety of types of values to both the Stanford community and the wider area. For example, species and habitats have value from both the ecological viewpoint and for scientific research purposes. Historic buildings house Stanford’s academic programs and enhance the physical identity of the University and the wider community.
- **Stewardship:** The concept of stewardship involves recognition of the value of natural and heritage resources, leading to active efforts to preserve and enhance the quality of the environment and its resources. Stanford’s preservation of the vast majority of its foothills is an example of stewardship, particularly in times when the University actively chose not to develop this land. As pressure to grow increases, stewardship becomes both more difficult and more important.
- **Challenges:** Challenges to effective resource conservation stem from the increasing demands on natural resources presented by growth at the University and elsewhere,

from the limited capacity of the environment to absorb impacts from human activity, and from the need for cooperative, regional action to implement effective measures.

The General Plan advocates a set of overall strategies for resource conservation efforts, which include:

1. Improving and updating current knowledge of resources;
2. Emphasizing pro-active, preventive measures to avoid impacts;
3. Minimizing or compensating for impacts which do happen;
4. Restoring resources where possible; and,
5. Evaluating the effectiveness of mitigation measures employed.

Strategies and policies for various subjects as they relate to Stanford’s lands are based upon these overall strategies, and may be tailored or limited to the specific resources and circumstances involved with Stanford lands. One advantage for resource conservation at Stanford is the tremendous amount of knowledge that has been gathered and activities that have been initiated over the years. These measures are discussed more fully for each topic area.

One of the most important tools available to local government for resource conservation is the California Environmental Quality Act (CEQA), which requires that the significant environmental impacts of development projects be recognized and mitigated, as appropriate. At Stanford, the County has taken the approach to require comprehensive environmental review of potential impacts associated with the issuance of the General Use Permit (GUP). This analysis is then supplemented by additional environmental review of the impacts of each new project.

## *Habitat and Biodiversity*

### **Background**

Stanford’s natural setting is an asset to both the University and the region. The diversity of local flora and fauna, and close proximity of the main campus to relatively unspoiled areas, allow for laboratory activities, teaching, and research to be closely linked to field-based studies, providing Stanford with academic opportunities unique among its peer institutions. The large acreage in open space supports relatively uninterrupted habitat and wildlife corridors connecting to publicly-owned open spaces in the region. On lands which are not owned by Stanford and are not under public ownership, extensive development has occurred, leading to habitat fragmentation and increasing local interest in maintaining

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*The diversity of local flora and fauna, and close proximity of the main campus to relatively unspoiled areas, allow for laboratory activities, teaching, and research to be closely linked to field-based studies.*

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## Chapter 6 – Resource Conservation

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Stanford as open lands.

Protection of species depends on protection of the habitats in which they live. Stanford’s lands support a rich array of native biological communities including riparian oak woodland, other oak woodlands, and annual grasslands. A number of species and biotic communities found on Stanford lands are protected by one or more local, state, or federal statutes such as the Federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and the Federal Migratory Bird Treaty Act. These species are collectively referred to as “special status species” and include the following:

- The ESA lists the steelhead trout, California red-legged frog and the California tiger salamander as “threatened.” Although the latter two species are not aquatic they typically associate with ponds or creeks with surrounding vegetation, at least seasonally. All of these species can therefore be protected through use of buffers around creeks and ponds, and protection of water quality. Another important consideration for creek species is the effect of water use from creeks for irrigation and other purposes.
- Trees in the riparian forest, oak woodland savanna, and central campus provide breeding and foraging habitat for a wide variety of birds, including several species of special concern such as the Cooper’s hawk, sharp-shinned hawk, golden eagle, and loggerhead shrike. The land use designations and Open Space chapter policies are in part intended to conserve the resources of these areas for the habitat value they provide.

### Stanford Conservation Efforts

Stanford has engaged in efforts over time to preserve habitats and biodiversity. In 2013, the United States Fish and Wildlife Services (USFWS) approved the Stanford University Habitat Conservation Plan (HCP) prepared by Stanford as part of an effort to address Federal Endangered Species Act requirements pertaining to the California red-legged frog and California tiger salamander. The purpose of the HCP is to describe Stanford’s anticipated operational and development activities and identify measures that will minimize and mitigate the effects of those activities on identified species of concern. The HCP asserts that proper stewardship of Stanford’s lands “has been, and will continue to be, essential to the success of the University.”

A five-point policy initiative clarifies elements of the HCP program as they relate to the following:

1. Measurable biological goals and objectives,
2. adaptive management,
3. monitoring,
4. permit duration, and

5. public participation.

Based on the conservation programs and commitments identified in the HCP, the USFWS issued Stanford an Incidental Take Permit (ITP) in compliance with Section 10(a) of the ESA. In May 2016, the California Department of Fish Wildlife (CDFW) determined that the ITP issued by the USFWS, including the incorporated measures in the HCP, is consistent with the CESA. Stanford’s HCP thereby provides compliance with both the ESA and CESA for protected species on most of Stanford’s land within unincorporated Santa Clara County.

The HCP key resource conservation components include:

- Dedication of a 90-acre permanent conservation easement along the most biologically sensitive portions of Deer and Matadero creeks.
- Establishment of a 300-acre, 50-year no-build area in the lower foothills. Within this “California Tiger Salamander Reserve,” construction of eight seasonally filled ponds and designation of 30 acres as a permanent conservation easement.
- A 50-year commitment for the management of Lake Lagunita for the benefit of seasonal wetland-dependent species, including the California tiger salamander.
- Construction of four new ponds suitable for California red-legged frog reproduction and year-round occupation.
- Annual monitoring of species of conservation concern, including federally and State listed species, and species which may potentially cause environmental problems (mainly invasive non-native species).
- Widespread vegetation management, including weed control and the planting of native species.

Additional conservation efforts pursued by the University include:

- Implementation of steelhead trout restoration projects in San Francisquito Creek, such as removal of the Happy Hollow (Lagunita) Dam to allow for improved dispersal of fish and installation of a fish-ladder at the Los Trancos diversion facility.
- Monitoring of conditions and review of land use activities in Special Conservation Areas that are outside the HCP Plan Area, along Los Trancos and San Francisquito creeks, and according to measures outlined in the Stanford HCP.
- Construction of three tunnels under Junipero Serra Boulevard to facilitate California tiger salamander dispersal.

## Chapter 6 – Resource Conservation

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- Collaboration with the jurisdictions of Portola Valley and San Mateo County on environmentally sound creek bank stabilization efforts (partly in Santa Clara County) along Los Trancos Creek.
- Promotion of the overall health of tree canopy and biodiversity in the central campus through planting of native and climate-adapted introduced species, preservation of existing trees and widespread vegetation management, including weed control.

An important aspect of these conservation activities is the opportunity to learn from these efforts. As an academic institution and long-term landowner, Stanford is able to monitor and test different methods of habitat conservation and restoration in search of the most effective strategies. In addition to the Jasper Ridge Biological Preserve, Stanford faculty, students, and researchers have long-term research and teaching interests in San Francisquito Creek, Los Trancos Creek, Matadero Creek, and the oak woodlands and annual grasslands.

The oak reforestation program is perhaps the best-known habitat restoration program on the campus, involving Stanford, nonprofit organizations, and numerous volunteers from the campus and neighboring communities. This program was initiated by Stanford in the early 1980s, following the preparation of a Vegetation Management Plan which found a lack of young oak trees

and a decline in mature trees in the natural areas on the campus. After several years of operation in the foothills, the reforestation program has been extended to the Arboretum, and it has also involved reintroduction of native understory shrubs, grasses and forbs (broadleaf herbs) in addition to oaks.

This continuing program has yielded many lessons and insights that have been used to modify techniques for planting and maintenance. The oak reforestation program is an excellent example of comprehensive land stewardship and management that restores habitat and contributes to the knowledge of the natural environment.

### California Tiger Salamander

Lake Lagunita and the surrounding undeveloped lands provide both aquatic breeding and terrestrial habitat for the California tiger salamander (CTS). Stanford's population is the only remaining known population of this species on the San Francisco Peninsula. The rarity of this population and the fact that the salamander habitat is located in potential development areas create a particularly high level of interest in the potential effects of development under the Community Plan on this species.

The CTS have a life cycle which requires upland and seasonally aquatic areas. At Stanford, CTS

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*As an academic institution and long-term landowner, Stanford is able to monitor and test different methods of habitat conservation and restoration in search of the most effective strategies.*

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reproduce in Lake Lagunita and several of the ponds located in the lower foothills (which were specifically constructed for CTS reproduction). After hatching and developing to their terrestrial form in water, juvenile salamanders migrate to upland habitats up to one kilometer or more from the breeding site, where they live in holes created by ground rodents. These estivation sites are located both north and south of Junipero Serra Boulevard. Adult salamanders return to their breeding ponds with the first heavy rains of winter. Aquatic breeding sites and usable upland habitat, particularly within 500 meters of the lake, comprise the salamander’s crucial habitat needs.

Primary threats to the California Tiger Salamander at Stanford are:

- Changes in the amount and timing of rainfall due to climate change, which affect the availability and quality of CTS breeding habitat from year-to-year;
- Traffic mortality due to crossing of Junipero Serra Boulevard during migration, although tunnels and fencing along Junipero Serra Boulevard have successfully reduced road-related mortality;
- Impacts associated with the CTS population being located in highly fragmented and altered environment; and
- Loss of habitat from new development.

In 1998, the USFWS, CDFW, the County and Stanford adopted a management agreement to reduce impacts to CTS. This was replaced by the Stanford HCP, which was adopted by the USFWS and CDFW in 2013 and 2016, respectively. On August 13, 2013, the Santa Clara County Board of Supervisors acknowledged the County Planning Director’s determination that the HCP provides “equal habitat value and protection for the California tiger salamander.”

## Strategies, Policies, and Implementation

The Community Plan incorporates the major habitat preservation concepts or strategies included in the General Plan, namely, acknowledging habitat and biological resources, preserving habitat, mitigating impacts, and restoring habitat. The Community Plan implements these concepts through restrictions on development in the foothills to only those activities which support academic activity based on the foothill setting and through emphasizing development in the central campus that is sensitive to the natural resources affected by the development.

### Strategy No. 1: Improve Current Knowledge and Awareness of Habitats and Natural Areas

This strategy acknowledges the need for accurate and up-to-date information on local biodiversity in order to conduct successful conservation and land use planning. Stanford

maintains an evolving database on many levels of local biotic diversity. In particular, data on the distribution and condition of protected species and plant-defined biological communities, such as serpentine grasslands, are incorporated into the database on an annual basis and should be transmitted to the County as well. Stanford is also conducting ongoing studies investigating the impacts of non-native species on local ecosystems. The policies associated with this strategy call for continued data collection and information transmission to the County.

### **Policies**

#### **SCP-RC 1**

Stanford shall maintain and update inventories and maps of important biological resources on Stanford lands, including protected species, species considered at risk of local extinction, and habitat types (biotic communities), for use in conservation efforts, land use decision making, and monitoring of resource status.

#### **SCP-RC 2**

Allow field research and other academic activities related to improving knowledge and understanding of habitat resources to occur in areas south of Junipero Serra Boulevard.

### **Implementation Measures**

#### **SCP-RC (i) 1**

Stanford shall, as needed, prepare California Natural Diversity Database records for species of concern.

#### **SCP-RC (i) 2**

Stanford shall transmit natural resource map updates to the County using the County's current electronic map format standards, upon request by the County.

#### **SCP-RC (i) 3**

Stanford shall provide a copy of the annual report provided under the Stanford University Habitat Conservation Plan (HCP) to the County.

## **Strategy No. 2: Protect the Biological Integrity of Habitat Areas and Adequately Mitigate Impacts**

Protection of existing natural resource areas is an essential component of successful conservation planning. At Stanford such protection involves the management and long-term commitment to the preservation of environmentally significant areas, particularly in the foothills.

The question of what habitat areas are “sensitive” and most in need of protection is not a simple one. Habitats for some special-status species under state or federal law are clear candidates for protection. Such habitats at Stanford include Lake Lagunita, other breeding ponds, and the upland habitat (undeveloped land within 500 meters of breeding sites) for the California tiger

salamander. It also includes the creeks and their riparian surroundings which support steelhead and red-legged frogs. While much of this habitat area is located in the foothills, which will remain largely undeveloped, some areas around Lake Lagunita on the north side of Junipero Serra Boulevard are within the Academic Growth Boundary (AGB). This area is viable salamander habitat and should be considered a sensitive area for management purposes.

While location of development and activities outside of the most sensitive habitat areas is important, appropriate management within already developed areas and in locations used for agriculture and recreation is also critical to the protection of species and habitats. For example, there is concern about the effects of recreational activity in the foothills in terms of erosion and effects on habitat and wildlife. Unlimited access to the creeks in these areas could pose a threat to the special status species in such aquatic environments. Resource management of some of these areas can be particularly challenging in areas that are not directly controlled by the University, such as on agricultural leaseholds on undeveloped lands.

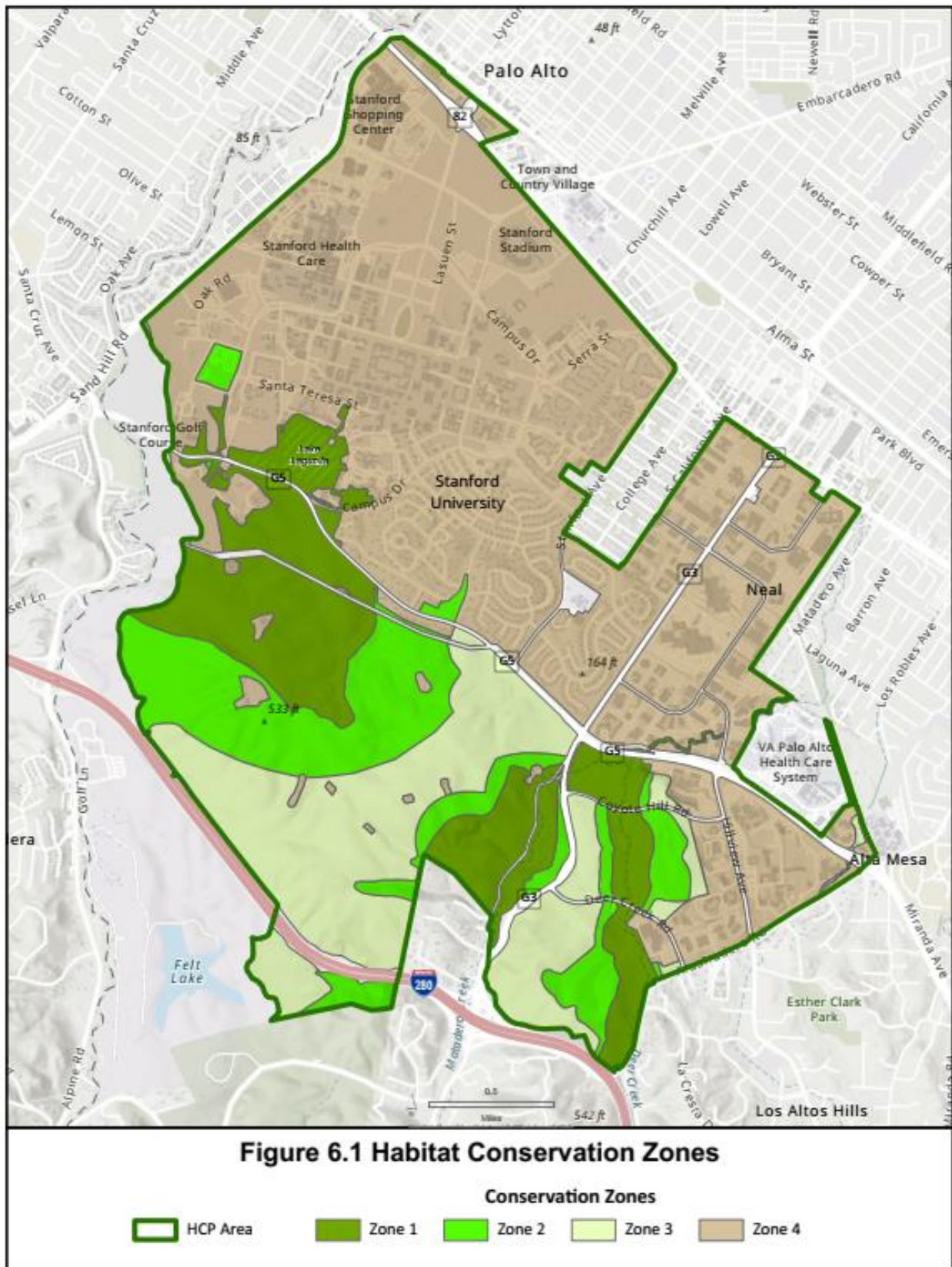
### California Tiger Salamander

Stanford's HCP provides compliance with both the ESA and CESA for protected species, including CTS, on most of Stanford's land within unincorporated Santa Clara County. The policies associated with this strategy include references to the HCP as appropriate and emphasize both avoidance of disturbance to sensitive habitat areas and mitigation of any impacts that do occur.

These sensitive areas are generally located within Zone 1 of the HCP's conservation zones. (See **Figure 6.1 Habitat Conservation Zones**).

Stanford's HCP provides compliance with both the ESA and CESA for protected species on most of Stanford's land within unincorporated Santa Clara County. The policies associated with this strategy include references to the HCP as appropriate and emphasize both avoidance of disturbance to sensitive habitat areas and mitigation of any impacts that do occur.

Figure 6.1 Habitat Conservation Zones



## Policies

### SCP-RC 3

Assure the protection of habitats for special status species in approving the location and design of new development. Avoid habitat areas for these species in the location of development whenever feasible.

### SCP-RC 4

Protect and maintain habitats, natural areas, and wildlife corridors in development and redevelopment.

### SCP-RC 5

Protect habitat areas through use of the Open Space and Field Research, Special Conservation Area, and Campus Open Space land use designations, and through use of the Academic Growth Boundary (AGB). If land use designation changes or AGB relocation is proposed, conduct detailed studies for presence of special status species and their habitat prior to decision making.

### SCP-RC 6

Require Stanford to mitigate any impacts on special status species (e.g. locally important species not covered by the Stanford University Habitat Conservation Plan - HCP) or other biological resources that result from land use and development through:

- a. Mitigation measures that have proven to be effective which shall be implemented prior to commencement of site preparation and construction activities as appropriate.
- b. Mitigation measures such as provision of new habitat areas which shall be monitored and, if necessary, revised over time to ensure the viability of these measures as mitigation.

### SCP-RC 7

Stanford shall support the Biological Goals of the Stanford University Habitat Conservation Plan (HCP) which include:

- a. Maintain and enhance natural communities so that they benefit the Covered Species.
- b. Stabilize the local California tiger salamander population and increase its chance of long-term persistence at Stanford.
- c. Maintain ponds to promote California tiger salamander reproduction in the Foothills.
- d. Increase the local California red-legged frog population and increase its chance of long-term persistence at Stanford.
- e. Maintain or improve habitat that could support the San Francisco garter snake and continue to contribute to the body of information about garter snakes at Stanford.



### SCP-RC 8

Maintain and restore riparian buffer zones along creeks as described in Santa Clara County General Plan Policy R-RC-37.

### SCP-RC 9

Recreational uses should not occur in sensitive habitat areas and should be limited.

## Implementation Measures

### SCP-RC (i) 4

Stanford shall comply with all regulatory standards for review and approval of research and teaching activities in habitat areas, particularly in those areas which support special-status species.

### SCP-RC (i) 5

Stanford shall manage ongoing recreational activities with regard to the habitat impacts of these activities and in conformance with the Stanford University Habitat Conservation Plan (HCP).

### SCP-RC (i) 6

All development shall conform with the Habitat Conservation Plan (HCP) for Stanford lands approved by the U.S. Fish and Wildlife Service and any corresponding requirements by the California Department of Fish and Wildlife.

### SCP-RC (i) 7

Require long-term habitat protection measures in appropriate locations as mitigation for development in habitat areas that support special-status species or that are protected through local, state, or federal regulations.

### SCP-RC (i) 8

To improve implementation of Stanford University Habitat Conservation Plan (HCP) protections, project-specific HCP mitigation related to the proposed development must be identified and included in the permits and other approvals issued for the individual project, if applicable. Coordinate with Stanford to standardize an efficient system to verify project-specific HCP compliance.

### SCP-RC (i) 9

Require replacement of trees per the County's Tree Preservation and Removal Ordinance. Trees greater than 12 inches in diameter shall be replaced at a ratio of 3:1 for oaks and 1:1 for other protected trees. A Vegetation Management Plan for the entire campus may be submitted by Stanford to the County Planning Office for review and approval, to replace the project-by-project tree replacement requirements. This plan must provide for the same or greater level of tree protection as required by the County's Tree Preservation and Removal ordinance.

**SCP-RC (i) 10**

Stanford should identify opportunities to conserve water used for irrigation and other purposes in order to limit use of water from creeks.

**Strategy No. 3: Encourage and Promote Habitat Restoration**

Just as protection of existing natural resources is a critical element to successful resource conservation planning, so too is habitat restoration. After well over 200 years of occupation by European settlers and their descendants, and more than 8,000 years of occupation by Native Americans, Santa Clara County, including the Stanford area, has been modified significantly by humans. Habitat loss, habitat fragmentation, and habitat modification have all occurred on a large scale in the region, with most changes occurring in the last 150 years. For example, the Stanford foothills, which are considered an important natural resource, are primarily comprised of non-native grasses and have been substantially altered through cattle grazing. Both foothill areas and flatlands in areas surrounding Stanford lands have been extensively developed.

Habitat restoration is also a potential mitigation measure for development in sensitive habitat in other locations. The policies associated with this strategy encourage continued habitat restoration as part of a comprehensive approach to habitat preservation and management.

**Policies**

**SCP-RC 10**

Stanford should establish priorities for the restoration or rehabilitation of sensitive habitat areas and include habitat restoration as a key component of conservation management and planning.

**SCP-RC 11**

Stanford should continue and support efforts to enhance habitats and populations of protected native species, including, but not limited to:

- a. reduction of non-native invasive species;
- b. wetland creation efforts, particularly to increase breeding sites for the California tiger salamander; and
- c. the oak reforestation program in the foothills, the Arboretum, and in other natural areas.

**Implementation Measures**

**SCP-RC (i) 11**

Coordinate wetland preservation for flood control purposes with habitat restoration efforts.

**SCP-RC (i) 12**

Encourage location of facilities and trails out of sensitive habitat areas and areas undergoing habitat restoration.

# *Water Quality and Watershed Management*

## Background

Healthy watersheds with good water quality are a critical component of resource conservation because watercourses are home to many of the campus' sensitive species, and because the quality of the watershed affects the larger San Francisco Bay ecosystem. Activities on Stanford lands have the potential to affect the quality of creeks and their associated riparian habitats, creating lasting impacts on both terrestrial habitat and water quality and species.

Stanford lands are included in two watersheds: the San Francisquito and the Matadero (see **Figure 6.2 Watershed Boundaries**). The San Francisquito Creek system, including San Francisquito, Los Trancos, Corte Madera, Sausal, and Bear creeks, and the Searsville Reservoir, is the larger of the two and is located in the west and north portions of the University. Stretches of this system form the boundary between Santa Clara and San Mateo Counties. Stanford has three water diversions in this watershed: the Searsville Dam, a recently redesigned pumping facility located at the Stanford Golf Course near Junipero Serra Boulevard, and the Felt Lake diversion on Los Trancos Creek (at Arastradero Road).

The Matadero system encompasses the eastern areas of the University and consists of Matadero and Deer creeks. This watershed is located entirely in Santa Clara County. The Stanford portion of this watershed in unincorporated Santa Clara County is in natural streambeds with substantial existing riparian vegetation. Downstream portions of the system are maintained in artificial channels. Stanford has no water diversions in this system.

Portions of Stanford lands also contain a groundwater recharge area, which crosses the central campus (see **Figure 6.3 Groundwater Recharge Area**). This area is referred to as an “unconfined” zone where groundwater recharge is not generally precluded by soils and geologic features. As additional development occurs in this portion of the campus, there is less opportunity for infiltration and recharge of the aquifer through ground percolation and more runoff into creeks and storm drain systems. Drainage design and detention pond systems can offset increases in impervious surfaces, ensuring opportunities for recharge.

As part of the 2000 General Use Permit, Stanford had the option to prepare a site-specific groundwater recharge study for each building project within the unconfined zone or a comprehensive groundwater recharge study for all development that could occur within the unconfined zone. Stanford chose to develop a comprehensive approach to groundwater recharge and the Santa Clara Valley Water District approved the study in 2015.

The study outlines calculation methodologies for groundwater recharge lost by development and Stanford's operational practice for conveying water to Lagunita from Stanford's surface

water sources for the benefit of California tiger salamanders. These surface water sources include water diverted from creeks and/or impounded by dams and filter backwash water from Stanford’s irrigation water supply filtration facility. Lagunita has a high infiltration rate and groundwater recharge is very effective. The accounting of recharge is tracked to ensure that all future development would continue to result in an annual net positive recharge to the unconfined zone.

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*As a major landowner with a variety of uses on its lands, Stanford is an important contributor to the overall health of the watersheds in which it lies.*

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Stanford participates in a regional Joint Powers Agency (JPA) for the San Francisquito Creek Watershed, along with the Cities of Palo Alto, Menlo Park, and East Palo Alto, the County of San Mateo, and the Santa Clara Valley Water District. This JPA focuses on both habitat protection and flood control in the watershed. It grew from the Coordinated Resource Management and Planning (CRMP) process for San Francisquito Creek. Watershed management and planning in Santa Clara County is conducted under the auspices of the Santa Clara Valley Water District (SCVWD or “Valley Water”).

## **Strategies, Policies, and Implementation**

The strategies, policies and implementation recommendations related to water quality and watershed management reflect the General Plan’s comprehensive approach to this issue. These focus on reducing pollution sources and maintaining streamside environments rather than on treatment of polluted water. Comprehensive watershed management requires coordination among a multitude of landowners and jurisdictions. As a major landowner with a variety of uses on its lands, Stanford is an important contributor to the overall health of the watersheds in which it lies.

Figure 6.2 Watershed Boundaries

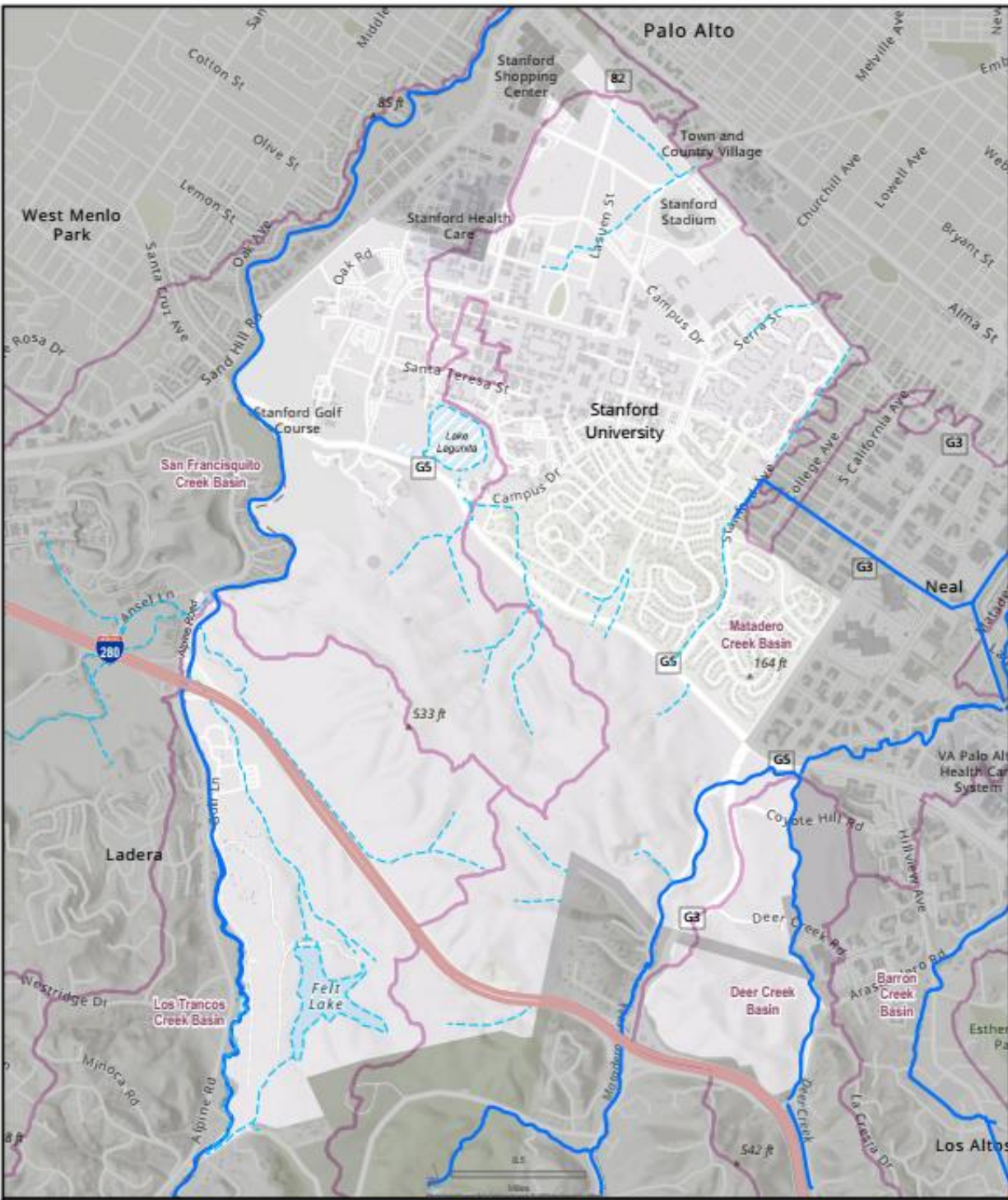
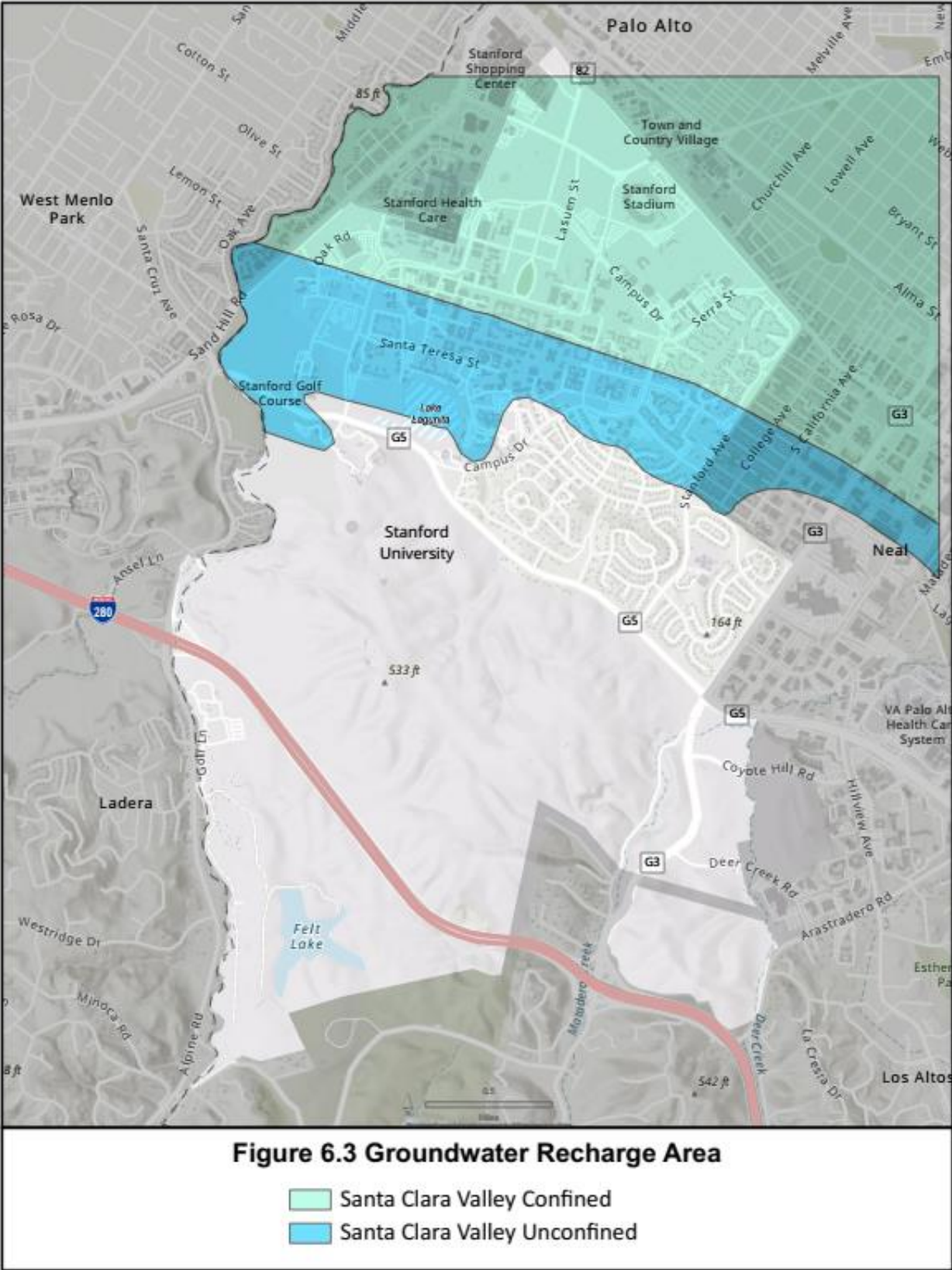


Figure 6.2 Watershed Boundaries

- Watershed Basins
- Creeks
- Seasonal Drainage

Figure 6.3 Groundwater Recharge Area



### Strategy No. 4: Reduce Non-Point Source Pollution

Non-point source pollution has been identified as a major regional problem, accounting for approximately half of the contaminants discharged into San Francisco Bay. This type of pollution stems from a variety of sources on the campus, such as streets, parking lots, agricultural waste and runoff, erosion, and chemical or other waste from research activities. Stanford and the County’s efforts to reduce non-point source pollution are diverse, ranging from public education to development and implementation of best management practices.

Agricultural activities on leased lands owned by the University have been a particular source of water pollution. These activities are under the influence of Stanford as a land-owner, but not the direct control of Stanford as an operator. As a landowner, Stanford has the ability to require water pollution prevention practices as terms and conditions of its leases.

#### Policies

##### SCP-RC 12

Require Stanford to continue the use of appropriate best management practices to reduce non-point source pollution in agricultural, recreational, and academic areas and for construction activities, and include these practices as terms and conditions of leases of Stanford lands.

##### SCP-RC 13

In planning for new development and redevelopment, utilize site, building and landscape design features which serve to reduce non-point source pollution.

##### SCP-RC 14

Promote and participate in interjurisdictional efforts to identify and reduce non-point source pollution and to develop economically viable best management practices for improving water quality.

##### SCP-RC 15

Emphasize groundwater recharge through natural percolation and filtration over increased runoff to storm drains and creeks.

#### Implementation Measures

##### SCP-RC (i) 13

Stanford shall develop education programs for relevant University personnel and for campus lease-holders on water quality issues.

##### SCP-RC (i) 14

Stanford shall conduct regular maintenance on existing storm water systems.

**SCP-RC (i) 15**

Incorporate conditions within approvals for new development to minimize sources of non-point source pollution and employ best management practices as mitigations.

**Strategy No. 5: Enhance and Restore Wetlands, Riparian Areas, and other Habitats that Improve Watershed Quality**

A critical feature of efforts to improve regional water quality is the existence of functioning wetlands and surrounding vegetated areas. Wetlands and associated vegetated areas act to reduce erosion, absorb runoff, and reduce the intensity of flood events. Natural areas contribute to water quality of both surface water features and underground aquifers. This function adds to the County and Stanford’s interest in the protection of riparian areas through streamside buffers and in the protection of central-campus wetlands, particularly in the Arboretum and around Lake Lagunita.

**Policies**

**SCP-RC 16**

Assist Stanford in identifying and implementing agricultural and other land management practices that promote native species and that contribute to erosion control.

**SCP-RC 17**

Avoid development in Special Conservation Areas, riparian areas and wetlands.

**SCP-RC 18**

Maintain native plant communities south of Junipero Serra Boulevard and in Campus Open Space areas such as oak woodland, chaparral, and riparian trees and shrubs that serve to prevent soil erosion and creek bank collapse.

**SCP-RC 19**

Enhance seasonal wetlands in the Arboretum.

**SCP-RC 20**

Continue to seasonally fill Lake Lagunita and create seasonal wetlands habitat, creek flow permitting, where not in conflict with the Stanford University Habitat Conservation Plan (HCP).

**Implementation Measures**

**SCP-RC (i) 16**

Where appropriate during development and redevelopment, Stanford shall be required to relocate structures, roads, and trails away from creeks and in a manner that minimizes the addition of impermeable surfaces.



### SCP-RC (i) 17

Incorporate flood control features such as detention basins into new development. Design and engage in flood control activities for entire drainage areas rather than on project-by-project basis for each new campus facility.

## Strategy No. 6: Prepare and Implement Comprehensive Watershed Management Plans

The primary goal of watershed management planning is greater assurance of water quality, with the important additional benefits of habitat and natural resource protection. Because watershed management issues are complex and involve multiple parties, efforts have increased in the last several years to approach water quality issues from a comprehensive watershed management approach. One such ongoing endeavor is the Watershed Management

Initiative for Santa Clara County, in which numerous jurisdictions and stakeholders have worked together over time to address watershed management and water quality collectively from a comprehensive perspective.

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*Stanford contributes scientific information and participates in regional planning efforts such as that of the Joint Powers Authority for San Francisquito Creek Watershed.*

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Stanford’s participation in the preparation and implementation of watershed management plans is important due to the amount of land owned by the University and the variety of activities and resources on University lands. In order to manage watersheds on Stanford lands and to contribute to regional planning, Stanford contributes scientific information and participates in regional planning efforts such as that of the Joint Powers Authority for San Francisquito Creek Watershed.

### Policies

#### SCP-RC 21

Support and encourage Stanford’s participation in regional watershed management planning and implementation for watersheds including Stanford lands.

### Implementation Measures

#### SCP-RC (i) 18

Stanford shall continue to participate in region-wide watershed conservation and management activities (e.g. Coordinated Resource Management Program and the Joint Powers Authority for San Francisquito Creek).

**SCP-RC (i) 19**

Stanford shall periodically prepare an updated Drainage Master Plan based on County-specified design criteria upon approval of a new or major modification of a General Use Permit (GUP).

## *Heritage Resources*

### **Background**

Heritage resources at Stanford include those features which reflect and embody the campus history. Many of these features are central to the visual and functional form and character of the campus. While many equate heritage resources with historic buildings only, these resources encompass a range of features that contribute to the campus heritage, including archaeological sites from prehistoric and historic times as well as major landscape features.

### **Archaeological Sites**

Archaeological sites are an important link to the past and source of understanding of the area's history. Archaeological sites at Stanford reach as far back as remains indicating a human presence 7,600 years ago. Resources on the Stanford campus include sites from the local Muwekma Ohlone culture and their ancestors, as well as nineteenth- and earlier twentieth-century archaeological deposits associated with Spanish, Mexican, early American, and Stanford history.

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*The Stanford campus includes sites from the local Muwekma Ohlone culture and their ancestors.*

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Stanford faculty and students have conducted archaeological digs on campus since the 1920s. In 1986, the Campus Archaeology program made the first effort to systematically investigate the entire 8,180-acre land holding. More than 50 prehistoric archaeological sites relating to the ancestors of the local Muwekma Ohlone culture, primarily along the creeks at the campus edges, were identified during that process.

Historic records have also been investigated to ensure documentation of deposits associated with European settlers and their descendants. It is customary not to include maps of archaeological sites in plans in order to help protect the integrity of the sites. Stanford makes efforts to protect these ancient sites and has designed development to avoid or to permit and mitigate potential impacts to prehistoric resources.

The University created an 11-acre archaeological preserve along San Francisquito Creek in 1986 that encompasses one of the oldest prehistoric sites on the campus. A conservation easement was dedicated over this preserve in conjunction with the City of Palo Alto's development agreement for the Sand Hill Road projects in 1997.

Prehistoric sites are generally protected from development disturbance by the Community Plan land use designations and Academic Growth Boundary (AGB). In the event that future development does occur that affects prehistoric sites, such as in the golf course, protective measures would be required. Ecological restoration and flood control in creeks also pose a threat to archaeological resources, which should be considering in the planning and implementation of such efforts.

### Historic Structures and Sites

The Stanford University campus contains a number of significant historic structures and sites associated with the Stanford family and the University, as well as with the previous occupants of the land. Stanford’s academic, academic support and residential facilities include approximately 365 structures that meet the minimum age criteria for being potentially historic, i.e., constructed more than 50 years ago. (See **Figure 6.4 Age of Existing Structures**). In addition to these resources related to Stanford’s history over the past 120 years, the University lands contain a small number of older structures dating from the 1860s and 1870s, prior to the establishment of the Stanford Palo Alto Stock Farm and the University.

Some campus buildings appear on federal, state, and County lists of historic resources, including the Santa Clara County Heritage Resources Inventory. (**Figure 6.5 Listed Historic Structure**). Stanford’s faculty and staff housing area, referred to as the San Juan Residential District, also contains significant historic structures associated with prominent architects. The area includes seven buildings that are listed resources including one listed on the National Register; four listed locally on the County’s Heritage Resource Inventory (HRI); one listed on the HRI and designated as both a National Historic Landmark and California Historical Landmark; and one listed on the HRI and as a National Historic Landmark.

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*The Stanford University campus contains a number of significant historic structures and sites associated with the Stanford family and the University.*

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The County Planning Office commissioned a historic resources survey for four out of eight neighborhoods of the Residential District (**Figure 6.6 San Juan Residential District Survey Area**) to assess if the Residential District or portions of it merit designation as a historic district. The survey identified a potential historic district in Lower San Juan Neighborhood as eligible for listing and provided a context for individual property evaluations and future district studies, as documented in the San Juan Residential District Historic Resources Survey Report, dated March 2021.

The County’s HRI is a publication of the Santa Clara County Historical Heritage Commission. Stanford projects which involve structures included in the HRI, or structures determined by the County Planning Office to be eligible for listing, or new development in proximity to listed or

potentially historic structures are referred to the Historical Heritage Commission for review and comment, and potential impacts on any historic resources are also considered in the environmental review process associated with a development proposal. The County has an established process for evaluation and protection of historic resources.

As with other resource conservation issues, the strategies for conservation of historic resources call for inventorying and evaluating the resources involved, preventing and minimizing impacts, and restoring and enhancing resources, as appropriate.

Figure 6.4 Structures Older than 50 Years

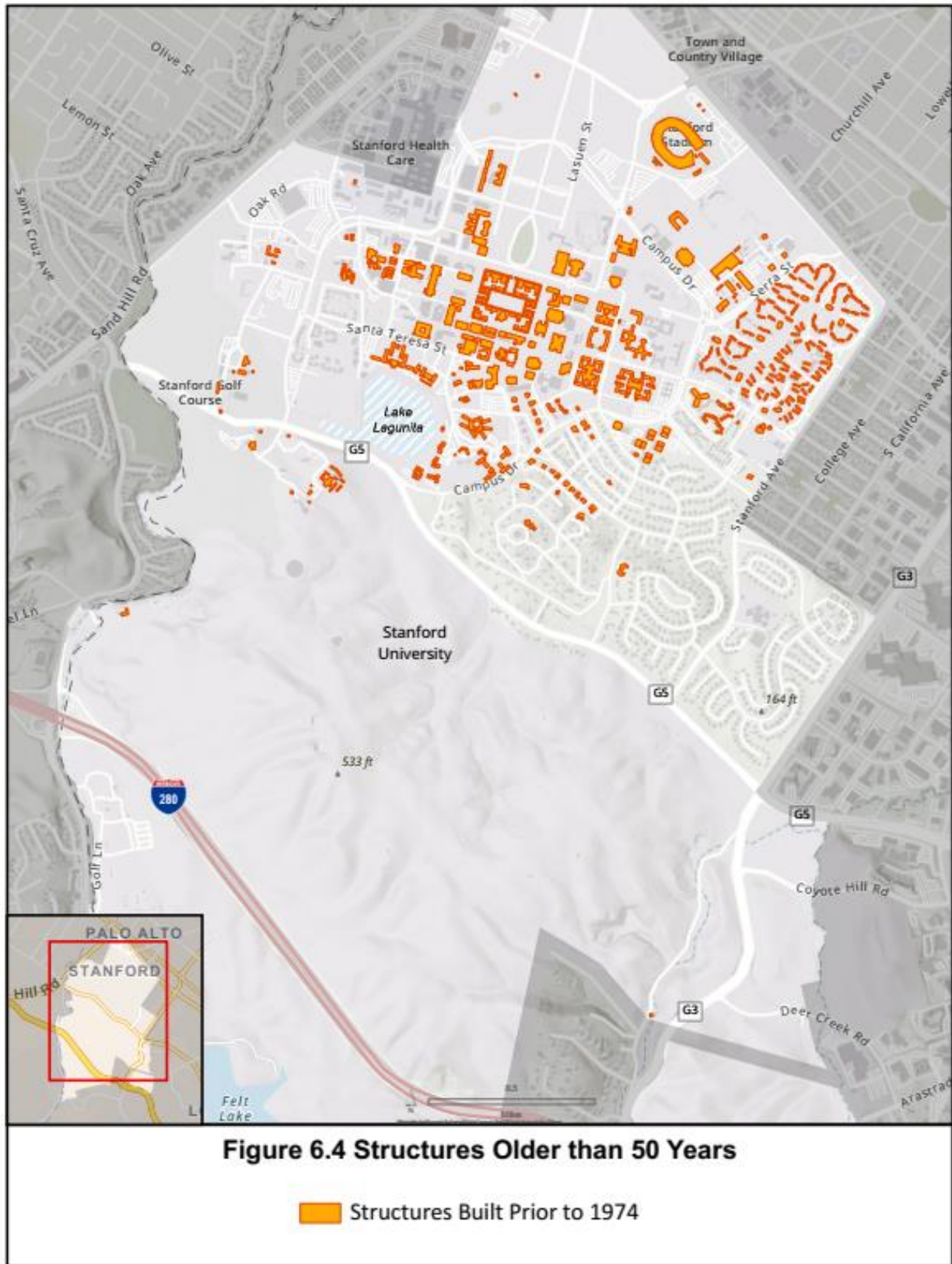


Figure 6.5 Listed Resources

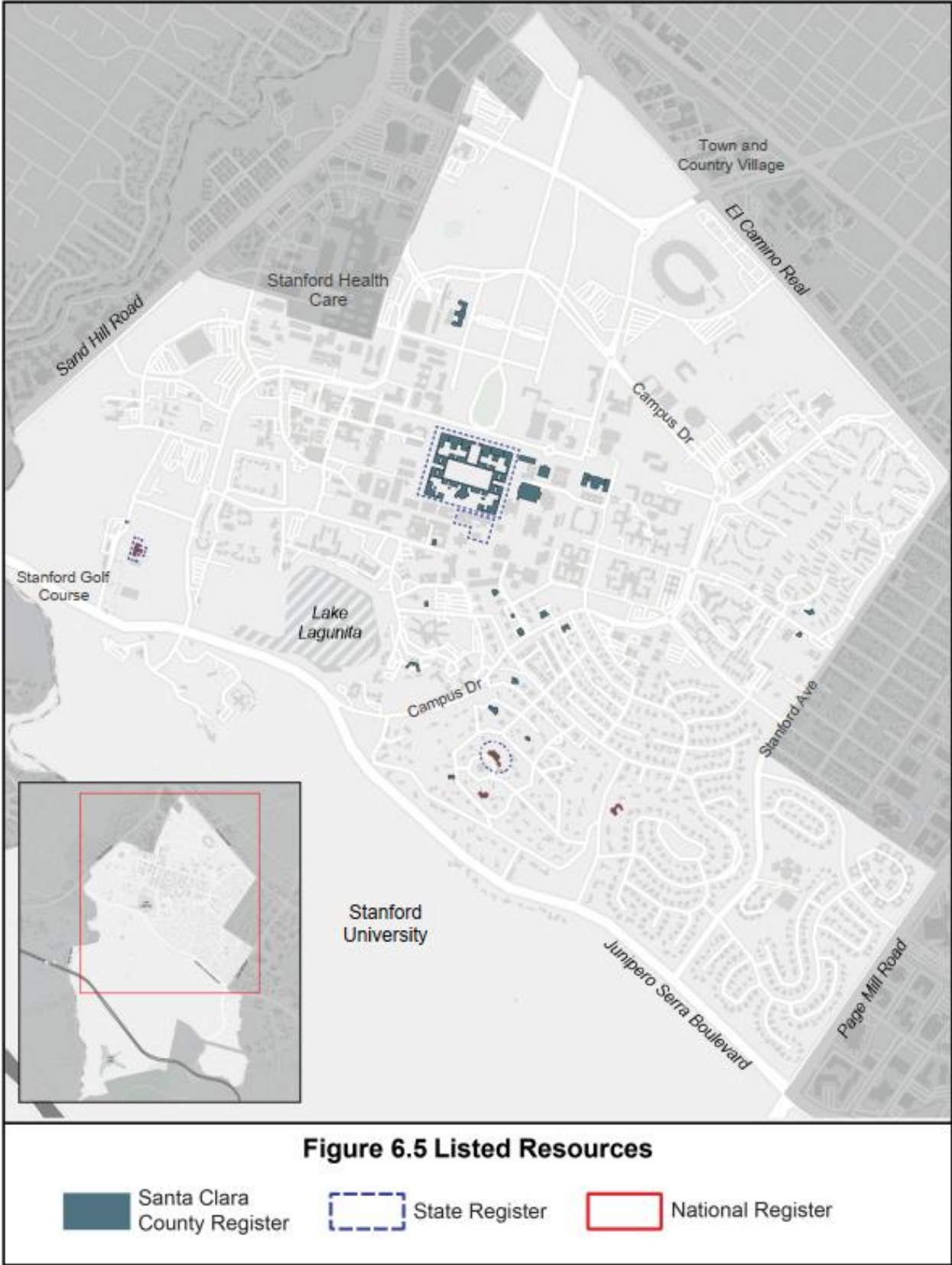
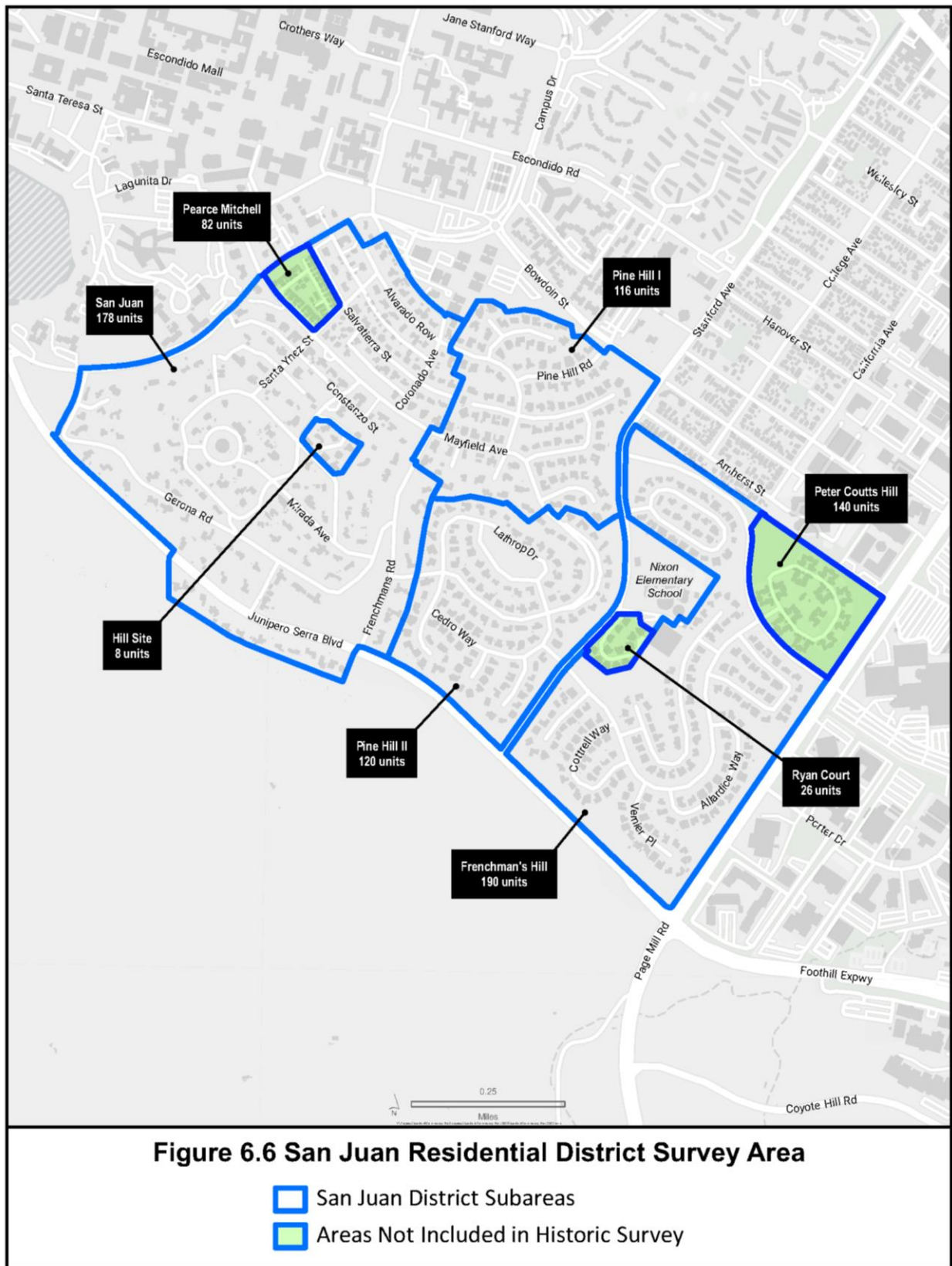


Figure 6.6 San Juan Residential District Survey Area



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## Strategies, Policies and Implementation

### Strategy No. 7: Inventory and Evaluate Heritage Resources

The key architectural and landscape elements that define the character of the campus should be identified and evaluated for the purpose of ensuring their protection in future planning.

The County’s primary mechanism for identifying and evaluating heritage resources is the Historic Heritage Commission (HHC) and the Heritage Resources Inventory (HRI). Structures that are 50 years or older are assessed for historic value through the trigger of proposed building projects, such as demolition, remodeling, or alteration. If through the review process, the structure in question is found to be eligible for listing, it is individually considered and included within the HRI by action of the Board of Supervisors. Evaluating Stanford’s historic resources for inclusion in the HRI is an important ongoing aspect of the conservation of these resources.

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*Evaluating Stanford’s historic resources for inclusion in the Heritage Resources Inventory is an important ongoing aspect of the conservation of these resources.*

---

### Policies

#### SCP-RC 22

Maintain informational databases and formal inventories of heritage resources as the basis for local decision-making regarding historic buildings, archaeological and paleontological sites, heritage trees, and landscape features.

### Implementation Measures

#### SCP-RC (i) 20

Stanford shall inventory, map, and monitor the status of archaeological and paleontological resources on Stanford lands and prepare and update archaeological site records for transmittal to the California Historical Resources Information System.

#### SCP-RC (i) 21

Review existing and potential historic resources at Stanford for possible inclusion on the County’s Heritage Resources Inventory (HRI), including heritage trees. As part of a development application, provide for documentation of existing and potential historic resources at Stanford for possible inclusion on the HRI, including historic landscapes and heritage trees.

#### SCP-RC(i) 22

Evaluate and enact appropriate designation for areas of San Juan Residential District identified by the historic resources survey as potential for historic district designation if significant development is proposed in those areas, specifically the Lower San Juan Neighborhood area.



## **Strategy No. 8: Protect Heritage Resources Through Avoidance, Adaptive Reuse, and Sensitive Planning and Design**

Heritage resources can be protected in a variety of ways. Of primary importance are land use planning and site design that incorporate historic features, heritage trees, and archaeological resources in ways that avoid the need for relocation or destruction of the resource. Another involves the careful review and consideration of alternatives to the potential loss of a resource when plans or individual development proposals conflict with heritage resource preservation.

One opportunity for heritage resource conservation is adaptive reuse of historic structures rather than demolition when a building becomes obsolete. Stanford has employed both adaptive reuse and avoidance in site design in numerous cases over time. For example, the Stanford Museum (now the Iris and Gerald B. Cantor Center for the Visual Arts) was extensively restored in conjunction with construction of a new building to expand the facility. While it is common to recognize, acknowledge and restore important historic buildings, the preferred approach for archaeological resources is to allow the sites to remain undisturbed and leave their locations undisclosed.

The General Plan recognizes the importance of preserving heritage resources as well as the difficulties and financial burdens of adapting older structures to modern use. The challenge for Stanford and the County in the future is to plan for preservation and provide incentives rather than disincentives for adaptive reuse.

### **Policies**

#### **SCP-RC 23**

Protect heritage resources, including sites, structures, and trees in campus development through careful campus land use planning, individual project design, project review, use of appropriate guidelines, and other implementation measures.

#### **SCP-RC 24**

Protect the integrity of significant archaeological sites and other heritage resources. Ensure the confidentiality of archaeological site locations in conformance with state laws.

#### **SCP-RC 25**

Stanford shall protect archaeological and paleontological resources in any environmental enhancement activities involving creek restoration and flood control.

#### **SCP-RC 26**

Give priority to the avoidance or adaptive reuse of historic structures over demolition whenever possible.

## Implementation Measures

### SCP-RC (i) 23

Require adequate background information, site plans, and appropriate Secretary of the Interior’s Standards compatibility analysis to assist in evaluation of potential impacts to heritage resources resulting from project development.

### SCP-RC (i) 24

The County should identify appropriate incentives and seek opportunities to encourage preservation of historic structures on the campus.

## Scenic Resources

### Background

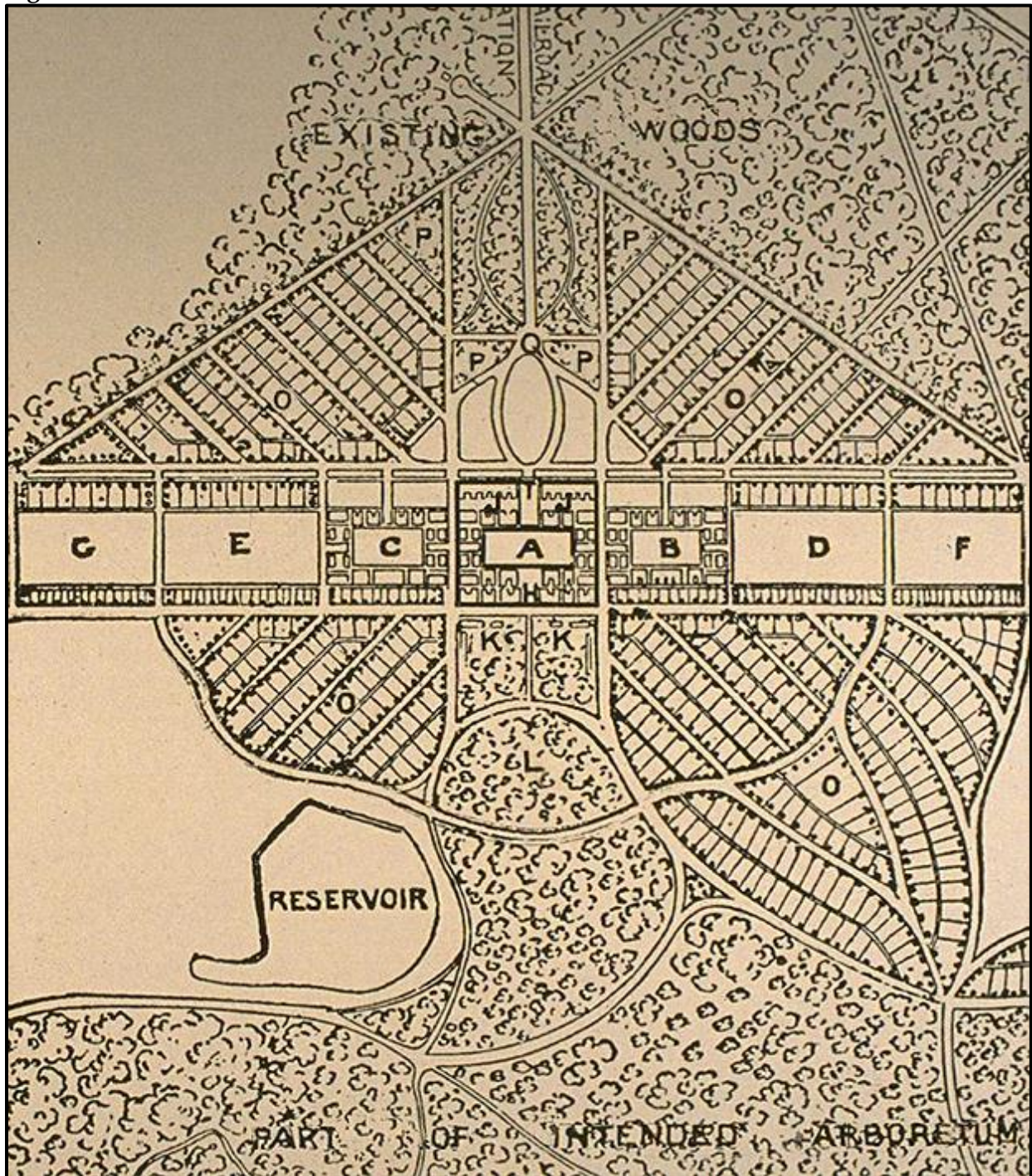
The Stanford University campus and its associated undeveloped lands are a significant visual resource on the northern edge of the County. The largely undeveloped hillsides, natural streams, landmark architecture, and landscape setting of the central campus are important to the quality of life in this area of the County.

### Central Campus

Stanford has made substantial efforts to improve the visual character of the central campus through a return to the concepts behind the original Olmstead campus plan (see **Figure 6.7 1889 Olmsted Plan**), which called for a series of interconnected quads in a formal setting. The Olmsted Plan put in place a series of design strategies that have become defining features of the Stanford University campus. These core features of the plan are strong enough that, even with development decisions in the intervening decades that ran counter to the plan, the framework carried through and provides the grounding principles for planning and architecture that is undertaken today. These elemental features of the Olmsted, as seen in Figure 6.7, include:

- The juxtaposition of the open hills and the buildings of the main campus
- The buffers for the campus created by the foothills to the south and the arboretum to the north
- The envisioned series of east-west quadrangles
- The network of malls that run both north-south and east-west

Figure 6.7 1889 Olmsted Plan



Recently, the University has focused on emphasizing the major axes crossing the campus and on enhancing the natural landscape and creating contrasts between formal landscaped areas and more natural settings. Additional efforts have been made to translate the campus architectural vernacular of sandstone, red tile roofs, and arcades to a contemporary use in new campus buildings.

Open spaces in the central campus also contribute significantly to Stanford’s visual character; both major spaces like the Arboretum or Lake Lagunita and small open and landscaped settings are integral to the campus.

### **Foothills**

While the central campus is a setting that is generally experienced only by those actually on the campus, the undeveloped foothills are an important component of the regional setting that help define the visual character of the surrounding communities. Strong limitations on foothill development espoused and established in this Community Plan will help protect the predominantly natural appearance of the foothills.

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*Strong limitations on foothill development espoused and established in this Community Plan will help protect the predominantly natural appearance of the foothills.*

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If appropriate development does occur consistent with the Open Space and Field Research land use designation, screening or other strategies that minimize the impact of any new structures or developed areas can be incorporated in project design and mitigations.

The strategies for protection of visual resources differentiate between the open space and the central campus built environment, reflecting the differences in these two visual environments and in appropriate protection mechanisms.

## **Strategies, Policies and Implementation**

The land use designations adopted in the Community Plan afford significant protection for lands both in the Campus Open Space areas and in the Open Space and Field Research areas beyond the limits of the Academic Growth Boundary (AGB). The natural streams which cross the campus are protected by riparian buffer zones, as discussed in the Habitat and Biodiversity and Water Quality and Watershed Management sections of this chapter. In addition, the Community Plan provides for parks and recreational open space in the Open Space chapter. These land use policies are reflected in the land use designations, described in the Land Use chapter.

### **Strategy No. 9: Employ Growth and Development Policies That Conserve Scenic Resources**

#### **Policies**

##### **SCP-RC 27**

Protect the scenic and aesthetic qualities of the natural setting of Stanford lands in the County by means of appropriate land use designations, growth management tools, and careful review of individual development projects.

### Implementation Measures

#### SCP-RC(i) 25

Ensure adequate screening and reduction of visual impacts of any development in designated open space areas through the development review process.

### Strategy No. 10: Maintain and Enhance the Scenic Values of Urbanized Area Settings

The Community Plan includes measures designed to protect open space and historic landscape elements on the central campus, as well as significant architectural landmarks contributing to the scenic quality of the area. In addition to the policies described above in the Heritage Resources section, the Campus Open Space land use designation has been adopted in part to protect the scenic character of major campus open spaces (see Open Space Chapter).

The County's role in enhancing the scenic character of the central campus is reviewed through the Architecture and Site Approval process. This review ensures adequate and integrated landscaping and screening, when appropriate. Through the University Architect/Planning Office the University takes the lead role in defining the character of the campus-built environment.

### Policies

#### SCP-RC 28

Preserve and enhance attractive, scenic urban settings on the Stanford campus and within Stanford's residential areas.

#### SCP-RC 29

Preserve significant historic landscape elements within the fabric of the campus' architecture and design.

#### SCP-RC 30

Maintain elements of the native landscape in Campus Open Space areas and throughout the developed portion of the campus.

#### SCP-RC 31

Maintain sign standards to ensure that signs are harmonious with the character of scenic area.

### Implementation Measures

None

# Health and Safety

## Chapter Summary

This chapter of the Stanford Community Plan addresses a range of public health and safety issues. It includes policies that are intended to minimize potential human or environmental injury and property damage. This chapter refines the Strategies identified in the County’s General Plan Health and Safety chapter for the following sections that require further refinement for Stanford lands:

- Air Quality,
- Geological Hazards,
- Flooding,
- Hazardous Materials,
- Emergency Preparedness and Response,
- Noise,
- Law Enforcement,
- Social and Emotional Health, and
- Climate Change and Climate Adaptation



Image 6: photo credit - M-Group

Other Health and Safety topic areas discussed in the County’s General Plan include Aviation Safety, Fire Hazards, Health and Safety Facilities Planning, and Wastewater Disposal. These subjects do not require refinement in the Stanford Community Plan because the strategies, policies, and implementation recommendations contained in the General Plan are in sufficient detail to guide Stanford land use.

The overall strategies or public policy approach to addressing Health and Safety issues involve prevention, mitigation, or minimizing risk, and preparedness. The COVID-19 pandemic reinforced the need for a renewed and heightened commitment to make communities better prepared and resilient against all forms of public health threats. These overall strategies provide a framework for understanding the more detailed social, behavioral, and physical policies that have been developed with respect to natural hazards, for example. Where most applicable, these strategies also provide the basic framework for public policy with regard to the Stanford Community Plan.

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*Health and Safety involves prevention, mitigation, or minimizing risk, and preparedness.*

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It should be further noted that with regard to sanitary wastewater disposal, the University maintains a sanitary sewer collection system that serves all areas of the main campus. The campus sewer system consists of approximately 46 miles of sewer lines. The Stanford sewer system connects to the Palo Alto sanitary sewer system and the sewage is treated at the Palo Alto Regional Water Quality Control Plant (RWQCP). The City of Palo Alto operates the

## Chapter 7 – Health and Safety

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RWQCP for the communities of Palo Alto, East Palo Alto, Los Altos Hills, Mountain View, and Stanford University.

The Community Plan contains the following strategies for health and safety:

### **Air Quality**

- Strategy No. 1:** Manage Campus Growth and Land Use for Cleaner Air
- Strategy No. 2:** Emphasize Transportation Alternatives and Transportation Demand Management to Reduce Vehicle Emissions
- Strategy No. 3:** Control Sources of Particulate Emissions

### **Geologic Hazards**

- Strategy No. 4:** Design, Locate, and Regulate Development to Avoid or Withstand Hazards

### **Flood Hazards**

- Strategy No. 5:** Design, Locate, and Regulate Development to Avoid or Withstand Hazard

### **Hazardous Materials**

- Strategy No. 6:** Manage Hazardous Materials Safely and Efficiently

### **Emergency Preparedness and Response Noise**

- Strategy No. 7:** Adequately Plan for Risk Reduction, Immediate Disaster Response and Post-Disaster Recovery

### **Noise**

- Strategy No. 8:** Prevent or Minimize Excessive Noise

### **Law Enforcement**

- Strategy No. 9:** Provide Law Enforcement Oversight

### **Social and Emotional Health**

- Strategy No. 10:** Ensure Provision of Services, Policies and Programs that address Social and Emotional Health

### **Climate Change and Adaptation**

- Strategy No. 11:** Plan for Climate Change and Adaptation

## *Air Quality*

### **Background**

Air quality is a regional concern that requires regional participation for improvement. Air quality is affected by emissions from automobiles, industrial facilities, construction, and other activities; the effects of these activities on air quality is further influenced by weather, wind and topography. Pollution created in one location has the potential to affect air quality many miles away. Air quality is measured and described through concentrations of pollutants and is evaluated based on state and federal standards for a variety of pollutants.

Pollutants of the greatest concern in the San Francisco Bay Area, and which are most applicable to Stanford, are ground-level ozone (O<sub>3</sub>) and respirable particulate matter (PM<sub>10</sub>). The Bay Area is “non-attainment” for O<sub>3</sub> according to state and federal standards and is “non-attainment” for PM<sub>10</sub> according to state standards.

Ozone is produced primarily from motor vehicle emissions and is the primary component of smog. The concentration of ozone can primarily be reduced through reductions in automobile use that stem from location of homes, jobs, and services in close proximity to one another and through use of alternative transportation or alternative fuels.

Respirable particulate matter is a combination of pollutants that includes dust, pollen, ash, smoke, and other similar pollutants. While some forms of PM<sub>10</sub> result from natural processes, others can be reduced or avoided through “best management practices” that reduce dust from construction activities and through control on industrial emissions. For more detailed information on air quality issues, refer to the Countywide Health Element of the General Plan.

Stanford University’s remaining three primary sources of air pollution are:

- **Motor vehicle exhaust:** Stanford’s Transportation Demand Management (TDM) program is meant to reduce use of automobiles, leading to corresponding reductions in the emission of pollutants. The same strategies that are applicable County- and region-wide for reducing motor vehicle use are applicable to Stanford as well: coordinated land use patterns that allow for reduction or elimination of automobile trips and measures to facilitate the use of alternative transportation modes. Programs to encourage these methods are in place and will be continued at Stanford. Electric, hybrid, and other alternative-fuel vehicles are other options for automobile emission reduction.
- **Facility maintenance and laboratory activities.** Stanford produces intermittent, low-volume emissions of odorous and/or toxic substances resulting from various facility maintenance and research activities. Stanford currently reduces these emissions through various operational procedures.



- **Construction.** Construction projects on campus create particulate matter pollution during ground disturbance. Stanford utilizes procedures to control particulate matter during construction projects and from equipment exhaust which have been identified by the Bay Area Air Quality Management District (BAAQMD).

## Strategies, Policies, and Implementation

The strategies and policies for managing campus growth, together with the land use designations of the Community Plan are consistent with the fundamental approach to improved air quality outlined in the General Plan. By focusing future campus development within the Academic Growth Boundary (AGB), emphasizing higher density of residential development, locating new residential development close to related academic and academic support facilities, and providing neighborhood commercial services and amenities close to residential development, land use patterns can contribute greatly to the success of related strategies to manage travel demand and reduce dependency on the automobile.

### Strategy No. 1: Manage Campus Growth and Land Use for Cleaner Air

#### Policies

##### SCP-HS 1

Limit campus growth and development to lands within the Academic Growth Boundary (AGB) in order to minimize cumulative impacts on air quality.

##### SCP-HS 2

Within the Academic Growth Boundary (AGB), emphasize concepts of appropriate integration of land uses, compact campus development patterns, and more efficient, higher density residential development to reduce Vehicle Miles Traveled (VMT), automobile dependency, and greenhouse gas emissions, and promote use of alternative transportation modes.

##### SCP-HS 3

Encourage Stanford to prepare a campus-wide construction laydown areas management plan to improve application of performance standards (Best Management Practices - BMPs) for reducing particulate matter pollution on campus. Identify potential centralized construction laydown areas to serve multiple construction projects and reduce the number of laydown sites dispersed across campus.

#### Implementation Measures

None

## **Strategy No. 2: Emphasize Transportation Alternatives and Transportation Demand Management to Reduce Vehicle Emissions**

Closely linked to growth management and land use patterns, provision of travel alternatives and transportation demand management (TDM) are also instrumental in reducing vehicle emissions and improving air quality. The subjects of transportation alternatives and TDM are most thoroughly addressed in the County’s General Plan within the Transportation Chapter and Air Quality Section of the Health Element. Additional information on Stanford’s use of these strategies is also provided in the Circulation Chapter of the Community Plan.

### **Policies**

#### **SCP-HS 4**

Maintain and enhance the use of transportation alternatives and demand management to the extent allowed by law for the purpose of reducing automobile dependency, reducing trip generation, and reducing vehicle emissions.

#### **SCP-HS 5**

Promote the use of alternative fuel and propulsion systems for shuttle vehicles, other transit vehicles, construction, and fleet vehicles.

### **Implementation Measures**

#### **SCP-HS (i) 1**

Consider a program that would provide incentives for the increasing use of electric, hydrogen, or other zero-emission vehicles towards meeting the transportation performance standards.

## **Strategy No. 3: Control Sources of Particulate Emissions**

Particulate emission sources range from earthmoving and construction equipment to gasoline-powered leaf blowers, wood-burning fireplaces and charcoal grills. Each contributes to various types of pollutant emissions to varying degrees. Primary emphasis for Stanford involves the reduction of construction-related emissions.

Trucks, earthmoving equipment, and construction activities can introduce particulate matter and dust that have localized impacts as well as cumulative impacts in the region. There are a variety of best management practices (BMPs) intended to reduce the amount of particulates generated by these sources. Potential air quality impacts from significant construction projects are typically addressed within the environmental assessments and conditions applicable to each development project. The latter often involve best management practices as defined the Bay Area Air Quality Management District (BAAQMD) for such purposes.

### Policies

#### SCP-HS 6

Reduce particulate matter pollution originating from road and building construction. Require all best management practices (BMPs) and feasible control measures through project conditions and mitigations, as appropriate.

### Implementation Measures

#### SCP-HS (i) 2

Require Stanford to use appropriate best management practices (BMPs) and other feasible mitigation for the reduction of particulate matter pollution during construction.

## *Geological Hazards*

### Background

The Stanford campus is located on the boundary between the San Francisco Bay alluvial plain to the northeast and the foothills of the Santa Cruz mountains to the south and southwest. The western boundary of the Community Plan area lies approximately two miles east of the San Andreas fault.

### Earthquake Faults

Earthquake faults are the contact areas between major plates of the earth's surface. The San Andreas fault is the contact surface between the North American plate on the east and the Pacific plate to the west. Over many millions of years, the relative movements of these two plates have deformed bedrock units which have, in turn, been eroded differentially, resulting in the northwest-trending ridges and valleys present in Santa Clara County and throughout the Coast Range. Continued movement of the Pacific plate northwards relative to the North American plate causes strain to accumulate in the bedrock, which is periodically released by fault rupture along the San Andreas and other related faults nearby, producing earthquakes of various magnitudes.

While the San Andreas fault is the most well-known fault in the vicinity of the University, there are other related faults which are also sources of seismic activity in the area. These include the Hayward, Calaveras, San Gregorio, and Monte Vista/Berrocal faults.

Stanford has been substantially affected by earthquake activity in the past, including the 1906 earthquake which originated on the San Andreas fault (Richter magnitude 8.25) and the 1989 Loma Prieta earthquake (magnitude 7.1), which occurred on a fault subordinate to the San Andreas. The 1906 earthquake completely destroyed several major unreinforced masonry buildings on the campus. While no buildings collapsed during the 1989 earthquake, moderate damage was widespread.

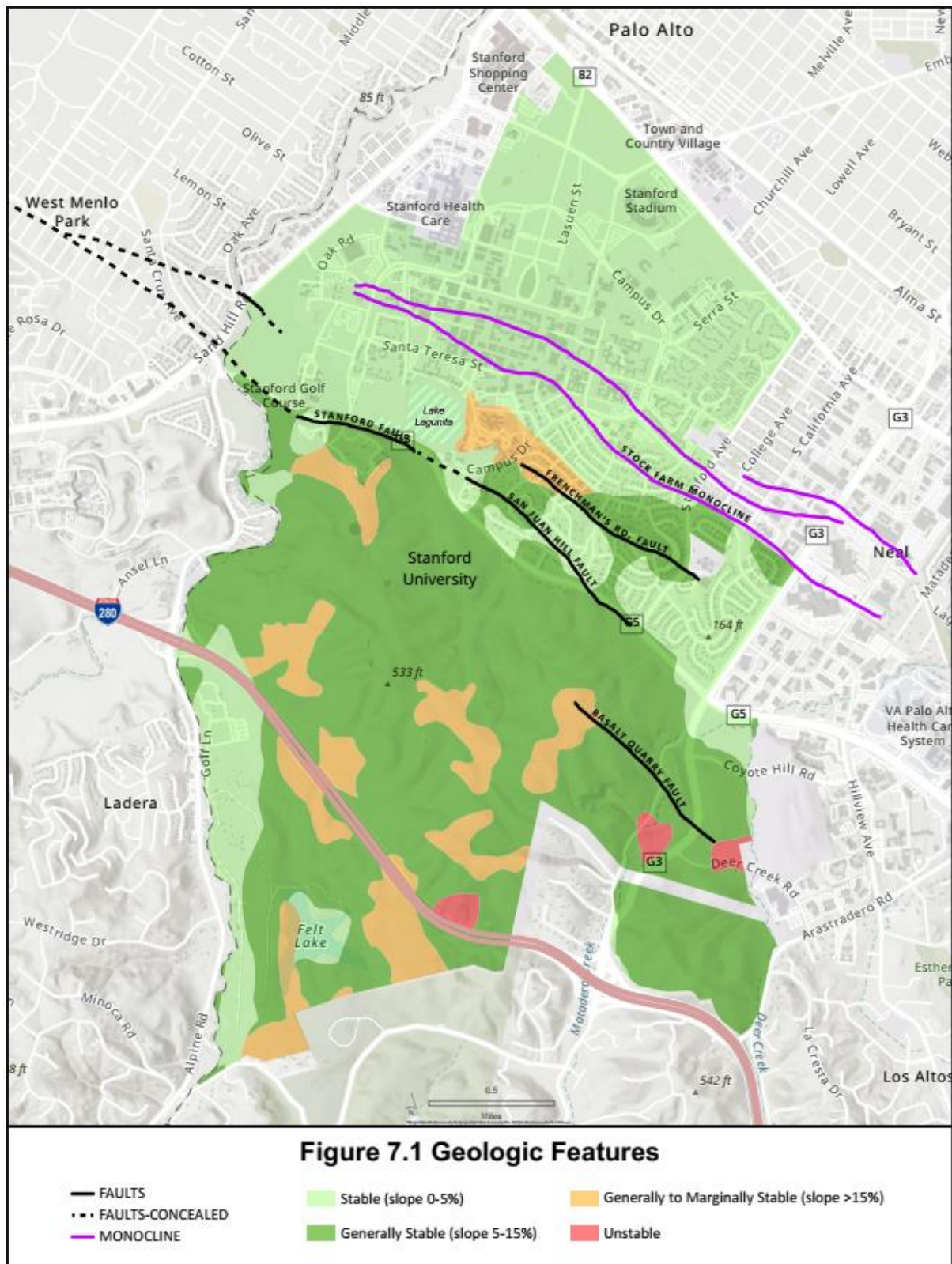
Several small faults have been mapped on Stanford lands, including the Frenchman’s Road, Stanford, San Juan Hill, and Basalt Quarry faults (see **Figure 7.1 Geologic Features**). These faults are all 2.5 miles or less in length. The degree of activity of these faults is not known with any certainty, and they are subject to investigations prior to development approvals within their fault zones.

### **Stock Farm Monocline**

Another geologic feature of concern on the Stanford campus is the Stock Farm Monocline. The monocline is a northwest-trending feature indicated by a northeast-facing slope located between Page Mill Road and Campus Drive West. It has been studied extensively and judged to be an active fold in the geologic strata. An underlying “blind” thrust fault is believed to produce the folding, but it is not certain whether the thrust fault is capable of generating earthquakes.

Although no surface deformation has been detected on the monocline as a result of the 1906 or 1989 Loma Prieta earthquakes, it is considered capable of having minor ground deformation along its lower hinge in association with a strong earthquake originating on the San Andreas fault.

Figure 7.1 Geologic Features



Source: USGS, 1979. "Relative Slope Stability and Land..." (USGS-Paper 944).  
 SU Facilities/Operations, Dames & Moore 1997.

### Seismic Hazards and Slope Stability

Seismic hazards include ground shaking, surface rupture, ground deformation, liquefaction, and differential settlement. Shaking intensity is a measure of the effect of an earthquake at a specific location. The intensity of ground shaking depends on several factors including:

- the amount of energy released during the earthquake (magnitude)
- the distance between the source fault and the site (attenuation)
- the type of geologic material underlying the area (amplification).

Slope instability, which can also be related to seismic activity, is the other primary geologic hazard that potentially affects Stanford land. Landsliding can occur when soils rich in clay minerals are saturated with water, reducing the shear strength of the soil and underlying rock. Modifications of topography or drainage can also destabilize slopes and lead to landsliding. Earthquakes can also cause landsliding in areas prone to slope instability. Areas with high landslide potential in the foothills portion of Stanford lands are shown on the map of Geologic Features.

### Measures for Hazard Reduction and Management

The areas of Stanford land in the County that might be subject to greatest slope instability are located outside the Academic Growth Boundary (AGB). Land uses within these areas have been restricted by the land use designations and policies included within the Community Plan, consistent with the General Plan. In particular, the “Open Space and Field Research” designation applied to most of the land area in question limits allowable land uses and minimizes the potential risk to people and property from seismic and geologic hazards. “Unstable” slope areas are designated “Special Conservation Areas” in the Community Plan Land Use Map (see **Figure 2.2 Land Use Designations**).

Following the Loma Prieta earthquake in 1989, the University prepared the Earthquake Risk Management Report of 1990. The report recognizes the risks from earthquakes on the Peninsula Segment of the San Andreas Fault, outlines ways to strengthen potentially hazardous buildings and improve organizational preparedness, and establishes institutional goals during and following an earthquake nearby.

Since 1989, the University’s seismic strengthening and replacement program has resulted in the investment of approximately \$600 million in over 100 seismic rehabilitation projects. This includes the retrofit and/or mitigation of approximately forty-five unreinforced masonry (URM) buildings that were completed by 2000 to conform to the Santa Clara County URM Ordinance, as well as numerous voluntary seismic strengthening projects.

Additionally, the University published Seismic Engineering Guidelines to supplement the Department of Project Management’s Project Delivery process in October 2017. This document provides guidelines, codes, and practices that ensure new facilities meet applicable design and safety standards and that existing facilities meet seismic evaluation and retrofit standards. The

document also provides analysis and defines a process for workflow and peer review to ensure buildings perform appropriately under postulated earthquake levels.

### Strategies, Policies, and Implementation

The strategy of the Community Plan for geologic hazard mitigation involves the adequacy of the design, location, and review of individual development proposals within areas of the campus designated for academic, academic support and residential development.

Given the considerable amount of state and local regulation concerning seismic safety for building and development, policies of the Community Plan essentially reiterate existing General Plan policies, with particular geologic review requirements for Stanford lands in the Stockfarm Monocline “zone of special consideration.”

Otherwise, the policies of the Growth and Development, Land Use, and Open Space chapters of the Community Plan serve to significantly limit the potential use and development of areas outside the Academic Growth Boundary (AGB) such that the risk of exposure to natural hazards is low. The information provided within the Community Plan, General Plan, and the maps and inventories of the County Geologist, including the County’s Geologic Hazard Zone Maps are utilized in land use and development permit decision-making processes. Lastly, educational programs or efforts related to natural hazards for Stanford campus residents and employees are described in the Emergency Preparedness and Response section of this chapter.

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*The strategy of the Community Plan for geologic hazard mitigation involves the adequacy of the design, location, and review of individual development proposals within areas of the campus designated for academic, academic support and residential development.*

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### Strategy No. 4: Design, Locate, and Regulate Development to Avoid or Withstand Hazards

Campus areas designated for academic and academic support uses and development north of Junipero Serra Boulevard are generally not subject to significant slope stability problems or greater ground-shaking intensities than other similar areas within the region. The primary means of assuring adequate building safety are the provisions of the County’s Geologic Ordinance, state law, and adherence to applicable provisions of the Uniform Building Codes.

## Policies

### SCP-HS 7

Avoid significant geologic hazard areas, such as unstable slopes, in locating new development. For projects proposed within areas of concern, provide geologic reports of investigations which quantify the risks and recommend mitigation measures. Such reports must be reviewed and approved by the County Geologist.

### SCP-HS 8

Through the development review process, ensure compliance with all applicable County ordinances and other laws, regulations, and codes for seismic evaluation and the design of new and existing buildings and campus infrastructure.

### SCP-HS 9

Maintain designation of lands with significant geologic hazards identified as “hazard areas” on the Special Conservation Areas and Categories map, in the Stanford University Special Conservation Area Plan, which was approved by the County Planning Office on August 5, 2015.

### SCP-HS 10

Encourage the preparation of comprehensive mapping of fault zones within the area of the campus inside the Academic Growth Boundary (AGB) to facilitate review and consideration during the General Use Permit (GUP) application process by the County Geologist.

## Implementation Measures

### SCP-HS (i) 3

Refine geologic hazard maps based on the results of reports submitted to and reviewed by the County Geologist upon submittal of a new General Use Permit (GUP) application.

## *Flood Hazards*

## Background

### Watersheds

Stanford lands in Santa Clara County are primarily located in the San Francisquito and Matadero creek watersheds, and contain several creeks, reservoirs, and dams (see **Figure 6.2 Watershed Boundaries**).

The San Francisquito Creek watershed encompasses 40 square miles. Stanford lands in unincorporated Santa Clara County comprise approximately 1,800 acres or about 8 percent of the watershed, of which approximately 510 acres are developed. The watershed extends from the ridge of the Santa Cruz Mountains to San Francisco Bay and is characterized by a wide variety of both developed and undeveloped areas across five municipalities and two counties. Both San Francisquito and Los Trancos Creeks on Stanford lands are within the watershed, as



well as Felt Lake, Searsville Lake, and Lake Lagunita.

Stanford lands in other jurisdictions that are within the San Francisquito Creek watershed include all land in San Mateo County, which is largely undeveloped with the exception of the Stanford Linear Accelerator Center (SLAC) and the Stanford Hills residential neighborhood. These lands also contain several agricultural leaseholds and the 1,200-acre Jasper Ridge Biological Preserve. The northern portion of Stanford’s land in the City of Palo Alto, which contain the Stanford Medical Center, the Stanford Shopping Center, and several residential complexes are also in this watershed. All told, Stanford lands comprise approximately 21% of the total watershed land area.

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*Effective flood control requires extensive cooperation of government agencies, landowners, and land users.*

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Approximately 2,100 acres of the project area are located in the Matadero Creek Watershed.

This watershed encompasses the eastern portion of Stanford lands and includes

Matadero, Arastradero, and Deer Creeks. The watershed also contains the Stanford Research Park and residential and commercial areas in Palo Alto. The Barron Creek watershed, which is located to the southeast of the Matadero Creek watershed, drains portions of Los Altos Hills, the Stanford Research Park, and the Barron Park residential neighborhood; this creek ultimately drains to the Bay through Matadero Creek.

Approximately 2,100 acres of the Community Plan project area lies within the Arastradero Creek Watershed. Arastradero Creek flows in a southerly direction.

### **Storm Drainage System**

The University campus storm drain system consists of a number of systems working together to manage storm water runoff. The system’s main working components are more than 800 catch basins, approximately 40 miles of pipeline, and six miles of open soil drainage ditches. Stanford also has runoff detention areas in topographically low areas, such as the Arboretum and the Oval. Once storm water is collected in the drainage network, it flows by gravity from the campus to Matadero Creek or San Francisquito Creek. Storm water flows to Matadero or San Francisquito Creek, in many cases through the City of Palo Alto’s storm drainage system, before joining San Francisco Bay.

### **Hazard Potential**

Like many other issues addressed in the Community Plan, flood hazards and flooding are multijurisdictional in nature, in that the manner in which development and drainage are handled in one location can have substantial effects on other property owners or communities. Primary hazard potential involves creek overflow and storm drainage system overflow.

No portion of the Community Plan project area is located within the 100-year flood zones defined by the Federal Emergency Management Agency (FEMA) (1996 data). However,

flooding may at times occur due to extraordinary events. For example, flooding occurred on the campus and downstream of Stanford in February 1998, when prolonged and steady rainfall caused San Francisquito Creek and local storm drainage systems to overflow. Overall, an estimated 11,000 acres of land in Palo Alto, Menlo Park, and East Palo Alto were flooded due to the creek overflow, resulting in an estimated \$28.1 million in damage, according to the Santa Clara Valley Water District.

Regional and local flood hazards also include inundation due to dam failure. The University coordinates with the California Department of Water Resources, Division of Safety of Dams, to inspect the dams yearly for structural integrity and proper maintenance.

Effective flood control requires extensive cooperation of government agencies, landowners, and land users. Stanford, as the owner of extensive amounts of land within the watersheds, has the potential to affect downstream flooding and flow along San Francisquito and Matadero Creeks. Stanford has worked closely with the San Francisquito Creek Joint Powers Authority (SFCJPA) to produce the watershed Comprehensive Plan to address the interrelated issues of flood protection, ecosystem restoration and creation of recreational opportunities along the creek and in the watershed. The report released October 2021 highlights the SFCJPA’s commitment to working with Stanford for access to and information about the area to adequately evaluate potential options for flood protection and mitigations efforts on Stanford lands.

## Strategies, Policies and Implementation

### Strategy No. 5: Design, Locate, and Regulate Development to Avoid or Withstand Hazards

Policies and implementation have been included to address two different flooding issues: 1) possible flooding and storm drainage issues on and near the campus that could result from campus activities, and 2) the effect of campus activities on the hydrology of the watersheds and creeks.

One effect of the Community Plan’s growth and development-related policies, which encourage compact development and infill use of campus lands, will be the intensification of land use within the Academic Growth Boundary (AGB). More development and associated parking and streets will increase impervious surfaces over time, with the potential to marginally increase creek flooding and stormwater flooding on campus as well as downstream flow within the watersheds. The Community Plan therefore focuses on accommodating all increased peak drainage flows on site until storm water can be accommodated within local streams and creeks after the time of peak flows.

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*The Community Plan focuses on accommodating all increased peak drainage flows on site until storm water can be accommodated within local streams and creeks.*

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Policies and implementation specific to maintenance of riparian corridors are included in the Resource Conservation chapter.

### **Policies**

#### **SCP-HS 11**

Design development and infrastructure improvements, including storm drainage detention facilities, to accommodate runoff from future development so as to achieve no increase in peak flows.

#### **SCP-HS 12**

Maintain and enhance surface and subsurface drainage systems.

#### **SCP-HS 13**

Control erosion from future development in order to limit sediment from reaching the storm drain system and creeks, to avoid hydrological impacts.

#### **SCP-HS 14**

Encourage Stanford to coordinate with the San Francisquito Creek Joint Powers Authority (SFCJPA) on efforts to address flooding and other watershed-related issues in the San Francisquito Creek Watershed.

### **Implementation Measures**

#### **SCP-HS (i) 4**

The State Division of Safety of Dams shall annually inspect Stanford dams for structural integrity and encourage repairs as needed.

#### **SCP-HS (i) 5**

Review proposed Stanford projects and require best management practices (BMPs) for reducing erosion at construction sites.

#### **SCP-HS (i) 6**

Stanford shall provide public education/information on erosion and drainage issues for University project managers and leaseholders.

#### **SCP-HS (i) 7**

Stanford shall construct and maintain storm drainage detention facilities and other improvements as needed to ensure no net increase in downstream flows.

## ***Hazardous Materials***

### **Background**

Transportation, use, storage and disposal of hazardous substances are governed through

numerous state and federal legislative measures. While the regulations originate with federal and state government, the County plays a role in enforcing these regulations within its jurisdiction. The County Department of Environmental Health is a primary agency responsible for addressing hazardous materials, along with the Planning, Building, and Fire Marshal's Offices.

At Stanford, hazardous materials are used in the academic areas and the Medical Center in teaching, research, and patient care programs. Hazardous materials are addressed through a variety of programs and procedures by both the County and the University.

Stanford University's Department of Environmental Health and Safety (EH&S) is responsible for the safe storage, handling, and disposal of chemical, radiological, and medical/biological wastes generated by laboratories, shops, and studios at the University. These waste types are managed under the University's Hazardous Waste Program.

Hazardous Materials Management Plans for campus buildings are prepared, regularly updated, and submitted to the County of Santa Clara Department of Environmental Health's Hazardous Materials Compliance Division. As documented in Stanford's 2019 General Use Permit (GUP) application, to facilitate hazardous materials tracking and reporting, Stanford has implemented an online chemical inventory database system whereby authenticated chemical users may maintain their hazardous materials inventories, supporting timely and accurate submission of required regulatory reports.

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*Hazardous Materials Management Plans for campus buildings are prepared, regularly updated, and submitted to the County of Santa Clara Department of Environmental Health's Hazardous Materials Compliance Division.*

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In addition, Stanford requires that employees involved in hazardous materials handling receive appropriate training. Stanford's EH&S oversees the campus Environmental Safety Facility, which currently operates as a "RCRA large quantity generator" facility that provides interim storage for hazardous waste for less than 90 days. This facility is regulated by Santa Clara County Department of Environmental Health. Over time, Stanford has focused increasingly on off-site rather than on-site waste disposal. Hazardous wastes that are shipped off-site are packaged, marked, labeled, manifested, and transported in accordance with applicable governmental regulations to a permitted disposal facility. In the area of waste reduction, waste generating processes have been evaluated in laboratories producing larger volumes of waste to determine options to reduce sources and to minimize wastes.

EH&S reviews proposed plans for new campus facilities and for remodels to address health, safety, and environmental risks associated with activities conducted in the buildings, in

accordance with applicable environmental and health and safety laws, codes, and regulations. Building plans are also reviewed by the County’s Building Inspection Office and Fire Marshal’s Office for compliance with applicable codes.

The County reviews building design and occupancy standards based on a reported inventory of chemicals or other hazardous materials which are to be stored and used inside a building. Over time, the use of the building and the needs of its occupants changes, creating a risk of unsafe circumstances whereby more or different materials are being used in a building than the design and construction allow.

The inventory of materials in a building is reviewed at the time that any building permits are reviewed and issued and through regular inspections by the County Fire Marshal’s Office. It is important that the inventory of materials in a building remain consistent with the building construction. Obsolescence in building design is a major factor behind the continuing redevelopment of the campus.

## Strategies, Policies and Implementation

### Strategy No. 6: Manage Hazardous Materials Safely and Efficiently

The strategy for hazardous material management and its associated policies focuses on issue of oversight and emphasizes compliance with the significant existing array of regulations and laws governing hazardous materials. It also incorporates a broadly recognized need to find substitute materials and reduce volumes of hazardous materials as much as possible to reduce risk levels.

#### Policies

##### SCP-HS 15

Employ all feasible measures to safely and effectively manage hazardous materials and wastes and to site hazardous wastes treatment facilities.

##### SCP-HS 16

Ensure compliance with all federal, state, and local regulations concerning hazardous waste management and disposal.

##### SCP-HS 17

Evaluate, as required under the California Environmental Quality Act, the potential health risks and effects of buildings proposed by Stanford in which hazardous materials will be used.

##### SCP-HS 18

Encourage the substitution of less hazardous materials and/ or use of smaller volumes of hazardous materials, while maintaining amounts necessary to support University activities.

## Implementation Measures

### SCP-HS (i) 8

The County shall collaborate with Stanford and other regulatory agencies to develop appropriate standards for review of possible health risks from air emissions of future Stanford laboratory facilities.

### SCP-HS (i) 9

The County shall require the implementation of good laboratory practices to prevent release of odorous and toxic air contaminants. Good laboratory practices shall be defined as adhering to state and local regulatory practices such as, but not limited to, Health and Safety Code 25200.3.1 on lab waste accumulation, the University's Safe Manual on Toxic Gas Users Guide, and Santa Clara County Ordinance B11 (Chapters XIII and XIV) on chemical handling and storage.

### SCP-HS (i) 10

Stanford shall provide adequate training for staff and students to segregate incompatible chemicals, use earthquake protection for chemical storage areas, and employ secondary containment. Training shall be compliant with the Department of Environmental Health training standards.

### SCP-HS (i) 11

The County shall support Stanford's provision of an integrated waste management program to manage collection of chemical, radioactive and medical waste, and ensure environmentally protective disposal.

### SCP-HS (i) 12

Stanford shall prepare Risk Management Plans for compliance with California Accidental Release Prevention Laws as needed, or reduce/substitute quantities of materials to levels below that which requires such plans.

## *Emergency Preparedness and Response*

### Background

In Santa Clara County, the first responsibility for emergency response lies with the individual jurisdictions. Under the provisions of the 1985 Land Use Policy Agreement, Stanford functions in this case as a jurisdiction, with its own plans and programs for emergency response, preparedness, and prevention. The County's role is to collaborate with Stanford in ensuring adequate emergency response and to consider emergency-related issues in review of development applications from Stanford, and support

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*The plans address a variety of types of emergency situations, including earthquakes, fires or explosions, hazardous material releases, extended power outages, floods, and mass casualty events.*

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the City of Palo Alto in response to any major event occurring on the Stanford campus, and on an as-needed basis. All response activities must be coordinated with the City of Palo Alto or other relevant agencies for the unincorporated areas of the campus as necessitated by the situation.

### Emergency Preparedness at Stanford

Emergency preparedness addresses the response to, and recovery from, natural and human-induced emergencies. Stanford University emergency plans include the Stanford Emergency Plan, Cabinet Emergency Planning Guidelines, and Department Emergency Planning Guidelines. These documents provide a management framework for responding to major emergencies that may threaten the health and safety of the University community or disrupt its programs and operations.

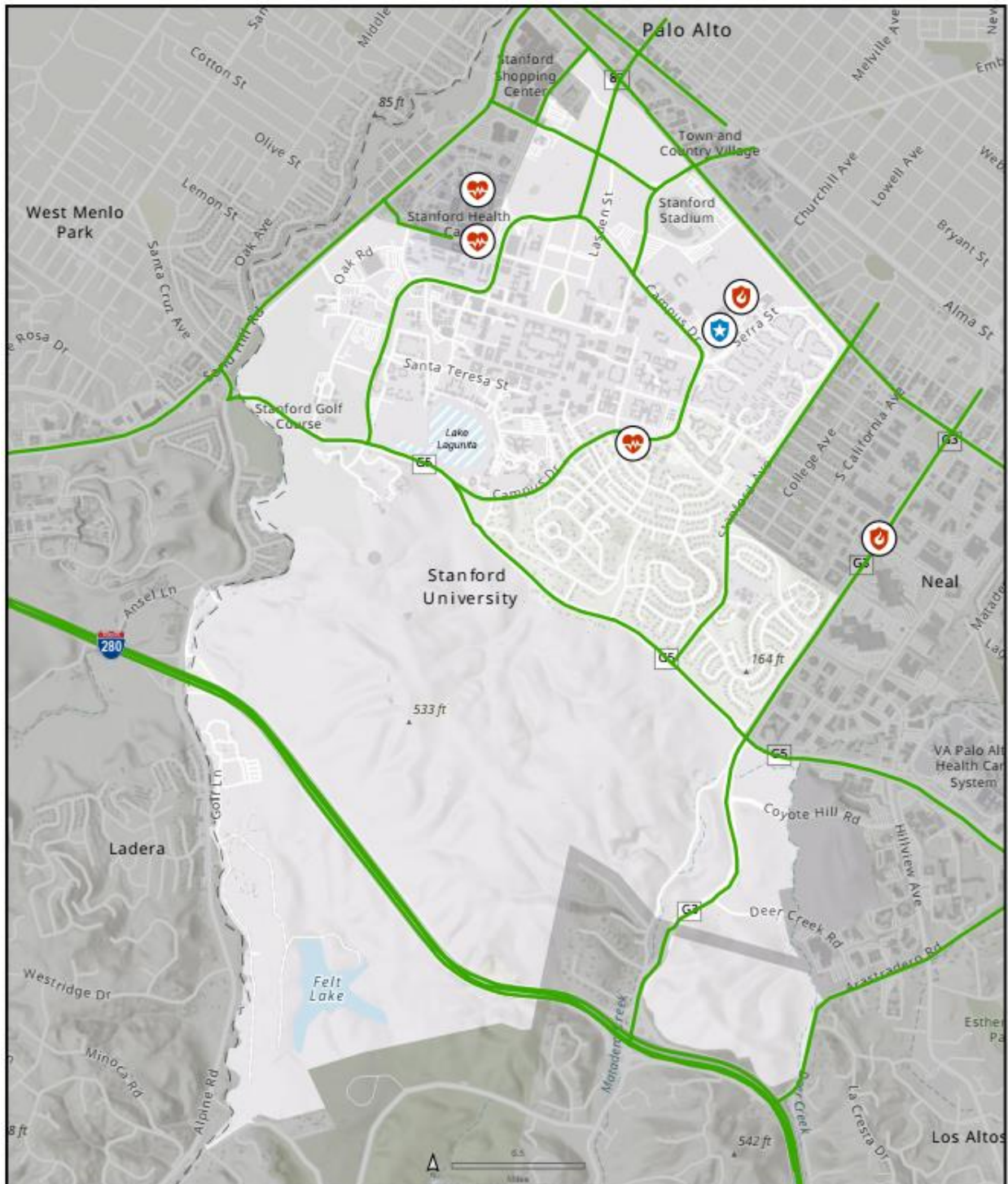
The plans address a variety of types of emergency situations, including earthquakes, fires or explosions, hazardous material releases, extended power outages, floods, and mass casualty events. In accordance with these emergency plans, the University maintains supplies to support post-disaster recovery. For example, the University currently stores emergency food supplies for on-campus residents, and maintains water reservoirs to increase the emergency water supply.

The Stanford Emergency Plan establishes an Emergency Management Team (EMT) that ascertains the scope of an incident and advises the University President. EMT emergency response actions are guided by the University's overriding emergency priorities:


1) protect life safety, 2) secure critical infrastructure and facilities, and 3) resume the teaching and research program.

**Figure 7.2 Primary Access for Emergency Response**, illustrates current major access routes within the campus, the location of existing fire and police facilities, and major evacuation routes.

Figure 7.2 Primary Access for Emergency Response



**Figure 7.2 Primary Access for Emergency Response**

-  Fire Station
-  Hospital/Health Care
-  Police Station
-  Primary Evacuation Routes



## Strategies, Policies and Implementation

Stanford University engages in emergency prevention, preparedness, and response through its plans and programs. In addition, the Stanford Hospitals and Clinics are an important regional resource for the surrounding area in the case of an emergency that results in injuries and casualties. The County and Stanford should continue to work as partners in the emergency response arena, with each entity assuming the appropriate responsibilities. The County's role in the emergency process includes:

- Review of development projects in the Planning, Building Inspection, and Fire Marshal's Offices and in the Department of Environmental Health to ensure avoidance or reduction of risks associated with the location, access to, or design of new buildings or the use of hazardous materials.
- Ongoing inspection of facilities for code compliance.
- Application of appropriate land use designations or building requirements in areas more prone to hazard.
- Support for Stanford's emergency response efforts through implementation of the Santa Clara County Emergency Plan, prepared and implemented through the County Office of Emergency Services.

### Strategy No. 7: Adequate Plan for Risk Reduction, Immediate Disaster Response and Post-Disaster Recovery

This strategy and the associated policies emphasize a multifaceted approach to reduction of risk, emergency response, and recovery. Like many aspects of the Community Plan, disaster preparedness and response is in many ways a multijurisdictional issue that requires efforts on the part of Stanford, the County, and other jurisdictions. Community Plan strategies and policies are largely implemented through existing programs, efforts, and procedures.

However, in the event of certain types of emergencies, particularly earthquake and fire, most households and businesses are individually under-prepared for the aftermath of a significant disaster.

Policies emphasize the continuation of existing programmatic efforts by Stanford for emergency preparedness and response, while also promoting the potential for improving coordination and preparedness for faculty, staff, and student residents of the University.

Improved neighborhood coordination, campus-wide preparedness, and communication capabilities will enable Stanford's many populations to cope with the effects of a major disaster, such as an earthquake, more effectively.

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*Policies emphasize the continuation of existing programmatic efforts by Stanford for emergency preparedness and response, while also promoting the potential for improving coordination and preparedness for faculty, staff, and student residents of the University.*

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## **Policies**

### **SCP-HS 19**

Consider emergency prevention and ability for emergency response in review of development projects on the campus with regard to access, seismic risks, flooding, fire, and other emergency issues.

### **SCP-HS 20**

Provide for adequate planning for risk reduction, immediate disaster, and post-disaster recovery.

## **Implementation Measures**

### **SCP-HS (i) 13**

Coordinate with Stanford and local jurisdictions in both reducing general risk levels and preparing for emergency response.

### **SCP-HS (i) 14**

Stanford shall prepare and maintain effective and feasible emergency plans for disaster response and recovery.

### **SCP-HS (i) 15**

Stanford shall promote coordination at the neighborhood level and within campus student housing areas to achieve improved earthquake or other disaster preparedness and response capabilities.

### **SCP-HS (i) 16**

Stanford shall communicate with all residents at least twice a year, informing them of current emergency preparedness and response plans applicable to their neighborhood.

### **SCP-HS (i) 17**

Stanford shall provide training and general public education for faculty, staff, and students regarding improved emergency preparedness and response.

### **SCP-HS (i) 18**

In coordination with other jurisdictions, Stanford shall periodically assess emergency preparation and recovery plans for adequacy as consistent with the Multi-Jurisdictional Hazard Mitigation Plan and the Santa Clara County Emergency Operations Plan (EOP) that is updated and revised on a 5-year cycle.

### **SCP-HS (i) 19**

In coordination with other jurisdictions, Stanford shall conduct emergency drills, training, and simulations on a periodic basis to enhance preparedness and make needed improvements to emergency response plans.

## Noise

### Background

The overall purpose of addressing noise in general plans is to limit the exposure of the community to excessive noise levels. Various kinds of noise generators, such as airports, roads, and train corridors, are identified, evaluated, and the noise levels generated are used to guide various kinds of land use planning and development decision-making processes.

Noise on or near the Stanford campus can affect both the campus population and residents of surrounding areas. Stanford lands inside the Academic Growth Boundary (AGB), like the surrounding area, are urbanized and contain a variety of noise sources. The most notable sources include transportation-related uses such as arterial roadways, railroad tracks, and airplanes, as well as construction projects and miscellaneous sources.

Noise sources on the campus include traffic on major campus streets and adjacent arterial roadways, construction noise, and operational noise sources, such as mechanical equipment, delivery vehicles, and garbage pickup. Noise sources also include athletic events at the University’s outdoor athletic facilities, including Stanford Stadium and Sunken Diamond; performances and other events at Frost Amphitheater; and Life Flight emergency helicopter landings and takeoffs at Stanford University Medical Center. Noise from these sources is intermittent and often seasonal. Its potential for impact on off-site residences is a direct function of the responsible operation of these facilities.

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*Stanford maintains a noise hotline accessible to the general public and campus residents twenty-four hours a day, seven days a week.*

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In order to address some of these concerns, Stanford maintains a noise hotline accessible to the general public and campus residents twenty-four hours a day, seven days a week. The Noise Hotline operator captures noise complaint information and callers are offered forwarding to the non-emergency dispatch for a timely response to the noise disruption. If the caller does not want to be connected to the non-emergency dispatch, the complaint is logged and recorded for tracking purposes.

Growth at Stanford has the potential to increase noise on the campus and in the surrounding area through an increase in traffic and through additional construction related noise. It also increases the campus population which may be subject to sources of excessive noise.

The County of Santa Clara regulates noise under the standards identified in the County noise ordinance and noise element of the General Plan. The ordinance applies to all unincorporated lands, including those at Stanford University.

## Strategies, Policies and Implementation

### Strategy No. 8: Prevent or Minimize Excessive Noise

The effects of noise can be reduced through either minimizing or eliminating the noise itself or through land use and development that reduces the effect of noise. Some of the means of minimizing noise conflicts include:

- Reducing activities which create noise. Trip reduction at Stanford helps reduce roadway noise both on and off the campus.
- Locating noise sources away from sensitive noise receptors (such as residences) or, conversely, locating sensitive receptors away from noise sources in new development.
- Design and construction of buildings in a manner that reduces interior noise levels.

### Policies

#### SCP-HS 21

Identify potential noise-producing uses and determine needs for mitigation using applicable County, local, and other government standards when evaluating proposals for new Stanford facilities.

#### SCP-HS 22

Locate new land uses and development projects to conform with County noise compatibility standards for land uses.

#### SCP-HS 23

Minimize noise from construction equipment and other operational sources, through engineering solutions, hours of operation, delivery schedules, and the location of specific noise sources as far away from sensitive receptors as possible.

### Implementation Measures

#### SCP-HS (i) 20

Stanford shall provide noise buffers as needed and control excessive noise sources from future facilities.

#### SCP-HS (i) 21

Stanford shall comply with the County noise ordinance and other applicable standards.

#### SCP-HS (i) 22

Require that Stanford design and construct new buildings with soundproofing materials as necessary and appropriate.

#### SCP-HS (i) 23

Require that Stanford maintain a hotline/communication mechanism that members of the public can access to register noise complaints.

**SCP-HS (i) 24**

Stanford shall report on the number of noise complaints registered through their hotline as part of their annual report submitted to the County.

## *Law Enforcement*

### **Background**

The Stanford University Department of Public Safety historically has provided law enforcement services for the University under authority delegated by the County Sheriff. However, the County Sheriff is ultimately responsible for law enforcement on Stanford’s unincorporated lands. The County and the Sheriff have the responsibility to ensure that the Stanford University Department of Public Safety is staffed with qualified personnel, provides necessary law enforcement information to the Sheriff, maintains an appropriate reporting relationship with the Sheriff’s office, and complies with state laws and regulations regarding public access to law enforcement information.

## **Strategies, Policies and Implementation**

### **Strategy No. 9: Provide Law Enforcement Oversight**

#### **Policies**

**SCP-HS 24**

The Stanford University Department of Public Safety may be permitted to undertake law enforcement activities on unincorporated Stanford lands if it enters into an agreement with the County Office of the Sheriff setting forth the terms and conditions under which the Stanford University Department of Public Safety will be authorized to undertake law enforcement activities.

#### **Implementation Measures**

**SCP-HS (i) 25**

The County Office of the Sheriff and Stanford will develop and maintain an agreement setting forth the conditions under which the Stanford University Department of Public Safety is authorized to undertake law enforcement activities on campus. The issues addressed in the agreement shall include, but not be limited to, adequate qualifications and training of Stanford University Department of Public Safety personnel, appropriate reporting relationships between the Stanford University Department of Public Safety and the Sheriff, complete and timely submission of law enforcement information to the Sheriff, and compliance with legal requirements regarding public access to law enforcement information.

**SCP-HS (i) 26**

The County, may as needed, undertake an evaluation of the effectiveness and adequacy of the law enforcement agreement (*Memorandum of Understanding Regarding Police Services Between County of Santa Clara and Stanford University*) and negotiate any changes as deemed appropriate by the Board of Supervisors.

**SCP-HS (i) 27**

Stanford shall provide law enforcement service data that indicate the number of crimes reported by type, the number of crime prevention presentations and attendees, the number of sworn and non-sworn staff and the number of cases filed with the District Attorney’s Office, the number of emergency and non-emergency calls received and the response time in minutes to those calls, the number of officer-initiated calls, and budgeted appropriations and staffing levels for law enforcement services. This shall be provided on the Stanford Municipal Services website, which is described in the Growth and Development Chapter of this document.

## *Social, Mental and Emotional Health*

### **Background**

Social, mental and emotional health is an integral aspect of overall health and directly impacts the quality of life of individuals, families, and communities on the Stanford University Campus. Within the context of family, community and culture, social and emotional health refers to a state in which a person is able to cope with everyday events, think clearly, be responsible, meet challenges, and have meaningful relationships with others.

Social and emotional health issues are perceived differently than physical illness. Varying socio-cultural norms may support or impede wellness. When serious mental illness occurs, individuals must cope with not only the symptoms and disabilities from their illnesses, but also the societal stigma attached to the disease that manifests in stereotypes and prejudice. As a result of both, people with mental illness lack access to opportunities that define a quality life, such as good jobs with access to good pay and benefits, safe housing, satisfactory health care, and affiliation with a diverse group of people.

The physical, social, and environmental factors that affect social and emotional health are specific to culture, race, and income. Experiences of racism and discrimination increase stress levels and threaten social and emotional health.

The policies and implementation plans established herein are adapted from the Health Element of the Santa Clara County General Plan, which was adopted by the Board of Supervisors on August 25, 2015. The applicable County Health Element policies are identified in parenthesis following each policy.

### Mental Illness and Substance Abuse

Mental illness and substance abuse are problems that severely compromise social, emotional, and physical health. More recently referred to as *behavioral health problems*, they include schizophrenia, bipolar disorder, depression, and addiction to alcohol, illegal drugs (methamphetamines, heroin, hallucinogens, hazardous chemicals, etc.) or prescription drugs.

### Tobacco/Nicotine and Vaping Use

According to the Centers for Disease Control and Prevention (CDC), tobacco use is the leading preventable cause of disease, disability, and death in the United States. Cigarette smoking results in more than 443,000 premature deaths in the United States each year—about 1 in every 5 U.S. deaths—and an additional 8.6 million suffer with a serious smoking related illness.

For every one person who dies from smoking, 20 more suffer from at least one serious tobacco-related illness.

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*Prevention for suicide must be focused on risk detection and reduction through a variety of means. The earlier treatment is sought, generally the better the outcome.*

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### Suicide

Suicide is the 10th-leading cause of death in the United States, accounting for more than 36,000 per year and an even greater number of people attempt suicide. According to a CDC study, more than 2.2 million adults reported making suicide plans in the last year.

Approximately 90 percent of all individuals who committed suicide met criteria for one or more diagnosable psychiatric conditions. Because considering that social, mental, and emotional health treatment providers are in regular contact with patients at risk for suicide, they are an important resource for early detection and prevention. Substance use disorders are also linked to suicide risk. Individuals with a diagnosis of abuse or dependence on alcohol or drugs are almost six times more likely to report a lifetime suicide attempt.

In Santa Clara County, suicide is the leading cause of death by fatal injury. While suicide is confounding, it is preventable, given effective education, services, and supports. Prevention for suicide must be focused on risk detection and reduction through a variety of means. The earlier treatment is sought, generally the better the outcome. In Santa Clara County, death by suicide is the 10th leading cause of death, the same as the national rate. Santa Clara ranks 54th out of California's 58 counties in the rate of adolescent self-inflicted injury. In Santa Clara County, death by suicide occurs, on average, every three days. There are two attempts and an estimated 14 suicidal behaviors every day in Santa Clara County.

## Strategies, Policies and Implementation

### Strategy No. 10: Ensure Provision of Services, Policies, and Programs that address Social and Emotional Health

#### Policies

##### SCP-HS 25

Stanford should expand and coordinate suicide prevention and intervention programs, including increasing suicide awareness and prevention through public messaging of availability of services (HE-B.31; HE-B.32).

##### SCP-HS 26

Stanford should offer behavioral health services to individuals employed or living within the Stanford Community Plan Area, addressing areas such as mental illness and substance abuse and supporting and providing services to LGBTQ populations, culturally diverse and traditionally underrepresented communities, and veterans.

##### SCP-HS 27

Encourage Stanford to be maintained as a smoke free campus and to take measures to limit access to tobacco, including providing services that implement tobacco cessation treatment services, banning smoke in public spaces, and encouraging onsite retailers to eliminate the sale of tobacco products, including electronic smoking devices (HE-B.20; HE-B.23; HE-B.24; HE-E.9).

#### Implementation Measures

##### SCP-HS (i) 28

Stanford shall improve its behavioral health and suicide prevention programs for its students and employees.

##### SCP-HS (i) 29

Stanford shall provide annual information on behavioral health services that may include metrics that reflect the quality of services such as utilization rates and total number of users, percent of individuals accessing alternative health care (i.e. Kaiser or Blue Shield), and staffing levels.

##### SCP-HS (i) 30

Stanford shall conduct an annual customer service survey of mental and behavioral health services to gauge program satisfaction levels of students, employees, and residents.

##### SCP-HS (i) 31

Stanford shall implement the County ordinance requirements to ensure the campus remains a smoke free environment and restricts the sales of tobacco products.



## *Climate Change and Adaptation*

### **Background**

“Global warming”, “global climate change”, and “climate emergency” are the terms used to describe the increase in the average temperature of the earth’s near-surface air and oceans since the mid-20th century and its projected continued rise in temperature. It is estimated that global surface temperatures have increased approximately 1.33 degrees Fahrenheit (°F) over the last 100 years. Continued warming is projected to increase global average temperature between 2°F and 9.7°F over the next 100 years.

Greenhouse Gases (GHGs) naturally trap heat by impeding the exit of solar radiation that has reached the earth. Increases in GHG concentrations in the earth’s atmosphere are the main cause of human-induced climate change. Some GHGs occur naturally and are necessary for keeping the earth’s surface habitable. Increased GHG concentrations resulting from human activity such as fossil fuel burning and deforestation are believed to be responsible for most of the observed temperature increase.

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*The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by as much as 25 percent by 2050.*

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Potential adverse impacts of global warming within California include an exacerbation of air quality problems, a reduction in quality and supply of water to the State from the Sierra snowpack, a rise in sea levels resulting in the displacement of coastal businesses and residences, damage to the marine ecosystems and the natural environment, and an increase in health-related problems

The Sierra snowpack, an important source of water supply for the state, has shrunk 10 percent in the last 100 years. It is expected to continue to decrease by as much as 25 percent by 2050. World-wide changes are causing sea levels to rise – about eight inches of increase has been recorded at the Golden Gate Bridge over the past 100 years – threatening low coastal areas with inundation and serious damage from storms.

Temperature projections show a warming trend across the Bay Area for the rest of the century. Although Santa Clara County has a milder climate than other areas of the State, it is expected to experience an increased number of extreme heat days. According to the California Department of Public Health’s October 2013 Report entitled “Preparing California for Extreme Heat: Guidance and Recommendations,” projections report San Jose will experience an estimated 71 extreme heat days by 2050 and 111 extreme heat days by 2099. Extreme heat poses severe danger to human health and is one of the most dangerous forms of natural disasters. It can cause a range of health problems, from rashes, dehydration, and cramps, to heat exhaustion

or heat stroke, which can result in hospitalization and death. It can also worsen chronic conditions such as cardiovascular and respiratory disease.

Particular groups are at greater risk of heat-related health effects, including people living in poverty, seniors, pregnant women, young children, people with chronic conditions, the socially isolated, the disabled, and workers in outdoor jobs. Temperatures will also be greater in more densely developed urban areas with higher concentrations of materials such as asphalt and glass that intensify the heat. This urban heat island effect can be reduced by planting shade trees, maintaining urban canopy trees or urban forests, and creating cool roofing, including living roofs.

Changes in temperature and precipitation may lead to expansion of insect and rodent populations, resulting in increases in vector-borne diseases such as Hantavirus, Lyme disease and West Nile virus.

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*There has been a general decrease in GHG emissions attributed to Stanford over the last several years.*

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In 2015, Bay Area Air Quality Management District (BAAQMD) estimated that annual GHG emissions in Santa Clara County for basis year 2011 were listed as 16.0 million metric tons of CO<sub>2</sub>e. As evaluated in the Environmental Impact Report (EIR) prepared for the 2019 General Use Permit (GUP) application, total GHG emissions for Stanford University in 2018 were 125,672 metric tons of CO<sub>2</sub>e.

There has been a general decrease in GHG emissions attributed to Stanford over the last several years due to several factors. There have been ongoing improvements in the vehicle fleet as old vehicles are replaced with newer, cleaner vehicles, and existing regulatory standards that are resulting in lower emitting vehicles and cleaner fuels. In addition, Stanford has changed its energy systems, including an overhaul of its campus heating and cooling system in 2015, known as Stanford Energy System Innovations (SESI), which replaced Stanford’s steam-based heating system with a hot-water based heating system, and replaced its cogeneration plant with a more efficient Central Energy Facility (CEF).

As part of SESI, Stanford now procures renewable electricity as a “Direct Access” (i.e. wholesale) customer of the California Independent System Operator (i.e., the California electric grid) via long-term contracts for output from two utility-scale solar projects. Stanford receives Renewable Energy Credits (REC) for the electricity produced, and these RECs offset the non-renewable energy GHG emissions Stanford consumes locally.

The 54-megawatt Stanford Solar-Generating Station (“SSGS1”), which began operations in 2017, is located in Kern County. The 63-megawatt Stanford Solar Generating Station 2 (“SSGS2”), which began operations in 2022, is located in Kings County and generates approximately 185,000 MWh/year and includes a 200 MW/50 MW battery energy storage system.

In addition, Stanford has rooftop solar panels on some of its buildings, including the Science

and Engineering Quad and the Knight Management Center, providing approximately 5 percent of Stanford’s total electricity use.

The policies and implementation plans established herein are adapted from the Health Element of the Santa Clara County General Plan, which was adopted by the Board of Supervisors on August 25, 2015. The applicable County Health Element policies are identified in parenthesis following each policy.

## Strategies, Policies and Implementation

### Strategy No. 11: Plan for Climate Change and Adaptation

#### Policies

##### SCP-HS 28

Greenhouse gas (GHG) reduction. Land Use and Transportation systems and programs at Stanford should be designed and implemented to reduce GHG emissions from mobile sources, such as reducing vehicle trips, vehicle use, vehicle miles traveled (VMT), vehicle idling, and traffic congestion. (HE-G.5).

##### SCP-HS 29

Renewable energy. Stanford should continue to obtain energy used within the Community Plan Area from renewable sources, including solar and wind turbines, on academic, academic support, and residential buildings (HE-G.11).

##### SCP-HS 30

Energy technologies. Stanford should evaluate potential adoption of advanced energy technologies to reduce greenhouse gas emissions (GHG), including integrated building systems, distributed generation, demand response programs, smart grid infrastructure, energy storage and backup, and electric transportation infrastructure (HE-G.12).

##### SCP-HS 31

Heat island mitigation. Ongoing development and redevelopment of lands within the Stanford Community Plan should incorporate, where feasible, urban greening and the use of green infrastructure to minimize the urban heat island effect (HE-G.16).

##### SCP-HS 32

Access to emergency cooling. Stanford should promote improved access to cooling during heat events, particularly for the most vulnerable populations. Measures can include on-site cooling, emergency generators, and cooling centers (HE-G.17).

### **Implementation Measures**

#### **SCP-HS (i) 32**

Stanford should minimize new impervious surfaces in new development and incorporate greening, including landscaping, green roofs, green walls, and other aspects of biophilic (community greening) design into new development.

#### **SCP-HS (i) 33**

Stanford, the County, and City of Palo Alto should collaborate on the potential for the campus and surrounding areas to become an “EcoDistrict” utilizing sustainable urban systems. An EcoDistrict provides for district wide sustainability solutions at a larger scale than individual buildings. An EcoDistrict links energy, transportation, water and land use in an integrated, efficient resource system.

THE COUNTY  
OF SANTA CLARA

# Stanford University Community Plan

## ATTACHMENTS



# List of Attachments

<b>Attachment A</b>	Municipal Services Study
<b>Attachment B</b>	Graduate Student Housing Affordability Study
<b>Attachment C</b>	Childcare Study
<b>Attachment D</b>	Adopting Resolution

# Stanford Community Plan Attachment A



## Stanford University Municipal Services Review

January 21, 2023

Management  
Partners







# Management Partners



January 21, 2023

Ms. Sylvia Gallegos  
Deputy County Executive  
County of Santa Clara  
Office of the County Executive, Eleventh Floor – East Wing  
70 West Hedding Street  
San Jose, CA 95110

Dear Ms. Gallegos:

Please note that on October 1, 2022 Management Partners combined with Baker Tilly US, LLP. Baker Tilly is pleased to transmit this report containing the results of the Municipal Services Review we conducted for the County of Santa Clara. Stanford University's requirement to provide municipal services is identified in the 1985 Land Use Policy Agreement, the 2000 General Use Permit and Stanford Community Plan. The focus of the review was to evaluate 26 different municipal services provided by Stanford, which included a comparison of services provided in a nearby community. While we did not initially think this work would include recommendations, the report contains 13 recommendations for improvement based on our analysis and best practices.

Stanford does not approach municipal service delivery in a way that is analogous to the public sector. There is no transparency or opportunity for public discussion about its municipal service delivery. The organizational opaqueness we encountered and Stanford's desire to keep cost and revenue information private made it difficult to complete this work. This does not mean the University delivers inadequate services, only that it operates like what it is, basically a private, non-profit university administered as a corporate trust.

Many of our recommendations are related to the need for additional service measurement and disclosure of program costs because the County has a legitimate interest in the level of delivery of municipal services in its unincorporated area. Residents of the Stanford community also deserve this information and access as they would in any local government setting based on the effect municipal services have on their quality of life.

Most of our recommendations are related to the need for additional program metrics, appropriations, and staffing levels. In many areas we are also recommending that a customer survey be developed and deployed to assure the County that the services offered by Stanford are adequate and well received.

This study was conducted under the leadership of Jacqueline R. Onciano, Director, Department of Planning and Development and Leza Mikhail, Planning Division Manager from County staff. We have appreciated the opportunity to work with you, your staff and consultants from M-Group to complete this review.

Sincerely,

A handwritten signature in black ink that reads "Jerry Newfarmer". The signature is written in a cursive style with a prominent "J" and "N".

Jerry Newfarmer  
President and CEO



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## Executive Summary

Stanford University's founding in 1885 predated the development of much of the surrounding area, including the City of Palo Alto. Since its founding in advance of surrounding municipal areas, Stanford has long been informally known as 'The Farm.'

Due to its relative isolation, Stanford always provided the services needed by its resident faculty, students, and workers. In other words, it evolved into a municipal as well as academic service provider.

As the surrounding areas developed over time, Stanford retained this level of service delivery control. Because it was precluded from selling its land, it utilized an innovative approach to leasing property for commercial development. This led to the creation of a business park and commercial shopping center among other ventures.

Stanford's standing as a municipal service provider was first officially noted in a 1985 Land Use Policy Agreement ("1985 Agreement") between the University, the County of Santa Clara, and the City of Palo Alto, which stated Stanford's intention to continue providing all municipal services to its academic facilities in the unincorporated area of Santa Clara County. This agreement is an important foundation for the current arrangement where Stanford's academic and open space lands are allowed to remain unincorporated unlike any other urbanized area of the County.

In early 2020, the County Board of Supervisors requested a study to assess the municipal service delivery to unincorporated areas, specifically in the Stanford community. Under the 1985 Agreement, municipal service delivery has been the responsibility of the University, and the County has an interest in ensuring the services provided are satisfactory. This study has been completed at the direction of the County Board of Supervisors.

### **Key Findings**

1. This report examines the data available for each of the 26 municipal services individually and concludes that the services provided are generally equivalent to those provided in other municipalities.
2. However, because the service delivery approach provided by Stanford is relatively unusual, we offer recommendations aimed at improving the ability of Stanford community residents as well

- as County of Santa Clara officials to understand, measure and evaluate service delivery.
3. The recommendations apply in most municipal service areas and relate to fiscal transparency and public accountability, although some sections have additional recommendations specific to challenges in those areas.
  4. The recommendations also include a framework to document such services, which would be in keeping with public agency best practices. Recommended metrics are similar to those produced in the cities of San Jose, Palo Alto, and in the County of Santa Clara. These are shown in their budget documents and available on-line to the public. A summary of the recommendations is included in Attachment A. A matrix of municipal services along with the service providers and desired service metrics has been included as the final Attachment.
  5. We have recommended that the County, Stanford, and the City of Palo Alto (as well as other affected jurisdictions) work collaboratively to identify and equalize payments in lieu of property taxes ("PILOT") for any municipal services or public school services provided to the Stanford community.

Stanford is unlike most municipal service providers. It is not a local government; it is a private university. The University does not levy taxes, but instead uses its own funds collected through tuition, donations, investment growth, and other sources including fees for services in some cases, for municipal service delivery. Therefore, it engages in very little of the transparency associated with municipal service delivery in local government. There is no public process to establish a budget or to address service level or quality issues. The University does not release program cost data, so it is difficult to determine the efficiency or comparability of municipal service delivery.

Unfortunately, it has proven to be very difficult to assemble municipal service delivery information that is useful and comparable with standard measures used within the industry. This is because Stanford's budget is not a public document, nor does it hold public meetings to discuss municipal service issues. It is not organized like a local government, nor does it make public functional organization charts. Therefore, municipal service delivery is carried out in a rather opaque manner.

None of this is to say that Stanford does not deliver adequate municipal services. In many respects, residents and visitors enjoy good services. The infrastructure appears to be well maintained. There are many on-campus sports facilities and open spaces. Recreation and other programming,

while offered primarily to students and Stanford affiliates, are robust. Water, sewer, electric, and internet services are reliable.

It appears that the biggest issue with Stanford as a municipal service provider is its lack of transparency regarding the provision of these services. Residents are unable to see how services are paid for or know who is responsible for delivery. This has some important ramifications. As issues arise (particularly emerging municipal issues) it can be unclear to residents as to whom they can turn with questions and concerns. The County of Santa Clara has jurisdictional oversight, and when issues or service problems arise, it is important that County staff be contacted. Enhanced municipal service reporting would be strongly encouraged to close this information gap.

## Introduction

Stanford University is located mainly in unincorporated Santa Clara County, and the University community that has developed on these lands is unlike any other area within the county. Specifically, the University is a trust with corporate powers under the laws of the State of California. The University is a tax-exempt entity under section 501(c)(3) of the Internal Revenue Code.

Under the provisions of the Founding Grant, the Board of Trustees (with a maximum membership of 38) is custodian of the endowment and all the properties of Stanford University. The Board administers the invested funds, sets the annual budget, and determines policies for operation and control of the University. Among the powers given to the trustees by the Founding Grant is the power to appoint a president. The board delegates broad authority to the president to operate the university and to the faculty on certain academic matters. The formal legal name is "The Board of Trustees of the Leland Stanford Junior University."

Since the 1980s, the County, University and the City of Palo Alto have recognized they have a need to plan and discuss municipal service delivery to the University community collectively, since decisions by any of these individual entities could impact the others. The entities developed a set of written protocols and have maintained them to guide their cooperation in this regard for over 35 years.

Currently, municipal and other public services on University land in the unincorporated county area are provided by a range of public and private entities. These entities include the following:

- Calpine Energy Solutions,
- City of Palo Alto,
- Pacific Gas and Electric (PG&E),
- Palo Alto Regional Water Quality Control Plant,
- Palo Alto Unified School District,
- Peninsula Sanitary Services,
- San Francisco Public Utilities Commission (SFPUC),
- County of Santa Clara,
- Santa Clara Valley Transportation Authority (VTA), and
- Stanford University.

As a part of the Stanford Community Plan (SCP) Update, the County of Santa Clara is evaluating the municipal services provided by the University to the unincorporated community, as required by the existing



SCP. These services are provided directly or through a contract with other public or private entities

Management Partners was retained by the County to provide program descriptions for the array of municipal services provided by the University, together with information about how the services are delivered, and any existing gaps in service provision or delivery that may exist.

## Project Approach

### ***Services Included in this Analysis***

Management Partners was asked to review a comprehensive list of municipal services. While there is no single definition, municipal services are generally services provided to properties and residences upon which city and county residents rely and pay taxes to support. They vary by statute and tradition. Services typically provided by cities with populations that are similar in size to Stanford are discussed further in the Background section of this report. The service areas in the scope of work for this project include:

1. Animal control
2. Behavior health (including substance abuse treatment)
3. Childcare
4. Disability services
5. Emergency medical
6. Emergency preparedness
7. Fire prevention
8. Fire protection
9. Food Insecurity (added later in study process)
10. Healthcare
11. Law enforcement
12. Library (including children's library services)
13. Parking enforcement
14. Parks and recreation
15. Planning and building
16. Public schools
17. Public transit
18. Senior services (including nutrition and food assistance)
19. Solid Waste
20. Stormwater
21. Street Lighting and Traffic Signals
22. Streets
23. Utilities – Gas, Energy and Electrical
24. Utilities – Internet and Telephone
25. Wastewater
26. Water Supply and Conservation

## ***Demographic Research***

Management Partners started this project with a review of demographic data for the Stanford area. Specifically, we reviewed data provided by the American Community Survey to look at trends in Stanford's population between 2010 to 2018 in age, ethnicity and race, household type and transportation methods used, and school enrollment data for the area. As 2019 data became available, we updated our research to reflect the newer estimates. These data will be discussed in more detail in the background section of this report.

## ***Document Review***

As part of this review, we examined various documents, including the following:

- 1985 Land Use Policy Agreement
- 2000 Stanford University Community Plan
- 2000 General Use Permit
- Environmental Impact Review documents, feedback from other public agencies and public input associated with 2018 GUP Application (filed in 2016 and withdrawn in 2019)
- Stanford University General Use Permit: Enrollment Impact on Palo Alto Unified School District dated October 15, 2019
- Letter from Stanford dated June 11, 2019: response to proposed Conditions of Approval
- Letter from Stanford dated October 7, 2019, regarding regulatory processes and conditions at other colleges and universities
- Stanford University website
- University of Southern California website
- Palo Alto Unified School District website
- Stanford, Palo Alto, Menlo Park, Portola Valley, and Woodside Municipal Service Reviews
- Stanford and Santa Clara County population data
- City of Palo Alto 2020-21 and 2021-22 budgets and website
- County and Stanford MOU for Police Services 2007
- Agreement for Supplemental Law Enforcement Services 2020
- Letter from Stanford Campus Residential Leaseholders regarding emergency planning 2020
- Transit Agreement with Alameda-Contra Costa County Transit District
- Service metrics reported in Annual Budgets for Palo Alto and San Jose
- Palo Alto and Stanford Communication agreements and amendments

- Palo Alto and Stanford Fire Protection agreements
- Palo Alto and Stanford Sewer Main Extension and Sewage Treatment agreements and amendments.

## ***Questionnaires***

Due to the timing of our review and the number of staff involved in managing the subject areas, Management Partners developed a questionnaire and common metrics utilized in the definition and measurement of services provided. These were sent to the Stanford representative who distributed and gathered responses from the various managers who were asked to provide responses in the following 13 subject areas:

1. Fire prevention services
2. Law enforcement services including dispatch, traffic and parking enforcement
3. Emergency preparedness
4. Library services for the public, adults, and children
5. Water services (infrastructure and delivery)
6. Information technology and communications
7. Behavioral health services including substance abuse
8. Senior citizen services
9. Street services (construction and maintenance)
10. Park services and programs provided to the public and the Stanford community
11. Public transit services
12. Energy, gas and electrical services
13. Childcare services

We received narrative information from the University on all thirteen subjects, although metric data was provided only for law enforcement, solid waste, street services, park and recreation services, transit and water services.

## ***Interviews***

To inform our study, Management Partners conducted interviews with 16 related service providers. This allowed us to compare services provided in adjacent jurisdictions and to directly receive input from other professionals involved in providing similar services.

We interviewed County staff members and staff from the City of Palo Alto listed with the subject areas discussed below. Palo Alto Unified School District staff declined our request for an interview. We also had a

meeting with a group of Stanford graduate students who expressed concerns regarding food insecurity among the student population.

### **City of Palo Alto**

1. Fire chief (fire suppression, prevention, emergency medical services)
2. Emergency services director (emergency preparedness)
3. Utilities director (street lighting)
4. Utilities supervisor (street lighting)
5. Public works director (wastewater)
6. Wastewater plant manager (wastewater)
7. Interim library director (children's library)
8. Community services director (park facilities and recreation services)
9. Administrative services director (contracts and taxes)

### **County of Santa Clara**

10. Deputy county executive (project oversight)
11. Planning services manager (planning)
12. Principal planner (planning)
13. Building official (building)
14. Principal development services engineer (building)
15. Director of planning and development (development)
16. Captain, Sheriff's Department (public safety services)

## ***Surrounding Community Data***

After reviewing the municipal service reviews performed by the Local Agency Formation Commission of Santa Clara County, the City of Palo Alto was selected for comparing municipal services with Stanford's. This is due to the full scope of municipal services provided in Palo Alto and the proximity of Stanford to the city.

In addition, we reviewed metrics and performance measures reported by the County of Santa Clara, the City of Palo Alto and the City of San José (in their municipal budgets) to ascertain common metrics utilized by high-functioning organizations to gauge the success of their services.

## ***Peer Data***

### **Private University Used for Comparison**

To provide a comparison with services provided by another private university, Management Partners researched publicly available data to determine the services provided by the University of Southern California (USC) in Los Angeles, how they are provided, and by whom. USC was

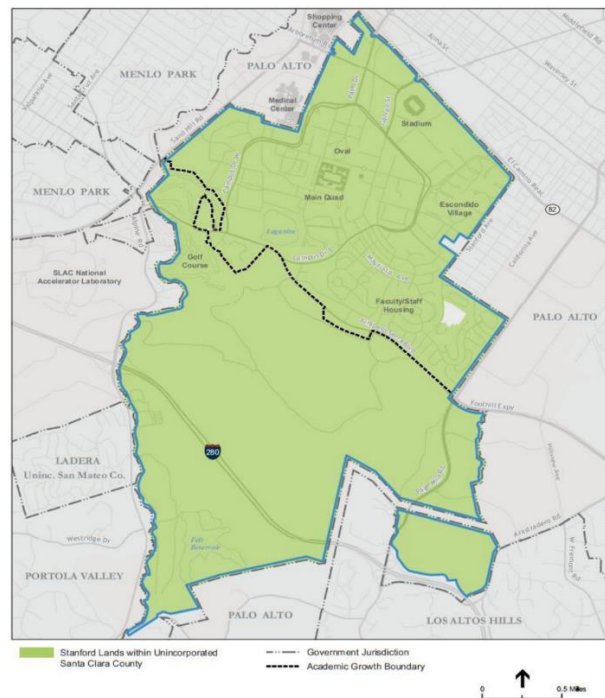
selected because, like Stanford, it is a very large private university located on the west coast. Both universities are also two of only three private universities in California of the same Carnegie Classification System category of “Doctoral Universities/Very High Research Activity” universities, also known as “R1” institutions. Our focus was on comparing USC services for law enforcement, fire protection, parks, childcare, and community services.

## Background

### ***Description of Stanford Community***

Stanford University (Stanford) is a highly rated private university located in the northwest corner of Santa Clara County, adjacent to San Mateo County. The University owns over 4,000 acres of land within the unincorporated jurisdictional boundaries of Santa Clara County, the area addressed under the 2000 Stanford University Community Plan (Stanford Community Plan). Stanford also owns land in other jurisdictions, including Palo Alto, Menlo Park, unincorporated San Mateo County, Woodside, and Portola Valley for a total estimated 8,180 acres. The University recently announced its intention to secure additional property in the City of Belmont (the Notre Dame de Namur University campus). Figure 1 shows a campus area map of the University which is the focus of this report.

*Figure 1. Stanford University Map*



Most of Stanford's academic buildings, student housing and some faculty/staff housing are located within unincorporated Santa Clara County. Those unincorporated areas are subject to the land use jurisdiction and regulatory authority of the County. The 1995 Santa Clara

County General Plan (County General Plan) serves as the principal means of setting overall policy direction for physical development and use of lands within the unincorporated area. The Stanford Community Plan refines the policies of the County General Plan as they apply to Stanford lands within the county.

In 2018 Stanford provided housing for the majority of undergraduate students, graduate students, and some faculty/staff. This included approximately 11,300 student beds and 937 single-family or condo homes for faculty and staff. Stanford has also developed or purchased housing on Stanford land in Palo Alto (approximately 958 units) and is developing additional housing in Menlo Park (215 units). Stanford has also purchased recently completed apartment buildings in Los Altos (167 units) and Redwood City (175 units).

### ***Demography of Stanford Community***

Stanford reports a community population for the last three years as follows:

- Fiscal Year 2018-19 – population of 32,578
- Fiscal Year 2019-20 – population of 32,075
- Fiscal Year 2020-21 – population of 29,931

These figures include students, faculty, and staff. Some do not live in the community, although they depend on the municipal services (e.g. law enforcement, fire protection, street maintenance, transit services) delivered to the area while on campus. Also, in 2020 and 2021, not all faculty, staff or students were on campus due to the pandemic.

Stanford's residential population is defined in the Stanford Census Designated Place (CDP) of the American Community Survey Five-year Estimates and made available through the United State Census. Management Partners initially looked at data provided in the 2010 and 2018 surveys. We observed the following trends experienced in the Stanford area during that time and cannot in most cases pinpoint the specific cause. Data for 2019 are provided for some of the categories below and was the most recent data available at the time we prepared this report.

1. Stanford's residential population increased 10% from 2010 to 2018 (from 14,256 to 15,668). This was slightly lower than Santa Clara County as a whole, which increased 11%. In 2019, Stanford's population increased to 16,326.
2. Compared with Santa Clara County as a whole, Stanford's growth between 2010 and 2018 was higher (35% compared to 3%) for those



under 18 and significantly higher (221% compared to 38%) for those over 85 years of age. Stanford’s growth was lower for those over 65 years of age (-6% compared to 32%) and roughly the same for those between 18 and 64 years of age (9% compared to 10%).

3. Persons with disabilities increased by 46% during the same time period, from 423 to 617 persons.
4. Compared with Santa Clara County, Stanford’s 2018 population was higher for Whites (47% compared to 37%), Blacks (3% compared to 2%) and those who identified with two or more races (7% compared to 3%). Conversely, Stanford had a lower percentage of Hispanic (15% compared to 26%) and Asian (28% compared to 31%) populations than the County. In 2019, Stanford’s ethnicity/race breakdown is shown below in Table 1.

*Table 1. Stanford Ethnicity/Race Breakdown 2019 (rounded)*

Data Point	2019
<b>White</b>	56%
<b>Black</b>	4%
<b>American Indian</b>	Less than 1%
<b>Asian</b>	28%
<b>Native Hawaiian</b>	Less than 1%
<b>Other</b>	3%
<b>Two or more Races</b>	8%

5. From 2010 to 2018, Stanford experienced an increase of 35% in worker population and a 178% growth in those that use public transportation. Those commuting more than 60 minutes increased by 212% overall and 342% for those using public transportation.
6. Additional demographic data for 2019 is shown in Table 2. Given that almost one in seven workers used public transportation and that the area worker population increased (prior to the pandemic) access to public transportation and commute times will be significant issues in the area once the effects of the pandemic have subsided.

*Table 2. Stanford Census Data 2019*

Data Point	2019
<b>Total population</b>	16,326
<b>Male population</b>	8,572

Data Point	2019
Female population	7,754
Median age	22.5
Total households	3,550
Average household size	2.12
Median income	\$58,906
Mean income	\$139,306
Number of workers over 16 in the Stanford area	21,449
Workers using public transportation	3,106

7. The poverty status in 2019 reflects a community with a large disparity in income. Table 3 below shows the percent of households and the population at Stanford with a determined poverty status<sup>1</sup>.

*Table 3. Stanford Households with Determined Poverty Status 2019*

Data Point	2019
Percent of households making below \$25,000 in the previous 12 months	20%
Population with determined poverty status within the previous 12 months	7,517
Under 18	905
18-64	5,926
65 and older	686

8. Total school enrollment (public and private, pre-school through graduate school) increased 8% between 2010 and 2018, from 11,577 to 12,523 students. The largest increase (76%) was in graduate studies.

These comparisons are shown in Attachment B.

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<sup>1</sup> The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using Consumer Price Index (CPI-U).

## ***Description of the Current Environment***

In 1985 the Land Use Policy Agreement between the County of Santa Clara, the City of Palo Alto, and Stanford University was signed. It defines land use, annexation, planning and development of Stanford lands. The Agreement relating to municipal services indicated that:

*Stanford intends to continue to provide all municipal services to its academic facilities in the unincorporated area of Santa Clara County. Provision of services may include construction and operation of on-site facilities, purchase from public or private entities, or membership in regional facilities.*

The Stanford Community Plan which followed in 2000 reflected the following:

*The 1985 Land Use Policy Agreement stipulates that Stanford will provide all municipal services to unincorporated portions of Stanford lands, including contractual arrangements as needed. The Community Plan and the General Use Permit create a need to ensure that service used by Stanford residents and Stanford's provision or contracting of services are consistent with one another.<sup>2</sup>*

The Stanford Community Plan provided a set of policies to guide the university's land use planning. The accompanying General Use Permit (GUP) implemented those policies and included specific conditions to minimize community and environmental impacts of Stanford's development. The SCP was first adopted in 2000 and last updated in 2015, with minor changes in 2019.

In November 2016, Stanford University applied for a new General Use Permit (GUP) to further develop its land. While processing Stanford's application (known as the "2018 GUP application"), County staff prepared updates to the Stanford Community Plan, however the GUP application was withdrawn prior to the Board of Supervisor's action on the SCP updates.

The County is now completing the SCP updates to reflect newer information, data, and policies for implementation of the latest state and regional standards.

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<sup>2</sup> Stanford Community Plan adopted in 2000, page 17.

### ***Services Typically Provided by Cities***

As indicated above, in 2019 Stanford had a population of 16,326 and a daytime population of twice that or approximately 32,000. While Stanford is not incorporated, the population size and area is equivalent to a small city.

Based on our experience working with cities throughout California, we have found that services they provide vary, but similarly sized cities most often include the following functions:

- Police/law enforcement;
- Parking enforcement;
- Fire protection, fire prevention and emergency medical services;
- Emergency preparedness;
- Public works including engineering, construction, water, sewer, storm drain, street lighting, landscaping, solid waste management and collection, traffic, and streets (including curbs, gutter and sidewalks);
- Planning, building and code enforcement;
- Parks and recreation;
- Transit (some cities); and
- Administrative support (personnel, finance, information technology, building maintenance, vehicle maintenance, etc.).

Some of these services may be outsourced or contracted to the private sector (e.g., park maintenance, engineering design, and solid waste collection) but nonetheless, these services are most often the responsibility of cities and are offered to the public as part of their package of municipal services.

### ***Services Typically Provided by Counties and/or Other Entities***

In California, counties serve as an administrative arm of state government, mostly for the justice/court system and health and welfare programs and deliver municipal services in unincorporated areas. Counties typically provide the above services listed to the unincorporated areas of its county area. In addition, counties provide more regional services to cities and unincorporated areas of the county. A list of these county functions include:

- Animal care
- Social services
  - Food and financial assistance
  - Housing
  - Disabled access

- Child support
- Public health
- Mental and behavior health
  - Substance abuse
- Resources for youth, family and older adults
- Municipal services to unincorporated areas
  - Sheriff
  - Parks and recreation
  - Planning and development
  - Roads
  - Fire protection
  - Sanitation
  - Transportation
  - Administrative support services
- Regional services
  - Assessor
  - Registrar of voters
  - Communications
  - Tax and collections
  - Clerk and recorder
  - Justice system
  - Airports
  - Library
  - Housing

Utility services (electrical, street lighting, gas, telephone, and high-speed internet) are mostly provided by utility companies or cable television companies who are granted access to the public right of way.

Transportation and transit services are most often provided by transportation authorities or regional transportation agencies. Public education is most commonly overseen by individual school districts that operate through the state.

Childcare services are commonly provided by the private sector, although many schools have implemented after-school programs that sometimes provide for childcare needs.

## General Observations

### ***Payments in Lieu of Property Tax***

As we researched various municipal services, the issue of property taxes paid to the County was raised both by Stanford and by management in the City of Palo Alto. According to the records of the County of Santa Clara assessor, Stanford owns \$19.7 billion in assessed property value, but due to the unique nature of its founding and status as a non-profit educational institution, holds a tax exemption on \$13.3 billion or 67% of this property. Leaseholders, however, on both residential and commercial properties, (including the shopping center, research park and other owned and leased properties) pay property taxes.

The University is the largest landowner in the City of Palo Alto with multiple properties in the city. In addition to the lands in Menlo Park, Woodside and Portola Valley, the University also owns properties in Los Altos, Redwood City, Belmont and perhaps in other cities. Property taxes to cities are traditionally used to pay for municipal services provided by that city. Many of Stanford's properties (those used for educational purposes) are not taxed although they receive municipal services from Palo Alto and other local governments.

The County provides services to some Stanford properties located on the campus, that do not generate property taxes for the County, including animal control, spark and library services and the regional services discussed above. (Leaseholders in faculty and staff housing do pay property taxes to the County).

Some Stanford properties located in other jurisdictions are similarly provided with municipal services by the local jurisdiction without paying for them. (There are circumstances where Stanford provides municipal services, such as fire prevention, to properties that pay property taxes to the County, thus providing services that would normally be provided by the County.)

Palo Alto City officials report that the City provides municipal services that are not reimbursed by the University and that city resources are often burdened with large numbers of Stanford visitors during university events (football games, graduation events). Palo Alto staff indicates that daytime populations in their city reach in excess of 100,000. It is the City's perception that the University is receiving services without having to pay taxes or payments commensurate with those impacts.

To address these imbalances, Stanford should work with local government leaders from Palo Alto, County of Santa Clara and other jurisdictions to define the benefits that they receive and to work toward a financial arrangement that ensures that the University pays its fair share for the municipal services provided to it.

**Recommendation 1. Develop a reimbursement agreement between the University and Palo Alto, the County and other jurisdictions for fair share costs of municipal services provided to Stanford. Include unreimbursed services provided to properties located both on campus and those located in adjacent cities. Include reimbursement for additional expenses resulting from large University events.**

### ***Metrics Maintained by Stanford***

Throughout this document, it will become obvious that service metrics maintained by Stanford are not comparable to the service metrics maintained by Palo Alto or to other municipal organizations. This makes it difficult to assess or compare municipal service levels. Further, there is no clear functional organization chart that shows what department is responsible for providing a specific service or program.

For a more complete understanding and assessment of municipal services provided, the County should require more complete service level metrics from Stanford. If Stanford is providing municipal services, the University should be prepared to provide a functional organization chart, service level metrics, appropriation levels, and staffing data to both substantiate their services and to increase transparency.

The City of Palo Alto and other jurisdictions regularly survey their constituents, soliciting feedback on a wide variety of municipal services. This is a best practice used by many well-run cities. Surveys can be developed by staff or, like Palo Alto, the National Citizen's Survey can be used to gather public input. Regular (annual) customer feedback is recommended for gauging and documenting satisfaction levels and awareness of Stanford's municipal services.

**Recommendation 2. Require Stanford to provide a functional organization chart for all municipal services, along with the staff member responsible for providing service-related data. Require annual updates.**

**Recommendation 3. Require Stanford to provide complete service and performance metrics for all municipal services, including appropriations and staffing levels, for the last three years, along with annual updates.**

**Recommendation 4. Require Stanford to develop and deploy an annual survey of customers to assess customer awareness and satisfaction levels with all municipal services.**

The next section contains a review of the municipal services provided by Stanford.



## Animal Control Services

### ***How Services Are Provided***

The County of Santa Clara currently provides animal control (licensing and sheltering) services to Stanford residents. The County’s animal shelter is located in a new facility in San Martin, 45 miles from Stanford.

Stanford doesn’t receive calls for stray animals or have interactions with local animal control shelters, nor does it track metrics on dog licensing or dog sheltering.

### ***Comparison with Surrounding Jurisdictions***

The City of Palo Alto provides animal services to the cities of Palo Alto, Los Altos, and Los Altos Hills. As of February 2019, Pets in Need, a non-profit organization, operates the Palo Alto Animal Shelter, which is located at 3281 East Bayshore Road. Pets in Need services include animal adoption, dog licensing, lost and found reports, a spay and neuter clinic, vaccine clinics, animal surrender; humane trap rentals, feral cat management, volunteering, and community outreach programs. The shelter is located three to four miles from Stanford University.

Palo Alto’s Police Department provides animal control and enforcement services. Its goal is to ensure the protection and well-being of animals and people by providing responsive and proactive animal services. City personnel respond promptly to calls for service, with the objective of responding to live animal calls within 45 minutes. Live animal calls require a timely response because they are generally life-threatening or represent higher danger crimes in progress.

The city has met or almost met its target response time of 90% in the last three years as shown in Table 4 below.

*Table 4. City of Palo Alto Animal Control Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of live animal calls responded to within 45 minutes	89%	93%	90%
Total number of Palo Alto animal control calls	2,550	2,966	2,400
Total number of regional animal control calls (Los Alto and Los Altos Hills)	570	798	500

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of surveyed residents rating animal control services as good or excellent	n/a	80%	80%

<sup>1</sup> Estimated

### ***Service Gaps***

The County of Santa Clara provides animal control services to Stanford residents. There do not appear to be any service gaps in service, although the location of the County animal shelter is not conveniently located to Stanford residents.

### ***Funding***

The County of Santa Clara funds animal control services.

### ***Recommendations***

**Recommendation 5.** The County should perform an assessment of Stanford residents’ satisfaction with animal control services provided by the County.

**Recommendation 6.** Require a joint County and Stanford evaluation of survey results and analysis to determine if Stanford should contract with the City of Palo Alto, which has a fully functioning animal care system, for more convenient service to Stanford residents.

## Behavioral Health Services

### ***How Services Are Provided***

#### **Employees and Faculty**

Stanford provides healthcare benefits to employees, which include mental health services. Stanford follows legislative changes that equate mental health with medical benefits, expanding and updating coverage accordingly. Mental health benefits cover all benefit-eligible employees and their eligible dependents. University retirees and their eligible dependents are eligible for continued coverage through the retiree healthcare plans.

In March 2021, Stanford expanded its mental wellness resources, giving eligible employees access to Meru Health, in addition to the existing programs and professional counseling. Meru Health is an online mental wellness program that is available free to employees and their adult dependents who are enrolled in a University medical plan.

Mental health services for Stanford faculty and staff are managed through health insurance programs and the Faculty Staff Help Center, which provides professional counseling services on work-related and personal issues to individuals, couples, and families. Counseling is available in English, Spanish and French.

The Help Center also provides professional staffing to workshops and support groups. All Stanford employees, retirees and their spouses are eligible for counseling services through the Faculty Staff Help Center program, regardless of eligibility for medical benefits sponsored by Stanford, and regardless of residency at the University. After the first appointment, clients of the Help Center may be referred to a separate service provider as appropriate to address their personal needs and resources. In-house professional counselling is provided when appropriate.

Substance abuse coverage is part of mental health services and treatment and is managed through health insurance programs for Stanford employees. Referrals occur through the Faculty Staff Help Center or directly through the health plan. Both inpatient and outpatient treatments are covered by these programs at little or no additional cost beyond their health insurance coverage contributions.

At the Faculty Staff Help Center, two metrics are tracked:

- Wait time for a first appointment, and
- Percentage of Help Center clients who require more than 10 visits.

Stanford uses consultants to determine service levels each year, based on health plan use in the previous year. If a service is identified as heavily utilized, there are changes to the plan so employees' needs are met; solutions are adapted to the anticipated demand. As an example, four years ago within-network coverage for outpatient mental health services was not broad enough to meet the demand. Stanford worked with the health provider to alter its coverage to include the use of non-network providers and improve coverage.

### **Students**

Behavioral health services provided to students include assessment and triage, short-term psychotherapy, psychiatric management and case management, and group therapy. Immediate consultation is available through Counseling & Psychological Services (CAPS). Students can connect in real time with CAPS staff for services between 8:30 a.m. and 5:00 p.m., Monday through Friday.

During the pandemic, most services have been delivered by telehealth, but a core team of three to four staff members are on-site for any in-person care needs. Counselors provide 24/7 crisis support available to all students (in California and out of state) via a call to the CAPS main number.

The intake process at CAPS involves a 15- to 20-minute call (or walk-in visit, pre-pandemic). At that time a determination is made about the best fit/resources for the student. From there, students are scheduled with staff or connected with other resources as appropriate.

No limit applies to the number of sessions for students, but care at CAPS is limited to brief therapy for the presenting issue. Psychiatric medication follow-up is often provided for longer-term issues on-site.

Outside services are recommended for long-term therapy needs. A small number of students need to be seen at CAPS for longer-term care due to difficulty those students encounter in finding an appropriate community provider or due to the complexity of their need.

Students are required to have insurance plans that provide mental healthcare coverage, including long-term services. Some opt for private insurance instead of Stanford health insurance, which is known as Cardinal Care. Most students, through their guardians, participate in private healthcare plans that have limited local coverage.

The University uses the following metrics for mental health services provided to students:

- Wait time for access to services (which is the primary metric);
- Behavioral system health scales (i.e., standard metrics used for tracking for anxiety, depression, etc.);
- Satisfaction surveys; and
- Clinical staff to student ratio.

Service levels are determined using these metrics, ongoing communication with administration and students, the volume of service requests, and student input on evolving needs. The scope of services provided are also related to complexity of need, funding, number of students hospitalized or needing intensive care, and other campus needs (such as support for critical campus and national events that affect student mental health.)

Table 5 shows the wait times for access to services, through the University's CAPS and the Help Center. It includes the number of users and percentage of those needing additional visits or support. Stanford exceeds the standard of one full-time equivalent (FTE) service provider for every 1,000 to 1,500 students, recommended as the national benchmark for college health by the International Accreditation of Counseling Services (IACS), with a ratio of approximately 1:400 to 500.

*Table 5. Behavioral Health Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Wait time to access services at CAPs <sup>1</sup>	1 to 2 weeks	2 to 12 days	2 to 9 days
Wait time to access services at Help Center <sup>1</sup>	1 to 2 weeks	2 to 12 days	2 to 9 days
Stanford Healthcare Alliance Medical Plan Utilization Rate Mental Health Services	11.2%	13%	20%
Kaiser Mental Health as a percent of total Claims	n/a	2%	2.6%
Blue Shield Utilization Rate for Mental Health Services	n/a	11%	14%
Clinical staff to student ratio	1:400 to 500	1:400 to 500	1:400 to 500
Total number of service users	3,288	5,710	TBD
Percentage of Help Center clients that require more than 10 visits or need additional support	30%	30%	TBD

<sup>1</sup>Same-day services for urgent or crisis needs

### **Comparison with Surrounding Jurisdictions**

The City of Palo Alto does not provide behavioral or mental health services to the community. The city does, however, provide medical insurance to its employees, which includes these services.

### **Service Gaps**

There are no apparent gaps in non-student residents or instances where residents have been unable access to mental health/substance abuse services. Roughly 12% of employees waive the health coverage benefits, but it is expected that they have access through a partner, as the basic Stanford health plan is free. Dependents are also eligible for care through the employee health plan. Contingent workers are eligible for services under the Affordable Care Act and counseling at the Help Center.

Additionally, no eligible resident on campus who has sought assistance at the Faculty Staff Help Center has been refused. The Help Center provides referral services to employees with family members needing care who are not affiliated or residing on campus. The Faculty Staff Help Center also assists clients with long-term or special needs by providing referrals to affordable services. The University has employee assistance grant programs that can cover some of these costs as well.

As headcounts increase, benefits will be extended to new Stanford affiliates. Healthcare rates are affected, and employee contributions may be affected as well. If demand for service increases at the Faculty Staff Help Center, the University indicates that additional personnel will be hired to meet the need.

Service gaps may occur for students who need long-term care, as Stanford does not offer long-term therapy on campus. A gap can occur if off-campus private practices do not accept a student's insurance or if in-network providers do not offer services specific to the patient's needs.

To ensure there are no gaps in services due to a recent transfer of the Behavioral Health SWAT team responsibilities, Stanford is monitoring the program to confirm that it meets the needs of the Stanford population.

As this report was being finalized, the County of Santa Clara completed a survey of Stanford students, faculty and staff concerning mental health services. Depending upon the question, responses varied widely, ranging from 259 to 1,534.

Two questions that received over 1,500 responses are worthy of further consideration. These questions and responses are repeated below:

1. Have you sought out, or wanted to seek out, mental health services while at Stanford? Please choose the option that best describes you.
  - a. In response to this question, 656 of 1,534 respondents (43%) said they had sought out services, while 323 of 1,534 respondents (21%) said they had wanted to. This indicates that 64% of total respondents felt the need for mental health support.
2. All in all, do you feel that you have been able to attain adequate mental healthcare while at Stanford?
  - a. In response to this question, 648 of 1,503 respondents (43%) said they had been able to attain adequate care, while 418 of 1,503 respondents (28%) stated they had not.

## ***Funding***

The bulk of the employee and faculty medical costs (approximately 90%) are covered by Stanford, which is typical of most employers. Employees pay a monthly contribution from their paycheck. Some plans and services also require a co-pay.

Stanford pays 100% for up to ten consultations at the Faculty Staff Help Center. Most Stanford insurance plans will also pay 80% of up to a \$300 consultation fee for out-of-network providers. More specialized services are subsidized through health insurance programs, which vary in their details.

Behavioral health services for employees are funded through Stanford's private funds, along with some federal government funding. No fees are collected by the Faculty Staff Help Center.

Student health services at Stanford are predominately funded by Stanford University, with some additional funding provided through fee for service and philanthropy.

## ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following behavioral health services data for the last three years, along with annual updates:**

- **Wait time to access services at Counseling and Psychological Services**
- **Wait time to access services at Help Center**
- **Stanford Healthcare Alliance Medical Plan Utilization Rate for Mental Health Services**
- **Percent of individuals accessing Kaiser Mental Health as a percent of total Claims**
- **Blue Shield Utilization Rate for Mental Health Services**
- **Ratio of clinical staff to students**
- **Total number of users accessing behavior health services**
- **Percentage of Help Center clients that require more than 10 visits or need additional support**
- **Appropriations for behavior health services**
- **Staffing levels for behavioral health services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**



## Childcare Services

### ***How Services Are Provided***

Stanford's childcare services have seen continuous growth since the 1960s. In 2014, the University had approximately 600 spaces for children 0 to 5 years of age at its four children's centers. In 2015 a new childcare center was constructed that served more than an additional 100 children. By 2019, the University served over 900 children due to expansions in 2018 and 2019 which included expanding the parent cooperative program, the Children's Center of the Stanford Community (CCSC), and adding the Pine Cone Children's Center (PCCC) at the Stanford Redwood City campus.

With over 900 spaces, Stanford now has one of the largest childcare systems in higher education and Bay Area employer-supported systems. Stanford operates a system using a variety of models and operators, which includes parent co-op, non-profit operator, and for-profit operators.

Stanford's staff indicate that the primary objective of its childcare program is to provide high-quality care that enables them to be competitive for faculty, graduate and postdoctoral students. The University focuses its efforts on addressing access, affordability, and quality.

### **Access**

The University prioritizes childcare services for those who live on campus, namely faculty, graduate students, and postdoctoral students. Stanford tracks its demand for service and approximately 300 new children are provided care and removed from the waiting list each year.

### **Affordability**

As the cost of living for childcare teachers has risen in the Bay Area, the cost of childcare has also risen. Stanford provides rent-free facilities with a variety of in-kind support. Stanford has implemented a variety of tuition reduction programs for graduate students and postdocs with the highest identified need.

This includes a graduate student Family Grant which provides up to \$20,000. This grant can be applied to center tuitions or used more flexibly to address childcare expenses.

Stanford increases parent tuition rates for childcare in the fall of each year to keep up with the pace of teacher/childcare staff members' yearly salary increases and the increased costs of supplies and goods. These increases are annual unless there are atypical circumstances such as the pandemic.

In the fall of 2019, Stanford kept the same tuition rates (2018 rates) for postdocs and students. Currently, all students and postdocs are assessed the fall 2021 childcare tuition rates. Many are able to receive tuition support to offset the costs of care.

Stanford offers two forms of tuition assistance coordinated by the childcare operators. The Tuition Reduction Program (TRP) is an expansion of the program implemented in 2019 for all students and postdocs. The Tuition Assistance Program (TAP) is based on a family's income and provides for an additional tuition discount. Only those students and postdocs that apply for the TAP program are provided with this additional discount. Students and postdocs are made aware of these programs upon received an offer to enroll in a campus childcare center.

### **Quality**

University staff indicates that the caliber of the teachers in a center is the single most important indicator of childcare quality. How teachers are trained and mentored in their interactions with children and families drives parent satisfaction and is the measure of all high-quality centers.

Attracting and retaining teachers who can make a living wage in the Bay Area (as much as 85% of a high-quality centers expenses are salaries and benefits) is an issue. Stanford personnel indicate that they have addressed these issues by partnering with operators that provide good salary and benefits packages.

### **Supporting Care Through COVID-19**

Stanford kept one of its centers open throughout the shelter-in-place order to serve essential workers. Financial support was provided to all childcare center operators to ensure they remain fiscally solvent throughout the pandemic response period. Specific actions included:

- Provided pay continuation for staff at all childcare centers from April 2020 through August 2020.

- Committed financial support to cover the gap between tuition and expenses for childcare operators due to staffing restrictions and reduced enrollment capacity driven by County Department of Health and State Childcare Licensing.

Prior to the pandemic, Stanford centers were at 83 capacity, with representation from all University affiliate groups (faculty, graduate students, postdocs, staff, visiting scholars, medical center staff, and childcare teachers). By early 2021, centers were operating at 40% to 50% capacity. Currently, childcare system enrollment is at 76%.

Table 6 shows the number of children served in Stanford’s childcare centers and the number of children receiving tuition reductions. It is not surprising that the number of teachers decreased and the number of children receiving tuition assistance increased during the height of the COVID pandemic.

*Table 6. Childcare Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Number of children served<sup>1</sup></b>	654	750	423
<b>Number of children served/pulled off wait list</b>	299	392	156
<b>Number of students receiving tuition reductions<sup>2</sup></b>	28	84	27
<b>Number of Family Grants distributed</b>	128	131	252 <sup>3</sup>
<b>Number of teachers</b>	n/a	194 (Jul 2020) 238 (Dec 2020)	343 (Mar 2021)
<b>Capacity of centers (provided 95% before COVID)</b>	710 <sup>4</sup>	864 <sup>5</sup>	864

<sup>1</sup>As of December each year

<sup>2</sup>Increased applications in FY 2019/20. Assisted everyone who applied.

<sup>3</sup>Expanded to include post-doctoral candidates.

<sup>4</sup>Prior to Children’s Center of the Stanford Community expansion and the Pine Cone Children’s Center opening

<sup>5</sup>CCSC opened in their new building in June 2019. PCCC opened in September 2019. Both are increasing enrollment.

### **Comparison with Surrounding Jurisdictions**

The City of Palo Alto does not provide childcare services directly to its residents. Childcare services are paid for by parents and provided to the community through a non-profit organization, Palo Alto Community Child Care, which provides childcare and educational services. The City provides childcare subsidy assistance for income-eligible residents.

### **Service Gaps**

There continues to be a waiting list for childcare services, but Stanford provides a substantial and evolving childcare program.

## ***Funding***

Funding is provided primarily by parents requiring childcare services. The University provides childcare operators with upkeep and rent-free facilities, utility costs and funding for the TAP and TRP.

## ***Peer Comparison***

The University works closely with other universities to understand issues and challenges. The challenges are in creating a system that is flexible enough to meet the demands from the different types of constituencies. These include students and their varied schedules, faculty with their research and academic requirements, and staff who live in various places.

### **University of Southern California**

Bright Horizons operates the University of Southern California's childcare centers. During COVID, USC partnered with Bright Horizons to provide child sitters, pet sitters, housekeepers and virtual sitting as well as providing discounts for eldercare services. Childcare centers provide services for children six weeks to five years of age. Tuition is paid by the parents.

## ***Recommendations***

The County of Santa Clara has undertaken a separate study of the University's childcare services, which is expected to be a more thorough review of these services.

**Based on the information provided to us and to implement Recommendation 3, Stanford should be required to provide the following childcare services data for the last three years, along with annual updates:**

- **Number of children served**
- **Number of children served/deleted from wait list**
- **Number of students receiving tuition reductions**
- **Number of family grants distributed**
- **Number of teachers**
- **Capacity of centers**
- **Number of children on wait list**
- **Appropriations for childcare services**
- **Staffing levels for childcare services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Disability Services

### ***How Services Are Provided***

Disability programs and facilities for Stanford affiliates are managed by the University's Diversity and Access Office. This office oversees compliance with federal and state civil rights statutes, including the Americans with Disabilities Act, and Sections 503 and 504 of the Rehabilitation Act, and provides disability-related access information to faculty, staff, students, and visitors in the Stanford community. The Diversity and Access Office is also responsible for ensuring all Stanford facilities and programs meet all federal, state and local laws regarding equal access for individuals with disabilities.

The Office of Accessible Education ensures that students receive appropriate housing assignments, transportation assistance, assistive technology, interpreter, notetaker, laboratory and library assistance, and modified academic schedules where needed.

Faculty and staff workplace accommodation requests are served through University's Human Resources managers. In addition to workplace accommodations, Stanford provides adaptive recreational resources and emergency evacuation planning to all Stanford affiliates upon request. Stanford also publishes a Campus Access Guide with disability access information for affiliates and campus visitors.

The Guide provides disability access information for University buildings, including nearest disabled parking, paths of travel, accessible entrances, elevators and accessible restrooms. This Guide is updated as facilities are constructed, renovated or disability access information changes.

### ***Comparison with Surrounding Jurisdictions***

The City of Palo Alto provides disability insurance and disability leave banks for its employees. Disability services are not provided to residents.

### ***Service Gaps***

We do not see any gaps in disability services. Services are provided to students, affiliates, faculty, and staff.

## ***Funding***

The University has not identified its source of funding for this program.

## ***Recommendations***

To implement Recommendation 3, require Stanford to provide the following disability services data for the last three years, along with annual updates:

- Number of faculty, staff, students, and visitors served
- Appropriations for disability services
- Staffing levels for disability services

To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge municipal program satisfaction levels.

## Emergency Medical Services

### **How Services Are Provided**

The Palo Alto Fire Department (PAFD) provides emergency medical service to the Stanford campus and Stanford pays an annual fee for its share of PAFD’s services. PAFD provides treatment at the scene along with ambulance and transport services. Overall, Palo Alto estimates that 65% to 70% of its calls are for medical emergencies.

Stanford’s emergency services contract with PAFD provides services to everyone on the campus, whether they are campus residents, commuters, or members of the public visiting Stanford.

The Stanford Hospital is a Level 1 Adult and Pediatric Trauma Center and is located adjacent to the unincorporated campus. The Stanford Hospital, along with the Packard Children’s Hospital at Stanford provide emergency medical services to more than 70,000 people each year.

### **Comparison with Surrounding Jurisdictions**

PAFD is the only fire department in the County that provides ambulance and transport services to the city and to the Stanford community. (Ambulance and transport services are provided in most jurisdictions according to the County’s contract with an ambulance provider.) All fire engines and ambulances responding to emergency calls include paramedics, thus providing an enhanced level of emergency medical services to Stanford that many other cities do not have.

Table 7 below shows PAFD’s calls and response times for the emergency medical services provided.

*Table 7. City of Palo Alto Emergency Medical Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Number of medical/rescue calls for service	5,490	5,029	5,500
Number of ambulance transports	3,659	3,488	3,440
Medical/rescue calls average response time (Target 8 minutes)	6:15	5:53	6:10
Percent of surveyed residents rating ambulance/EMS services “good” or “excellent”	n/a	93%	95%

<sup>1</sup>Estimated

### ***Service Gaps***

Emergency medical services are wholly provided by the City of Palo Alto and no service gaps have been identified.

### ***Funding***

Stanford reimburses emergency medical services provided by the City of Palo Alto.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide appropriations for emergency medical services for the last three years, along with annual updates.**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge program satisfaction levels.**



## Emergency Preparedness

### ***How Services Are Provided***

The Stanford University Office of Emergency Management (OEM) is the administrative operation charged with reducing vulnerability and sensitivity to hazards and coping with crises and disasters. OEM serves as the umbrella organization for emergency responses and activates department operational centers that are responsible for their local service areas.

In the event of a major emergency affecting Stanford, its Emergency Operations Center (EOC) is activated. The EOC works closely with applicable jurisdictional emergency response providers, as well as each of the local Department Operation Centers (DOC), in responding to and recovering from an emergency.

The department service grew to its current configuration after the 1989 Loma Prieta Earthquake. It was originally hosted by Stanford's Department of Public Safety but transitioned to Environmental Health and Safety in the early 1990s. At that time, the University adopted the Department Operations Center (DOC) model to address the safety of the physical campus, and subsequently expanded it to incorporate a broader section of the University, including all departments.

OEM's goal is to create a disaster resilient University while protecting it. Below are some of the emergency preparedness and notification services provided to the Stanford community:

- AlertSU is Stanford University's emergency notification strategy used to communicate time-sensitive information during an emergency event affecting campus. The nature of the incident will determine which of the following methods will be employed to alert the campus community.
  - Mass Notification System that sends messages via SMS text message, email, Voice over Internet Protocol and/or phone to members of the Stanford community.
  - Outdoor Warning System composed of seven sirens positioned throughout the main campus that emit alert tones and verbal instruction intended to reach those who are outdoors.
- CardinalReady is a program focused on emergency preparedness for students, faculty, staff, and parents, and includes the

Department Operations Center coordinators who are responsible for overseeing Stanford’s response.

- There are approximately 285 blue towers on campus managed by Stanford’s Department of Public Safety (DPS). The towers each include an address, tower number and descriptor. They are funded by the University and are connected to the 911 dispatch community systems. Stanford DPS are dispatched to incidents.
- Each of the 800+ buildings on the Stanford campus has a designated emergency assembly point for emergency evacuation purposes assigned and managed by the Stanford University Fire Marshal’s Office.

Table 8 shows the reduction in emergency preparedness activities during the last two years, except for those related to COVID.

*Table 8. Emergency Preparedness Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Number of AlertSUs sent	no data	41	12
Percent of Office of Emergency Services resources able to respond effectively to hazards	100%	100%	100%
Number of emergency tabletop exercises	4	4	0
Number of EOC Incident Action Plan briefings	0	82	23
Number of Department Operations Center briefings	0	77	19
General Safety and Emergency Preparedness course completions	8,199	5,040	2,280
Personal Emergency Preparedness course completions	120	8	0
Building Assessment Team training course completion	62	0	0
Building Assessment Team Refresher Training completions	63	0	0
COVID awareness training for staff	0	326	0
COVID hygiene best practices course completions	0	24,728	11,187

Stanford works with the County of Santa Clara to ensure that both organizations are prepared for emergencies. At the outset of the pandemic, Stanford collaborated with the County to quickly erect a COVID-19 testing site that has served the community throughout the duration of the emergency.

Stanford uses the established emergency response protocols for a variety of emergency events and follows the Incident Command System (ICS) organizational structure for emergency management.<sup>3</sup> Staffing and

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<sup>3</sup> The Incident Command System (ICS) is a standardized hierarchical structure that allows for a cooperative response by multiple agencies, both within and outside of government, to organize and coordinate response activities without compromising the decision-making authority of local command.

emergency preparedness are maintained at a level that will ensure Stanford’s ability to cooperate and communicate with the community to reduce its vulnerability and exposure to future crises and disasters.

Emergency preparedness is especially important, since a large percent of Stanford’s student population is between the ages of 18 and 25 and are the least likely to be prepared for an emergency. This age group could also become a financial burden to the County if a disaster were to occur.

**Comparison with Surrounding Jurisdictions**

Stanford provides emergency preparedness services that cover all campus populations, physical infrastructure, and utilities for all campus buildings.

**City of Palo Alto**

The City of Palo Alto has its own Office of Emergency Preparedness (OEP) and along with its Police and Fire departments work with Stanford on various emergency preparedness issues. The city conducts joint operations, mostly with the Palo Alto Police Department and Stanford’s Department of Public Safety for dignitary visits and large events. Currently Santa Clara and San Mateo counties, Stanford and Palo Alto are all working on developing their wildfire plans.

Palo Alto’s OEP provides Stanford with various emergency preparedness programs free of charge:

- Emergency services volunteer program.
- Neighborhood watch crime prevention.
- Community Emergency Response Team (CERT) through FEMA. The campus CERT program is being reestablished now.
- Amateur radio/HAM radio.
- Variety of public safety volunteer programs.

Table 9 below shows some of the key services provided by Palo Alto’s Emergency Preparedness staff.

*Table 9. City of Palo Alto Emergency Preparedness Service Metrics from FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of Office of Emergency Services resources that can respond effectively to hazards	99%	95%	95%
Number of presentations, training sessions, and exercises	163	180	102

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Number of deployments of the Emergency Operations Center, Mobile EOC, and Incident Command Post	35	207	57
Number of annual reported incidents in Caltrain Right-of-Way	n/a	110	49
Budgeted Appropriations	\$1.5 million	\$1.7 million	\$1.3 million
Staffing (FTE)	3.48	3.48	3.48

<sup>1</sup> Estimated

Palo Alto staff indicate that it is mutually beneficial to have a close working relationship with Stanford to ensure a coordinated response during an emergency. The city follows the Comprehensive Planning Guide and the Threat and Hazard Identification and Risk Assessment (THIRA) through FEMA as its measures of proper planning. Stanford is a partner in the THIRA process.

### **Service Gaps**

There are no physical or geographic gaps in service levels. Stanford ensures that the emergency preparedness services described above operate on a campus-wide basis. Need assessments are conducted annually during Stanford’s standard budgetary cycle.

The City of Palo Alto would like to see a reasonable sharing of expenses from Stanford when implementing new fire prevention measures (such as the foothill warning system).

### **Funding**

Stanford pays for these services from its private funds.

### **Recommendations**

**To implement Recommendation 3, require Stanford to provide the following emergency preparedness services data for the last three years, along with annual updates:**

- **Number of AlertSUs sent**
- **Percent of Office of Emergency Services staff resources able to respond effectively to hazards**
- **Number of emergency tabletop exercises held**
- **Number of EOC Incident Action Plan briefings held**

- **Number of Department Operations Center briefings held**
- **Number of General Safety and Emergency Preparedness course completions**
- **Number of Personal Emergency Preparedness course completions**
- **Number of Building Assessment Team Training course completions**
- **Number of Building Assessment Team Refresher Training course completions**
- **Number of Covid Awareness for Staff Training course completions**
- **Number of Covid-19 Hygiene Best Practices course completions**
- **Appropriations for emergency preparedness services**
- **Staffing levels for emergency preparedness services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

**Recommendation 7. Require Stanford to pay their share of expenses with implementation of new or improvements made to fire emergency preparedness measures.**

## Fire Prevention

### ***How Services Are Provided***

Stanford University's Fire Marshal oversees fire and life safety code compliance for the Stanford property and provides fire protection engineering, education, maintenance, and inspection services. The Stanford Fire Marshal's Office is located at the Environmental Safety Facility at 480 Oak Road.

As stated in the 2020 Safety, Security and Fire Safety Report, the primary goals of the Fire Marshal's Office are to:

1. Ensure a high level of fire protection for the Stanford community.
2. Support Stanford's core mission of teaching, learning, and researching by effecting institutional compliance with fire codes and regulations.
3. Work strategically with external agencies to achieve equitable interpretation and application of codes to minimize undue constraints on operational efficiency.

The campus is subject to numerous codes and standards that regulate design, construction, and use of buildings with the intent of preventing fires and protecting life and property. University staff believe that Stanford meets all fire prevention requirements.

Fire prevention services are specifically geared toward meeting the requirements of the California Code of Regulations (Title 24, Part 9, "California Fire Code") which establishes detailed requirements for design, maintenance, and inspection of fire safety features. Building design plans (egress, fire access, sprinkler systems, etc.) are reviewed for fire prevention and compliance with the Fire Code by the County of Santa Clara. The University Fire Marshal's Office also reviews these plans. Stanford pays plan check and inspection fees for this work.

Stanford complies with California Fire Code provisions that require the following fire prevention metrics:

- Number of fire alarm system inspections and tests,
- Number of fire sprinkler system inspections,
- Number of fire extinguisher inspections, and
- Number of fire alarm acceptance tests (for new buildings, major renovations, and system replacements).

The Fire Marshal’s staff perform required system inspections of fire alarms, fire extinguishers, fire sprinklers, and fire/smoke dampers. The Stanford School of Medicine augments the Office of the Fire Marshal staff with qualified inspectors who are responsible for inspecting School of Medicine building systems. This arrangement enables additional oversight of laboratories in that academic division.

Table 10 shows the fire inspections and tests performed during the last three years.

*Table 10. Fire Prevention Service Metrics from FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Number of fire alarm system inspections performed annually</b>	1,000	1,000	1,000
<b>Number of fire alarm system tests performed annually<sup>1</sup></b>	1,000	1,000	1,000
<b>Number of fire extinguisher inspections performed annually</b>	9,900	10,500	10,500 <sup>2</sup>

<sup>1</sup> Included with inspection

<sup>2</sup> Forecast

The Fire Marshal has management oversight of fuel reduction efforts in the urban-wildland interface and employs Best Management Practices outlined in the Wildfire Management Plan.

Vegetation management is provided by University Grounds Department and contractors. Stanford provides weed abatement along campus roadways (except Junipero Serra Boulevard), including roadways within the single-family housing areas, which are not exempt from property taxes and might expect County services. Vegetation management is conducted to meet the County’s standards.

Service capacity and need are reviewed annually, and adjustments are made based on the total amount of equipment that requires inspection using a formula-based modeling approach. Service levels are evaluated once a year during the budget/capital plan cycle to ensure service levels remain acceptable based on the extent of recent and anticipated increases in fire prevention equipment. Service levels are increased or decreased based on a formula-based modeling approach that takes account of the extent of recent and anticipated increases in fire prevention equipment.

The University recently increased its budget to address wildfire management oversight after two grass fires occurred on one of the San Mateo County parcels. One-time funding was provided for extra resources combined with a program budget increase for fiscal year 2021-22.

Stanford provides weed abatement and other grounds/road maintenance services, that include properties that pay property taxes to the County. Owners maintain their own lots while Stanford assumes responsibility for all other “common-use” grounds and roads.

Vegetation management in the common-use areas is performed annually. The Fire Marshal’s Office surveys these areas to ensure residents are clearing excess vegetation from their property and roofs. Properties that pay property taxes usually receive fire prevention services from the city or county where the property is located.

The University Fire Marshal’s Office also provides educational information to its community annually by email as a reminder to clear excess vegetation and roofs prior to fire season. The Fire Marshal’s Office also consults with the Stanford’s Land, Buildings and Real Estate Department regarding resident requests for tree trimming or removal near their property.

### ***Comparison with Surrounding Jurisdictions***

Stanford’s fire prevention services are comprehensive. The University’s Fire Marshal’s Office includes multiple licensed and practicing fire safety protection engineers on its permanent staff, which is atypical for local jurisdictions.

Because of the high concentration of advanced research facilities, the Fire Marshall’s Office partners closely with other offices in Environmental Health and Safety (emergency management, lab safety, biological safety, radiation/laser safety, and environmental protection) to ensure the safety of the campus population and the public. The University believes it has a more extensive safety program than many local jurisdictions in the area to address these specialized operations.

### **City of Palo Alto**

Palo Alto’s Fire Prevention Division’s mission is to improve the quality of life for the Palo Alto community through risk assessment, code enforcement, fire investigation, public education, and hazardous materials management. The city inspects Stanford’s living quarters although as discussed above, the University has its own fire prevention operation. Table 11 shows residents’ rating of the city’s fire prevention services.



*Table 11. City of Palo Alto Fire Prevention Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of surveyed residents rating fire prevention services "good" or "excellent"	n/a	82%	85%
Budgeted appropriations <sup>2</sup>	n/a	n/a	n/a
Staffing (FTEs)	8	8	8

<sup>1</sup>Estimated

<sup>2</sup>Part of Planning and Development’s budget and not separately broken out.

### **Service Gaps**

There are no apparent gaps in fire prevention service. There are, however, areas of overlapping responsibility, in geographic areas where residents pay property taxes to the County of Santa Clara (for County-provided services) and are provided services by the University Fire Marshal.

The service level metrics provided by the University in Table 10, above, appear to be estimates. It is unlikely that the number of fire alarms inspected and tested could be 1,000 for the past three years.

In the annual Safety, Security and Fire Safety Report, the Fire Marshal provides a three-year history of fire incidents occurring in the student housing facilities (detailed for each facility) and an inventory of the various fire safety systems in each. These metrics should be continued.

In addition, Stanford should provide some additional metrics. These are outlined below in the recommendations.

### **Funding**

Stanford University funds these services with one exception: evaluation of structural damage after a fire is performed by County inspectors.<sup>4</sup> There is no fee for these County’s inspections. The events are infrequent.

### **Peer Comparison**

USC’s Fire Safety and Emergency Planning Department works to prevent and mitigate the effects of fire. They conduct fire safety training, building evacuation drills, Building Emergency Response Teams, building safety inspections and fire safety compliance for all university-owned buildings.

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<sup>4</sup> Investigation of the cause of the fire is undertaken by the City of Palo Alto Fire Department under their service contract with Stanford.

The Environmental Health and Safety Department handles hazardous materials, including waste, occupational health and safety research.

### ***Recommendations***

To implement Recommendation 3, require Stanford to provide the following fire prevention services data for the last three years, along with annual updates:

- Number of fire alarm system inspections performed annually
- Number of fire alarm system tests performed annually
- Number of fire extinguisher inspections performed annually
- Location of fire extinguishers
- Number of students and employees trained in fire extinguisher use
- Number of fire systems inspected
- Number of fire systems reinspected
- Number of complaints investigated
- Number of construction plan checks performed
- Number of construction plan inspections performed
- Number of fire alarm acceptance tests (construction)
- Cycle time for fire plan check processing
- Appropriations for fire prevention services
- Staffing levels for fire prevention services

To implement Recommendation 4, require Stanford to include annual customer service survey feedback to gauge customer awareness of services provided and program satisfaction levels.

## Fire Protection

### ***How Services Are Provided***

In 1976, Stanford signed an agreement with the City of Palo Alto to provide emergency medical services, fire protection, and rescue services to the University. The current agreement will terminate in 2028. The agreement specifies that the Palo Alto Fire Department (PAFD) occupy and operate the Stanford Fire Station (Station 6), located at 711 Serra Street.

Pursuant to the agreement PAFD provides fire protection and suppression, and emergency medical service (EMS), for all areas within the jurisdictional boundaries of Palo Alto in addition to some of the unincorporated land surrounding the city limits, including the Stanford property.

The agreement, and subsequent amendments, establish that Stanford's fair share be reimbursed to the city for fire protection services. The city assesses fire protection needs through its annual budget, and as part of this process, the city identifies Stanford's share. Stanford pays its annual allotment to the city. With any expansion in service, Stanford also pays its fair share contribution for fire protection and emergency medical service providers, and for communication and emergency dispatch services received through the Palo Alto Police Department.

In addition to its primary service area, the City of Palo Alto maintains mutual aid and automatic aid agreements with the City of Menlo Park, the California Department of Forestry and Fire Protection (CAL FIRE), the Santa Clara County Fire Department (SCCFD), the City of Mountain View, and the Woodside Fire Protection District in San Mateo County.

PAFD maintains six full-time fire stations (Stations 1 through 5 and Station 6 on the Stanford campus), and one seasonal fire station (Station 8, located on Page Mill Road) which is operated during the summer months. Pursuant to the current agreement with the City of Palo Alto, the Stanford Fire Station 6 will be staffed with six daily positions and associated backfill positions necessary for three daily shifts. The six daily positions translate to 18 overall positions (three shifts) and 3.0 backfill positions for a total of 21.0 positions.

The agreement provides that equipment and staffing assigned to Station 6 will include one Fire Engine, one Rapid Response Vehicle (RRV), and one fire ladder truck (the “Fire Truck”).

Further, the City has agreed to response times 90% of the time, consistent with service in Palo Alto and system-wide performance standards. These standards are:

- 8 minutes or less within the urban response zone,
- 15 minutes within the non-residential but high pedestrian traffic area, and
- 20 minutes within the remote open-space area.

The Palo Alto Fire Department is currently facing challenges with reduced city revenues due to the COVID pandemic. To deal with city revenue shortages, one engine is not being backfilled with overtime staff and is taken offline at night when personnel are absent, initiating a “brown out” situation. The city’s Fire Chief indicates that its response times are currently 30 seconds off their goals partially due to the additional precautions required by the pandemic.

### **Comparison with Surrounding Jurisdictions**

Table 12 below shows the service metrics tracked by the City of Palo Alto. These metrics below are for system-wide fire protection services provided by the City. We were unable to obtain copies of Stanford specific service metrics, although by contract, quarterly reports are provided to the University.

*Table 12. City of Palo Alto Fire Protection Service Metrics from FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Number of fire calls for service	133	126	150
Number of all other calls for service	3,220	2,954	3,440
Total number of calls for service	8,843	8,111	9,000
Fire calls average response time in minutes (Target 8 minutes)	8:25	9:25	8:28
Percent of surveyed residents rating fire services “good” or “excellent”	n/a	94%	95%
Budgeted appropriations	\$28.3M	\$30.7M	\$30.1M
Staffing (FTEs)	89.57	89.57	89.57

<sup>1</sup>Estimated

### **Service Gaps**

Fire protection services are provided by the City of Palo Alto. The General Use Permit requires Stanford (through its contract) to provide .88

suppression personnel for each 1,000 of additional daytime population. Because “additional population” is undefined and has not been tracked by the County or Stanford, we are unable to confirm if the 21 positions provided meet the requirement.

### ***Funding***

Stanford provides reimbursement for fire protection services provided by the City of Palo Alto.

### ***Peer Comparison***

The Los Angeles Fire Department provides fire services to the USC campus. Station 15 is located at the north end of the USC campus.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following fire protection services data for the last three years, along with annual updates:**

- **Number of fire suppression staff**
- **Number of events and response times**
- **Appropriations for fire protection services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge program satisfaction levels.**

## Food Insecurity

### ***How Services Are Provided***

Feeding those who do not have enough food is a service normally provided by non-profit and religious-affiliated organizations. These food programs are supported by multiple sources, including state and local governments, foundations, and private donations. We have identified 11 food programs at or within 5 miles of Stanford and 42 programs located within 20 miles (Attachment C).

The Stanford Solidarity Network, a group of graduate student workers is requesting a food insecurity assessment of the undergraduate, graduate, and postdoctoral population at Stanford. In a recent report authored by the Network, the group reports an urgent need to assess food insecurity and possible solutions on the University campus based on studies performed by other universities and the high cost of living in the Stanford area. The group cites a recent internal Stanford survey of postdoctoral scholars that found nearly 10% of the over 2,400 postdoctoral students at Stanford suffer from food insecurity.

Stanford has a food pantry for graduate student workers on campus once a month, typically utilized by over 200 students, indicating that the need is there, but that assistance with food insecurity is inadequate. Other universities have performed similar food security assessments and have established more frequent/permanent on-campus food pantries to benefit their students.

A study of this nature would require financial resources and time to perform it. While addressing food security is rarely undertaken by municipal governments (or provided as a municipal service), a comprehensive assessment of this type would need to be separately addressed by the County of Santa Clara and/or by Stanford.

### ***Comparison with Surrounding Jurisdictions***

The City of Palo Alto provides funding and coordinates grants to nonprofit organizations through the city's Human Services Resource Allocation Process. The Human Services Division of the Community Services Department provides oversight of the Family Resources database, which includes the Second Harvest Food Bank as a resource.

The division also serves as a key liaison to local social services organizations.

### ***Service Gaps***

It is likely that food insecurity exists at Stanford and is ongoing for some Stanford students. At a minimum, the University should be able to assist students in accessing food through the identification of existing food/pantry programs. The University could also address food needs by offering additional grant funding and more frequent (or permanent) food pantries to its students. In a more thorough approach to the issue, a comprehensive assessment, along with options and funding estimates could be performed as requested by the Stanford Solidarity Network.

### ***Funding***

Funding information for the existing one-per-month food pantry is unavailable.

### ***Recommendations***

**Recommendation 8. The County should address the issue of food insecurity in the upcoming Community Plan Update.**

## Healthcare Services

### ***How Services Are Provided***

#### **Programs and Facilities for Stanford Affiliates**

Stanford's faculty, staff, and their immediate family members are eligible for health benefits managed by Stanford. The University pays the majority of employee costs, while employees are responsible for costs for their dependents. These benefits include medical coverage, dental and vision plans, and long-term care.

Stanford also manages the BeWell Program, which offers free health screenings, subsidized health classes and fitness programs, and financial incentives for participation by Stanford faculty, staff and their spouses or domestic partners.

Stanford's students are required to carry health insurance and pay a health fee for primary care services, counseling and psychological services, and health and wellness programs managed by the Vaden Health Center on campus.

#### **Facilities on Stanford Lands**

Stanford Health Care manages an extensive network of health clinics and the only Level 1 trauma center between San José and San Francisco. The new Stanford Hospital (within the City of Palo Alto), a facility of 824,000 square feet opened its doors in November 2019. Stanford Hospital is consistently ranked among the top hospitals in the country.

#### **Public Access to Stanford Facilities**

Stanford Health Care facilities serve more than 500,000 patients each year. Campus residents are a very small part of the patient pool. Stanford Health Care provides charity care (medical services at partial or no cost) to thousands of patients each year.

### ***Comparison with Surrounding Jurisdictions***

The City of Palo Alto does not provide healthcare services to its residents.

### ***Service Gaps***

There are no apparent gaps in healthcare services. Stanford should report service metrics for its BeWell program, including the number of affiliates



served, screenings, health classes, fitness program and incentives provided.

### ***Funding***

Stanford and its employees pay for healthcare costs. Students pay for their own healthcare costs.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following healthcare services data for the last three years, along with annual updates:**

- **Number of affiliates served**
- **Number of screenings performed**
- **Number and type of health classes offered**
- **Number of participants in health classes**
- **Number of fitness programs offered**
- **Number of fitness program participants**
- **Number and amount of incentives**
- **Appropriations for health care services**
- **Staffing levels for health care services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Law Enforcement Services

### ***How Services Are Provided***

Law enforcement services are provided by Stanford's Department of Public Safety (DPS) which provides law enforcement, crime prevention, emergency response, and traffic and parking control for the campus. The department provides services to everyone on the campus including residents, commuters, and members of the public visiting Stanford. Stanford DPS's administrative functions are housed in the Fire and Police facility at 711 Serra Street on the Stanford campus.

The DPS works under the authority of the County of Santa Clara Sheriff's Office, which establishes minimum training standards for its personnel. Sworn officer training meets Police Officers Standards Training standards and includes a 26-week academy. Sworn officers have reserve officer status with the County. The Chief has commander status.

Under the Sheriff's authority and pursuant to California Penal Code Penal Code § 830.6, Stanford deputy sheriffs have full law enforcement powers to make arrests and enforce state laws and county ordinances. The Sheriff provides DPS oversight to ensure that County policies, procedures and general orders are adhered to pursuant to an existing Memorandum of Understanding (MOU) with the County. The current MOU has been in effect since 2007 and does not contain an expiration date. Some Sheriff's staff are also housed at the Serra Street location.

In 2020, an agreement for supplemental services was entered into by the County and Stanford to reimburse the County for supplemental services provided to the University. These services include activities such as patrols, enforcing traffic laws, conducting criminal investigations, providing security at events, and special detail support.

All initial and follow-up investigations of crimes occurring on Stanford property are conducted by Stanford DPS deputies, except for crimes involving a major theft, death, attempted homicide, kidnapping, and/or taking of hostages, which are managed by the County of Santa Clara Sheriff's Office. Major criminal offenses, arrests and prosecutions are handled directly by the Sheriff's and District Attorney's Offices.

Stanford’s law enforcement staff provide a variety of programs and outreach activities to build trust, maintain open lines of communication, educate and increase safety awareness and reduce opportunities for crime in the Stanford community. DPS prepares a Safety, Security, and Fire Report (SSFR) each year to further inform and communicate with its community. These reports are found on the University’s website at <https://police.stanford.edu/pdf/ssfr-2020.pdf>.

In compliance with the Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act and the Violence Against Women’s Acts, each year the University provides a summary of crimes reported to campus security/law enforcement and arrests made. Data are provided by other police organizations with jurisdiction over Stanford facilities located off campus. The most recent statistical summary reflects three years of data (2017 to 2019) and is found in the SSFR, located on the University’s website. Sexual offenses, burglary and theft crimes reported during those three years represent the highest number of reported incidents. Stanford’s DPS has provided the following metrics for this review as shown in Table 13.

*Table 13. Stanford University’s Law Enforcement Metrics for FY 2017/18 to FY 2019/20*

Service Metric	FY 2017/18	FY 2018/19	FY 2019/20
<b>Number of violent crimes reported</b>	103	64	25
<b>Number of property crimes reported</b>	810	651	265
<b>Number of Part I crimes reported<sup>1</sup></b>	913	715	290
<b>Number of Part II crimes reported<sup>2</sup></b>	204	130	42
<b>Budgeted appropriations<sup>3</sup></b>	n/a	\$15.0 million	\$15.2 million

<sup>1</sup>Part I crimes include criminal homicide, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson.

<sup>2</sup>Part II crimes include other assaults, forgery and counterfeiting, fraud, embezzlement, stolen property, vandalism, weapons, prostitution, etc.

<sup>3</sup>Appropriations for FY2020/21 are \$14.8 million

Communication and dispatching services are provided and managed by the City of Palo Alto’s Police Department Communications Center.

Currently, the Stanford DPS has 33 staff, that includes sworn officers and non-sworn staff, who provide community services and traffic and parking control. When Stanford DPS has temporary needs for additional police support (e.g., large events) it contracts with private security companies that provide off-duty officers.

The County of Santa Clara has engaged a separate consultant to conduct a public safety analysis of Stanford operations.

**Comparison with Surrounding Jurisdictions**

Based on the Sheriff’s assessment, services provided by Stanford are similar to those in other cities. Stanford handles their criminal response like other cities. However, the majority of their calls are not crime related. University police primarily prepare incident reports (as opposed to police reports) for civil liability purposes. Most of Stanford’s calls are reportedly medical calls.

**City of Palo Alto**

The Palo Alto Police Department (PAPD) provides police protection service to the City of Palo Alto, including Stanford-owned lands within the Palo Alto city limits (i.e., Stanford Shopping Center and Medical Center).

The PAPD operates from the city’s Public Safety Building at 275 Forest Avenue. In FY 2021-22 there are 150.50 full-time equivalent (FTE) and 3.3 hourly positions including sworn and non-sworn personnel. Several of those positions were defunded or frozen in FY 2020-21. The PAPD also funds crossing guards for the City on school commute routes.

The PAPD also operates a Communications Center that handles dispatching for the PAPD, the Palo Alto Fire Department, the City of Palo Alto Utilities and Public Works Departments, and for the Stanford DPS. In FY 2021, the City of Palo Alto maintained 21 FTE dispatch positions although 5 of those positions were defunded or frozen.

As a metric of performance, the city maintains a goal to respond to 90% of “urgent” calls within 10 minutes and to respond to 90% of “emergency” calls within 6 minutes. Table 14 below shows the department’s workload and response time data over the last three years.

*Table 14. Palo Alto Police Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of urgent calls responded to within 10 minutes	72%	70%	72%
Percent of emergency calls responded to within 6 minutes	65%	60%	70%
Number of police calls for service	54,979	48,394	54,000
Number of Part I crimes	1,883	2,002	1,600
Number of Part II crimes	2,531	1,953	2,600

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Average response time for emergency calls (goal: within 6 minutes)	5:23	6:15	5:40
Average response time for urgent calls (goal: within 10 minutes)	8:31	9:07	8:20
Percent of surveyed residents rating overall Police Services “good” or “excellent”	n/a	78%	90%
Budgeted appropriations	\$42.3 million	\$44.7 million	\$40.4 million
Staffing (FTEs)	158.38	151.82	152.3

<sup>1</sup>Estimated

### **Service Gaps**

Based on feedback from the Sheriff’s staff, the level of law enforcement staffing at Stanford is adequate and sufficient to avoid leaning on or relying on County staff to perform services that should be provided by University staff. The number of staff and the level of law enforcement staffing are determined by the University, using a variety of factors, including call volume and population, to determine the adequacy of its staffing levels.

The 2000 General Use Permit contains a minimum sworn staffing requirement as the daytime population increases. This requirement is one sworn officer for each 1,000 additional daytime population at Stanford. DPS has not provided the number of sworn staff on its force and neither the County or Stanford tracks population, thus we are unable to confirm if this requirement is being met.

DPS provides an informational report each year. However, DPS should provide additional service metrics which are identified in the recommendations below.

### **Funding**

Stanford pays for all its law enforcement employees and related expenses. In addition, Stanford reimburses the County for the costs of one captain and one records clerk position, and any services requested under the 2020 agreement for Supplemental Law Enforcement Services. As required under a contract with Palo Alto, Stanford also pays a fair share contribution annually for communication and emergency dispatch services from the Palo Alto Police Department.

### **Peer Comparison**

Police services are provided by the Department of Public Safety at USC. The department patrols the campus and surrounding community and has direct contact and an MOU with the Los Angeles Police Department

(LAPD) that defines its boundaries and authority. The agreement sets reporting requirements and like Stanford, specifies that LAPD is responsible for the investigation of serious crimes.

The department is one of the largest private campus departments with 306 full time personnel and 30 part time student workers. The department uses public safety officers who are armed with arrest powers while on duty and trained at a police academy. Officers derive their authority under Public Code Penal Code § 830.7(b).

USC also has community service officers who have security guard training and are unarmed. Contracted uniformed security are also used as needed.

## ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following law enforcement services data for last three years, along with annual updates:**

- Number of violent crimes reported
- Number of property crimes reported
- Number of Part I crimes reported
- Number of Part II crimes reported
- Crime rate
- Number of crime prevention presentations
- Number of people attending presentations
- Number of sworn staff
- Number of non-sworn staff
- Number of contract security staff
- Number of cases assigned to County for prosecution
- Percent of cases assigned to County for prosecution
- Number of emergency calls received
- Response time (in minutes) to emergency calls
- Number of non-emergency calls received
- Response time in minutes to non-emergency calls
- Number of officer-initiated calls
- Budgeted appropriations for law enforcement services
- Staffing levels for law enforcement services

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Library Services

### ***How Services Are Provided***

Stanford provides extensive on-campus library facilities and related services that accommodate the library demands of its students, faculty, and staff. Stanford libraries comprise the Cecil H. Green Library (main library), eight branch libraries (Art and Architecture, Earth Sciences, East Asia, Engineering, Marine Biology, Music, Philosophy and Science) and three auxiliary libraries that serve largely as library storage. Together these libraries hold more than 12 million items in their collections.

Stanford Libraries serve four of Stanford's seven schools (Humanities and Sciences; Earth Energy and Environmental Sciences; Engineering; and the Graduate School of Education) while the other three schools (Graduate School of Business, Graduate School of Law and the School of Medicine) have independently managed libraries: Robert Crown Law Library, Business Library, and Lane Medical Library.

Green Library is the largest library on campus and houses Stanford's Information Center, Media and Microtext Center, the David Rumsey Map Center, and many other central library resources. Green Library hosts exhibits with associated programming (lectures, performances) advertised on the Stanford Events page, which are open to members of the broader community with visitor registration.

The University tracks the following metrics for Green Library:

1. Number of non-Stanford users who registered as visitors for exhibits or for day-use
2. Number of fee-based Stanford University Library (SUL) cards issued to non-Stanford ID holders (a single number that includes alumni, Stanford Hospital, summer program, library affiliate groups, and continuing studies), and
3. Number of Stanford University ID cardholders who visited Green Library in a year.

Table 15 shows the number of visitors, visits made, library cards, and resources made available through Stanford's libraries to those who are not university students.

*Table 15. Library Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Circulation items available to affiliates/residents</b>	12 million+	12 million+	12 million+
<b>Number of non-Stanford users who register as visitors for exhibits or day use</b>	11,283 <sup>1</sup>	5,060 <sup>2</sup>	0 <sup>3</sup>
<b>Number of fee-based Library cards issued to non-Stanford holders</b>	1,337 <sup>4</sup>	659 <sup>2</sup>	0
<b>Number of visits by Stanford University ID cardholder at Green Library (includes continuing study students and summer camp students)</b>	456,162	254,452	28,950 <sup>5</sup>
<b>Number of publicly available computers</b>	50	50	0 <sup>3</sup>

<sup>1</sup> Unique visitors

<sup>2</sup> Partial year data from September 1, 2019 to March 17, 2020

<sup>3</sup> In response to the COVID-19 pandemic

<sup>4</sup> Includes renewals

<sup>5</sup> Data are from June 2020 to May 2021

Library services are available to all active Stanford University ID holders, of which there are nine badge types:

1. Faculty/Staff
2. Student
3. Courtesy
4. Fellow
5. Visiting Scholar
6. Temp/Casual
7. Postdoctoral scholars
8. Chaplin Affiliates
9. Staff of Associated Study Stanford Student Union

Stanford Libraries provides access to visitors (although these have been temporarily suspended due to COVID-19):

1. University-affiliated groups (i.e., non-Emeritus faculty/staff retirees who typically have building access with their retiree IDs)
2. Stanford Alumni
3. Stanford Hospital clinicians and staff
4. Stanford Continuing Studies Department Students
5. Stanford Summer program participants (i.e., summer camps)
6. Library-affiliated groups (i.e., short-term visiting scholars and academic library partners)
7. Public visitors (two options):
  - Those who have registered as a visitor using a government ID at visitor registration kiosk. Non-alumni visitors receive seven free days per year (registered as a day visitor) and then have the option to buy a day pass or fee-based membership.



- Those who have purchased a fee-based library card “SUL Card.”

Other things of note include:

- Government documents are available with no limit in libraries that serve as federal repositories. Green Library is a nationally recognized federal repository.
- Special collections are not subject to the seven-day limit; 10% of access to the special collections are Palo Alto residents using the Stanford archives.
- Local high school students over the age of 16 may register as visitors or purchase a for-fee card.
- Dependents under the age of 16 may accompany Stanford patrons into the library but must stay with their parent.
- Spouses of students have Stanford University ID Cards, and thus have access and borrowing privileges at Stanford Libraries.

Digital collections include media streaming, e-books, a vast collection of journals, and digitized historical documents. Access to licensed digital content is managed by the Stanford Libraries and the three coordinate libraries. Over time much information has been made available electronically. Access to digital content from off campus is limited to credentialed SUNetID (online credentials for Stanford community members) holders.

Some licensed content is available to public visitors from select computers within the libraries for walk-up access, while other databases require Stanford login credentials regardless of access point. Many digital resources made by Stanford libraries are made freely available on the web.

The population profile served is geared toward students between 18 and 25 years of age. Stanford expands its on-campus library facilities and related services, as needed, with development of new academic facilities to accommodate the library demands of its students, faculty, and staff. Library square footage needs are declining as more resources are converted to digital formats.

Stanford has recently partnered with Palo Alto and the community to provide lectures on issues like bias and segregation. Stanford offers some classes that are open to everyone.

### ***Comparison with Surrounding Jurisdictions***

As research libraries, the Stanford Libraries provide distinct services from a community library system. Stanford is more research oriented and focused on subjects to support its students. Like community libraries,

however, Stanford Libraries include substantial collections of fiction, general reference, newspapers and magazines, and children's books in addition to more specialized research materials.

Stanford's community centers, residence halls and campus bookstore also host a variety of events and functions (lectures, "story time," book signings, book clubs, small meeting rooms) that are provided by public libraries in cities/towns.

### **City of Palo Alto**

The neighboring City of Palo Alto has a robust library system composed of five libraries: Rinconada, Children's, Downtown, College Terrace and Mitchell Park. For a city with a population 67,000, five libraries is unusually high.

The libraries receive a great deal of use from Stanford residents although the city does not track Stanford patrons separately. All Palo Alto school students (including those from Stanford) can use the libraries pursuant to an agreement with the Palo Alto Unified School District. The Palo Alto library lends to all California residents with a library card.

Palo Alto's library staff conducts surveys, connects with the School District, adult schools, Chamber and Avenidas (senior services) and follows national trends to determine its library offerings.

Palo Alto libraries seek to deliver information with:

- Summer reading programs.
- Volunteer opportunities for:
  - Teens,
  - Adults, and
  - Large numbers of senior volunteers.
- A variety of technology materials such as robots. (They have three robots used in story time.)
- A farm robot to teach local farming
- Programs on trends and current issues.
- Author programs delivered online. These are very popular and more programs are planned.
- Checkout of 100 items at one time for three weeks.

All libraries have computers. Laptops and Chromebooks are available for checkout and computer assistance is provided to seniors. The libraries offer many online books and services (Hoopla, Kono, Overdrive, Libby etc.) and Brain fuse, an online tutoring service.

Palo Alto has international language materials which are heavily used. The city also offers English as a second language (ESL) classes (which are

attended by Stanford shorter term visitors), citizenship and language learning resources.

Palo Alto offers materials for children of all ages. The Children’s Library has 6,000 square feet dedicated to children’s materials. It is exclusively for children and includes some parenting classes. The materials constitute approximately 15% of total circulation.

Mitchell Park Library has a similar sized collection of children’s materials. Together the Children’s and Mitchell Park libraries materials make up 60% to 65% of the library’s total circulation.

Five story times per week are offered each week with 18 to 150 children in each (attending virtually). Sensory story times are offered for autistic children. A three-year summary of library services is shown in Table 16.

*Table 16. City of Palo Alto Library Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Number of teens served	2,619	4,937	962
Percent of surveyed residents rating library services as “good” or “excellent”	n/a	92%	94%
Rating for library facilities (buildings, computer equipment, accessibility)	n/a	94%	93%
Rating for the variety of materials	n/a	88%	88%
Rating for recommending the Palo Alto libraries to friends	n/a	91%	93%
Meeting room reservations	14,648	10,290	n/a
Visits to library branches	1,009,639	663,761	51,383
Checkouts of library materials	1,467,038	1,194,673	808,438
Annual turnover rate of library collections	4.6	3.57	1.93
Budgeted appropriations	\$9.7 million	\$10.3 million	\$8.4 million
Staffing (FTEs)	62.58	61.28	61.28

<sup>1</sup>Estimated

### **Service Gaps**

Stanford focuses on providing library services that are geared toward its students and their studies. However, the public may access many of these materials. There is no identification or breakdown of materials available for children.

## ***Funding***

Stanford University funds these library services. The library also receives private grants used for supporting new types of digital research. A small percentage of users pay a fee.

## ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following library services data for the last three years, along with annual updates:**

- **Circulation items available to affiliates/residents**
- **Number of non-Stanford users who register as visitors for exhibits or day use**
- **Number of fee-based Library cards issued to non-Stanford holders**
- **Number of visits by Stanford University ID cardholder at Green Library (includes continuing study students and summer camp students)**
- **Number of publicly available computers**
- **Circulation items available to non-affiliates/non-residents**
- **Types of materials provided to non-affiliates/non-residents including children's materials**
- **Number of non-affiliates/non-residents using library materials**
- **Budgeted appropriations for library services**
- **Staffing levels for library services**

**To implement Recommendation 4, require Stanford to include annual customer service survey feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Parking Enforcement Services

### ***How Services Are Provided***

Stanford's Department of Public Safety provides parking enforcement for the campus under the existing Memorandum of Agreement with the County of Santa Clara Sheriff's Department. The County of Santa Clara processes all parking citations and appeals.

### ***Comparison with Surrounding Jurisdictions***

Palo Alto's Police Department is responsible for parking enforcement, parking citations and adjudication, and abandoned vehicle abatement in the city, except for the lots at Stanford Medicine. (Stanford pays for enforcement in these lots.) The Police Department does not have any metrics for parking enforcement activities.

### ***Service Gaps***

Very little information was available regarding parking and parking enforcement activities. Even with an apparent sharing of parking program functions between the University and the County, information about this program should be provided to the public. The only issue that surfaced during our review was neighborhood concern with increased parking and the resulting effects on local neighborhoods.

### ***Funding***

Funding for parking enforcement is paid by Stanford University.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following parking enforcement data for the last three years, along with annual updates:**

- **Number of parking citations issued**
- **Number of parking citations appealed/adjudicated**
- **Percent of citations appeal completed within University-determined goal.**
- **Budgeted appropriations for parking enforcement services**
- **Staffing levels for parking enforcement services**

## Parks and Recreation Services

### ***How Services Are Provided***

Stanford provides extensive athletic and recreation facilities and open space areas consisting of groves, lawns, courtyards, and plazas that are available to campus residents, affiliates and members of the public.

Recreational facilities on the campus include 30 acres of play fields, 10 fitness and recreation centers, 46 courts for tennis, sand volleyball, basketball and bocce ball, a golf and practice range, 7.4 miles of walking and jogging paths (not counting trails outside the Academic Growth Boundary), and five Campus Open Space areas that support recreation. These include the Arboretum, the Oval, San Juan neighborhood parks, Lagunita and its surroundings, and the Red Barn and equestrian facilities. Stanford provides a total of 17.3 acres per 1,000 residents of on-campus parks and open space, which is more than the minimum requirement of 5 acres per 1,000 residents required under the Stanford Community Plan.

The public has access to Stanford's campus. Members of the public also have occasional access to recreational fields and facilities through summer sports camps and local club sports leagues, and some of Stanford's outdoor facilities are accessible to the public when not in use for Stanford events.

Stanford's Department of Athletics and Physical Recreation supports 36 varsity sports teams, 32 club sports teams and fitness and recreation facilities for the general campus population.

Stanford Student Affairs and the Stanford Campus Residential Leaseholders (SCRL) also have open recreational programs that occur on Stanford lands. Faculty residents and their dependents have access to the Stanford Campus Recreation Association facilities on Bowdoin Drive, including swimming, tennis, and fitness classes. These facilities have programs directed at Stanford residents and their families, including lessons, family nights, and recreational activities.

Graduate students with children who live on campus are assigned to Escondido Village in one of the four family-courtyard communities. Each courtyard consists of two-story townhouse-style apartments with an enclosed playground for children.

Sporting events and venues, such as football, soccer and basketball, are open to Stanford affiliates and the general community through ticket sales. There are over 410,000 annual event attendees who are non-Stanford residents.

Table 17 below shows Stanford’s park acreage, recreation data and annual costs.

*Table 17. Parks and Recreation Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Park acres per 1,000 population	17.3	17.3	17.3
Recreation centers per 20,000 residents	10	10	10
Miles of recreational trails maintained	7.4	7.4	7.4
Percent of class registrations occurring online	90%	90%	100%
Total enrollment in classes/camps in arts, sciences, recreation, and open space programs			605,000
Cost of campus parks, fields and landscaping (1,048.06 acres)			\$16,112,200 <sup>1</sup>
Campus parks cost per acre			\$15,373
Cost to maintain golf course (165.47 acres)			\$4,936,000 <sup>1</sup>
Golf course cost per acre			\$29,830
Cost of recreational programming			\$17,520,000 <sup>1</sup>

<sup>1</sup> Data provided did not include multiple years or a specific year.

### **Comparison with Surrounding Jurisdictions**

One of the key differences between Palo Alto’s and Stanford’s services is that the profile of the population served is distinct. Stanford’s largest category of individuals served is students between 18 and 25 years of age whereas Palo Alto’s services are designed for a broader population.

Stanford parks and recreation facilities are extensive and well-maintained. Stanford’s ratio of parks (including open space) per resident is higher than neighboring communities. There are minor differences in specialty programs, reflecting differences in community demographics and program priorities. For example, Palo Alto has a lawn bowling green and Stanford does not. However, Stanford has an archery field and Palo Alto does not.

The County of Santa Clara has a rifle and pistol range while Stanford has no firearm practice facilities. Stanford has sand volleyball and tennis complexes which the County of Santa Clara parks do not provide.

The City of Palo Alto and County of Santa Clara measure distance to parks as a service metric, with the goal of providing the majority of residents access to recreational opportunities within a half-mile (walking distance) of their homes. The City of Palo Alto's Parks Master Plan (adopted in 2017) identified several neighborhoods that were lacking parks within one-half mile but did not provide a quantitative measurement of how many residents were affected.

The County reported that while only 3% of its residents live within one-half mile of a County Park, 90% live within 5 miles (Santa Clara County Parks 2018 Strategic Plan). All of the existing residential housing units on the Stanford campus are within one-half mile of open space and recreational facilities located within the campus.

### **City of Palo Alto**

The neighboring City of Palo Alto has 32 neighborhood parks and 4,000 acres of open space. Open space areas have rest rooms, interpretative centers, trails and bike trails. The parks vary in size from under 2 acres up to huge parks with picnic areas, fields, basketball courts, tennis courts. The city has three community centers, an Art Center/Museum, Children's Museum and Zoo, and dog parks. The city has two playing fields on Stanford property which they lease from the University.

The community centers are located near libraries and parks. Community centers offer senior/adult fitness, youth classes, events, yoga, signing groups. The Cubberley Community Center leases space to Avenida (senior programs), AA, dance groups etc.

The city has a pool, which is located in one of its parks, and a golf course. Stanford's children can access summer camps, classes, and sports classes although the city doesn't track the number of Stanford patrons. Non-city residents (including Stanford residents) are charged 20% to 30% more for classes.

The Community Services Office of Human Services handles seniors and child services:

- The city contributes funds to Kids Choice, one of which serves mostly Stanford students.
- The city provides funds to Avenidas (a non-profit organization) for senior services.

Palo Alto measures its community programs based on demand for services and classes. They provide funding to make sure the equipment is safe and trash is picked up. During the current challenging economic



times, the department is looking to leverage resources with partners and collaborate with other departments (for example, the Library).

The city does not own any gyms and only has one pool. Stanford has not historically been willing to share all of its recreational resources. City leaders believe it could provide more services to the community with greater use of Stanford’s resources. The city monitors the service metrics shown in Table 18 below.

*Table 18. City of Palo Alto Community Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of class registration occurring online	65%	81%	90% n/a
Percent of surveyed who rate the city’s success in preserving natural areas as “good” or “excellent”	n/a	83%	83%
Percent of surveyed who rate recreation programs as “good” or “excellent”	n/a	83%	83%
Total enrollment in classes/camps in arts, sciences, recreation and open space programs	13,553	9,118	7,000
Average enrollment in classes/camps in arts, sciences, recreation, and open space programs	15	11	7
Budgeted appropriations: parks and open space	\$11.8 million	\$12.1 million	\$11.8 million
Staffing (FTEs): parks and open space	30.59	30.59	29.59
Budgeted appropriations: recreation	\$6.7 million	\$6.6 million	\$5.8 million
Staffing (FTEs): recreation	47.08	42.85	41.35

<sup>1</sup>Estimated

### **Service Gaps**

Stanford affiliates and their dependents have access to programming and recreational facilities on the campus. Stanford’s provision of parks and open space is substantially greater than the five acres per 1,000 residents standard specified in the Stanford Community Plan.

However, public access to recreational fields and facilities is occasional and limited. It is a best practice in government to maximize the use of school facilities and make them available for utilization by the public.

Palo Alto staff expressed concern with possible impacts associated with expanding Stanford’s population, which could result in less availability of parks and recreational services for Palo Alto residents.

Specifically, increases at Stanford could impact children’s programs and the use of the City’s two athletic fields on Stanford’s property. Further,

increases in the number of Stanford residents could result in the increased use of all city parks and open spaces and could necessitate additional maintenance since University students, faculty and staff use these facilities.

### ***Funding***

Stanford University funds and homeowner association fees pay to maintain park facilities. Users also contribute toward specific recreational services through event fees, class fees, and membership dues.

### ***Peer Comparison***

USC has four to five smaller parks located on its University Park Campus. Exposition Park, a 160-acre urban park with museums, education and sport facilities and entertainment venues, is located just south of the University Park Campus, however, there do not appear to be any formal ties to the university.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following parks and recreation services data for the last three years, along with annual updates:**

- **Park acres per 1,000 population**
- **Number of recreation centers per 20,000 residents**
- **Miles of recreation trails maintained**
- **Percent of class registrations occurring online**
- **Total enrollment and percent change in classes/camps in arts, sciences, recreation, and open space programs**
- **Annual cost of campus parks, fields and landscaping (1,048.06 acres)**
- **Campus parks, field and landscaping cost per acre**
- **Annual cost to maintain golf course (165.47 acres)**
- **Golf course maintenance cost per acre**
- **Annual cost of recreational programming**
- **Appropriations for parks and recreation services**
- **Staffing levels for parks and recreation services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

**Recommendation 9. Develop an agreement between the County, Palo Alto and Stanford for additional shared use of University fields and recreational resources.**

**Recommendation 10. Provide fair-share maintenance funding for Palo Alto city parks used by Stanford affiliates.**

## Planning and Building Services

### ***How Services Are Provided***

Stanford has staff that provide planning studies, building permit applications, and documents. However, land use regulatory oversight rests with the County of Santa Clara. These activities include entitlements, permitting and inspection.

The County previously had a permitting office at Stanford, however, that office is currently closed.

### ***Comparison with Surrounding Jurisdictions***

The City of Palo Alto is responsible for planning and land use approval for areas and buildings located within its boundaries.

### ***Service Gaps***

Since the County is primarily responsible for planning and building issues, service gaps are not applicable.

### ***Funding***

Funding for the University's planning and building functions is paid by Stanford University.

### ***Recommendations***

We have no recommendations associated with this service.

## Public School Services

### ***How Services Are Provided***

#### **Palo Alto Unified School District (PAUSD)**

The PAUSD service area covers the City of Palo Alto, portions of the town of Los Altos and Portola Valley, and Stanford. PAUSD operates 12 elementary schools (grades K to 5), 3 middle schools (grades 6 to 8), and 2 high schools (grades 9 to 12). Educational services are provided to almost 12,000 students from transitional kindergarten through grade 12. In addition, the PAUSD currently operates a pre-school, a Young Fives program, a self-supporting Adult School, the Hospital School at Stanford's Lucile Packard Children's Hospital, and Summer School.

The nearest PAUSD elementary and high schools to Stanford are Escondido Elementary School, Lucille M. Nixon Elementary School, and Palo Alto High School. The two elementary schools are located on land that was previously owned by Stanford.

PAUSD, unlike most school districts in California, is a community funded, or a basic aid funded, school district. While most school districts receive funding from the state for general purpose operations based on the number of students served, community funded school districts are funded primarily by the local property tax. Thus, PAUSD does not receive additional state aid for its general operations when student enrollment increases.

In addition, under the California Constitution and Revenue and Taxation Code, Stanford University receives a property tax exemption for the majority of the rental housing it provides. To the extent that housing provided by Stanford is exempt from local property tax, and not paid by long-term leaseholders, PAUSD does not receive property tax revenues from Stanford to fund its operations.

A separate report was prepared in 2019 by School Services of America Inc. that analyzed the impact of expanding housing proposed by Stanford on the future enrollment and per-student funding for PAUSD. An increase in student population at Stanford University is expected to reduce the revenue available per child served. Because PAUSD is a community funded school district, it will not receive any additional

general-purpose revenues from the state to serve additional students who reside at Stanford.

### ***Comparison with Surrounding Jurisdictions***

The City of Palo Alto does not provide public school services to its community.

### ***Service Gaps***

There are no existing gaps in public school services, which are provided by the PAUSD.

### ***Funding***

In FY 2019–20 it was estimated that the local property tax would provide approximately 80% of the PAUSD’s unrestricted General Fund revenue.

### ***Recommendations***

**Recommendation 11. The County, Stanford, and the PAUSD should work collaboratively to identify and equalize payments in lieu of property taxes (“PILOT”) for any public school service provided to the Stanford community.**

## Public Transit Services

### ***How Services Are Provided***

Stanford's transit services are unique due to the density of transit-dependent people. Many students living both on and off campus choose to use public transportation, resulting in a high concentration of Caltrain/public transit riders. The University has implemented a comprehensive transportation demand management (TDM) program, intended to provide alternate modes of transportation. To accomplish this, Stanford offers numerous alternative transportation options, including an extensive shuttle system (the Marguerite).

Stanford's Marguerite shuttle is a private shuttle system and free shuttle services are provided to the public as well. The shuttle provides internal circulation on campus, connections to adjacent communities, and last-mile service to the Caltrain commuter rail service in downtown Palo Alto. The Marguerite shuttle service is operated by a third-party (currently First Transit) using University-owned assets.

Stanford's staff reports that their goal is to provide a shuttle that is an effective and efficient service for the Stanford community. Accordingly, shuttle capacity and route planning are evaluated regularly, and capacity is expanded when there is sufficient demand. The most recent example is Stanford's shift in schedules and services to address changes in the Caltrain schedule during the pandemic and the resulting shelter-in-place orders.

The University measures its Marguerite ridership by route, day, week, and month as well as Stanford's cost per passenger by route. Stanford examines ridership by hour/trip when planning for potential schedule changes.

Service levels are determined by demand (i.e., ridership levels) and requests from funding partners. The University evaluates potential changes frequently and modifies services to address prevailing trends, including new growth and development. Increases in Marguerite service are determined by evaluating available fleet and labor constraints of Stanford's service provider. Decreases in service are determined using the same methods.

Stanford works with Alameda County to supplement service through the operation of the AE-F Marguerite Service. This service is operated

through a contract with the Hallcon Corporation. The AE-F route is monitored the same way as Marguerite services.

Stanford’s shuttle service includes 87 buses that cover over 22 routes with ridership of over 3.2 million passenger riders per year. Table 19 below shows the average monthly ridership for Stanford’s shuttles. Shuttle ridership was down sharply in FY 2020/21 due to the pandemic.

*Table 19. Transit Service Metrics for the Marguerite for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Average ridership per month for Marguerite	223,527	208,863	71,763
Average ridership per month for Marguerite AEF route	12,484	11,908	6,111
Budgeted appropriations	\$19.2 million	\$19.1 million	\$12.7 million

Stanford supports public buses from the East Bay and provides transit passes to employees to encourage use of public transit. Stanford’s staff work directly with public transit agencies to optimize access to the campus by providing data for ridership modeling and through operational discussions with agency staff.

Alameda County Transit (ACT) provides the Dumbarton Bridge corridor service. ACT contracts with a third party to operate its buses to and from Alameda County to campus with funding assistance from bridge tolls and private contributions from Stanford University and Stanford Health Care. The Dumbarton’s East Bay routes serve several main hubs on campus. Passengers can then either walk or board the Marguerite to get to their final destination.

Together, the Dumbarton Express and Stanford’s U Line and AE-F services generate a little over 2,000 riders per day. Monthly ridership for the Dumbarton service is provided by Alameda County Transit for the U Line and Dumbarton Bridge (DB) services.

ACT determines bus schedule adjustments for the Dumbarton based on their own budgetary constraints. Marguerite AE-F routes are patterned to fill in service gaps with ACT’s services. Increases in Dumbarton service are determined by available fleet and labor constraints of ACT’s service provider. Decreases in service are determined using the same methods.

### **Comparison with Surrounding Jurisdictions**

Marguerite services to the campus are more frequent and convenient than local area bus services provided by SamTrans and the Valley Transportation Authority (VTA). Examples include multiple routes



meeting all Caltrain stops at the Palo Alto Transit Center with service every 10 minutes during the peak times for cross-campus services (prior to COVID-19).

Dumbarton service, which is subsidized by Stanford, is the only service from the Alameda County to Santa Clara County via the Dumbarton Bridge.

The City of Palo Alto has provided free shuttle services, as one of its strategies for encouraging transportation alternatives to single occupancy vehicle trips and to improve traffic flow and parking availability. However, this service has been discontinued due to the impacts from the ongoing COVID-19 pandemic and resulting financial and health-order constraints. Table 20 below shows the city’s transit ridership in the last two fiscal years.

*Table 20. City of Palo Alto Shuttle Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Number of shuttle riders	104,929	60,197	n/a <sup>1</sup>

<sup>1</sup>Shuttle service discontinued

Palo Alto’s Transportation staff continues to evaluate funding opportunities for shuttle or other transit options and has been awarded grant funds from VTA to pursue innovative opportunities. The city has been awarded a \$2 million Innovative Transit grant from the Santa Clara Valley Transportation Authority to fund an on-demand micro-transit service in Palo Alto. Service is tentatively scheduled to begin in late 2022.

**Service Gaps**

There are no geographic gaps in the Marguerite shuttle service on University premises. All populated areas of the main campus are served by the Marguerite. Some routes are currently suspended due to COVID-19 but are expected to resume as more people return to campus.

**Funding**

Stanford University and Stanford Healthcare pays for Stanford’s private shuttle system. The University is also a funding partner for the VTA on-demand service. Stanford’s private income funds these services.

**Peer Comparison**

USC Transportation provides an extensive network of free buses throughout the year for students, staff, faculty, and university guests. Multiple routes serve USC’s main campus, the North University Park

neighborhood, the USC Parking Center as well as the USC Health Sciences Campus (HSC), Marina Del Rey ISI/ICT locations, Keck USC of Alhambra, and Union Station.

USC supplements its HSC/Union Station service with the Lyft Program to offer an alternative to its buses. The Lyft program at HSC runs from 7a.m. to midnight and the service includes trips between HSC and Union Station. As a back-up, passengers can use the Lyft app to take a Lyft ride between Union Station and HSC if they have missed the bus.

## ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following transit services data for the last three years, along with annual updates:**

- **Location and schedule per shuttle stop**
- **Number of riders boarding per scheduled shuttle stop**
- **Number of riders disembarking per scheduled shuttle stop**
- **Average ridership and percent change per month for Marguerite**
- **Average ridership and percent change per month for Marguerite AEF route**
- **Budgeted appropriations**
- **Staffing levels for transit services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Senior Services

### ***How Services Are Provided***

Stanford seniors have access to senior services offered by Avenidas, a private non-profit organization located in downtown Palo Alto. These services include consultations with clinical social workers specializing in gerontology at no cost or reduced cost for Stanford affiliates (faculty, staff, their dependents and students) depending on the type of service. Additional services available to Stanford affiliates include transportation, referrals to caregivers and home service providers, workshops and fitness classes, and social and volunteer opportunities.

Some Stanford seniors are eligible to use the services of Bright Horizons for temporary in-home caregiving and professional advising for seniors. In addition, Stanford affiliates have access to the Lively activity sharing product that allows family members to monitor a senior's daily activities and the Farewell to Falls program, which provides home visits by a registered occupational therapist to assess home safety risks and mobility issues. These services are provided through health insurance programs, for which all resident Stanford seniors and their dependents are eligible.

Stanford seniors may also enroll in Meals on Wheels and Little House for home delivered meals. Stanford's resident seniors, nearly all of whom reside in taxpaying residential units as long-term leaseholders, are also eligible for senior assistance programs offered by the County of Santa Clara.

Stanford has also supported the construction of a private senior housing, assisted living and skilled nursing facility on its lands in nearby Palo Alto. The Vi Community houses many Stanford affiliates.

Stanford has several volunteer community service programs for students, faculty and staff focused on serving seniors (including Meals on Wheels).

Services provided through the Stanford WorkLife Office for faculty and staff include a once-a-month caregiver group with a designated topic, with a specific focus on caregiving to the elderly. These are attended by 20 to 65 people depending on the topic. The topic that receives the most attention is legal services related to elder care.

Stanford Health Care’s Aging Adult Services provides education, resources, and care coordination for adults ages 65 and older residing in San Mateo or Santa Clara counties. Patients are offered services up to 90 days after they are discharged from Stanford Hospital or from skilled nursing facilities, to home. The Aging Adult Services team includes nurses, a gerontologist, a social worker and an occupational therapist.

Stanford Health Care has clinics on the campus that specialize in geriatric medicine and aging adult services, including assistance with home care, caregiving, home technology, and end of life support. These services are open to members of the Stanford community.

In addition, the Health Library is a 2,000 square foot non-clinical space in the new Stanford Hospital that is another resource for caregivers. The services provided at the Health Library include supportive care, free workshops, caregiver support, and peer support for family healthcare. The Health Library program is designed for family caregivers juggling work/family/caregiving; individuals actively caring for someone regardless of whether they are in the hospital or an outpatient. The program elevates the family caregiver to feel like a member of the care team. The goal is to improve patient experience by providing family caregivers of patients with clinical/medical-type skills.

Some services provided to senior residents on campus are retiree benefits and as such, fall within the benefits package. Stanford tracks how many members are using services, legislative requirements, and industry coverage standards to set the benefits package offered to the retired university faculty and staff.

The Faculty Club and the Stanford Campus Recreation Association (SCRA) provide community centers, social and recreational benefit for residents, including Emeriti staff and their dependents. Services include food services, community room rentals exercise classes and recreation opportunities. The Faculty Club and the SCRA track retiree and senior memberships and program usage. Table 21 shows memberships and program usage for the last three years.

*Table 21. Senior Citizen Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Faculty Club memberships	2,350	2,350	2,350
Campus Recreation Association programs used	550	550	550

The Caregivers Center, which is part of the Stanford Health Library, keeps track of asynchronous webpage touches (how many times people visit the webpage), including patient and family guides.

Stanford uses consultants to determine service levels on an annual basis based on plan use in the prior year. If a service is identified as heavily utilized then there are changes to the plan design structure, so needs are met.

As the headcount increases, benefits will be extended to new Stanford affiliates. Fringe benefit rate negotiations are affected, and employee contributions may be affected as well. If demand for service or programing increases, additional personnel will be hired, or services altered to meet the need.

### ***Comparison with Surrounding Jurisdictions***

Through the Community Services Office of Human Services, the City of Palo Alto provides funds to Avenidas (a non-profit organization for senior services). This Office also provides oversight of the Family Resources database.

### ***Service Gaps***

All Stanford affiliates and their dependents are covered by senior services. Compared with most communities, Stanford's academic campus houses a relatively small population of approximately 700 residents who are over 65 years old, which include retired faculty and staff and their spouses, parents of faculty, and student residents.

The population is unique in that they disproportionately are economically stable, highly educated, and highly independent.

The service metrics provided appear to be estimates as it is unlikely that the number of participants and programs used would have the exact same numbers in the last three years. These metrics should be refined and detailed, along with appropriations, staffing levels and customer feedback.

### ***Funding***

The program is funded through Stanford private funds, employee medical care contributions, and nominal membership dues. The bulk of any medical costs for retirees and their dependents, approximately 90%,

is covered by Stanford which is typical of most employers. Retirees pay a monthly contribution. Some plans and services require a co-pay.

Services at the Health Library are free to Stanford affiliates and the general community. There are nominal membership dues for the Faculty Club and SCRA.

### ***Peer Comparison***

USC offers family and dependent care resources to its students and families. USC partners with Bright Horizons, which provides access to sitters for children, pets and housekeepers. Discounts are offered for eldercare. Elder care is available through Bright Horizons as back-up care for families.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following senior services data for the last three years, along with annual updates:**

- **Number of Faculty Club memberships**
- **Number of Stanford Campus Recreation Association programs used**
- **Number of Stanford Campus Recreation Association memberships**
- **Number of participants for Faculty Club programs (each program)**
- **Number of participants for Stanford Campus Recreation Association program usage (each program)**
- **Number of Caregivers Center webpage touches per year**
- **Appropriations for senior services**
- **Staffing levels for senior services**

**To implement Recommendation 4, require Stanford to include customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Solid Waste Services

### ***How Services Are Provided***

Solid waste generated by Stanford is managed under a service contract with Peninsula Sanitary Service, Inc. (PSSI). PSSI operates all collection services on Stanford grounds, including the collection, processing, and/or marketing of recyclables, food and compostable materials, and trash. PSSI provides dumpster and roll-off debris box service; provides recycling and composting bins for campus buildings, and recycling, compost, and landfill bins for special events. They also collect construction and demolition material and provide street sweeping services.

PSSI manages the contracts with disposal facilities and operates the Stanford Recycling Drop-Off center on campus (which is also open to the public). PSSI also provides community education and trainings for how to reduce waste, and promote increased reuse, recycling, and composting at the campus.

PSSI serves the residential neighborhoods on the campus. Faculty and staff from residential households are also eligible for the County of Santa Clara’s Household Hazardous Waste Collection events.

Over the last 30 years, Stanford’s Waste Reduction, Reuse, Recycling and Composting Program has been expanded and improved in response to demands from the campus community, recycling markets, and new legislation. In 2017, the University initiated a Zero Waste Feasibility Study to analyze its waste streams and develop strategies for reaching the goal of zero waste (defined as 90% diversion rate or higher) by 2030. Thus far, Stanford has increased its landfill diversion rate from 39% in 1998 to 67% in 2020. Table 22 below shows Stanford’s recent progress in reducing its waste.

*Table 22. Solid Waste Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Total waste diversion in tons</b>	14,882	17,410	10,869
<b>Pounds of solid waste disposed of per person per day: goal</b>	0 waste by 2030	0 waste by 2030	0 waste by 2030
<b>Pounds of solid waste disposed of per person per day: actual</b>	.24	.26	.16

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Percentage of waste diverted from landfills	64%	66%	67%
Percentage of commercial accounts with compost service	100%	100%	100%
Tons of materials recycled or composted	8,509	8,970	5,436
Budgeted appropriations	\$2.1 million	\$2.1 million	\$2.1 million

Each year, Stanford’s recycling data are provided to the County of Santa Clara. Stanford’s tonnages are included with the County’s data in the annual report filed with the state.

### **Comparison with Surrounding Jurisdictions**

Palo Alto provides refuse-related services on a user charge basis to city residents and businesses. The goals of its refuse program are to minimize waste generation, maximize recycling and reuse to meet and exceed the city’s Zero Waste goals, protect the environment by safely collecting and disposing of household hazardous waste, and maintain and monitor the city’s closed landfill. Table 23 shows Palo Alto’s recycling data.

*Table 23. City of Palo Alto Solid Waste Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Number of households participating in the Household Hazardous Waste program	5,523	4,519	5,545
Percentage of commercial accounts with compost service	100%	100%	100%
Percentage of household with mini-can garbage service	43%	44%	44%
Percentage of waste diverted from landfills	82%	81%	82%
Tons of materials recycled or composted	55,900	51,852	48,000
Number of inspections performed annually on recycling and compost sorting compliance	n/a	141	70
Budgeted appropriations	\$29.7 million	\$38.6 million	\$32.4 million
Staffing (FTEs)	15.65	15.93	15.93

<sup>1</sup>Estimated

### **Service Gaps**

There are no gaps in service.

### **Funding**

A copy of the contract with PSSI was not provided, thus we are unable to provide any funding information.



## ***Recommendations***

To implement Recommendation 3, require Stanford to provide the following solid waste services data for the last three years, along with annual updates:

- Total waste diversion in tons
- Pounds of solid waste disposed of per person per day: goal
- Pounds of solid waste disposed of per person per day: actual
- Percent of waste diverted from landfills
- Percent of commercial accounts with compost service
- Tons of materials recycled or composted
- Budgeted appropriations (three years)
- Number of single-family and multi-family residential households served
- Number of commercial and school sites served
- Number of household hazard waste events/sites
- Staffing levels (three years)

To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.

## Stormwater Services

### ***How Services Are Provided***

Stanford is located in a region with moist, mild winters and hot, dry summers. More than 90% of precipitation in the Bay Area falls between November and April. Bay Area lowlands receive about 15 to 20 inches of annual rainfall in the South Bay.

Stanford owns and maintains a storm drainage system consisting of an extensive network of pipes, manholes, inlets, and ditches, along with detention, stormwater treatment, and stormwater capture facilities.

Inspection and maintenance of the storm drainage system are carried out by technicians, engineers, and trained staff to ensure the system is operating as intended and meets regulatory requirements. Prior to each rainy season, catch basins are cleared of debris, pipes are flushed, ditches are cleared, and mechanical systems are inspected and maintained. Technicians and grounds crews are available during storms to respond to drainage issues, as communicated through an all-hours maintenance call-in system.

### **Dams**

Stanford owns two dams: Searsville and Felt. The dams are maintained by Stanford and are inspected annually by the California Division of Dam Safety.

### **Local Surface Water**

Stanford is located within the San Francisquito Creek and Matadero Creek watersheds. Both of these drainages discharge into the southern portion of San Francisco Bay as they flow from southwest to northeast.

### **Stanford Lake Water System**

Stanford holds water rights that entitle it to divert water from Los Trancos Creek, San Francisquito Creek, and Searsville Reservoir.

The non-potable water system consisting of reservoirs, pump stations and pipelines for delivery to campus is referred to as Stanford's lake water system. Stanford's rights provide water for landscape irrigation, for stock, recreation, fire protection, and habitat purposes. Stanford's surface water can be treated and made available for potable use in case of an emergency.

### Storm Drainage System

Stanford’s stormwater runoff is collected in the storm drainage system. The Stanford campus storm drainage system consists of an extensive network of catch basins, conveyance pipes, and open soil drainage ditches. Once stormwater is collected in the drainage network, it flows by gravity from the campus to Matadero Creek or San Francisquito Creek, and, in many cases through the City of Palo Alto’s storm drainage system, before entering San Francisco Bay. Stanford regularly inspects and maintains its storm drainage facilities.

### Detention Facilities

As a condition of the 2000 General Use Permit, Stanford is required to develop and maintain facilities to ensure that peak storm runoff from development authorized by the 2000 General Use Permit will not increase or cause downstream flooding. Stanford developed on-site detention facilities to create sufficient capacity to offset increased runoff associated with all new impervious surfaces constructed under the 2000 General Use Permit.

Stanford’s Storm Drainage Detention Master Plan was submitted in April 2001 and approved by the County in 2004. The majority of the detention capacity is provided by recreation fields that Stanford has developed to serve Stanford recreational needs, which also serve to provide stormwater detention. All detention facilities are designed to only store stormwater runoff temporarily and not create extended ponding.

A summary of Stanford’s stormwater system is shown in Table 24 below.

*Table 24. Stormwater Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Compliance with National Pollutant Discharge Elimination System Standards (Yes/No)</b>	Yes	Yes	Yes
<b>Percent of storm drainage inlets equipped with trash capture devices</b>	5%	5%	5%
<b>Miles of closed storm drain</b>	35	35.3	36
<b>Miles of open channel storm drain</b>	11	11	11
<b>Number of storm drain inlets</b>	1,300	1,300	1,300
<b>Number of stormwater recharge facilities</b>	3	3	3
<b>Number of stormwater detention basins</b>	10	10	10
<b>Number of stormwater reclamation facilities</b>	1	2	2

## Comparison with Surrounding Jurisdictions

The City of Palo Alto’s stormwater management services are funded through the stormwater management fee which is charged to property owners of developed parcels in Palo Alto. Stormwater management activities include inspection, clean-up, operation, maintenance, replacement of and improvement to the storm drainage system to ensure adequate local drainage and reduce stormwater runoff impacts consistent with the city’s 2015 Stormwater Master Plan and the 2019 Green Stormwater Infrastructure Plan.

Activities include litter reduction, urban pollution prevention programs, commercial and residential rebates, and flooding emergency response services with the goals of reducing stormwater runoff and maintaining stormwater quality protection for discharge to creeks and San Francisco Bay. Table 25 shows the City of Palo Alto’s Stormwater Service Metrics.

Table 25. City of Palo Alto Stormwater Service Metrics for FY 2018/19 to FY 2020/21

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of survey respondents rating the quality of storm drainage as “good” or “excellent”	n/a	83%	83%
Number of inspections performed annually by stormwater management	671	602	664
Percent of inspections in compliance with stormwater regulations	89%	93%	90%
Budgeted appropriations	\$9.4 million	\$9.9 million	\$9.9 million
Staffing (FTEs)	13.55	13.55	13.55

<sup>1</sup>Estimated

### Service Gaps

There are no apparent service gaps.

### Funding

Stanford did not provide any information regarding funding for this service.

### Recommendations

To implement Recommendation 3, require Stanford to provide the following stormwater services data for the last three years, along with annual updates:

- **Compliance with National Pollutant Discharge Elimination System Standards (Yes/No)**
- **Percent of storm drainage inlets equipped with trash capture devices**
- **Miles of closed storm drain**
- **Miles of open channel storm drain**
- **Number of storm drain inlets**
- **Number of stormwater recharge facilities**
- **Number of stormwater detention basins**
- **Number of stormwater reclamation facilities**
- **Percent of storm inlets without obstruction**
- **Tons of debris collected**
- **Number of inspections performed annually**
- **Percent of inspections in compliance with stormwater regulations**
- **Appropriations for stormwater services (three years)**
- **Staffing levels for stormwater services (three years)**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Streetlighting and Traffic Signals

### ***How Services Are Provided***

Stanford’s streetlighting and traffic signal infrastructure (including the streetlight system) is privately owned, operated, and maintained by the University. Stanford has its own electrical/line crews and streetlighting crews and maintains more than 10,000 streetlights. Energy to power the streetlights is provided by direct access electrical suppliers and by Pacific Gas and Electric.

There are no shared streetlighting services between Palo Alto and Stanford. However, some streets are fed by more than a single jurisdiction. Stanford provides electricity and maintenance to streetlights in the County and Palo Alto service areas, including Junipero Serra Boulevard, Welch Road, Sand Hill Road, and Quarry Road.

Palo Alto pays Stanford for easements for two electric substations and one gas service reduction station on their lands. The city and Stanford are in negotiations about the cost of those easements.

Stanford is responsible for the maintenance of its traffic signals. However, it shares the cost of operating five traffic signals on and at the edge of the campus. Stanford pays a maintenance contribution per a maintenance agreement to either County of Santa Clara, City of Palo Alto, or Caltrans depending on which jurisdiction the signal resides in, ranging from 25% to 100%. Tables 26 and 27 below reflect those maintenance responsibilities.

*Table 26. Traffic Signal Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Traffic signals maintained<sup>1</sup></b>	5	5	5
<b>Signalized intersections maintained<sup>2</sup></b>	13	13	13

<sup>1</sup> Stanford’s maintenance contribution is 25% to 100%

<sup>2</sup> Intersections are maintained by Caltrans, County of Santa Clara, or City of Palo Alto

*Table 27. Traffic Signal Maintenance Summary as of May 21, 2021*

Signal Location	Cross Street	Jurisdiction with Maintenance Responsibility	Stanford’s Maintenance Contribution
<b>Palm Drive</b>	Arboretum Road	City of Palo Alto	100%

Signal Location	Cross Street	Jurisdiction with Maintenance Responsibility	Stanford's Maintenance Contribution
Galvez Street	El Camino Real	Caltrans	25%
Campus Drive East	Junipero Serra Blvd	County of Santa Clara	33%
Serra Street	El Camino Real	Caltrans	25%
Campus Drive West Links Road	Junipero Serra Blvd	County of Santa Clara	50%

### ***Comparison with Surrounding Jurisdictions***

Stanford is responsible for providing energy and maintenance for its streetlighting and traffic signals systems. These services are similar to those provided in many other area cities. Some maintenance services are likely provided by contractors.

The City of Palo Alto is unique in that it has its own electric system. The city's streetlights and traffic signals are provided power through the city's electric system. The city provides electrical power to Stanford Hospital.

### ***Service Gaps***

Palo Alto staff report incidences of breakdown in communication and coordination between city departments, (transportation and utilities) and Stanford. This results in new lighting installations on Stanford's behalf without contact with Palo Alto's Utilities Department.

### ***Funding***

The University is responsible for paying for its streetlighting and traffic signal services. Palo Alto pays the University for the use of its stations located on Stanford property.

### ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following streetlighting and traffic signal services data for the last three years, along with annual updates:**

- **Number of streetlights maintained**
- **Percent of time streetlights are operational**
- **Number of street signs maintained**
- **Percent of street signs meeting visibility requirements**
- **Number of traffic signal repairs made**
- **Percent of time traffic signals are operational**
- **Percent of time that traffic signal maintenance is performed within recommended guidelines.**

- **Traffic signals maintained**
- **Signalized intersections maintained**
- **Appropriations for street lighting and traffic signal services**
- **Staffing levels for street lighting and traffic signal services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

**Recommendation 12. Require Stanford to coordinate all proposed lighting modifications or additions with Palo Alto Utilities.**



## Streets

### ***How Services Are Provided***

Stanford owns and maintains approximately 32 miles of private roads, which are available to the public, along with an extensive network of sidewalks/paths. Stanford uses a conventional municipal pavement management program to inventory road pavement by section, assess pavement condition, record historical maintenance, recommend maintenance treatments type and frequency, forecast budgets for the work, and project future road condition resulting from treatments over time. Stanford follows the Caltrans Highway Design Manual and conventional pavement marking and regulatory signage standards.

Service levels are tied to pavement performance and condition as determined by periodic assessments. When the pavement condition index (PCI) declines below 83, Stanford increases services using the pavement management system guidance for treatment types and frequency. Stanford's roads are at the mid-range of the "very good" category (as designated by the Metropolitan Transportation Commission). Stanford contracts with consultants for periodic pavement condition assessments and executes contracts with grading/paving contractors for pavement renewal work, supplemented by an internal roads crew that does minor maintenance such as fixing potholes.

Stanford generates higher volumes of pedestrian and bicycle traffic relative to vehicular traffic than other non-institutional communities. While some of Stanford's private roads are restricted to bicycle, transit, emergency and service vehicle access, the majority are currently open for public use. Bicycle infrastructure is considered when designing all projects on campus.

Stanford owns and maintains eight bridges, mostly small structures for local traffic and pedestrians. None are on public roads.

The County of Santa Clara owns and manages Page Mill/Old Page Mill Road and manages Junipero Serra Boulevard (an easement) serving surrounding communities and the campus. The County and City of Palo Alto manage Stanford Ave.

Stanford utilizes industry standard metrics to measure its services, as shown in Table 28. In addition, the University conducts periodic monitoring and addresses special issues related to mobility as they arise.

Table 28. Streets Service Metrics for FY 2018/19 to FY 2020/21

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Pavement Condition Index (PCI)	76	76	n/a
Bicycle lane miles on streets (Class 1 and 2)	29	29	29
Percent of potholes repaired within 15 days of notification	95%	95%	95%
Number of lane miles resurfaced	2.35	2.55	3.11

### Comparison with Surrounding Jurisdictions

Stanford’s street maintenance program is similar to Palo Alto’s, however Stanford’s pavement condition and response to potholes are better than Palo Alto’s. They are, in fact, better than many communities.

Palo Alto’s street maintenance program is designed to meet the city goal of updating and maintaining the city’s assets and infrastructure. Table 29 shows the city’s streets and sidewalk services over the last three years.

Table 29. City of Palo Alto Streets Service Metrics for FY 2018/19 to FY 2020/21

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of citizens rating the quality of street repair as “good” or “excellent”	n/a	55%	54%
Pavement condition score	85	84	84
Percent of potholes repaired within 15 days of notification	85%	90%	75%
Number of lane miles resurfaced	10	7	13
Percent of lane miles resurfaced	2%	2%	3%
Percent of residents rating the quality of sidewalk maintenance as “good” or “excellent”	n/a	63%	65%
Square feet of sidewalk replaced or permanently repaired	66,662	48,847	16,820
Budgeted appropriations (general fund)	\$3.7 million	\$3.9 million	\$3.9 million
Staffing (FTEs)	15.74	15.74	15.74

<sup>1</sup>Estimated

### Service Gaps

There are no gaps in service. Stanford maintains all its roads, including the roads in the faculty subdivision, and foothills.

### Funding

Stanford University pays for all street construction and maintenance. Funds come from the University’s private income funds.

## ***Recommendations***

To implement Recommendation 3, require Stanford to provide the following street services data for the last three years, along with annual updates:

- Pavement Condition Index (PCI)
- Bicycle lane miles on streets (Class 1 and 2)
- Percent of potholes repaired within 15 days of notification
- Number of lane miles resurfaced
- Percent of lane miles resurfaced
- Number of potholes repaired
- Square feet of sidewalk replaced or permanently repaired
- Percent of sidewalk replaced or permanently repaired
- Appropriations for street services
- Staffing levels for street services

To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.

## Utility Services (Gas, Energy and Electrical)

### ***How Services Are Provided***

In Santa Clara County, Pacific Gas & Electric (PG&E) is the primary supplier of electricity and natural gas to businesses and residents. PG&E obtains its energy supplies from power plants, natural gas fields, and hydroelectric facilities in northern California and from electricity and natural gas purchased outside its service area and delivered through high-voltage transmission lines of the power grid and through gas pipelines.

Stanford purchases “direct access” electricity for most of its campus operations. This program allows for a choice of energy providers rather than solely purchasing electricity from PG&E, although PG&E continues to deliver the electricity. Stanford’s current direct access provider is Calpine, which provides its on-campus electricity.

Previously, campus electricity was also generated by Stanford’s cogeneration plant, which was replaced with a more efficient Central Energy Facility (CEF) in 2015. In January 2017, Stanford commenced operation of the Stanford Solar Generating Station in Kern County. This facility provided by renewable sources, the equivalent of half of all on-campus electricity. While Stanford does not transport and use the energy generated at the Kern facility on the campus, Stanford receives renewable energy credits for the electricity it produces there. In March 2022, Stanford’s second solar plant went online completing the transition to 100 percent renewable electricity.

Stanford has one customer, itself, unlike other communities that provide services to individual residents and business.

Stanford measures service reliability (service interruptions over time) and availability (service versus demand). Increases and decreases in service are determined with capital planning efforts and buildings coming online to ensure services meet demand.

System reliability is a measure of how well energy supply met energy demand. Less than 100% would include everything from campus distribution failures to an off-campus supply issue, such as a power safety, power shutoff event. System availability is a measure of thermal energy production equipment in terms of its actual availability versus

time in the measured period. Table 30 below shows Stanford’s electric service metrics during the last three years.

*Table 30. Electric Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
<b>Energy system reliability</b>	99.98%	100%	99.97%
<b>Thermal energy production availability</b>	97.18%	98.24%	97.06%
<b>Number of publicly available electric vehicle chargers in garages and facilities</b>	132	171	183
<b>Number of customer accounts (Electric)</b>	1	1	1
<b>Total number of outages</b>	0	0	0

Stanford’s budget is based on the forecast energy consumption needs of the campus. It comes from meter data that the University uses for billing and capital planning. The budget is not influenced by external issues, complaints, or community matters.

While consumption of electricity and chilled water energy has slowly increased since 2000, a significant reduction in heating demand occurred after 2014, when Stanford overhauled its campus heating and cooling system [Stanford Energy System Innovations (SESI) project] with a process that is 70% more efficient than the prior cogeneration process. The result has been an overall improvement in building-level and district-level energy efficiency.

SESI, the University’s energy supply program, is designed to meet campus energy needs through 2050 while allowing for flexibility in energy procurement and significantly reducing GHG emissions. SESI transformed the University’s energy supply from fossil fuel-based combined heat and power to a more efficient electric heat recovery system powered by renewable energy.

Since the 1980s, Stanford has employed building-level energy metering of all its facilities to understand how and where energy is used and facilitate strong energy efficiency programs such as the Whole Building Energy Retrofit Program and the Energy Retrofit Program. As of 2019, Stanford had reduced energy usage on campus 32% from a 2000 baseline. As a result of this decrease in energy use, the University’s operations budget has not increased in terms of the cost for gas and electricity services.

The University is considered a leader among institutions of higher learning in sourcing renewable energy and reducing energy demand

associated with its operations. Stanford continues to reduce energy demand from existing buildings while making strides in maximizing the efficiency of its campus energy supply. Localized adjustments required to provide services are made when projects are in the capital planning phase.

Stanford and individual homeowners in the faculty subdivision purchase natural gas from PG&E.

**Comparison with Surrounding Jurisdictions**

Stanford operates a private district energy system with the sole customer being the university. As previously indicated, Palo Alto has its own electric utility. The city is connected to the Pacific Gas & Electric distribution system and purchases power from additional sources. The city has entered into several multi-year contracts with producers of wind, landfill gas, and solar energy.

Palo Alto purchases gas from several sources. The Gas Utility services include Crossbore Safety, Gas Main Replacements, and Home Energy Audits. The gas utility infrastructure and its crews maintain an excellent safety record. The city plans, designs, budgets, and constructs major capital improvements to the city’s gas distribution system. Table 31 shows the service metrics for Palo Alto’s electric and gas services.

*Table 31. City of Palo Alto Electric and Gas Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Average residential monthly utility bill above/below the median of neighboring cities	(9%)	(10%)	(16%)
Percent of those surveyed rating the quality of the electric utility as “good” or “excellent”	n/a	77%	80%
Percent of retail electric sales volume provided by renewable supply resources under long-term power purchase agreements	61%	37%	25%
Average duration of customer outages in minutes as reported using industry guidelines	122	65	95
Cumulative installed capacity of photovoltaic systems in megawatts	13	16	16
Number of customer accounts (electric)	29,600	29,791	29,790
Number of momentary outages	1	1	1
Total number of electrical outages	42	32	22
Number of publicly available electric vehicle charges in garages and facilities	57	81	114
Percentage of Grade 1 leaks responded to within 24 hours	100%	100%	100%
Percentage of gas system surveyed by mobile (vehicle)	100%	100%	100%

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percentage of gas system surveyed by walking	100%	100%	100%
Natural gas savings achieved annually through efficiency programs (therms)	301,000	61,203	188,000
Number of customer accounts (gas)	23,629	23,388	23,388
Number of gas leaks repaired	126	116	89
Budgeted appropriations (electric)	\$174.8M	\$186.7M	\$183.4M
Staff (FTEs) electric	111.33	110.95	111.34
Budgeted appropriation (gas)	\$43.6 million	44.6 million	48.7 million
Staff (FTEs) gas	53.83	53.83	53.83

<sup>1</sup> Estimated

### **Service Gaps**

There are no geographic services gaps in energy services. In fact, under easement, electric substations and gas service reducing stations are located on Stanford lands and support the surrounding communities in meeting their energy needs.

### **Funding**

Stanford University funds pays for these services.

### **Recommendations**

**To implement Recommendation 3, require Stanford to provide the following gas and electric services data for the last three years, along with annual updates:**

- Appropriations for gas services
- Staffing levels for gas services
- Energy system reliability
- Thermal energy production availability
- Number of publicly available electric vehicle chargers in garages and facilities
- Number of customer accounts (electric)
- Total Number of outages
- Number of residents served with electric power
- Appropriations for electrical services
- Staffing levels for electrical services

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Utility Services (Internet and Telephone)

### ***How Services Are Provided***

#### **Internet Service**

Stanford has 5x100Gb internet links. Four of these connections are provided by CENIC and one connection is provided by Hurricane Electric. Traffic is distributed across the five connections. The University network backbone is built using full redundancy across major routing components and the technology/hardware is refreshed every five years. The five-year refresh consists of evaluating hardware vendors, evaluating bandwidth requirements, and formulating implementation schedules. Faculty subdivision residents can opt into Stanford-provided internet or use another provider.

Stanford uses tools such as Grafana, Cacti and Stanford-developed tools and alarms to measure throughput. Thresholds are set to alarm (via email) if network interfaces exceed 75% utilization. Should any one of the internet feeds exceed 75% utilization, an engineering team review is triggered to understand what caused the spike, determine if it was a one-time spike or if there is a need to balance traffic across multiple feeds, or if there is a need to expand capacity.

In the last three fiscal years (from FY 2018-19 through FY 2020-21) there have not been any incidents where network interfaces exceeded 75%. Service level expectations are based on availability of the internet as well as throughput.

#### **Telephone Service**

Stanford provides its telephone systems, with Lumen (Century Link) as the primary Public Switched Telephone Network (PSTN) provider and AT&T as the back-up PSTN provider.

Stanford uses state metrics for emergency service and to track user demand. Across unincorporated County lands, Stanford voluntarily adheres to California's Office of Statewide Health Planning and Development (OSHPD) standards and provides phone service to Stanford Healthcare in the City of Palo Alto, applying the same service standard to both areas. Services also meet the standards required by Homeland Security.



Phone service is continuously monitored to ensure it meets regulatory standards per OSHPD. OSHPD conducts inspections and recertification. OSHPD certification takes place before occupancy (new construction or reconfiguration). OSHPD regulates how phone services/systems are set up to meet certain requirements [i.e., how and where phone system (PBX) is located for diversity and redundancy]. Stanford meets and exceeds OSHPD requirements for its systems.

Homeland Security operates a Telecommunications Service Priority (TPS) Program. According to Homeland Security,

*Telecommunications Service Priority (TSP) is a program that authorizes national security and emergency preparedness (NS/EP) organizations to receive priority treatment for vital voice and data circuits. The TSP program provides service vendors a Federal Communications Commission mandate to prioritize requests by identifying those services critical to NS/EP. A TSP assignment ensures that it will receive priority attention by the service vendor before any non-TSP service.<sup>5</sup>*

The TSP program governs service restoration priority for critical infrastructure. Stanford circuits provide services to the hospitals (and University) are enrolled in this program. Stanford has TSP identifications assigned to the circuits. There are no metrics for the TSP program; the priority treatment is either provided or not.

All local buildings on the campus, including new development, are connected in standard 2x10GB fiber circuits to geographically diverse communications hubs for the purpose of continuous connectivity in the event of a single hub location failure. Remote locations are typically built with diverse fiber paths; however, this may vary depending on the criticality of the location. In addition to evaluating each building to ensure it meets Stanford's requirements, overall system capacity is assessed to ensure new buildings do not exceed overall service capacity. Table 32 below shows the metrics for internet and telephone services for the last three years.

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<sup>5</sup> Cybersecurity and Infrastructure Security Agency website

*Table 32. Internet and Telephone Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Internet: number of network interfaces exceeding 75%	0	0	0
Meets OSHPD requirements for telephone service	yes	yes	yes
Meets Homeland Security standards for telephone service	yes	yes	yes
Telephone: number of incidents where OSHPD regulatory standards are not met	0	0	0

The Stanford network is built to meet OSHPD levels because of the hospitals, which means it is overbuilt to meet system requirements of capacity and redundancy. Specifically, Stanford contact centers are set up with non-blocking call capacity, which means the amount of available PSTN trunks and lines exceed the number of calls contact centers can take at any time. Every building on campus benefits from this. Also, Stanford’s phone system capacity is built and regularly tested to handle emergency mass notification events. As such, Stanford believes it provides higher service levels than surrounding communities.

### ***Comparison with Surrounding Jurisdictions***

In 1996, the City of Palo Alto built a dark fiber ring (optical fiber that is currently being unused in fiber-optic communications) around the city, capable of supporting multiple network developers and service providers with significant growth potential. The fiber backbone network was routed to pass by and provide access to key city facilities and the Palo Alto business community, including research centers and commercial properties. Dark fiber optics service consists of providing the fiber optics cabling, splice points, service connections, and other infrastructure providing high-capacity bandwidth needed to transport large quantities of data. This service excludes the transmitters, receivers, and data itself, which are owned and operated by each customer.

The City of Palo Alto provides 36 fiber circuits (tied to the dark fiber ring) to the campus. Stanford manages its fiber network, although Palo Alto occasionally assists with troubleshooting. Palo Alto believes that Stanford does not have adequate documentation of its fiber circuits resulting in problems with cutovers (instances when service is going from overhead to underground).

Palo Alto provides the metrics shown in Table 33 to track its fiber services.

*Table 33. City of Palo Alto Fiber Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
<b>Number of commercial fiber connections completed</b>	207	201	181
<b>Number of customer accounts</b>	96	95	83
<b>Number of wholesale resellers</b>	14	15	15
<b>Budgeted appropriations</b>	\$4.2 million	\$4.3 million	\$4.3 million
<b>Staffing (FTEs)</b>	7.6	7.6	7.6

<sup>1</sup>Estimated

Palo Alto’s Information Technology Department provides a broad range of technology solutions to employees, departments, council members, and the community. They are used to align city goals, allocation of funds, and technology projects. The department manages the core functions of Enterprise Architecture, GIS, Infrastructure Support, Cloud Services, Service Desk, telecommunications, operational Security, disaster recovery, and IT asset/software management.

### **Service Gaps**

There are no internet or telephone service gaps.

### **Funding**

The University pays all 911 and County taxes to its service provider so the costs of emergency call services are covered. Stanford provides phone lines to Blue Emergency Towers and pays the attendant taxes and fees, including 911 fees for those lines. Calls for 911 service from the Blue Towers are answered by Palo Alto Police Department Communications Center.

Stanford pays the City of Palo Alto a fair share contribution annually for the communication and dispatch services it receives from the Palo Alto Police Department. Stanford University’s private income funds these services.

### **Recommendations**

**To implement Recommendation 3, require Stanford to provide the following internet and telephone services data for the last three years, along with annual updates:**

- **Internet: number of network interfaces exceeding 75%**
- **Meets OSHPD requirements for telephone service (Yes/No)**
- **Meets Homeland Security standards for telephone service (Yes/No)**
- **Telephone: number of incidents where OSHPD regulatory standards are not met**

- **Appropriations for internet and telephone services**
- **Staffing levels for internet and telephone services**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

**Recommendation 13. Require Stanford to thoroughly document its fiber system to improve fiber cutover events and other maintenance issues.**

## Wastewater Services

### ***How Services Are Provided***

Stanford constructs and maintains its own wastewater (sewer) system with over 43 miles of sewage pipe. Wastewater generated by Stanford is collected in its sanitary sewer system and then conveyed off-site to the City of Palo Alto sewer system at El Camino Real and to the City of Palo Alto Regional Water Quality Control Plant (RWQCP), located on the north side of the city, where it is treated. Several Stanford University buildings are permitted under the City of Palo Alto's Industrial Waste Discharge Program to ensure that industrial processes are discharged in accordance with Permit requirements.

The wastewater is processed under a service agreement with the RWQCP, which is owned and operated by the City of Palo Alto. It serves Palo Alto, Stanford, Mountain View, East Palo Alto Sanitary District, Los Altos and Los Altos Hills.

Approximately 220,000 people live in the RWQCP service area. The Palo Alto Public Works Department is responsible for treatment of sewage at the RWQCP and oversight of the Pretreatment and Pollution Prevention Programs. The city serves as discharger and operates under an NPDES permit to discharge treated wastewater to the Bay.

The RWQCP is an advanced secondary treatment facility featuring preliminary, primary, secondary, and filtration and disinfection treatment. It is funded by and serves its six partner agencies.

The City of Palo Alto is the owner of the physical plant. However, Stanford owns a capacity share of the plant as one of its original partners.

Stanford pays a share (about 6% in a normal year) for treatment. This year that percentage has been lower due to COVID and reduced numbers of personnel and students on campus. Stanford pays a portion of the plant's fixed costs, debt service and operations and maintenance costs. Variable costs are based on Stanford's flow share and strength of pollutants measured each month.

Most of plant costs are fixed staffing costs. Only 20% of plant costs are variable, which include chemical costs and the cost of electricity.

The City of Palo Alto indicates the RWQCP does not experience any major treatment system constraints and capacity is sufficient for

current dry and wet weather loads and for future load projections. Table 34 below reflects the wastewater system metrics for the last three years.

*Table 34. Wastewater Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Gallons of annual sewer overflow per 100 miles of pipe	0	Unavailable <sup>1</sup>	4,000 gal/43 miles
Individual septic systems within jurisdiction	0	0	0
Percentage of sewer laterals inspected annually	~90%+	~90%+	~90%+
Number of sewage overflows	0	1	1
Percent of miles of sewer lines replaced	1.5%	1.7%	2%

<sup>1</sup>Volume not determined. Sewer overflowed into sand area which was remediated.

### **Comparison with Surrounding Jurisdictions**

Stanford’s wastewater is treated pursuant to a service agreement with Palo Alto, which also serves the communities of Palo Alto, Mountain View, East Palo Alto Sanitary District, Los Altos and Los Altos Hills. The Regional Water Quality Control Plant operates 24 hours a day to treat the wastewater received from the six agencies to ensure compliance with regulations protecting the San Francisco Bay and the environment. Service metrics are retained by Palo Alto as shown below in Table 35.

*Table 35. City of Palo Alto Wastewater Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent of waste treatment discharge test in compliance	100%	100%	99%
Fish toxicity test (percent survival)	100%	99%	99%
Millions of gallons of recycled water delivered	214	247	250
Number of inspections performed annually (wastewater treatment)	503	331	100
Millions of gallons processed by the Palo Alto Regional Water Quality Control Plant	6,958	6,294	6,746
Percent rating wastewater services as "good" or "excellent"	n/a	87%	87%
Percentage of sewer laterals inspected annually	21%	19%	20%
Percent of sewage spill responses within two hours	98%	98%	100%
Number of customer accounts (wastewater)	22,599	27,663	22,700
Number of miles of sewer lines cleaned/treated in a fiscal year	162	130	145
Percent of surveyed residents rating the quality of the sewer service as "good" or "excellent"	n/a	87%	87%

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Number of sewage overflows	67	60	40
Percent of miles of sewer lines replaced	1%	.9%	0%
Budgeted appropriations (sewer collection)	\$23.9 million	\$27.3million	\$23.9 million
Staffing (FTEs) (sewer collection)	29.16	29.16	28.5

<sup>1</sup>Estimated

### **Service Gaps**

There are no gaps in Stanford’s infrastructure. In fact, Stanford has a substantial water conservation program that reduces the sewage flow to the treatment plant. Stanford may pay more because they have a greater concentration in their flow (due to less water), but Stanford’s conservation efforts result in less wear and tear on the treatment plant.

### **Funding**

The University reimburses the City of Palo Alto for the treatment of its wastewater pursuant to its agreement with the city.

### **Recommendations**

**To implement Recommendation 3, require Stanford to provide the following wastewater services data for the last three years, along with annual updates:**

- Gallons of annual sewer overflow per 100 miles of pipe
- Individual septic systems within jurisdiction
- Percentage of sewer laterals inspected annually
- Number of sewage overflows
- Percent of miles of sewer lines replaced
- Miles of sewer line maintained
- Miles of sewer lines cleaned
- Miles of sewer lines inspected
- Number of sewer problems reported
- Percent of sewer problems responded to within 30 minutes
- Appropriations for wastewater services
- Staffing levels for wastewater services

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Water Supply and Conservation

### **How Services Are Provided**

Stanford purchases potable water from the San Francisco Public Utilities Commission for its potable (drinking) water system and supplements this supply with existing rights to groundwater and surface water collected on its own lands for its non-potable (irrigation) water system.

Stanford’s water infrastructure is made up of a network of supplies, storage, and distribution facilities for domestic (potable), and non-potable sources. Components of Stanford’s water service system include wells, reservoirs, pump stations, and creek diversion facilities, in addition to pipe networks. Stanford also provides water storage sites on its lands for the nearby cities of Menlo Park and Palo Alto.

Table 36 below shows Stanford’s water usage and quality control metrics. Some of the current year data is not yet available.

*Table 36. Water Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21
Daily domestic use (million gallons per day)	1.43	1.43	n/a
Daily non-potable use (acre-feet)	1.09	1.07	n/a
Academic/childcare (million gallons per day)	.52	.52	n/a
Student housing (million gallons per day)	.46	.44	n/a
Faculty/staff housing (million gallons per day)	.41	.46	n/a
Number of water backflow prevention devices in compliance (owned and inspected by Stanford Water)	953	1021	961
Percentage of samples passed from all sampling stations	100	100	n/a

The water budget is entirely based on the forecast water consumption needs and projected maintenance costs. It is not influenced by external issues, complaints, or community matters.

### **Purchased Water**

As indicated above, Stanford receives most of its total water, and the entirety of its potable water, as a wholesale purchase from the SFPUC, which provides most of the potable water to the City of San Francisco and 28 other agencies in the Bay Area. The 2009 Agreement runs through 2034.



The SFPUC provides water to its wholesale customers under the terms of the 2009 Water Supply Agreement. Under this Agreement, Stanford holds a long-term “Individual Supply Guarantee” (ISG) of 3.03 million gallons per day (mgd) overall annual average. Stanford’s domestic water supply has multiple connections to this system.

### **Surface Water**

Stanford is located within the San Francisquito Creek and Matadero Creek watersheds. Stanford holds a combination of riparian and appropriative rights that support Stanford’s surface water diversion. These rights provide water for landscape irrigation, stock watering, recreation, fire protection, and habitat purposes.

The non-potable water system, consisting of diversion structures, reservoirs (Searsville and Felt), pump stations and pipelines, comprise Stanford’s lake water system. Diverted surface water supplies Stanford’s non-potable lake water system via seasonal storage (during periods of high flow).

Lake water is not treated to meet domestic water quality standards. However, Stanford’s lake water could potentially be treated and made available for potable use if needed in the case of an emergency. Together, Stanford’s rights to diverted surface waters can yield over 1,250 acre-feet per year to the lake water system.

### **Groundwater**

Stanford pumps groundwater into its lake water system primarily to supplement its non-potable landscape irrigation system. Groundwater is used for landscape irrigation most heavily during dry years. Groundwater is also pumped into the lake water system if needed to provide supplemental water to maintain the water level in its Lagunita reservoir for the benefit of the California tiger salamander and to provide groundwater recharge. The amount of Stanford’s surface water diversion and related groundwater use can differ substantially from year to year depending on rainfall.

Stanford can treat and pump groundwater into the domestic water system, but only does so in the event of an emergency or other operational need. These wells withdraw groundwater from the Santa Clara Valley Groundwater Basin, which oversees groundwater resources within the County.

Stanford's wells currently have a combined total pumping capacity of approximately 4,450 acre-feet per year. Stanford can withdraw up to 1,700 acre-feet per year from its wells without adversely affecting groundwater conditions.

### **Water Conservation and Recycled Water**

Since the start of its water conservation program in 2001, Stanford has decreased its potable water use by 44% through a comprehensive program to identify and implement water conservation measures and through replacement of the campus-wide heating and cooling system. As a result, there has been no increase in the cost of water.

In 2001, Stanford developed a Water Conservation, Reuse and Recycling Master Plan and is in the process of developing a Sustainable Water Management Plan to guide its long-term water supply development, water conservation, wastewater and stormwater management, and habitat conservation programs. Stanford also implements a Water Efficiency Program to decrease domestic water and improve water efficiency at the campus.

Many buildings on campus are equipped to use recycled water for toilet flushing with the use of "dual plumbing" using "purple pipe." Examples of existing dual plumbed buildings include the Science and Engineering Quad, School of Medicine, and the Knight Management Center complex. Stanford's recycled water system is currently fed by domestic water.

Reduced water usage is a result of implementing the Stanford Energy System Innovations (SESI) project, and additional mandatory conservations (beyond Stanford's typical water conservation program) in response to the recent drought.

A Water Supply Assessment (WSA) was last prepared in 2019 that forecasted potable and non-potable water use through 2035. Increases and decreases in service levels would be determined using conventional engineering practices. The WSA and the Supplemental Sustainable Development Study completed in 2018 found that that water supplies are sufficient to satisfy the demands of existing and planned future uses over a 20-year projection period.

Localized adjustments to infrastructure are made when projects are planned in the capital planning phase. Provision of water service to meet new growth is determined through analyses of projected demand based

on an ongoing review of capital projects and preparation of water supply assessments when necessary.

### **Comparison with Surrounding Jurisdictions**

One hundred percent of the City of Palo Alto’s water comes from the Regional Water System. A total of 85% is derived from snow melt flowing into the Hetch Hetchy Reservoir and the balance comes from runoff stored in San Francisco Bay Area reservoirs.

Palo Alto focuses on increasing infrastructure reliability and responsiveness to meet the city’s water supply needs during an emergency; maintaining high-quality and reliable sources of water; updating water efficiency goals; and implementing water efficiency programs and services. Additionally, the engineering division is implementing a seismic upgrade to the existing reservoirs, wells and receiving stations to increase supply reliability during catastrophic emergencies.

Table 37 shows Palo Alto’s water system metrics and quality measurements during the last three years.

*Table 37. City of Palo Alto Water Service Metrics for FY 2018/19 to FY 2020/21*

Service Metric	FY 2018/19	FY 2019/20	FY 2020/21 <sup>1</sup>
Percent rating electric, gas, wastewater and water services as "good" or "excellent"	n/a	83%	86%
Number of customer-owned water backflow prevention devices in compliance	92%	93%	90%
Annual savings achieved through water efficiency programs as a percentage of total sales	1%	0%	0%
Percentage of samples passed from all sampling stations	100%	100%	100%
Percent of miles of water mains replaced	1%	.4%	0%
Number of Customer Accounts (Water)	20,012	20,016	20,020
Percent of those surveyed rating the quality of the Drinking Water as "good" or "excellent"	n/a	88%	88%
Budgeted appropriations	\$59.0 million	\$60.8 million	\$57.5 million
Staffing (FTEs)	46.92	46.94	47.61

<sup>1</sup>Estimated

### **Service Gaps**

There are no geographic gaps in water service infrastructure and delivery within Stanford lands. Projected water supplies are sufficient to satisfy the demands of existing and planned future uses over a 20-year projection period, and therefore, there are no gaps in water supply.

## ***Funding***

Stanford University provides funding for its water services from its private income funds.

The City of Palo Alto provides water to the Stanford hospital. The hospital is billed monthly for these services.

## ***Recommendations***

**To implement Recommendation 3, require Stanford to provide the following water services data for the last three years, along with annual updates:**

- **Daily domestic use (million gallons per day)**
- **Daily non-potable use (acre-feet)**
- **Academic/childcare (million gallons per day)**
- **Student housing (million gallons per day)**
- **Faculty/staff housing (million gallons per day)**
- **Number of water backflow prevention devices in compliance (owned and inspected by Stanford Water)**
- **Percent of samples passed from all sampling stations**
- **Millions of gallons of potable water used annually**
- **Acre-feet of non-potable water used annually**
- **Percent total potable water used**
- **Percent total non-portable water used**
- **Miles of water mains maintained**
- **Percentage of miles of water mains replaced**
- **Appropriations for water services (three years)**
- **Staffing levels for water services (three years)**

**To implement Recommendation 4, require Stanford to include annual customer service feedback to gauge customer awareness of services provided and program satisfaction levels.**

## Conclusion

Our analysis cannot provide clear comparisons of municipal service delivery or quality issues in the Stanford Community because of the data and institutional issues already discussed. However, we have provided the most complete description available on service delivery and made recommendations to improve transparency and accountability for municipal services in the Stanford Community.

We believe the County, the University, and most importantly the residents of the Stanford Community would be served by a system of local government service delivery that provides the clarity and level of disclosure found in local government best practices.

## Attachment A – List of Recommendations

Recommendation 1. Develop a reimbursement agreement between the University and Palo Alto, the County and other jurisdictions for fair share costs of municipal services provided to Stanford. Include unreimbursed services provided to properties located both on campus and those located in adjacent cities. Include reimbursement for additional expenses resulting from large University events.

Recommendation 2. Require Stanford to provide a functional organization chart for all municipal services, along with the staff member responsible for providing service-related data. Require annual updates.

Recommendation 3. Require Stanford to provide complete service and performance metrics for all municipal services, including appropriations and staffing levels, for the last three years, along with annual updates.

Recommendation 4. Require Stanford to develop and deploy an annual survey of customers to assess customer awareness and satisfaction levels with all municipal services.

Recommendation 5. The County should perform an assessment of Stanford residents' satisfaction with animal control services provided by the County.

Recommendation 6. Require a joint County and Stanford evaluation of survey results and analysis to determine if Stanford should contract with the City of Palo Alto, which has a fully functioning animal care system, for more convenient service to Stanford residents.

Recommendation 7. Require Stanford to pay their share of expenses with implementation of new or improvements made to fire emergency preparedness measures.

Recommendation 8. The County should address the issue of food insecurity in the upcoming Community Plan Update.

Recommendation 9. Develop an agreement between the County, Palo Alto and Stanford for additional shared use of University fields and recreational resources.

Recommendation 10. Provide fair-share maintenance funding for Palo Alto city parks used by Stanford affiliates.

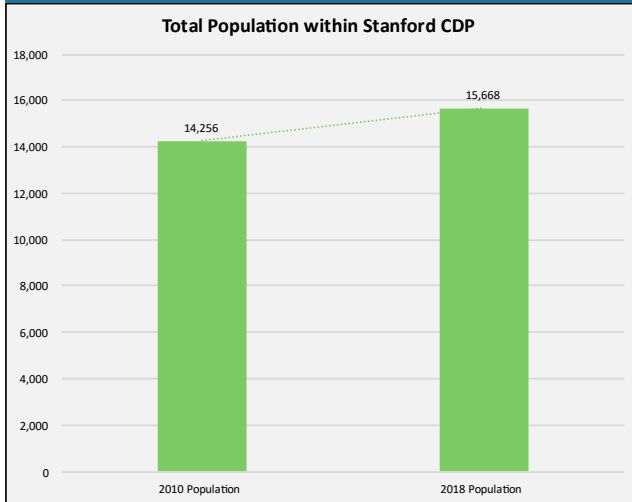
Recommendation 11. The County, Stanford, and the PAUSD should work collaboratively to identify and equalize payments in lieu of property taxes ("PILOT") for any public school service provided to the Stanford community.

Recommendation 12. Require Stanford to coordinate all proposed lighting modifications or additions with Palo Alto Utilities.

Recommendation 13. Require Stanford to thoroughly document its fiber system to improve fiber cutover events and other maintenance issues.

## Attachment B – Data and Demographic Research

### Total Population Stanford Census Designated Place



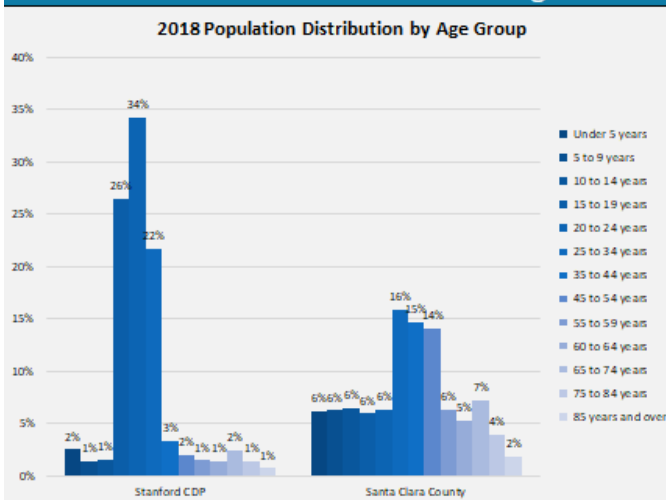
Source: ACS 5-Year Estimates, Stanford CDP, Table DP05 (2010 and 2018)



- 10% growth since 2018
  - 11% for Santa Clara County
  - 7% for California
  - 6% for US
- 73% voting population in 2018
  - 61% for Santa Clara County
  - 64% for California
  - 71% for US

3

### Population by Age Stanford Census Designated Place Compared to County

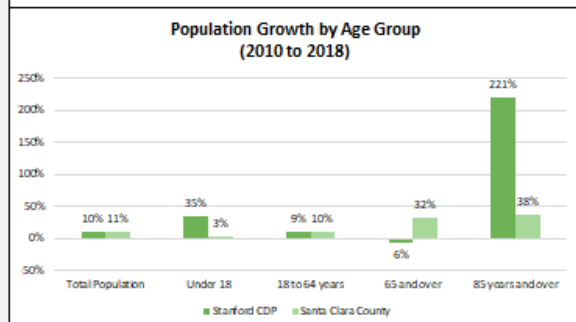


Source: ACS 5-Year Estimates, Stanford CDP, Table DP05 (2010 and 2018)

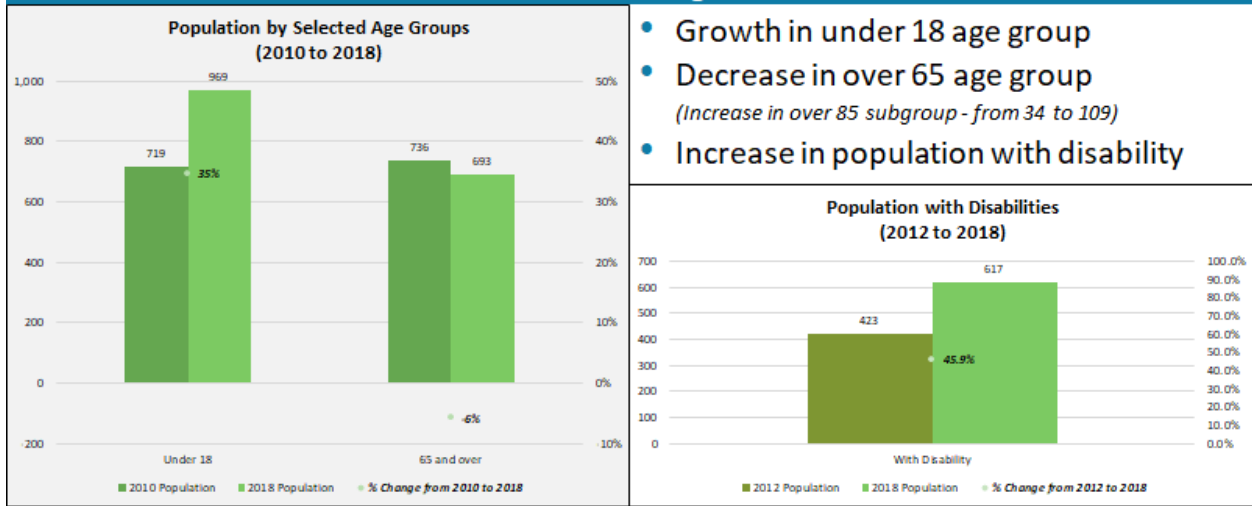


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- Younger age groups
  - Higher proportion of age 15 to 24
  - Higher growth for under 18
- Older age groups
  - Slower growth for 65 and over, but significantly higher growth for 85 and over subgroup



## Population by Selected Groups Stanford Census Designated Place



- Growth in under 18 age group
- Decrease in over 65 age group  
*(Increase in over 85 subgroup - from 34 to 109)*
- Increase in population with disability

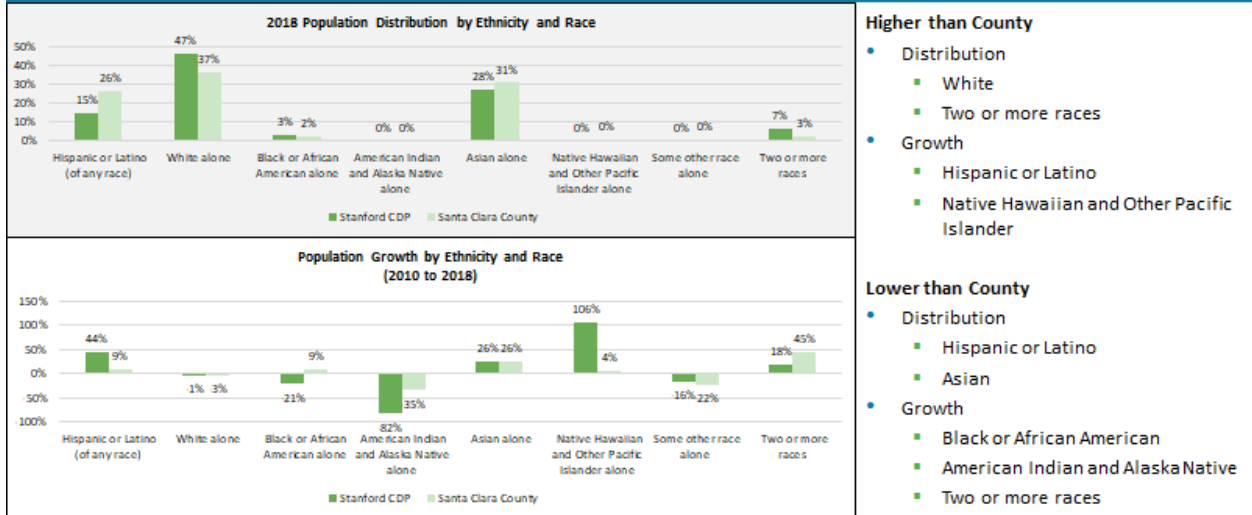
Source: ACS 5-Year Estimates, Stanford CDP, Table DP05 (2010 and 2018)

Source: ACS 5-Year Estimates, Stanford CDP, Table S1810 (2012 and 2018)  
Note: earliest table available is 2012.



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## Population by Ethnicity and Race Stanford Census Designated Place Compared to County



**Higher than County**

- Distribution
  - White
  - Two or more races
- Growth
  - Hispanic or Latino
  - Native Hawaiian and Other Pacific Islander

**Lower than County**

- Distribution
  - Hispanic or Latino
  - Asian
- Growth
  - Black or African American
  - American Indian and Alaska Native
  - Two or more races

Source: ACS 5-Year Estimates, Stanford CDP, Table DP05 (2010 and 2018)

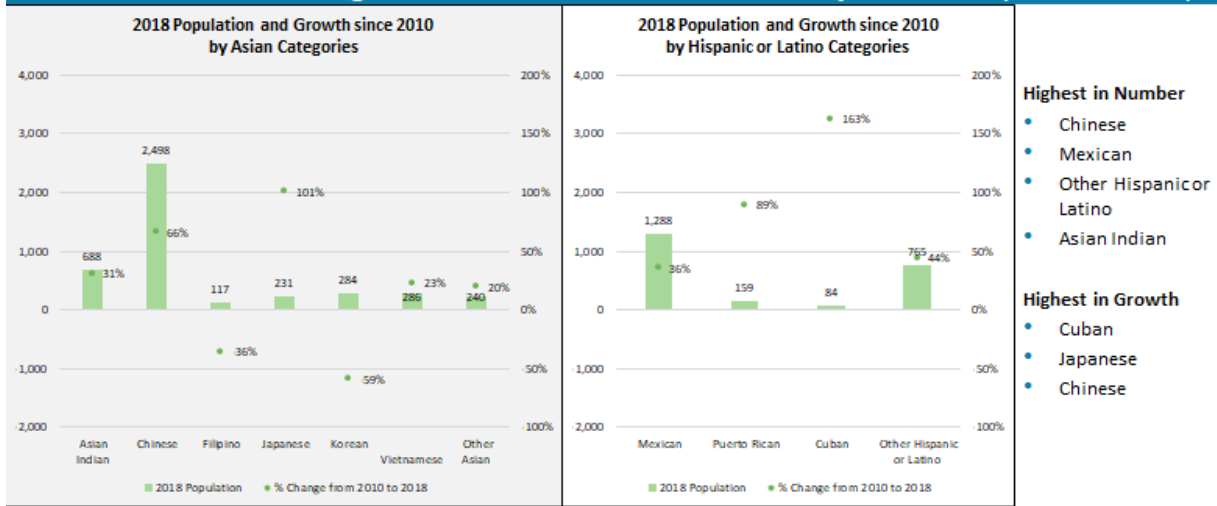


6



## Population by Ethnicity and Race

### Stanford Census Designated Place Variation within Major Ethnicity/Race Groups



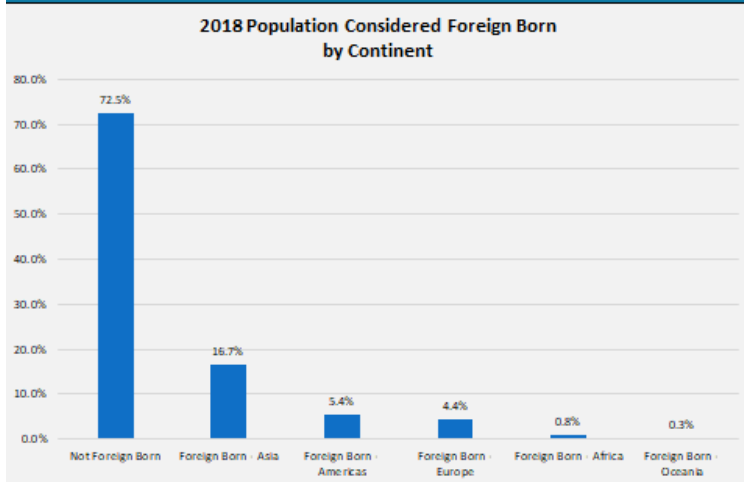
Source: ACS 5-Year Estimates, Stanford CDP, Table DP05 (2010 and 2018)



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## Population by Foreign Born Status

### Stanford Census Designated Place



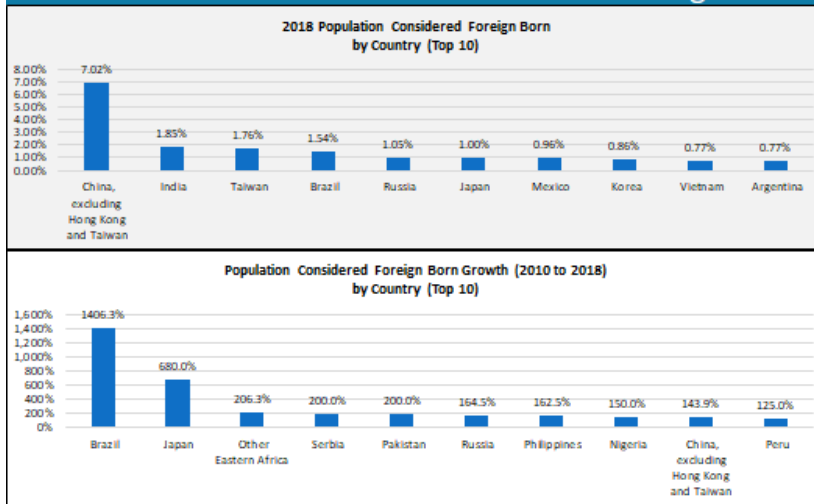
Source: ACS 5-Year Estimates, Stanford CDP, Table B05006 (2018)  
 Note: Foreign born excludes people whose parents are US Citizens



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- 72.5% not considered foreign born
- 27.5% foreign born
  - Mostly from Asia

## Foreign Born Population by Country Stanford Census Designated Place



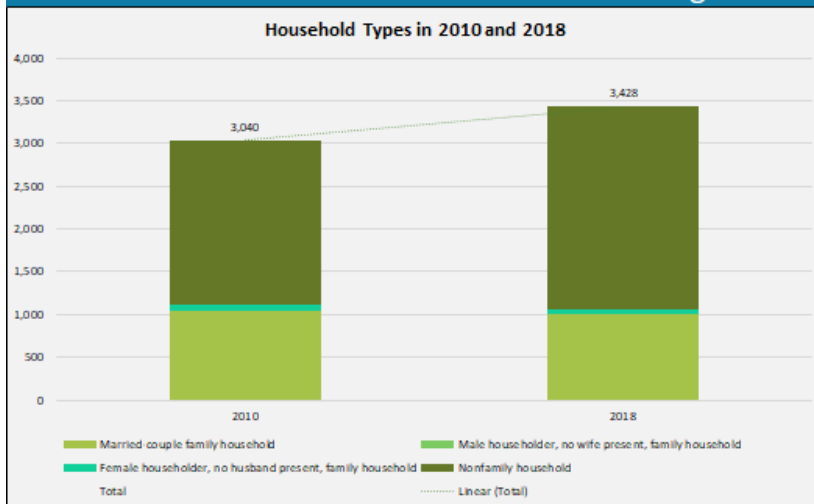
**Countries top 10 in both lists  
(Population and growth)**

- China, excluding Hong Kong and Taiwan
- Brazil
- Russia
- Japan
- (Argentina is 11<sup>th</sup> in growth)

Source: ACS 5-Year Estimates, Stanford CDP, Table B05006 (2018)  
Note: Foreign born excludes people whose parents are US Citizens



## Household Types Stanford Census Designated Place



**Change is mostly from nonfamily households**

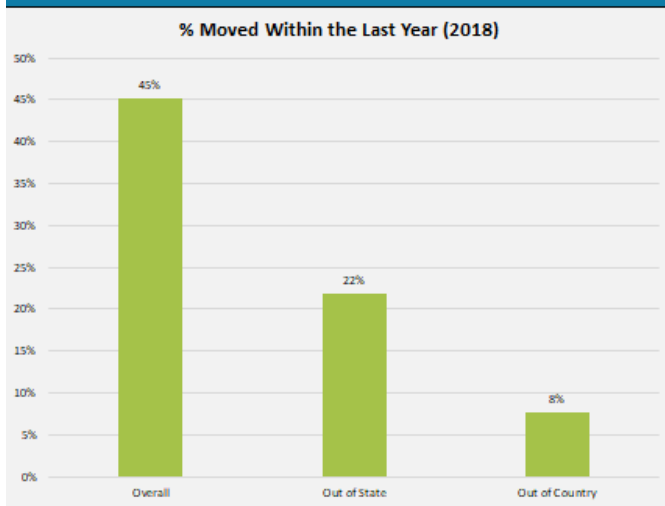
- Households with people under 18 years
  - 2010: 14.3%
  - 2018: 14.1%
- Households with people 60 years and over
  - 2010: 18.6%
  - 2018: 16.6%

Source: ACS 5-Year Estimates, Stanford CDP, Table S1101 (2010, 2018)



## Population Moved within Last Year

### Stanford Census Designated Place



**45% of the population moved within the last year**

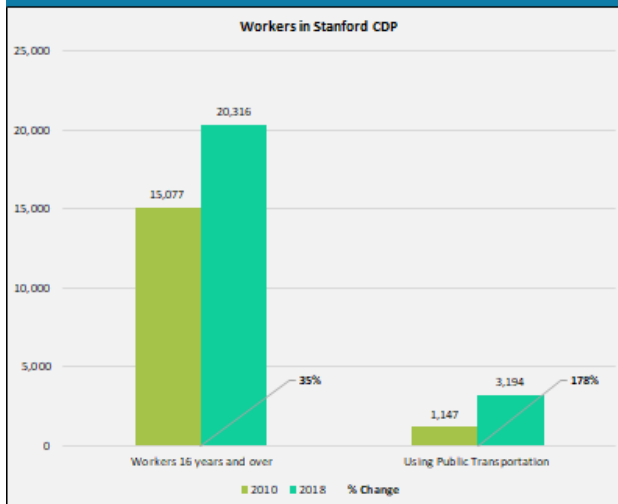
- 22% moved from out of state.
  - About half of those that moved
- 8% moved from out of country
  - About one-sixth of those that moved
  - About one-third of those that moved from out of state

Source: ACS 5-Year Estimates, Stanford CDP, Table S0701 (2018)



## Workers, Commute, and Public Transit

### Stanford Census Designated Place

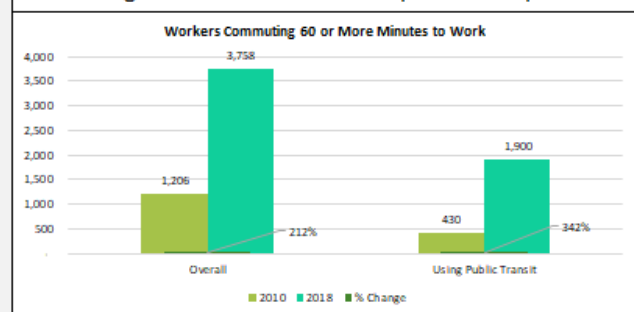


**Workers**

- 35% growth in worker population
- 178% growth in those that use public transportation

**Commuting more than 60 minutes**

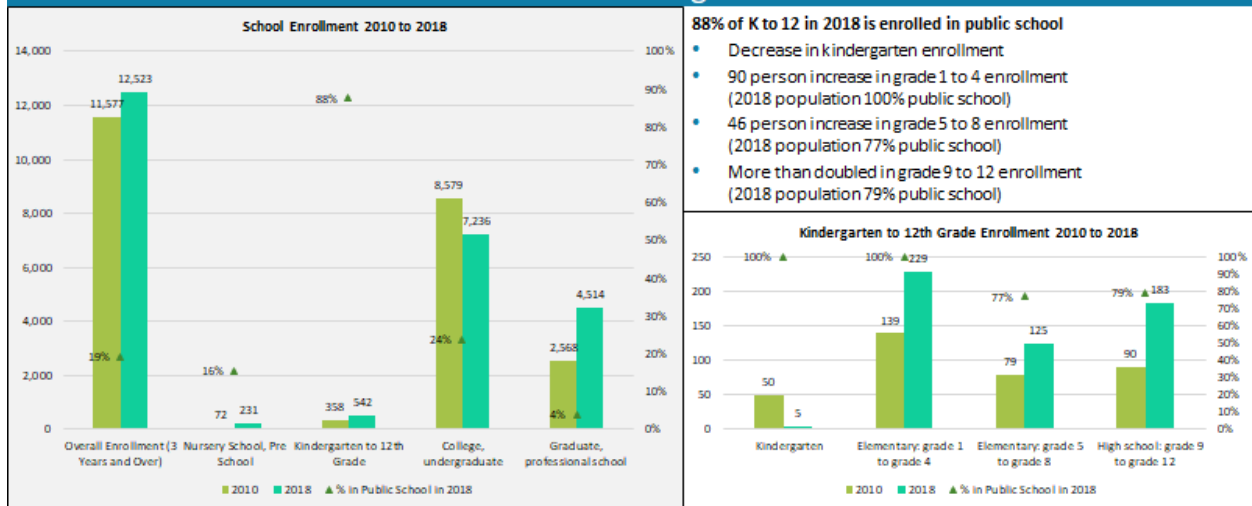
- 212% growth overall
- 342% growth for those that use public transportation



Source: ACS 5-Year Estimates, Stanford CDP, Table S0804 (2010, 2018)



## School Enrollment Stanford Census Designated Place



## Stanford Land Acres by Jurisdiction and Nearby Communities

Jurisdiction	Acres
<b>Santa Clara County (unincorporated)</b>	4,017 (49%)
<b>San Mateo County (unincorporated)</b>	2,701 (33%)
<b>Palo Alto</b>	1,161 (14%)
<b>Woodside</b>	114 (1.5%)
<b>Menlo Park</b>	111 (1.5%)
<b>Portola Valley</b>	76 (1%)
<b>Total</b>	<b>8,180</b>

Source: <https://facts.stanford.edu/about/lands/>



## Stanford Dwelling Units Estimates

Dwelling Description	Data
<b>Owner-Occupied Housing Units</b>	900
<b>Rental Units for Faculty and Staff</b>	950
<b>Graduate beds</b>	6,109
<b>Undergraduate beds</b>	6,519
<b>Total*</b>	<b>14,478*</b>

Source: <https://facts.stanford.edu/campuslife/campus/>

\*Stanford is looking to reach 17,900 dwelling units 2035

(<https://news.stanford.edu/2018/06/15/pursuing-housing-solutions-campus-land-use-planning/>)



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## Stanford Population Estimates

Population Description	Data
<b>Faculty</b>	2,276
<b>Staff</b>	13,300
<b>Undergraduate</b>	6,994
<b>Graduate</b>	9,390
<b>Post-Doc</b>	2,468
<b>Total</b>	<b>34,428</b>

Source: <https://facts.stanford.edu/wpcontent/uploads/sites/20/2020/02/StanfordFactBook-2020.pdf>



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## Stanford Infrastructure

Infrastructure Description	Data
<b>Road miles</b>	49 miles
<b>Water systems</b>	2
<b>Dams</b>	3
<b>Water reservoirs</b>	3
<b>Water mains (miles)</b>	88 miles
<b>Trees</b>	43,000

Source: <https://facts.stanford.edu/campuslife/campus/>

## Attachment C – Food Assistance Organization Information

Table 38. Food Assistance Organization Information

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
<b>West Valley Community Services, Inc.</b>	Low-income/homeless Families	Sutter Health (Palo Alto Medical Foundation) Community Access to Resource & Education (CARE) Program	Second Harvest Food Bank, Whole Foods, Safeway, Trader Joe's, Marina Foods, Sprouts, Target, Creekside Farmers' Market, and other local vendors.	13.2 miles (according to google maps)	<p><a href="https://www.wvcommunityservices.org/food">https://www.wvcommunityservices.org/food</a></p> <p>In the 2019-2020 fiscal year:</p> <p>1,546,470 meals were distributed to low income and homeless families.</p> <p>3,003 individuals visited the West Valley Community Services Food Pantry and the Mobile Food Pantry, receiving groceries, household items, diapers, and personal care products.</p>
<b>West Valley Community Services, Inc. Mobile Food Bank: Park It Market</b>	Clients with barriers to transportation	N/A	N/A	<p>17.2 miles (according to google maps)</p> <p>17.9 miles (according to google maps)</p>	<a href="https://www.wvcommunityservices.org/mobile">https://www.wvcommunityservices.org/mobile</a>
<b>Milpitas Food Pantry</b>	Low and fixed-income people.	N/A	St. Elizabeth's Knights of Columbus St. Joseph's Outreach Program Nob Hill Supermarket Target Corporation Second Harvest/Feeding America Food Bank	16.4 miles-24.8 (according to google maps)	<p><a href="http://milpitasfoodpantry.org/">http://milpitasfoodpantry.org/</a></p> <p>Support to distribute emergency food and offer food assistance to more than 3,500 low- and fixed-income people.</p> <p>The majority of our clients are families with children, followed by seniors. We also serve the homeless in our area.</p> <p>Local churches, schools, corporations, and individuals supplement the basic items we receive from Second Harvest/Feeding America Food Bank.</p>

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
			City of Milpitas/Community Development Block Grants City of Milpitas Commissioners Milpitas Unified School District/Staff & Students PG&E Milpitas Chambers of Commerce Allied Waste Walmart Lucky's Trader Joe's Safeway Savemart Roadrunner Glass Duran & Venables Dr. Larry Napolitano Storage City Milpitas Post Milpitas Hosting Milpitas Christian School Crosspoint Chinese Church St. Joseph's Episcopal Church Christ Community Church Mt. Olive Lutheran Church Mission Springs Community Church Journey of Faith Church/Garden of		



Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
			Hope Milpitas Rotary Club Kiwanis Milpitas Host Lions Club The family Giving Tree Milpitas Publishing Elite Bakery Subway Sittu & Associates		
<b>Community Services Agency of Mountain View and Los Altos: Food and Nutrition Center</b>	Low-income/homeless individuals/families	County of Santa Clara City of Mountain View Community Services Agency	N/A	4.9-9.6 miles (according to google maps)	<a href="https://www.csacares.org/">https://www.csacares.org/</a>  Community Services Agency distributes over a ton of food each work day to low income individuals and families, minimizing their food insecurity. Our food pantry expands limited budgets so people can afford to pay for unexpected medical needs and/or car repairs while still being able to pay for the basics (school supplies, transportation to a job, rent, and utilities).
<b>Community Services Agency of Mountain View and Los Altos: Senior Nutrition Program</b>	Individuals over the age of 60	County of Santa Clara City of Mountain View Community Services Agency	N/A	4.9-9.6 miles (according to google maps)	<a href="https://www.csacares.org/services/senior-lunch-nutrition-program/">https://www.csacares.org/services/senior-lunch-nutrition-program/</a>
<b>South Palo Alto Food Closet</b>	Low and fixed-income people in Palo Alto.	N/A	N/A	1.1 miles (according to google maps)	<a href="https://www.southpaloaltofoodcloset.com/">https://www.southpaloaltofoodcloset.com/</a>  Uses USDA income guidelines to determine income requirements.
<b>St. Francis Center: Food Pantry</b>	Women living in Redwood City or East Menlo Park.	Private donations and foundation grants.	N/A	4.8-10 miles (according to google maps)	<a href="https://stfranciswc.org/services-programs/food-pantry/">https://stfranciswc.org/services-programs/food-pantry/</a>  Early weekday mornings, rain or shine, women in need from throughout Redwood City, San Carlos, and Menlo Park gather on the patio of St. Francis Center. They come for food, clothing, and friendship. Dozens of dedicated volunteers make St. Francis Center a place of

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
					welcome by packing grocery bags with care. Two bags of take-home food for each client family contain all of the basic food groups.
<b>Life Moves: Opportunity Services Center</b>	Individuals	N/A	N/A	1.1 miles (according to google maps)	<a href="https://www.lifemoves.org/directory/opportunity-services-center/">https://www.lifemoves.org/directory/opportunity-services-center/</a> On-site food pantry
<b>Life Moves: Georgia Travis House</b>	Families and single women experiencing homelessness	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://www.lifemoves.org/directory/georgia-travis-house/">https://www.lifemoves.org/directory/georgia-travis-house/</a> On-site food market
<b>Sacred Heart Community Service: Food Pantry</b>	Anyone in Santa Clara County	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://sacredheartcs.org/programs/food-clothing/">https://sacredheartcs.org/programs/food-clothing/</a> Volunteers offer two essential food programs: a three-day supplemental supply of groceries and an assortment of food for members who are currently homeless that requires no prep or cooking. Due to COVID-19, we are currently not zip-code restricted and everyone who lives in Santa Clara County can come for food once per week. Interested community members can register online to become a member of Sacred Heart:
<b>Santa Maria Urban Ministry: Food Pantry &amp; Farmer's Market</b>	People in need in 10 zip codes from San Jose (95110, 95128, 95112, 95131, 95117, 95132, 95125, 95134, 95126, 95192)	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://www.santamariasj.org/#programs">https://www.santamariasj.org/#programs</a>
<b>Health Trust: Meals on Wheels</b>	Resident of Santa Clara County who is homebound or has difficulty getting own meals due to medical condition or isolation	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://healthtrust.org/provider/food/">https://healthtrust.org/provider/food/</a> Although there is no charge for this service for qualified applicants, we do request that those who can afford it contribute to the cost of the meals, which is \$10 per day. Grants and other funding is available for low-income seniors.

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
<b>Health Trust: Medically Tailored Meals</b>	Medi-Cal clients with congestive heart failure	State Funded Pilot Program Kaiser Permanente Northern California Community Benefit Programs Anthem Blue Cross	N/A	18.6-22.2 miles (according to google maps)	<a href="https://healthtrust.org/provider/food/">https://healthtrust.org/provider/food/</a>  Launched in 2018, the four-year, \$6 million State funded pilot program aims to improve health outcomes and reduce healthcare costs of Medi-Cal clients with congestive heart failure. Eligible participants receive complete nutrition support through three heart-healthy meals per day, for 12 weeks, and four Medical Nutrition Therapy sessions during the intervention. This is all at no cost to the patient or referring organization.
<b>Health Trust: The Jerry Larson FOODBasket</b>	Clients with HIV/AIDS and formerly chronically homeless individuals	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://healthtrust.org/provider/food/">https://healthtrust.org/provider/food/</a>  The Jerry Larson FOODBasket is the hub for our Meals on Wheels and Medically Tailored Meals programs and serves as a food pantry for our HIV/AIDS Services clients. Nutritionally appropriate grocery packages are also prepared on site and delivered to individuals living with HIV, as well as formerly chronically homeless individuals receiving housing support services.
<b>Health Trust: Food in Housing</b>	High-need supportive housing clients	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://healthtrust.org/provider/food/">https://healthtrust.org/provider/food/</a>  A product of our Food for Everyone work, the Food in Housing program increases food security for high-need permanent supportive housing clients by providing them with nutritionally appropriate bags or boxes of food filled with non-perishables, produce, and/or cooked or no-cook food.
<b>Health Trust: Free Grocery</b>	Low-income individuals and families	Partnership with Second Harvest of Silicon Valley	Tropicana Shopping Center	18.6-22.2 miles (according to google maps)	<a href="https://healthtrust.org/provider/food/">https://healthtrust.org/provider/food/</a>  In partnership with Second Harvest Silicon Valley, The Health Trust offers free grocery distribution at the Tropicana Shopping Center in East San Jose on the first Wednesday of the month. The Free Grocery program addresses the needs of low-income individuals and households that lack reliable access to affordable, nutritious food and may experience hunger on a regular basis.
<b>Sunnyvale Community Services: Food Aid</b>	Sunnyvale residents who are low-income	Partnership with Second Harvest of Silicon Valley	Full list available on website: <a href="https://svcommunityservices.org">https://svcommunityservices.org</a>	10.8-14.9 miles (according to google maps)	<a href="https://svcommunityservices.org/gethelp-services-food-aid/">https://svcommunityservices.org/gethelp-services-food-aid/</a>

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
	or income restricted		g/about-major-donors/		<p>Produce Day: The Produce Day program offers a variety of seasonal fresh fruits and vegetables in a pre-packed box. See our Food Distribution Calendar for details.</p> <p>Monthly Food: The Monthly Food program offers nutritious grocery staples such as meat, milk, eggs, rice, beans, canned vegetables and fruits, cereal, and more. See our Food Distribution Calendar for details. We also have ready-to-eat foods available for homeless clients.</p> <p>A family of four can save \$462 per month if they fully use our Monthly Food and Produce programs</p> <p>Children's Summer Nutrition Program: Many of our youngest clients rely on school meals throughout the year. That means that during the summer months they need another source for nutritious food. We have additional food available during the summer months for households with school-aged children, to help them stay nourished and well fed while away from school.</p>

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
<b>Second Harvest of Silicon Valley: Santa Clara County</b>		N/A	N/A	4.9-9.6 miles (according to google maps)  1.1 miles (according to google maps)  18.6-22.2 miles (according to google maps)  10.8-14.9 miles (according to google maps)	shfb.org/get-food/prepared-meals/#paloalto
<b>Second Harvest of Silicon Valley: San Mateo County</b>		N/A	N/A	3.2-4.5 miles (according to google maps)  1.3 miles (according to google maps)  12.2-21.4 (according to google maps)  13.8-17.5 miles (according to google maps)	shfb.org/get-food/prepared-meals/#paloalto
<b>Stanford University: Food Pantry Pop-up</b>	Undergraduate and graduate students and affiliates	Second Harvest of Silicon Valley Stanford University Residential Dining & Enterprises	N/A	N/A	<a href="https://rde.stanford.edu/food-pantry-pop-up">https://rde.stanford.edu/food-pantry-pop-up</a>  Monthly food pantry pop-up event.

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
<b>El Concilio of San Mateo County</b>	Underserved communities of San Mateo County	N/A	N/A	3.2-4.5 miles (according to google maps)  1.3 miles (according to google maps)	<a href="http://www.el-concilio.com/programs-english.htm">http://www.el-concilio.com/programs-english.htm</a>
<b>Silicon Valley Salvation Army: Senior Nutrition Center</b>	Seniors	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://siliconvalley.salvationarmy.org/silicon_valley/seniors">https://siliconvalley.salvationarmy.org/silicon_valley/seniors</a>
<b>Silicon Valley Salvation Army: Family Services</b>	Low-income families	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://siliconvalley.salvationarmy.org/silicon_valley/family-services">https://siliconvalley.salvationarmy.org/silicon_valley/family-services</a>  Grocery Assistance
<b>Silicon Valley Salvation Army: Emmanuel House Soup Kitchen</b>	Anyone	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://siliconvalley.salvationarmy.org/silicon_valley/emmanuel-house">https://siliconvalley.salvationarmy.org/silicon_valley/emmanuel-house</a>  Since doors first opened in 1967, our kitchens have prepared hot meals for anyone who comes. Men, women, and children of any age are welcome to eat a free nutritious lunch or dinner every day but Sunday. Lunch is held from 12:15 - 1 pm and dinner is from 5:15 - 6 pm.
<b>Loaves and Fishes Family Kitchen: Hot Meal Programs</b>	Low-income/disadvantaged families and those experiencing homelessness	Full list on website: <a href="https://www.loavesfishes.org/partners-sponsors">https://www.loavesfishes.org/partners-sponsors</a>	Full list on website: <a href="https://www.loavesfishes.org/partners-sponsors">https://www.loavesfishes.org/partners-sponsors</a>	18.6-22.2 miles (according to google maps)	<a href="https://www.loavesfishes.org/meal-programs">https://www.loavesfishes.org/meal-programs</a>  We provide hot and nutritious prepared meals five days a week across the Bay Area. We also partner with 65 nonprofits at 105 locations throughout the Santa Clara and San Mateo counties to provide free hot meals to guests at low-income senior retirement centers, community centers, schools, shelters, transitional housing, and after school programs.
<b>Loaves and Fishes Family Kitchen: A La Carte Food Recovery Program</b>	Low-income/disadvantaged families and those experiencing homelessness	Full list on website: <a href="https://www.loavesfishes.org/partners-sponsors">https://www.loavesfishes.org/partners-sponsors</a>	Full list on website: <a href="https://www.loavesfishes.org/partners-sponsors">https://www.loavesfishes.org/partners-sponsors</a>	18.6-22.2 miles (according to google maps)	<a href="https://www.loavesfishes.org/meal-programs">https://www.loavesfishes.org/meal-programs</a>  Our fleet of refrigerated trucks recover and re-distribute prepared meals at no cost to neighborhoods throughout Santa Clara and San Mateo counties where people face food insecurity in the Bay Area.
<b>Loaves and Fishes Family</b>	Low-income/disadvantaged families and	Full list on website: <a href="https://www.loavesfishes.org/partners-sponsors">https://www.loavesfishes.org/partners-sponsors</a>	Full list on website: <a href="https://www.loavesfishes.org/partners-sponsors">https://www.loavesfishes.org/partners-sponsors</a>	18.6-22.2 miles (according to google maps)	<a href="https://www.loavesfishes.org/meal-programs">https://www.loavesfishes.org/meal-programs</a>

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
<b>Kitchen: Organic Farm</b>	those experiencing homelessness	vesfishes.org/partners-sponsors	vesfishes.org/partners-sponsors		Our farm grows food for all of our kitchens. The fresh vegetables we grow are used in salads, soups, and main dishes. They supplement produce donated by partners.
<b>City Team: SJ Neighborhood Outreach &amp; Grocery Distribution</b>	N	N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="https://cityteam.org/divi_overlay/sj-neighborhood-outreach-grocery-distribution/">https://cityteam.org/divi_overlay/sj-neighborhood-outreach-grocery-distribution/</a>
<b>FISH of Santa Clara, INC</b>	Santa Clara City Residents in need	N/A	N/A	15.5-21.1 miles (according to google)	
<b>Reaching Out</b>	Low-income/disadvantaged families and those experiencing homelessness	N/A	N/A	16.4 miles-24.8 (according to google maps)	<a href="https://reachingout.us/">https://reachingout.us/</a> Food distribution is offered twice a week at the Cathedral of Faith campus on Wednesdays/Thursdays from 9-12 pm
<b>Community Outreach Ministry Endeavor (C.O.M.E.)</b>		N/A	N/A	18.6-22.2 miles (according to google maps)	<a href="http://www.sjcome.org/services/#">http://www.sjcome.org/services/#</a> C.O.M.E.'s dedicated volunteers prepare individual bags with staple foods before we open our doors. Our clients can look forward to receiving staples such as rice, beans, and cereal, as well as canned and frozen goods. Fresh produce is given out at the back dock, where our clients can freely choose from a changing variety of fruits, vegetables, bread, snacks, and frozen goods.
<b>SPARK Point Canada College Food Pantry</b>	Students and non-students	Second Harvest Food Bank	N/A	6.2-7.8 miles (according to google)	<a href="https://hsa.smcgov.org/local-food-and-shelter-resources#fooddistributionlocations">https://hsa.smcgov.org/local-food-and-shelter-resources#fooddistributionlocations</a> Food assistance is available for students and non-student members of our community in need. SparkPoint at Cañada College partners with the Second Harvest Food Bank to provide this service.
<b>St. Anthony's Padua Dining Room</b>	Anyone	N/A	N/A	6.2-7.8 miles (according to google)	<a href="http://paduadiningroom.com/?page_id=30">http://paduadiningroom.com/?page_id=30</a> St. Anthony's Padua Dining Room is the largest "soup-kitchen" between San Francisco and San Jose and the only organization that provides food daily throughout the year. The Dining Room's provides warm, nutritious meals in a social and friendly atmosphere to alleviate

Food Assistance Entity Name	Target Population	Funding Source	Donation Source(s)	Distance of Food Assistance Org to Stanford	Website and Additional Information Provided
					hunger and malnutrition. We serve all without regard to age, sex, race, religious beliefs, national origin, or disabilities.
<b>All Saints' Church Palo Alto: Downtown Food Closet</b>	Anyone	N/A	N/A	1.1 miles (according to google maps)	<p><a href="https://www.asaints.org/outreach/food-closet/">https://www.asaints.org/outreach/food-closet/</a></p> <p>On average, the Food Closet serves more than 200 people every week, distributing 880 pounds of food. The Food Closet was founded in 1976 by Patsy McAfee, a longtime member of All Saints' Church. Donations of food, as well as donations of time to help serve clients, are welcome.</p> <p>Free Groceries are available at the Food Closet.</p>
<b>Ecumenical EHP Cares Hunger Programs</b>	Anyone	N/A	N/A	1.1 miles (according to google maps)	<p><a href="https://www.ehpcares.org/food-services.html">https://www.ehpcares.org/food-services.html</a></p>



**Attachment D - Municipal Services Matrix**

**Municipal Services Matrix  
Stanford Community Plan**

Service	Primary Service Provision	Non-University Service Providers	Notes	Position/Department Most Knowledgeable (County, University)	Desired Service Metrics <sup>3</sup> <i>(Metrics in italics were not provided for the Municipal Services Study)</i>
<b>Animal Control</b>	County of Santa Clara	County of Santa Clara	Pest and rodent control on grounds funded by University.	County of Santa Clara Animal Care and Control	<ul style="list-style-type: none"> <li>• <i>Assessment of residents' satisfaction with animal control services provided by the County</i></li> </ul>
<b>Behavioral Health (including Substance Abuse)</b>	University Vaden Health Services University Faculty Staff Help Center University Office of Alcohol Policy and Education	Meru Health (online mental wellness program)		University Benefits Manager (for Employees and Retirees)  University Associate Professor of Psychiatry and Behavioral Sciences (for Students)	<ul style="list-style-type: none"> <li>• <i>Wait time to access services at Counseling and Psychological Services for students and faculty/staff</i></li> <li>• <i>Wait time to access services at Help Center for students and faculty/staff</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Childcare</b>	University Early Childhood & Child Care Support (ages 0 to 5)	Individuals may seek other options in nearby jurisdictions	Separate County study being performed	University Assistant VP, WorkLife Strategy	<ul style="list-style-type: none"> <li>• <i>Number of children served</i></li> <li>• <i>Number of children served/ pulled off from wait list</i></li> <li>• <i>Number of family grants distributed</i></li> <li>• <i>Capacity of centers</i></li> <li>• <i>Wait time on waitlist</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Disability Services</b>	University Diversity and Access Office		Serves faculty, staff, students, and visitors	University Diversity and Access Office	<ul style="list-style-type: none"> <li>• <i>Number of faculty, staff, students, and visitors served</i></li> <li>• <i>Number of Disco rides utilized</i></li> <li>• <i>Number ADA parking spaces</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Emergency Medical Services</b>	Stanford Hospital Emergency Medical Services  *Emergency medical services are wholly provided by the City of Palo Alto. Stanford reimburses emergency medical services provided by the City.	Palo Alto Fire Department		Palo Alto Fire Chief	<ul style="list-style-type: none"> <li>• <i>Metrics provided by the City of Palo Alto:</i> <ul style="list-style-type: none"> <li>○ <i>Number of medical/rescue calls for service</i></li> <li>○ <i>Number of ambulance transports</i></li> <li>○ <i>Medical/rescue call average response time (target 8 minutes)</i></li> <li>○ <i>Percent of surveyed residents rating ambulance/EMS services "good" or "excellent"</i></li> </ul> </li> <li>• <i>Customer service feedback to gauge program satisfaction levels</i></li> </ul>
<b>Emergency Preparedness</b>	University	Palo Alto Office of Emergency Services (OES)		University Emergency Manager, Assistant Director EH&S	<ul style="list-style-type: none"> <li>• <i>Number of emergency tabletop exercises held</i></li> <li>• <i>Number of General Safety and Emergency Preparedness course completions</i></li> <li>• <i>Number of Personal Emergency Preparedness course completions</i></li> </ul>

Service	Primary Service Provision	Non-University Service Providers	Notes	Position/Department Most Knowledgeable (County, University)	Desired Service Metrics <sup>2</sup> <i>(Metrics in italics were not provided for the Municipal Services Study)</i>
				Palo Alto Emergency Services Director	<ul style="list-style-type: none"> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Fire Prevention</b>	University			University Fire Marshal	<ul style="list-style-type: none"> <li>• Number of fire alarm system inspections performed annually</li> <li>• Number of fire alarm system tests performed annually</li> <li>• Number of fire extinguisher inspections performed annually</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Fire Protection (Suppression)</b>	Contract	City of Palo Alto	Fire protection is a contracted service	Palo Alto Fire Chief	<ul style="list-style-type: none"> <li>• <i>Number of staff</i></li> <li>• <i>Number of fire instances</i></li> <li>• <i>Average response times by incident type (i.e. structure fire, medical)</i></li> <li>• <i>Customer service feedback to gauge customer program satisfaction levels</i></li> </ul>
<b>Food Insecurity</b>	Non-profit organizations		Review options with Stanford for providing additional resources for those dealing with food insecurity.		<ul style="list-style-type: none"> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Health Care</b>	Stanford Hospital Lucille Packard Children’s Hospital Vaden Health Center				<ul style="list-style-type: none"> <li>• <i>Number of affiliates served</i></li> <li>• <i>Number of screenings performed</i></li> <li>• <i>Number and type of health classes offered</i></li> <li>• <i>Number of participants in health classes</i></li> <li>• <i>Number of fitness programs offered</i></li> <li>• <i>Number of fitness program participants</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Law Enforcement</b>	University Department of Public Safety	Santa Clara County Sheriff City of Palo Alto (dispatch)	MOU requires payment to County for limited staff for contract oversight. Supplemental Law Enforcement Services agreement (March 2020) requires payment to County for specified services. The County is conducting a separate study of law enforcement services.	Director of Public Safety  County Sheriff’s Captain (located at campus station)	<ul style="list-style-type: none"> <li>• Number of violent crimes reported</li> <li>• Number of property crimes reported</li> <li>• Number of Part I crimes reported</li> <li>• Number of Part II crimes reported</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>

Service	Primary Service Provision	Non-University Service Providers	Notes	Position/Department Most Knowledgeable (County, University)	Desired Service Metrics <sup>o</sup> <i>(Metrics in italics were not provided for the Municipal Services Study)</i>
<b>Library/Children’s Library</b>	University	Palo Alto library system County of Santa Clara library system	University’s focus is on research and support of curricula. Materials are available to Stanford affiliates and residents. Non-Stanford users can register for day use for access and library cards. No details provided regarding children’s library materials at University.	University Associate University Librarian for Public Services and Collection Development  Palo Alto Librarian	<ul style="list-style-type: none"> <li>• Circulation items available to affiliates/residents</li> <li>• Number of non-Stanford users who register as visitors for exhibits or day use</li> <li>• Number of fee-based Library cards issued to non-Stanford holders</li> <li>• Number of visits by Stanford University ID cardholder at Green Library (includes continuing study students and summer camp students)</li> <li>• Number of publicly available computers</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Parking Enforcement</b>	University Department of Public Safety			University Department of Public Safety	<ul style="list-style-type: none"> <li>• <i>Number of parking citations issued</i></li> <li>•</li> </ul>
<b>Parks and Recreation</b>	University	City of Palo Alto County of Santa Clara		University Deputy Athletic Director	<ul style="list-style-type: none"> <li>• Park acres per 1,000 population</li> <li>• Number of recreation centers per 20,000 residents</li> <li>• Miles of recreation trails maintained</li> <li>• Total enrollment and percent change in classes/camps in arts, sciences, recreation, and open space programs</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Planning/Building</b>	University	County of Santa Clara	County controls land use decisions and building services	County Planning  County Building	County-provided service. No metrics from Stanford recommended.
<b>Public Schools</b>		Palo Alto Unified School District	Community funded by property tax		None recommended
<b>Public Transit</b>	University Office of Sustainability (Marguerite Shuttle)	Santa Clara Valley Transportation Authority		University Executive Director of Transportation	<ul style="list-style-type: none"> <li>• Average ridership per month for Marguerite</li> <li>• Average ridership per month for Marguerite AEF route</li> <li>• <i>Total annual ridership</i></li> <li>• <i>Total system capacity</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Senior Services, including nutrition</b>	University Aging Adult Services Partnership	Avenidas is listed on Stanford website as alternative care.		University Benefits Manager	<ul style="list-style-type: none"> <li>• <i>Percent of population eligible using census data (65 and older)</i></li> <li>• <i>Number of people using services annually</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Solid Waste</b>	Contract	Peninsula Sanitary Services, Inc.	Annual recycling data provided to County and incorporated into Santa Clara County’s submittal to CalRecycle	University Santa Clara County	<ul style="list-style-type: none"> <li>• Total waste diversion in tons</li> <li>• Pounds of solid waste disposed of per person per day: actual</li> <li>• Percent of waste diverted from landfills</li> <li>• Tons of materials recycled or composted</li> <li>• <i>Number of household hazard waste events/sites</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>

Service	Primary Service Provision	Non-University Service Providers	Notes	Position/Department Most Knowledgeable (County, University)	Desired Service Metrics* <i>(Metrics in italics were not provided for the Municipal Services Study)</i>
<b>Stormwater</b>	University Water Resources and Civil Infrastructure Group			University Water Resources and Civil Infrastructure Group	<ul style="list-style-type: none"> <li>• Compliance with National Pollutant Discharge Elimination System Standards (Yes/No)</li> <li>• Percent of storm drainage inlets equipped with trash capture devices</li> <li>• <i>Percent of system maintained and cleaned out annually</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Street Lighting and Traffic Signals</b>	University	City of Palo Alto Caltrans	Some traffic signals are shared among multiple jurisdictions		<p>*Note that this data is not subject to frequent change but will be provided.</p> <ul style="list-style-type: none"> <li>• <i>Percent of streetlight system annually maintained</i></li> <li>• <i>Percent of traffic signals annually maintained</i></li> <li>• <i>Number of streetlights maintained</i></li> <li>• <i>Percent of time streetlights are operational</i></li> <li>• <i>Number of street signs maintained</i></li> <li>• <i>Percent of street signs meeting visibility requirements</i></li> <li>• <i>Number of traffic signal repairs made</i></li> <li>• <i>Percent of time traffic signals are operational</i></li> <li>• <i>Percent of time that traffic signal maintenance is performed within recommended guidelines.</i></li> <li>• Traffic signals maintained</li> <li>• Signalized intersections maintained</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Streets</b>	University Water Resources and Civil Infrastructure Group		Owned and maintained by University	Director, Water Resources and Civil Infrastructure	<ul style="list-style-type: none"> <li>• Pavement Condition Index (PCI)</li> <li>• Bicycle lane miles on streets (Class 1 and 2)</li> <li>• Number of lane miles resurfaced</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Utilities – Gas</b>	Contract	Pacific Gas and Electric		University Senior Director, Energy Operations	<ul style="list-style-type: none"> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Utilities – Electricity</b>	University Office of Sustainability	Calpine, Direct Access		University Senior Director, Energy Operations	<ul style="list-style-type: none"> <li>• Energy system reliability</li> <li>• Thermal energy production availability</li> <li>• Number of publicly available electric vehicle chargers in garages and facilities</li> <li>• Total Number of outages</li> <li>• <i>Customer service survey feedback gauging awareness of services and program satisfaction</i></li> </ul>
<b>Utilities – Telephone, High-speed internet</b>	University			University Executive Director, IT Services and Infrastructure	<ul style="list-style-type: none"> <li>• <i>Number of Help Tickets</i></li> <li>• <i>Number of Service Alerts</i></li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>

Service	Primary Service Provision	Non-University Service Providers	Notes	Position/Department Most Knowledgeable (County, University)	Desired Service Metrics <sup>2</sup> <i>(Metrics in italics were not provided for the Municipal Services Study)</i>
<b>Wastewater</b>	University Water Resources and Civil Infrastructure Group	Palo Alto Regional Water Quality Control Plant	Collection infrastructure is owned and maintained by University.	University Water Resources and Civil Infrastructure Group  Palo Alto Public Works	<ul style="list-style-type: none"> <li>• Gallons of annual sewer overflow per 100 miles of pipe</li> <li>• Percentage of sewer laterals inspected annually</li> <li>• Number of sewage overflows</li> <li>• Percent of miles of sewer lines replaced</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>
<b>Water (includes recycled water), supply, conservation</b>	Contract University Water Resources and Civil Infrastructure Group	San Francisco Public Utilities Commission		Director, Water Resources and Civil Infrastructure	<ul style="list-style-type: none"> <li>• Daily domestic use (million gallons per day)</li> <li>• Daily non-potable use (acre-feet)</li> <li>• Number of water backflow prevention devices in compliance (owned and inspected by Stanford Water)</li> <li>• Percent of samples passed from all sampling stations</li> <li>• <i>Customer service feedback to gauge customer awareness of services provided and program satisfaction levels</i></li> </ul>

# Stanford Community Plan Attachment B



KEYSER MARSTON ASSOCIATES

**FINAL DRAFT**

**GRADUATE STUDENT HOUSING  
AFFORDABILITY ANALYSIS**

**Addressing the**

**STANFORD COMMUNITY PLAN AREA**

*Prepared for:*  
**County of Santa Clara**

*Prepared by:*  
**Keyser Marston Associates, Inc.**

**January 21, 2023**

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## 1.0 EXECUTIVE SUMMARY

This Graduate Student Housing Affordability Analysis (“Affordability Analysis”) was prepared for the County of Santa Clara (“County”) to evaluate whether there is evidence of housing affordability challenges among graduate students at Stanford University (“Stanford”). The Affordability Analysis estimates the share of graduate students who have a gap in financial resources to meet their housing and other living expenses.

### Methodology

The Affordability Analysis uses data from a 2021 survey (“2021 SCC Survey”) conducted by Public Consulting Group (“PCG”) on behalf of the County in coordination with the Graduate Student Council and other graduate student organizations. The analysis identifies the share of graduate students whose qualitative responses to survey questions regarding financial and food security indicate an affordability challenge and whose reported financial resources are inadequate to fund living expenses including housing. Findings reflect consideration of funding sources used by Stanford graduate students to finance their education including stipends, fellowships, loans, and parental support. The analysis also includes additional student loan debt and estimated funding through Stanford’s Graduate Family Grant and Graduate Student Aid Fund, for those eligible, as possible additional sources to address an estimated gap in resources.

Findings of this Affordability Analysis are not specific to housing affordability. The analysis considers the ability to afford living expenses in the aggregate. This approach is driven by graduate students’ finances, which are determined by stipend levels for assistantships and fellowships, financial aid awards, and student loan eligibility criteria, which take aggregate estimated living expenses including housing into account, but which are not designed around household situations other than single students without children.

### Key Findings

Following are the key findings of the Affordability Analysis:

1. Stanford provides housing to approximately 75% of graduate students. Rents for 85% of housing spaces are within a range affordable to households with Low or Moderate incomes<sup>1</sup>. Despite this, some graduate students still experience affordability challenges.
2. 16% of graduate students responding to the 2021 SCC Survey experience frequent financial challenges and / or food insecurity to the extent they sometimes or often do not have enough to eat.

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<sup>1</sup> This 85% figure reflects “Approach 1” to the analysis of affordability, described in Section 5.2.

3. 10% of graduate students have inadequate resources to meet estimated living expenses, based on the 2021 SCC Survey.
4. 5% of graduate students have inadequate resources for housing and other living expenses after potential additional “gap” funding sources are considered. Potential gap funding sources include maximizing the use of student loans and Stanford’s Graduate Family Grant and Graduate Student Aid Fund programs. This 5% share of graduate students with a shortfall to meet living expenses after gap funding sources translates to an estimated 470 graduate students based on enrollment for the 2021-22 academic year. For these graduate students, the estimated average gap between available resources and living expenses exceeds \$20,000 per year.
5. Affordability challenges are most prevalent among international students, driven in part by the fact that the spouse of an international graduate student is permitted to come to the U.S. but typically not allowed to work based on visa restrictions, and by a lack of access to federal student loans.
6. Nearly 14% of graduate students with children have an estimated gap in resources to meet living expenses, triple that of graduate students without children. This estimate is after consideration of gap funding sources including Stanford’s Graduate Family Grant program, which provides up to \$20,000 to qualifying graduate students with children but is not estimated to be sufficient on its own to address the affordability challenges of eligible families.

## **Recommendations**

Following are recommendations to address affordability challenges experienced by a share of Stanford graduate students:

1. Encourage Stanford to expand its targeted assistance programs for graduate students facing challenging financial situations, such as the Graduate Family Grant, by broadening eligibility for assistance and expanding the amount of assistance provided.
2. Encourage Stanford to create a university-sponsored student loan program to expand access to student loans for international students, couples, and families for whom loans through the U.S. Department of Education are unavailable or do not allow students to draw loans sufficient to fully meet living expenses for their household situation. Such a loan program would ideally significantly expand credit access while reducing financing costs, relative to loans available through private lenders. Stanford has stated their

students are viewed favorably in terms of credit risk, with very few defaulting on student loans<sup>2</sup>, which suggests a potential loan program could be largely self-supporting.

3. Continue to link expansion of the Stanford Campus to expansion of housing, potentially including a linkage for graduate student housing specifically, to ensure graduate student housing keeps pace with future increases in enrollment.
4. Evaluate a possible expansion of the County's inclusionary ordinance to address graduate student housing. While most graduate student housing is already estimated to be affordable at Low and Moderate income, a deeper level of affordability could be required for a share of units. Such an expansion would need to tackle unique policy design considerations for application of an inclusionary program to graduate student housing, including the interrelationship between housing costs and the financial aid award process. It is not clear that an inclusionary policy is the best-suited tool to address the affordability challenges identified; however, it is an approach that is within the County's authority to implement and would build on the County's existing inclusionary program.
5. Pursue recommendations within the PCG Childcare Needs Assessment focused on improving access to affordable childcare for graduate students. Affordability challenges are more prevalent among graduate students with children and improving the affordability of childcare will also contribute to addressing affordability challenges described herein.

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<sup>2</sup> Stanford reports a federal student loan default rate of 0.05% for the initial three years after graduation, for those completing their degree in 2017.

## **2.0 INTRODUCTION**

This Graduate Student Housing Affordability Analysis (“Affordability Analysis”) was prepared for the County of Santa Clara (“County”) to evaluate whether there is evidence of housing affordability challenges among graduate students at Stanford University (“Stanford”).

The County adopted inclusionary and affordable housing mitigation fee requirements (“affordable housing requirements”) applicable within the Stanford Community Plan Area (“SCPA”), which includes the Stanford campus, in 2018. The affordable housing requirements were supported by a study entitled “Affordable Housing Nexus Studies,” dated September 2018, which evaluated the affordable housing needs of workers, inclusive of postdoctoral scholars, added by future development within the SCPA. The Affordable Housing Nexus Studies did not evaluate housing needs of graduate students and the affordable housing requirements adopted in 2018 do not apply to development of graduate student housing or consider housing needs of graduate students.

The County subsequently engaged Keyser Marston Associates, Inc. (“KMA”) to prepare this Affordability Analysis to determine if there is evidence of housing affordability challenges among Stanford graduate students sufficient to warrant potential consideration of an expansion in the existing affordable housing requirements or a separate policy addressing housing affordability for graduate students. This Affordability Analysis is part of a series of studies prepared in connection with a proposed update to the Stanford Community Plan that will guide future development within the SCPA.

### **2.1 Purpose**

The purpose of the Affordability Analysis is to assist in determining whether there is evidence of housing affordability challenges among Stanford graduate students. To support this purpose, the Affordability Analysis provides information and analysis of the following:

- (1) Household characteristics of graduate students;
- (2) How graduate students finance their tuition and living expenses, including housing;
- (3) Cost, affordability, and unit mix of housing provided by Stanford; and
- (4) An analysis to determine whether there is a gap between resources available to graduate students and the cost of housing and other living expenses for a share of the graduate student population.

This Affordability Analysis is focused on graduate students, consistent with the direction from the County Board of Supervisors that led to preparation of this study, and because graduate

students were a specific focus of affordability concerns expressed during consideration of Stanford's previously proposed General Use Permit. Many graduate students, particularly PhD students, have teaching and research responsibilities that share attributes of an employee-type relationship with Stanford. Graduate students are also considered financially independent, in contrast to undergraduates, who are usually considered dependents of their parents for financial aid purposes. These factors contributed to the decision to focus the Affordability Analysis specifically on graduate students.

## **2.2 Unique Considerations in Evaluating Graduate Student Housing Affordability**

Most affordable housing nexus analyses, including the Affordable Housing Nexus Studies, are based upon an estimate of household income for workers. Estimated household incomes are then used to identify worker housing needs by affordability category. However, this common and relatively straightforward approach is not an appropriate methodology for evaluating housing affordability for graduate students because of unique factors, including the following:

- Housing costs for graduate students are explicitly considered in the financial aid award process, in setting the amount of graduate student stipends, and in calculating eligibility for student loans.
- Stanford provides housing to around three quarters of all graduate students at a cost below prevailing market rate.
- Many graduate students expect to use student loans to finance a portion of their educational expense, including living expenses, to be paid back from earnings following graduation.
- A significant share of graduate students receive support from parents or family members outside of their household to help meet their living expenses during their time in graduate school.

Due to these unique factors, the analysis methodology evaluates graduate student finances holistically, rather than apply standard benchmarks for relating income to a housing cost that is affordable.

## **2.3 Methodology**

The Affordability Analysis uses a four-step process to identify the estimated share of graduate students for which there is both qualitative and quantitative evidence of a gap in resources to meet housing and other living expenses. Data from the 2021 SCC Survey described below is used for this purpose. The four steps in the analysis are:

**Step 1: Qualitative Screening** – Qualitative survey questions regarding financial resources and food security are used to screen for indicators of affordability challenges.

**Step 2: Resource Test** – Financial resources are evaluated against estimated living expenses appropriate to the household size, inclusive of housing and all other expenses, to determine adequacy. All reported household income, financial aid sources, student loan borrowing, and support from parents and family are considered.

**Step 3: Estimated Gap Funding** – Potential additional funding available through student loans, Stanford’s Family Grant, and Graduate Student Aid Fund are considered to evaluate the extent to which there may be additional resources that could be drawn upon to address any gaps in financial resources identified in Step 2.

**Step 4: Scale to Entire Graduate Student Population** – Findings from Step 3, which reflect a sample of the graduate student population, are scaled to provide an estimate for the graduate student population as a whole.

In essence, Steps 2 and 3 of the methodology mirror the approach used by Stanford and other educational institutions to determine financial need as part of the financial aid award process, with an expansion of the living expense budget used by Stanford for this purpose to address household types other than single students.

## **2.4 Why the Typical Affordability Standard of 30% of Income for Housing is Not Used**

Housing affordability is commonly measured based upon a standard that the cost of housing should not exceed 30% of income (sometimes 35% of income in the case of for-sale housing). While the 30% standard has the advantage of simplicity and a grounding in long-standing policies and practices, the following factors suggest a departure from this standard is warranted in the specific case of graduate students:

- The actual amount charged for Stanford housing is included in the cost of attendance budget used to determine financial aid, student loan eligibility, and minimum stipend amounts. Assuming the budget is otherwise reasonable, and the student has sufficient resources to fund that budget through a stipend or financial aid, a finding that housing costs are unaffordable would be unsupported regardless of the percentage of income.
- Students’ income is not subject to the 7.65% Social Security and Medicare payroll tax that nearly all workers pay. Transportation costs for students living in on-campus housing will be lower than for a typical household since there is no commute. Graduate school is an investment in the future and not a time when a share of income would be expected to be dedicated toward retirement savings. These factors point toward differences in how graduate students may allocate their income, in percentage terms,

among various expenditure categories, and suggest a deviation from the typical rule of thumb of no more than 30% of income for housing is warranted.

- Taking on student loan debt to finance a graduate education is common practice, including to meet living expenses. Use of student loans varies by degree program and is less common for those in a PhD program. Loans are not income, and so the approach of estimating an affordable rent as a percentage of income would not take this common financing source into account.

## 2.5 Data Sources

**2021 SCC Survey** – The Affordability Analysis utilizes data from a survey conducted by Public Consulting Group on behalf of the County (“2021 SCC Survey”) in collaboration with Stanford's Student Government and additional student organizations. The survey included graduate students at Stanford. KMA contributed to the development of survey questions relevant to this Affordability Analysis. The web-based survey was distributed through an anonymous link using an e-mail list of all Stanford students provided by the Graduate Student Council (GSC). The survey instrument was available in English and Spanish. 1,563 graduate students completed some of the survey, representing 16.8% of the graduate student population. The 2021 SCC Survey was the primary data source for the Affordability Analysis included in Section 7. See the Stanford Campus Childcare Needs Assessment prepared by Public Consulting Group for additional information and a copy of the survey instrument.

**2017 and 2020 Stanford Student Life Surveys** – Data from the Graduate Student Life surveys conducted by the Graduate Student Council in 2017 and 2020 were provided to KMA in a raw format for analysis<sup>3</sup>. This data was used to provide contextual information on funding sources used by graduate students to finance their education because these surveys included questions that were not part of the 2021 SCC Survey. In some cases, the two data sets were combined to provide a larger sample and in other instances only the 2020 data is utilized.

**Stanford Provided Data** – Stanford personnel provided requested data that included a summary of survey results supporting Stanford's cost of attendance budget, information on its Graduate Family Grant and Graduate Student Aid Fund programs, on student loan utilization, and on its housing stock. Relevant information published on the Stanford website was also accessed.

Other data sources are noted in the report text and accompanying tables. While we believe all sources utilized are sufficiently accurate and reliable for the purposes of the analyses, we

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<sup>3</sup> For more information and survey documentation, see Final Report: 2017 Stanford University Graduate Student Life Survey Graduate Student Council and the Diversity & Advocacy Committee April 2nd, 2018. Accessed at <https://static1.squarespace.com/static/5a371f50bff200aa91b5113a/t/5ac1dcbb8a922d9f466b040d/1522654403498/GSC-DAC+2017-18+Survey+Report.pdf>

cannot guarantee their accuracy. KMA assumes no liability for information from these or other sources.

## 2.6 Income Limits

Some analyses provided herein refer to household income categories published by the California Department of Housing and Community Development (HCD). These categories are not utilized in the core methodology of the Affordability Analysis but are referenced for contextual purposes. The household income categories are as follows:

- Extremely Low Income: households earning up to 30% Area Median Income (AMI);
- Very Low Income: households earning over 30% AMI up to 50% of AMI;
- Low Income: households earning over 50% AMI up to 80% of AMI; and,
- Moderate Income: households earning over 80% AMI up to 120% of AMI.

The 2021 Income Limits for the County published by the California Department of Housing and Community Development are as follows:

<b>Table 2-1. 2021 Income Limits for Santa Clara County</b>						
	<i>Household Size (Persons)</i>					
	1	2	3	4	5	6
Extremely Low (Under 30% AMI)	\$34,800	\$39,800	\$44,750	\$49,700	\$53,700	\$57,700
Very Low (30%-50% AMI)	\$58,000	\$66,300	\$74,600	\$82,850	\$89,500	\$96,150
Low (50%-80% AMI)	\$82,450	\$94,200	\$106,000	\$117,750	\$127,200	\$136,600
Moderate (80%-120% AMI)	\$127,100	\$145,250	\$163,400	\$181,550	\$196,050	\$210,600
Median (100% of Median)	\$105,900	\$121,050	\$136,150	\$151,300	\$163,400	\$175,500

Source: California Department of Housing and Community Development

2021 income limits were the most current available at the time analyses in this report were prepared and are also consistent with the year applicable to the 2021 SCC Survey and 2021-22 academic year Stanford student budgets and housing rates that are utilized.

## 2.7 Report Organization

The report is organized into seven sections, as follows:

- Section 1 is the Executive Summary.
- Section 2 provides an Introduction.
- Section 3 provides background on the graduate student population including degree programs and household characteristics.



- Section 4 provides information on how Stanford students fund their education and living expenses.
- Section 5 discusses housing options for graduate students at Stanford.
- Section 6 includes a review of the single student living expense budget published by Stanford as well as KMA-estimated living expense budgets for households other than single graduate students.
- Section 7 contains the analysis evaluating whether there is evidence of a gap in resources to meet housing and other living expenses for a share of graduate students.

### 3.0 GRADUATE STUDENT POPULATION

This section provides an overview of the degree programs and household characteristics of the graduate student population at Stanford. Distinctions in degree program and visa status relate to differences in how students finance their education, which is the reason these distinctions are considered.

#### 3.1 Graduate Degree Programs

Approximately half of graduate students are enrolled in a doctoral program (“PhD”), 29% are in an academic master’s degree program (“masters”), and 20% are pursuing a professional degree program in business, law, or medicine (“professional degree”).

Approximately one third of the student body consists of international students, defined for purposes of this study as students in the U.S. on a student or another type of visa. Among international students, a larger share is enrolled in PhD and master’s programs and a smaller share is enrolled in professional degree programs, compared to the student body as a whole. Table 3-1 provides a summary.

	Total		Domestic		International	
	No.	percent	No.	percent	No.	percent
<b>PhD</b>	4,694	51%	2,990	48%	1,704	55%
<b>Masters</b>	2,718	29%	1,653	27%	1,065	34%
<b>Professional Programs</b>						
MBA	862	9%	605	10%	257	8%
Law	549	6%	529	9%	20	1%
Medical	<u>469</u>	<u>5%</u>	<u>427</u>	<u>7%</u>	<u>42</u>	<u>1%</u>
Subtotal	1,880	20%	1,561	25%	319	10%
<b>Total</b>	9,292	100%	6,204	100%	3,088	100%
		100%		67%		33%

Source: Stanford University Institutional Research and Decision Support unduplicated enrollment data as of August 2021 accessed at: <https://ir.ds.stanford.edu/data-findings/enrollment>

#### 3.2 Household Characteristics of Graduate Students

Data on the number of graduate students by program was combined with data from the 2021 SCC Survey to estimate the household characteristics of the graduate student population. Estimates are provided in Table 3-2.

The following terms are used to describe household types:

- “Single households” include all graduate students who are not married or living in a domestic partnership, with or without children. Single households include graduate students living with roommates or housemates and those who are in a committed relationship but not living with their spouse or partner.
- “Couple households” include graduate students who are married or living in a domestic partnership, with or without children.

Of the graduate students at Stanford, an estimated 93% do not have children, including 70% in single households and 23% in couple households. Approximately 7% of graduate students are estimated to have one or more children under the age of 18.

<b>Table 3-2. Estimated Number of Graduate Students by Household Type</b>		
	<u>Number</u>	<u>Percent</u>
<u>Without Children</u>		
Single Households	6,467	70%
Couple Households	<u>2,129</u>	<u>23%</u>
subtotal without children	8,596	93%
<u>With Children Under 18</u>		
Couple Households	617	6.6%
Single Households	<u>79</u>	<u>0.9%</u>
subtotal with children	696	7.5%
<b>Total</b>	9,292	100%

*Source: KMA estimate using 21-22 enrollment totals from Stanford and 2021 SCC Survey data. Number of survey responses applicable to this data (sample size or “n”) = 1,402.*

Estimates in Table 3-2 are similar to data from a 2017-18 academic year survey provided by Stanford in summary form indicating 26% are married or in a domestic partnership (versus a combined 30% estimated from the 2021 SCC Survey) and that 5% have at least one child in their home (versus 7% based on the 2021 SCC Survey).

### **3.3 Children**

For households with children under the age of 18, an estimated 59% have one child, 34% have two children, and 7% have three or more children, as shown in Table 3-3.

**Table 3-3. Graduate Student Households with Children Under the Age of 18**

	<u>Number</u>	<u>Percent</u>
One Child	408	59%
Two Children	238	34%
Three+ Children	<u>50</u>	<u>7%</u>
	696	100%

Source: KMA analysis of 2021 SCC Survey data. Includes children under 18 for whom the graduate student is primarily responsible for care who are living in the same household as the graduate student.

### 3.4 Spouse or Domestic Partner Occupations

Graduate students were asked to identify the occupation of their spouse or partner, if applicable, as part of the 2021 SCC Survey. For the spouse or partner of Stanford graduate students, approximately 58% are working for a wage or salary, 29% are in school at Stanford or another school, and 13% either care for children full time, are not working, or have an unpaid internship or other unpaid occupation, as shown in Table 3-4.

**Table 3-4. Occupation of Spouse or Domestic Partners of Stanford Graduate Students**

	<u>All Graduate Students</u>	<u>Domestic Students</u>	<u>International Students</u>
In School at Stanford	20%	16%	29%
Attend Another School	9%	8%	13%
Care for Children Full Time	6%	5%	9%
Other (not working, unpaid intern, something else)	<u>7%</u>	<u>4%</u>	<u>16%</u>
Subtotal	42%	34%	67%
Working for wage or salary	<u>58%</u>	<u>66%</u>	<u>33%</u>
Total	100%	100%	100%

Source: KMA analysis of 2021 SCC Survey data. n=425.

Among international students, approximately 33% indicate their spouse or domestic partner is in the paid workforce compared to 66% for domestic students. This reflects restrictions that apply to the student and spousal visas (F-1 and 2 and J-1 and 2) applicable to most international students and their spouses while studying at Stanford, as indicated in Table 3-5.

**Table 3-5. Status of Spouse or Domestic Partner of Stanford Graduate Students**

	<b>Status of Spouse or Partner</b>			
	Citizen / Permanent Resident	Student or Spousal Visa	Another Status or Visa Type	Total
<b>Graduate Student Respondent Status</b>				
U.S. Citizen or Permanent Resident	93%	3%	3%	100%
In US on Student Visa	23%	67%	9%	100%

Source: KMA analysis of 2021 SCC Survey data. n=423.

## 4.0 HOW STANFORD GRADUATE STUDENTS FUND THEIR EDUCATION

This section provides background regarding financing sources used by graduate students at Stanford to fund the combination of tuition and living expenses. The information draws on several sources including:

- The 2021 SCC Survey;
- The 2017 and 2020 Graduate Student Life Surveys;
- Stanford’s website; and an
- Interview with Stanford personnel<sup>4</sup>.

The discussion is differentiated by major degree program to capture significant differences among students by program.

### 4.1 PhD Students

PhD students primarily finance the cost of tuition and living expenses through research or teaching assistantships (“RA” or “TA”), which provide salary and tuition credit in exchange for teaching and research responsibilities, as well as fellowships. Full tuition credit is available with a 50% time assistantship appointment, which is the maximum appointment during the academic year. Stanford sets minimum salary levels which apply to most PhD students, shown in Table 4-1 for the 50% appointment level applicable to most PhD students. Individual departments and competitive fellowships sometimes exceed these minimums. Stanford PhD students in good academic standing are eligible for 12-months of funding for up to five years.

	Course Assistant / Research Assistant	Teaching Assistant
Per Quarter	\$11,820	\$12,246
Annualized	\$47,280	\$48,984

Source: Stanford 2021-22 Minimum Assistantship Salary Table

Nearly all PhD students report receiving an assistantship or fellowship (98%). Over half report that they rely on it as their sole funding source. International students are somewhat more likely to indicate that an assistantships or fellowships is the sole source of funding accessed. Domestic students report a higher level of access to funding sources additional to assistantships and fellowships, such as student loans and outside employment.

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<sup>4</sup> Interview on 11/16/2020 with Stacey Bent, Vice Provost for Graduate Education and Postdoctoral Affairs, Helen Doyle, Associate Vice Provost for Graduate Education, Karen Cooper, Associate Dean and Director of Financial Aid, and Kavitha Pendyala, Assistant Director, Finance.

In addition to assistantships and fellowships, approximately 38% of doctoral students reported receiving support from family, a partner or have savings to fund expenses, and 7% have earnings from outside employment.

Stanford reports that approximately 5% of doctoral students take out student loans during their doctoral degree program. This figure is close to the 4% indicated in the 2017 and 2020 Graduate Student Life survey data. According to officials at Stanford, those who borrow tend to do so because they are supporting a family or because they are enrolled beyond the typical time to degree for their program. The statement that those with families tend to borrow is supported by the data from the 2020 Student Life Survey which indicates that 19% of doctoral students with dependents access student loans, compared to 4% overall.

<b>Table 4-2. Funding Sources Utilized by PhD Students</b>			
	<b>All PhD Students</b>	<b>Domestic</b>	<b>International</b>
With Assistantship or Fellowship	98%	98%	97%
As sole funding source	55%	53%	59%
Using other funding sources	45%	47%	41%
<u>Percent Accessing Funding Source</u>			
Family/partner support or savings	38%	38%	37%
Outside Employment	7%	8%	3%
Student Loan Debt	4%	5%	3%
Other Sources	3%	4%	2%
Credit Card / Other Debt	2%	2%	2%

Source: KMA analysis of Graduate Student Life Survey, 2020 and 2017. n= 1,659

## **4.2 Masters Students**

Master's students at Stanford access a range of funding sources to finance their education and living expenses. Most report accessing multiple sources. Approximately 60% report access to assistantships and fellowships, but only 12% rely on them as their sole funding source because appointments for masters' students tend to be for less than the 50% level required for a full tuition credit and stipend sufficient to fund estimated living expenses.

Three quarters of master's students report receiving support from family, a partner or accessing personal savings to finance their education, but few rely on family or savings as their only support.

Approximately one third of master's students report accessing student loans to finance their education. Stanford reports a lower figure of 15% of master's students who borrow over the course of their graduate program. A possible explanation for the discrepancy is that survey respondents may have considered undergraduate debt in their responses, although a comparable discrepancy is not observed with respect to PhD students.

<b>Table 4-3. Funding Sources Utilized by Academic Masters Students</b>			
	<b>All Master's Students</b>	<b>Domestic</b>	<b>International</b>
With Assistantship or Fellowship	60%	63%	56%
As sole funding source	12%	12%	11%
Using other funding sources	88%	88%	89%
<u>Percent Accessing Funding Source</u>			
Family/partner support or savings	77%	75%	81%
Outside Employment	12%	15%	7%
Student Loan Debt	32%	35%	27%
Other Sources	2%	2%	2%
Credit Card / Other Debt	2%	2%	2%

Source: Graduate Student Life Survey, 2020 and 2017. n=334

### 4.3 Professional Degree Students

The top funding sources cited by professional degree students include support from a family, partner or savings (84%); assistantships and fellowships (67%); and student loan debt (67%). Few rely exclusively on any one source. Only 3% identify an assistantship or fellowship as their only source of funding, 9% list only student loan debt, and 10% report support from a family, partner, or savings as their primary source. On average, professional degree students report accessing three separate categories of funding.

<b>Table 4-4. Funding Sources Utilized by Professional Degree Students</b>			
	<b>All Prof. Degree Students</b>	<b>Domestic</b>	<b>International</b>
With Assistantship or Fellowship	67%	65%	82%
As sole funding source	3%	3%	0%
Using other funding sources	97%	97%	100%
<u>Percent Accessing Funding Source</u>			
Family/partner support or savings	84%	83%	89%
Student Loan Debt	67%	67%	68%
Outside Employment	10%	10%	11%
Credit Card / Other Debt	5%	5%	7%
Other Sources	2%	2%	0%

Source: Graduate Student Life Survey, 2020 and 2017. n=223

### 4.4 Additional Data Sources on Student Loan Utilization

#### a. Stanford Provided Data

Stanford provided data on aggregate borrowing over the course of graduate degree programs at Stanford for students who graduated in the 2019-20 academic year, summarized in Table 4-5. Professional degree students are much more likely to borrow to finance their graduate education than either masters or PhD students and also tend to incur a larger amount of debt

overall. PhD students, who generally have either research or teaching assistantships to finance their studies, tend to borrow the least.

	Percent with Debt from Graduate Program	Average Aggregate Debt from Graduate Degree, for Students that Borrow <sup>(1)</sup>
PhD	5%	\$42,764
Academic Masters	15%	\$56,928
<u>Professional Degree</u>		
MD	63%	\$89,739
MBA	34%	\$120,757
JD	61%	\$146,235

(1) Includes only borrowing in connection with enrollment as a graduate student at Stanford for students who earned their degree in the 2019-20 academic year.

Source: Stanford University

**b. 2021 SCC Survey Data on Loan Utilization**

The 2021 SCC Survey included a question regarding utilization of student loans or “other debt” in the current year by the student’s *household* (including any spouse or partner). Given the way the question is framed as inclusive of borrowing by a spouse or partner, and to encompass other types of debt, it is expected that a larger share of respondents would indicate use of loans compared to the Stanford data or the 2017/2020 Student Life Survey. Consistent with this, PhD and master’s students in the 2021 SCC Survey do indicate somewhat higher incidence of borrowing. Overall, the pattern of PhD students borrowing the least and professional degree students borrowing the most mirrors the pattern reported by Stanford and reflected in the 2017 and 2020 Student Life Survey data. Rates of loan utilization reported by domestic and international students are similar.

	All Graduate Students	Domestic	International
PhD	8%	7%	9%
Masters	38%	37%	39%
Professional degree (JD, MD, MBA)	61%	61%	56%

Source: KMA analysis of 2021 SCC Survey data. n= 1,019

**4.5 Family Support**

The 2021 SCC Survey requested respondents indicate whether they were receiving financial support from parents or family who do not live with the respondent. Approximately 23% of PhD, 41% of masters, and 33% of professional degree students responding to this question indicated the receipt of financial assistance from parents or family. The share identifying support from



family is far less than was reflected in the 2017/2020 student life survey data, summarized above. This is likely because the question in the 2021 SCC Survey focused on support during the current year rather than the entire period of study, specified inclusion of support from family members living outside the respondent's household only (excluding a spouse or partner in the same household), and requested identification of a specific monetary amount of assistance, which may have resulted in respondents excluding more indirect or non-monetary assistance.

<b>Table 4-7. Support from Parents or Family in Current Year, 2021 SCC Survey</b>			
	<b>All Graduate Students</b>	<b>Domestic</b>	<b>International</b>
PhD	23%	23%	21%
Masters	41%	37%	47%
Professional degree (JD, MD, MBA)	33%	32%	38%

Source: KMA analysis of 2021 SCC Survey data. n= 1,019

#### **4.6 Proof of Funding Requirement for Visa Approval, International Students**

To be granted a student visa for study in the United States, international students are required to provide evidence of funding availability for the initial academic year of study (for an F-1 Visa, used by most international students). If a spouse or child will accompany the student to the United States, evidence of adequate funds for the living expenses of the accompanying spouse or child is also required. Supporting documentation may include financial aid award letters, letters from the applicable Stanford department certifying the amount of support, bank statements, and/or other forms of documentation. Living cost allowances identified by Stanford are \$16,000 for an accompanying spouse and \$4,000 per year for an accompanying child. These allowances are insufficient to cover the additional household expenses for a spouse or child estimated in Section 6.3. Since the requirement applicable to the visa type used by most international students applies to the initial academic year rather than the full period of study, and allowances for living expenses of a spouse and/or child appear inadequate, this visa requirement would not necessarily preclude international students from experiencing financial challenges during their period of study, as evidenced by the analysis in Section 7.

## 5.0 GRADUATE STUDENT HOUSING AT STANFORD

### 5.1 Where Graduate Students Live

Table 5-1 provides a summary of where Stanford graduate students live, based on responses to the 2021 SCC Survey. Approximately 75% of graduate students live in Stanford-provided housing either on- or off-campus and 25% live off-campus in non-Stanford housing. Responses generally conform to the estimates in the subsequent section indicating that Stanford has a housing inventory adequate to accommodate approximately 80% of the 2021-22 graduate student population.

Among those living off-campus, the largest share are renters at 21.7% of the total, 1.5% live with parents or family, 1.4% own a home, and 0.1% indicated they are currently unhoused or living in a vehicle.

<b>Table 5-1. Where Graduate Students Live</b>	
	<u>% Total</u>
<b>Stanford Housing</b>	
On-campus Stanford Housing	66.2%
Off-campus Stanford Housing	9.0%
Subtotal Stanford Housing	75.2%
<b>All Other Housing Types</b>	
Off-campus rental	21.7%
Live with parents / family	1.5%
Own a home off-campus	1.4%
Unhoused or living in vehicle	0.1%
Subtotal not living in Stanford Housing	24.8%
<b>Total</b>	100%

Source: KMA Analysis of 2021 SCC Survey data. n=1,483

### 5.2 Stanford's Housing Inventory

As of the 2021-22 academic year, Stanford has a published inventory of approximately 7,158 housing "spaces" for graduate students. Spaces for single graduate students represent approximately 5,946 of the total, of which approximately 80% are private rooms in a shared apartment and 20% are studio units designated for single occupancy. Housing "spaces" for couples and families consist of the entire unit.

Stanford's published inventory of on- and off-campus graduate student housing as of the 2021-22 academic year is estimated to accommodate approximately 80% of reported graduate

student enrollment of 9,292 students<sup>5</sup>. The inventory is estimated to accommodate approximately 92% of enrolled graduate students in single households, and a little over half of enrolled graduate students in couple and family households. While inventory is broken out by household type based on the allocation as of the 2021-22 academic year, Stanford would have some ability to adjust the allocation between single spaces, couple and family units based on demand.

Type of Unit or Space	Total Units / Spaces	Estimated No. Grad Students Accommodated <sup>(1)</sup>	Estimated No. of Graduate Students by Household Type	%Need Met by Stanford Provided Housing
Single Spaces	5,946	5,946	from Table 3-2 6,467	92%
Couple Units	918	1,102	2,129	52%
Family Units	294	353	696	51%
<b>Total</b>	<b>7,158</b>	<b>7,401</b>	<b>9,292</b>	<b>80%</b>

(1) Estimate assumes approximately 20% of couples and family households are comprised of two graduate students based on the 2021 SCC Survey.

Source: KMA analysis of housing inventory reported by Stanford for 21-22 academic year.

Stanford’s graduate student housing is not subject to affordability restrictions that regulate rents or that require occupants be below a certain income; however, Table 5-3 illustrates the affordability category that units would fall into based on their rents. Most single spaces consist of a private bedroom in a shared unit. Single graduate students sharing these units are not a household in the traditional sense. For this reason, affordability levels are illustrated using the following two different approaches:

- Approach 1 calculates affordability in the customary manner based on the total cost of the unit and an assumed household size. For purposes of Approach 1, household size is based on the occupancy level specified by Stanford. For two single graduate students that share one unit, affordability is calculated based on the combined amount that both students pay and a household size of two.
- Approach 2 calculates affordability for single graduate student spaces based upon the amount charged to one graduate student and a household size of one. This effectively treats the single graduate student housing spaces as single room occupancy (SRO). Affordability for units occupied by couples and families is calculated consistent with Approach 1.

<sup>5</sup> Estimate assumes approximately 20% of units for couples and families include two Stanford graduate students, based on data from the 2021 SCC Survey. Estimate does not include the approximately 1,000 spaces held in reserve for covid-related purposes.

Using Approach 1, approximately 29% of spaces are at a rent affordable to Low Income households, 56% at a rent affordable to Moderate Income households, and 15% at a rent affordable to households with incomes above 120% of AMI.

With Approach 2, approximately 46% of spaces are at a rent affordable to Very Low Income, 40% are affordable to Low Income, and 14% are affordable to Moderate Income households.

Estimates reflect the estimated income required to afford the rent assuming 30% of income is dedicated to housing costs<sup>6</sup>. Required incomes are then compared to 2021 income limits published by HCD for Santa Clara County to determine the applicable affordability category. Table 5-3 provides a summary with supporting detail provided in Table 5-4.

Table 5-3. No. of Stanford Provided Units by Estimated Affordability Level								
	Approach 1				Approach 2			
	Affordability Calculated based on Combined Cost to all Occupants of Unit and Stanford Specified Occupancy Level				Affordability of Single Student Spaces Calculated at Single Student Cost and Income Criteria for One-Person Household			
	<u>Very Low</u>	<u>Low</u>	<u>Moderate</u>	<u>&gt;120% AMI</u>	<u>Very Low</u>	<u>Low</u>	<u>Moderate</u>	<u>&gt;120% AMI</u>
Single Spaces	0	1,095	3,755	1,096	3,274	1,913	759	0
Couple Units	0	726	192	0	0	726	192	0
Family Units	0	224	70	0	0	224	70	0
Total	0	2,045	4,017	1,096	3,274	2,863	1,021	0
% Total	0%	29%	56%	15%	46%	40%	14%	0%

Note: units are not income restricted. See Table 5-4 for detail. For Approach 1 and for couple and family units in Approach 2, occupancy levels specified by Stanford are assumed, which are lower than the standard in the California Health and Safety Code Section 50052.5 of one plus the number of bedrooms.

The housing inventory in Tables 5-2 to 5-4 reflects Stanford’s published 2021-22 academic year inventory. This published inventory is affected by two factors that are subject to change in the future. First, Stanford indicates approximately 1,000 housing spaces were excluded from the published inventory and held in reserve for covid-related purposes. These units could be made available to meet graduate student housing demand in future years. Second, the published inventory includes 972 off-campus housing spaces. Stanford previously indicated plans to phase out off-campus units at the end of 2019-20 when the new Escondido Village Graduate Residences were completed but has retained a supply of off-campus units and more recently indicated a near-term intent to keep the inventory available. If units reserved for covid-related purposes are released for regular occupancy while off-campus units are phased out consistent with Stanford’s previously stated plans, the effects of these two potential changes on the number of available housing spaces are estimated to roughly cancel each other out.

<sup>6</sup> This standard is used for illustration; however, for the reasons discussed in Section 2, this standard is not used for purposes of the Affordability Analysis in Section 7.

Stanford provided data on demand for on-campus housing units by type to assist in understanding whether the number of spaces is adequate to meet demand. The number of applications for the 2019-20 academic year is used to avoid using figures impacted by the coronavirus pandemic, which reduced demand. This demand is compared to the published housing inventory as of the 2021-22 academic year from Table 5-2. For single spaces, Stanford reported 5,662 applications compared to 5,946 spaces available. For couple units, there were 1,032 applications compared to 918 units available; however, some of the available single spaces could be used for couples instead to accommodate the total demand. For family units, Stanford reported 251 applications compared to 294 available spaces. The data suggests the number of housing spaces in the published inventory is approximately adequate to accommodate the share of existing graduate students wishing to live in Stanford housing.

**Table 5-4**  
**Stanford Graduate Student Housing Inventory: Detail for 2021-22 Academic Year**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

Residence	No. BRs	Occupancy Level Specified by Stanford	Monthly Rate Per Person	Monthly Rate per unit <sup>(1)</sup>	No. of Spaces <sup>(3)</sup>	Cum No. of spaces	Cum % of spaces	Affordability Level	
								Approach 1 - Housing Unit Overall <sup>(4)</sup>	Approach 2 - Single Student Cost and One Person HH <sup>(5)</sup>

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**Single Student Options**

Sorted by per person cost

EV, High-Rise and McFarland Mid-Rise	2	2	\$1,003	\$2,006	468	468	7.9%	Low	Very Low
ES, Low-Rise	3	3	\$1,218	\$3,654	57	525	8.8%	Mod	Very Low
EV, Low-Rise	3	3	\$1,218	\$3,654	111	636	10.7%	Mod	Very Low
EV Kennedy Residences	2	2	\$1,300	\$2,600	220	856	14.4%	Mod	Very Low
Rains Houses	4	4	\$1,389	\$5,556	284	1,140	19.2%	Above Mod	Very Low
ES, Low-Rise	2	2	\$1,396	\$2,792	38	1,178	19.8%	Mod	Very Low
EV, Low-Rise	2	2	\$1,396	\$2,792	178	1,356	22.8%	Mod	Very Low
Lyman Graduate Residences	2	2	\$1,396	\$2,792	224	1,580	26.6%	Mod	Very Low
Rains Houses	2	2	\$1,396	\$2,792	492	2,072	34.8%	Mod	Very Low
Off-campus: Oak Creek (2)	2	2	\$1,396	\$2,792	122	2,194	36.9%	Mod	Very Low
Off-campus: all other (2)	2	2	\$1,396	\$2,792	486	2,680	45.1%	Mod	Very Low
Off-campus: all other (2)	3	3	\$1,396	\$4,188	114	2,794	47.0%	Above Mod	Very Low
EV Graduate Residences	2	2	\$1,423	\$2,846	480	3,274	55.1%	Mod	Very Low
Off-campus: Oak Creek (2)	2	2	\$1,717	\$3,434	74	3,348	56.3%	Mod	Low
EV Kennedy Residences	2	2	\$1,720	\$3,440	108	3,456	58.1%	Mod	Low
EV, standard	0	1	\$1,747	\$1,747	627	4,083	68.7%	Low	Low
EV Graduate Residences	2	2	\$1,747	\$3,494	596	4,679	78.7%	Mod	Low
Munger Graduate Residence	4	4	\$1,954	\$7,816	284	4,963	83.5%	Above Mod	Low
Munger Graduate Residence	2	2	\$1,977	\$3,954	62	5,025	84.5%	Above Mod	Low
GSB Residences, Schwab	2	2	\$2,055	\$4,110	162	5,187	87.2%	Above Mod	Low
GSB Residences, Jack McDonald Hall	2	2	\$2,105	\$4,210	190	5,377	90.4%	Above Mod	Mod
EV Kennedy Residences, premium	0	1	\$2,144	\$2,144	10	5,387	90.6%	Mod	Mod
EV Graduate Residences, premium	0	1	\$2,241	\$2,241	423	5,810	97.7%	Mod	Mod
Munger Graduate Residence, standard	0	1	\$2,306	\$2,306	74	5,884	99.0%	Mod	Mod
Munger Graduate Residence, premium	0	1	\$2,472	\$2,472	62	5,946	100.0%	Mod	Mod
Total / Average			\$1,598		5,946				

**Table 5-4**  
**Stanford Graduate Student Housing Inventory: Detail for 2021-22 Academic Year**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

Residence	No. BRs	Occupancy Level Specified by Stanford	Monthly Rate Per Person	Monthly Rate per unit <sup>(1)</sup>	No. of Spaces <sup>(3)</sup>	Cum No. of spaces	Cum % of spaces	Affordability Level	
								Approach 1 - Housing Unit Overall <sup>(4)</sup>	Approach 2 - Single Student Cost and One Person HH <sup>(5)</sup>

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Couple with no children options									
EV, standard	0	2		\$1,747	85	85	9.3%	Low	Low
Off-campus: all other (2)	0	2		\$2,140	4	89	9.7%	Low	Low
EV Kennedy Residences, premium	0	2		\$2,144	98	187	20.4%	Low	Low
Off-campus: Oak Creek (2)	0	2		\$2,176	18	205	22.3%	Low	Low
EV Graduate Residences, premium	0	2		\$2,241	98	303	33.0%	Low	Low
EV, McFarland Mid-Rise	1	2		\$2,249	49	352	38.3%	Low	Low
EV, Mid-Rise	1	2		\$2,270	249	601	65.5%	Low	Low
EV, Low-Rise	1	2		\$2,270	35	636	69.3%	Low	Low
Off-campus: all other (2)	1	2		\$2,270	90	726	79.1%	Low	Low
Munger Graduate Residence, premium	0	2		\$2,472	100	826	90.0%	Mod	Mod
EV, Low-Rise with den	1	2		\$2,585	5	831	90.5%	Mod	Mod
EV, Low-Rise	2	2		\$2,792	25	856	93.2%	Mod	Mod
Off-campus: all other (2)	2	2		\$2,792	0	856	93.2%	Mod	Mod
GSB Residences, Schwab	1	2		\$3,090	8	864	94.1%	Mod	Mod
GSB Residences, Jack McDonald Hall	1	2		\$3,140	6	870	94.8%	Mod	Mod
Munger Graduate Residence	1	2		\$3,230	18	888	96.7%	Mod	Mod
EV Graduate Residences, premium	2	2		\$3,494	30	918	100.0%	Mod	Mod
				Total / Average	\$2,311	918			
				Average - 1 BRs	\$2,334				

Families with Children Options									
EV / ES Low-Rise	2	3		\$2,490	160	160		Low	Low
Off-campus: Oak Creek (2)	2	4		\$2,490	64	224		Low	Low
EV / ES Low-Rise	3	4		\$3,009	68	292		Mod	Mod
ES Low-Rise	4	5		\$3,342	2	294		Mod	Mod
				Total / Average	\$2,616	294			
					<b>Total</b>	<b>7,158</b>	<b>100%</b>		
					<b>Total On-Campus</b>	<b>6,186</b>	<b>86%</b>		
					<b>Total Off-Campus <sup>(2)</sup></b>	<b>972</b>	<b>14%</b>		

- (1) Rates include utilities but do not include separate technology fee. Charges include laundry for on-campus but not off-campus units.
- (2) Number of units within this category based on subsequent data provided by Stanford as unit count by bedroom size is not identified in RD&E housing options charts. Number of spaces off-campus is subject to change.
- (3) Reflects Stanford's published inventory, not including approximately 1,000 spaces that Stanford states were held in reserve for covid-related purposes for the 2021-22 academic year.
- (4) Approach 1 evaluates affordability level based on the overall cost and the number of persons accommodated in the unit at occupancy levels specified by Stanford.
- (5) Approach 2 evaluates affordability level for single graduate students based on the charges one student pays and a household size of one. This effectively treats private rooms within a shared unit applicable to most single graduate student housing options as single room occupancy (SRO). Affordability for couple and family housing is evaluated based on the entire unit and the applicable household size.

EV = Escondido Village; ES = Escondido South

Source: Stanford University, RD&E Summary of Graduate Student Housing Rates and Options for 21-22. Off-campus inventory by bedroom size provided by Stanford.

### 5.3 Reasons for Living in Non-Stanford Housing and Associated Cost

The 2020 Graduate Student Life Survey included a question on the reasons students were living in off-campus unsubsidized housing (asked of those respondents living in non-Stanford housing). The most common reason given was a loss of housing priority, which refers to Stanford's system of prioritizing housing assignments based on degree program and program year. Students with no housing priority may still apply for a unit through a lottery process but do not have a guarantee of being allocated a unit and must re-apply through the lottery each year. The survey was conducted prior to expansion of housing inventory through completion of Escondido Village Graduate Residences (EVGR), which will have increased the likelihood of a housing assignment on-campus. Personal preference and a lack of options suitable to the respondent's family represent a combined 36% of responses. Cheaper housing off-campus was indicated as a reason by 15% of respondents.

No years left of housing priority <sup>(1)</sup>	36%
Personal preference	28%
Cheaper options off-campus	15%
Lack of options for my family / relationship structure in on-campus housing	8%
Some other reason	14%
Total	100%

(1) On-campus graduate student housing availability was expanded by a net of 1,200 spaces through completion of the Escondido Village Graduate Residences following the date of the survey.

Source: KMA analysis of 2020 Graduate Student Life Survey. n=199

The average housing cost reported by respondents to the 2020 Graduate Student Life Survey living in off-campus unsubsidized housing was approximately \$1,530 per month, which is approximately the same as the \$1,557 per month weighted average monthly rent for on-campus units as of the 2020-21 academic year, and approximately 3% more than the \$1,485 average cost for on-campus housing reported by respondents to the 2020 Graduate Student Life Survey (conducted during the 2019-20 academic year). Note these are generally per-person housing costs rather than per unit. Respondents indicating there were cheaper options off-campus reported the lowest average cost at \$1,172 per month while respondents identifying personal preference as the reason for living off-campus reported the highest costs, averaging \$1,717 per month. Average monthly housing costs for respondents indicating a loss of housing priority as the reason for living off-campus reported monthly housing costs similar to the overall average. Responses suggest graduate students living in non-Stanford housing generally found housing at a similar average price point to the Stanford-provided housing. However, the quality, size, location, and sharing arrangements (roommates/housemates) may not be comparable between Stanford housing and off-campus unsubsidized units. Another difference is that Stanford does not require a security deposit and includes utilities in the rate while off-campus unsubsidized housing options will generally require a security deposit and utilities are typically billed separately by service providers.



## 6.0 LIVING EXPENSE BUDGET FOR STANFORD GRADUATE STUDENTS

This section discusses the living expense budget for single Stanford graduate students published by Stanford and separate estimates prepared by KMA for other household types.

### 6.1 Stanford Cost of Attendance Budget

Stanford annually publishes a cost of attendance (“COA”) which is intended as an all-inclusive budget that considers the cost of tuition, fees, and living expenses. The 2021-22 cost of attendance for a single graduate student is identified in Table 6-1 (cost of attendance budgets are higher for professional programs and for masters and PhD students in engineering). The cost of attendance is more than a tool for financial planning, it governs the financial aid award process.

	Academic Year	12-Months (w/ Summer Quarter)
<u>Living Costs</u>		
Campus housing/rent	\$16,590	\$20,955
Food	\$6,390	\$8,520
Personal	\$6,555	\$8,740
Transportation	\$1,380	\$1,840
Books/supplies	\$990	\$1,315
Campus Health Service Fee	\$696	\$928
Cardinal Care Health Insurance	<u>\$6,192</u>	<u>\$6,192</u>
Total Living Allowance	\$38,793	\$48,490
Tuition (8-10 units)	\$35,310*	\$47,080
<b>Total</b>	<b>\$74,103</b>	<b>\$95,570</b>

\*Increases to \$54,315 per academic year with 11 to 18 units.

Source: Stanford University. Reflects single graduate student.

Note: budgets for Engineering and professional schools are higher. Figures are for the 2021-22 academic year, consistent with the time of the 2021 SCC Survey data used in this analysis. The COA budget for living expenses for the 2022-23 academic year increased by 5%.

According to the U.S. Department of Education (DOE), “the COA is the cornerstone of establishing a student’s financial need, as it sets a limit on the total aid that a student may receive<sup>7</sup>.” In general, financial aid awards and student loans may be funded up to the cost of attendance. Minimum stipends for RA and TA positions at the 50% level, applicable to most PhD students, are also established at a level that approximates the living expense portion of the cost of attendance budget. Through its application in the financial aid award process and as a guide for determining stipend amounts, the cost of attendance budget plays a central role in

<sup>7</sup> U.S. Department of Education FSA handbook accessed at <https://fsapartners.ed.gov/knowledge-center/fsa-handbook/2020-2021/vol3/ch2-cost-attendance-budget>.

determining financial resources available to graduate students for both tuition and living expenses.

Adjustments identified by Stanford to the living expense budget for students with a spouse is \$16,000 per year and \$4,000 per year per child. Financial Aid staff at Stanford indicated that individualized adjustments are sometimes made where supporting documentation for higher costs is provided, a process that would be necessary if a student wished to borrow additional funds to support expenses that exceed the estimated cost of attendance, considering grants, assistantships, and other sources. The DOE uses the single student cost of attendance for determining loan eligibility regardless of household type but allows certain adjustments for housing costs or dependent care.

## **6.2 KMA Review of Stanford Published Living Expense Budget for Single Graduate Students**

Due to the role of the student budget in governing the financial life of graduate students, KMA requested, and Stanford provided, information on how the living expense budget is derived. Table 6-2 expresses the living expense budget on a monthly basis and includes comments regarding the basis for each item.

Costs such as health insurance, which is available through Stanford (called “Cardinal Care”), and fees charged by Stanford, are included in the budget based on actual cost. Housing costs in the budget are set at a level adequate for approximately 79% of available housing options for single students, the majority of which reflect a private bedroom within a unit shared by one or more additional graduate students. Taxes are calculated based on the TA salary. Other expense items are supported by a 2017-18 survey of students that received approximately 3,000 responses, as indexed for CPI changes since the date of the survey.

KMA’s evaluation is that the living expense budget appears adequate for most single graduate students based on the supporting data. The budget for food exceeds expenses reported in the survey and average per person spending in the San Francisco Bay Area reported by the Consumer Expenditure Survey. The budget for rent is adequate to afford the majority of on-campus housing options, which allows single students flexibility to select a lower cost housing option if desired, which would free up funds for other expenses.

**Table 6-2. Graduate Living Expense Budget Included in Stanford Cost of Attendance**

<b>Budget Item</b>	<b>21-22 Graduate Student Budget Per Month <sup>(1)</sup></b>	<b>Comment</b>
Rent	\$1,746	Budget sufficient for approximately 79% of available housing options for single students.
Food	\$710	Budget is approximately 41% more than reported average food spending for graduate students from expense survey and 79% more than the average per person food spending reported in the Consumer Expenditure Survey for the San Francisco Bay Area.
Clothing	\$66	Budget supported by expense survey
Personal care	\$44	Budget supported by expense survey
Entertainment / Recreation	\$109	Budget supported by expense survey
Communication	\$48	Budget supported by expense survey
Transportation	\$153	Budget supported by expense survey
Books, Supplies	\$110	Budget supported by expense survey
Out of Pocket Medical/Dental	\$40	Budget supported by expense survey
ASSU, Tech Fee, House Dues	\$54	Budget set at actual charges and estimated house dues
Campus Health Service Fee	\$77	Budget set at actual charge
Cardinal Care Health Insurance	\$516	Budget set at actual charge w/o subsidy
Federal and State taxes	\$367	Stanford budget based on 9% of 50% TA salary. Effective tax rate confirmed based on published State and Federal tax tables and standard deduction. Students are generally exempt from Social Security and Medicare (FICA) taxes while enrolled.
<b>Total Per Month</b>	<b>\$4,041</b>	Overall budget for single students appears adequate based on supporting data.
<b>Total Per Year</b>	<b>\$48,490</b>	

(1) Stanford living expense budget including summer quarter converted to a monthly amount. Additional detail for personal expense budget based on supporting data provided by Stanford for 2019-20, adjusted to 2021-22 year by KMA proportionate to the overall increase in the personal expense budget.

Appendix Tables 2 to 5 provide additional supporting information from the expense survey supporting the comments above.

The living expense budget totals \$48,490 per year for a single graduate student. Assuming no resources beyond the student budget, the budget would result in students being classified as Very Low Income based on income limits published by the California Department of Housing and Community Development for 2021. The analysis in Section 5.2 indicates approximately 55% of Stanford’s housing options for single students are affordable to Very Low Income, based on Approach 2 in which affordability is calculated for a one-person household, with the remaining 45% of single spaces at a higher income level (Low and Moderate).

### 6.3 Budget for Other Household Situations

The student expense budget published by Stanford is focused on single graduate students. It is necessary to consider budgets applicable to other household situations to evaluate whether resources are adequate under other household circumstances. KMA prepared estimated living

expense budgets for couple households and households with children by translating Stanford's budget for single students for other household circumstances.

*a. Couples Without Children*

Table 6-3 presents the estimated living expense budget for couples without children. Housing costs are based upon the average cost of a one-bedroom unit in Stanford housing. Health insurance is based on the Cardinal Care rate for spousal coverage. Expenses such as food are adjusted from the single budget using data from the 2019-20 Consumer Expenditure Survey as to the ratio of expenses for households with one versus two people, up to a maximum of twice the expense budget for one person.

As transportation expenses for student households living on campus may be lower than for a second household member who may work off-campus, transportation expenses for a second household member are estimated at the average per person transportation expense per 2019-20 Consumer Expenditure Survey data for the San Francisco Bay Area, excluding vehicle purchase costs.

Taxes are calculated from published schedules from the IRS and California Franchise Tax board, based on the household income needed to afford the budget. Based on this approach, an annual budget of approximately \$80,000 is estimated for a couple household, approximately 65% greater than the single graduate student budget. A couple household with income equal to this estimated budget qualifies as Low Income based on 2021 HCD Income limits for Santa Clara County.

Approximately 79% of the inventory of Stanford housing designated for occupancy for couples without children is estimated to be at a rent that would be affordable to Low Income households and the remaining inventory is estimated at Moderate Income.

<b>Table 6-3. Living Expense Budget Estimate for Couples Without Children</b>				
<b>Budget Item</b>	<b>Single Graduate Students</b>	<b>Adjustment Factor for Couples</b>	<b>Adjusted Budget for Couples</b>	<b>Basis for Estimate or Adjustment to Budget from Single Student Budget</b>
	Monthly Cost		Monthly Cost	
Rent	\$1,746	N/A	\$2,334	Avg cost 1-BR unit in Stanford housing for couples.
Food	\$710	2.0	\$1,420	Adjustment factor based on 2019-20 Consumer Expenditure Survey, ratio of spending by one versus two person households, average for under 25 and 25-34 age groups, capped at a factor of two times the budget for one person.
Clothing	\$66	2.0	\$132	
Personal care	\$44	1.8	\$77	
Entertainment / Recreation	\$109	2.0	\$219	
Communication	\$48	2.0	\$96	Reflects average per person expense from the 2019-20 Consumer Expenditure Survey for the Bay Area, for second household member, excluding vehicle purchase costs.
Transportation	\$153	2.6	\$397	
Books, Supplies	\$110	1.0	\$110	Assume one student
Out of Pocket Medical/Dental	\$40	2.0	\$79	2X single budget given same health coverage
ASSU, Tech Fee, House Dues	\$54	1.0	\$54	Assume one student
Health Service Fee	\$77	1.0	\$77	Assume one student
Cardinal Care Insurance	\$516	N/A	\$987	Based on Cardinal Care rate for spousal coverage
Taxes	\$367	N/A	\$677	Taxes calculated based on gross income required for budget. See Appendix Table 6.
<b>Total Living Expense Budget</b>				
Per Month	\$4,041		\$6,659	
Per Year	<b>\$48,490</b>		<b>\$79,910</b>	

*b. Households with Children*

Table 6-4 presents the estimated living expense budget for couple households with children. Housing costs are again based on published rates for Stanford housing for the applicable household size. Other expenses are estimated based on ratios derived from the 2019-20 Consumer Expenditure Survey between spending by two-person versus three or four-person households, as applicable, but no less than the expenditure estimate for households without children. Most categories of expense are not estimated to increase significantly for households with children, with the major exceptions of housing, health insurance, and childcare costs.

The Table 6-4 budget is shown both with and without childcare costs because childcare expenses are interrelated with income and work schedule. Households make a variety of choices about childcare that take into consideration tradeoffs between the cost of childcare, time spent with children, and reductions in income that come with a reduced work schedule or a decision not to work. For graduate students, there are also tradeoffs at play between childcare costs, the time necessary to complete a degree, and career prospects post-graduation.

Childcare costs in Table 6-4 reflect average costs reported by survey respondents to the 2021 SCC Survey who utilize childcare at least 20 hours per week, consistent with the reported average childcare utilization for graduate students with children under the age of five (79% of

graduate students with children report having at least one child under the age of five)<sup>8</sup>. For the 21% of graduate students with school-age children only, a lower average use of childcare is reported, and costs would be lower.

A household with two children is estimated to require gross income approximately \$47,600 per year higher to afford the reported average cost of childcare for those using at least 20 hours per week of care, plus the additional taxes on that income, compared to a household of the same size without childcare costs (i.e., the difference between the \$143,050 and \$95,450 budget figures below).<sup>9</sup> The \$47,600 estimated budget impact of childcare is approximately the same as the 2021-22 academic year 12-month stipend for a PhD student on a 50% research assistantship. These figures suggest that, from a purely short-term financial perspective, whether to remain in the program or to quit to care for the household's children may be a financially-neutral decision for a PhD student with two children and a spouse or partner in the workforce.

Given the range of decision-making about childcare, variation in the cost of care based on the age of the child, and the inherent tradeoffs with income, rather than a one-size-fits all budget for childcare, the analysis in Section 7 uses each individual survey respondent's actual reported childcare cost. The budget with childcare costs shown below is to illustrate the impact of these costs.

The budget for couples without childcare costs would qualify as Low Income and the budgets with childcare costs would qualify as Moderate Income based on 2021 HCD income limits. The inventory of Stanford housing available to families is estimated to have rents affordable to Low Income for two-bedrooms and Moderate income for three and four bedroom units.

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<sup>8</sup> Public Consulting Group LLC. Stanford Campus Childcare Needs Assessment, Prepared for County of Santa Clara.

<sup>9</sup> Of the \$47,600 estimated budget impact, approximately \$34,000 represents the cost of childcare and \$13,600 represents taxes on the additional income needed to pay this \$34,000 cost. Tax estimate considers tax savings available through a dependent care flexible spending account and the dependent care tax credit and is calculated in Appendix Table 6. Figures are illustrative based on the average reported childcare costs for respondents using 20 hours per week or more of care. For purposes of the analysis in Section 7, actual costs reported by each individual respondent are used, rather than these illustrative averages.

<b>Table 6-4. Living Expense Budget Estimate for Couple Households with Children</b>				
<b>Budget Item</b>	<b>Couple Without Children</b>	<b>Couple With One Child</b>	<b>Couple With Two or Three Children</b>	<b>Basis for Estimated Budget with Children</b>
	Monthly Cost	Monthly Cost	Monthly Cost	
Rent	\$2,334	\$2,490	\$3,009	2- & 3-BR units in Escondido Village low-rise.
Food	\$1,420	\$1,420	\$1,556	Adjustment based on 2019-20 Consumer Expenditure Survey, ratio of spending by two versus 3-4 person households, 25-34 age group.
Clothing	\$132	\$132	\$162	
Personal care	\$77	\$77	\$93	
Entertainment	\$219	\$219	\$237	
Communication	\$96	\$96	\$102	
Transportation	\$397	\$397	\$458	
Books, Supplies	\$110	\$110	\$110	Assume one student
Out of Pocket Medical/Dental	\$79	\$79	\$91	2019-20 Consumer Expenditure Survey, ratio of spending by 2 vs. 3-4 person households in 25-34 age group.
ASSU, Tech Fee, House Dues	\$54	\$54	\$54	Assume one student
Health Service Fee	\$77	\$77	\$77	Assume one student
Cardinal Care Insurance	\$987	\$1,232	\$1,428	Cardinal Care rate schedule
Income and payroll tax	\$677	\$530	\$579	calculated in Appendix Table 6
<b>Total Non-Tuition Budget, Before Childcare</b>	<b>\$6,659</b>	<b>\$6,913</b>	<b>\$7,954</b>	
Childcare Expense	N/A	\$2,080	\$2,840	Average childcare cost reported by survey respondents utilizing childcare care for 20 hours per week or more. Costs exceed the \$1,694 monthly equivalent to the \$391 average reported in the Stanford Campus Childcare Needs Assessment prepared by Public Consulting Group due to the focus on respondents using care 20 hours per week or more for purposes of this illustration. Actual reported costs for each individual respondent are used for the analysis in Section 7 rather than this average.
Incremental taxes on income needed to pay childcare costs	N/A	\$493	\$1,126	Higher earnings needed to pay for childcare result in increased taxes. See estimate in Appendix Table 6.
<b>Total Non-Tuition Budget, Including Childcare</b>	<b>N/A</b>	<b>\$9,486</b>	<b>\$11,921</b>	
<b>Total Living Expense Budget without childcare</b>	<b>\$79,910</b>	<b>\$82,950</b>	<b>\$95,450</b>	
<b>Total Living Expense Budget with childcare</b>	<b>N/A</b>	<b>\$113,830</b>	<b>\$143,050</b>	

While the majority of graduate students with children are part of couple households (89% based on the 2021 SCC Survey), around 11% are part of single-parent households. Table 6-5 provides an estimated living expense budget for single-parent graduate student households.

**Table 6-5. Living Expense Budget Estimate for Single-Parent Households**

<b>Budget Item</b>	<b>Single No Children</b>	<b>Single One Child</b>	<b>Single With Two or Three Children</b>	<b>Basis for Estimated Budget with Children</b>
	Monthly Cost	Monthly Cost	Monthly Cost	
Rent	\$1,746	\$2,490	\$3,009	2- & 3-BR units in Escondido Village low-rise.
Food	\$710	\$846	\$982	Budget with children estimated using single budget plus a per child cost calculated as the difference between the budget for two or three children versus one child from Table 6-4.
Clothing	\$66	\$96	\$126	
Personal care	\$44	\$60	\$76	
Entertainment	\$109	\$127	\$145	
Communication	\$48	\$54	\$60	
Transportation	\$153	\$214	\$275	
Books, Supplies	\$110	\$110	\$110	One student
Out of Pocket Medical/Dental	\$40	\$51	\$63	Single budget + per child cost consistent with Table 6-4.
ASSU, Tech Fee, House Dues	\$54	\$54	\$54	One student
Health Service Fee	\$77	\$77	\$77	One student
Cardinal Care Insurance	\$516	\$761	\$957	Cardinal Care rate schedule
Income and payroll tax	\$367	\$199	\$128	calculated in Appendix Table 6
<b>Total Non-Tuition Budget, Before Childcare</b>	<b>\$4,041</b>	<b>\$5,140</b>	<b>\$6,062</b>	
Childcare Expense	N/A	\$2,080	\$2,840	Average childcare cost reported by survey respondents utilizing childcare care for 20 hours per week or more. Costs exceed the \$1,694 monthly equivalent to the \$391 average reported in the Stanford Campus Childcare Needs Assessment prepared by PCG due to the focus on respondents using care 20 hours per week or more for purposes of this illustration. Actual reported costs for each individual respondent are used for the analysis in Section 7 rather than this average.
Incremental taxes on income needed to pay childcare costs	N/A	\$339	\$1,042	Higher earnings needed to pay for childcare result in increased taxes. See estimate in Appendix Table 6.
<b>Total Non-Tuition Budget, Including Childcare</b>	<b>N/A</b>	<b>\$7,559</b>	<b>\$9,944</b>	
<b>Total Living Expense Budget without childcare</b>	<b>\$48,490</b>	<b>\$61,680</b>	<b>\$72,740</b>	
<b>Total Living Expense Budget with childcare</b>	<b>N/A</b>	<b>\$90,700</b>	<b>\$119,330</b>	



## 7.0 AFFORDABILITY ANALYSIS

This analysis in this section evaluates whether there is evidence of a gap between resources available to graduate students and the cost of housing and other living expenses.

### 7.1 Overview of Methodology

The 2021 SCC Survey data was utilized to determine if there is evidence of affordability challenges within the Stanford graduate student population. The 2021 SCC Survey included questions on household characteristics, program of study, income, student loans, parental and family support, childcare costs, and qualitative questions regarding financial resources and food security. The data was combined with the graduate student living expense budgets from the prior section to determine if there is evidence of affordability challenges.

The cost of housing is a significant component of most household budgets, and that is true for graduate students as well. A unique factor for graduate students is that the cost of housing is an explicit consideration in the cost of attendance budgets used to determine financial aid, student loans and stipends for graduate students. As described previously, this unique aspect of graduate student finances calls for an approach to evaluating affordability that considers student finances holistically, in contrast to typical practice in evaluating housing affordability based on relationships between housing cost and income.

The affordability analysis uses the following four steps to evaluate evidence of affordability challenges among Stanford Graduate Students.

**Step 1: Qualitative Screening** – Using the 2021 SCC Survey data, identify the subset of graduate students whose responses to qualitative questions regarding financial resources and food security are indicative of an affordability challenge.

**Step 2: Resource Test** – For respondents identified through the Step 1 screening, evaluate financial resources relative to the living expense budgets presented in Section 6 to determine whether there is quantitative evidence of a challenge meeting housing and other living expenses.

**Step 3: Estimated Gap Funding** – Step 3 estimates the extent to which funding available under Stanford's Graduate Family Grant, Graduate Student Aid Fund, and/or additional student loans would be adequate to address gaps in financial resources identified in Step 2.

**Step 4: Scale to Entire Graduate Student Population** – Findings from Step 3, which reflect a sample of the graduate student population, are weighted and scaled to provide an estimate of the extent of affordability challenges for the graduate student population as a whole.

These steps are described in further detail in the subsequent sections.

## 7.2 Step 1 – Qualitative Screening for Affordability Challenges

The 2021 SCC Survey included two questions asking respondents to qualitatively assess the adequacy of their financial resources and their level of food security.

Approximately 16% of respondents (202) who addressed both the financial resource and food security questions indicated they frequently experience financial challenges and/or sometimes or often do not have enough to eat. Of these respondents, 2% identified themselves as having constant or frequent financial challenges to the extent they are not always sure they will have housing or food. The 16% of respondents qualitatively identifying themselves as experiencing frequent financial challenges and / or food insecurity were included in the Step 2 quantitative analysis of resource sufficiency.

Approximately 84% of respondents (1,035) addressing both the financial resource and food security questions indicated they always or usually have adequate financial resources to meet basic needs and have adequate food. These respondents were assumed to have adequate resources based on their qualitative responses to that effect and were not further evaluated as part of the quantitative analysis of resource sufficiency in Step 2.

Table 7-1. Step 1- Qualitative Screening for Affordability Challenges					
	Food Security Question (Within the last seven days I have had)				Total
	Enough of the kinds of food we wanted to eat	Enough, but not always the kinds of food we wanted to eat	Sometimes not enough to eat	Often not enough to eat	
<b>Financial Resource Question</b>					
I always have adequate financial resources to meet basic needs.	49%	9%	0%	0%	58%
I usually have adequate resources for basic needs, but experience occasional gaps	11%	14%	0.6%	0.1%	27%
I frequently experience challenges covering expenses but always have housing and food.	2.5%	9.6%	1.3%	0.0%	13%
I always or frequently have financial challenges and am not always sure if I will have housing or food.	0.1%	0.9%	1.0%	0.2%	2%
<b>Total</b>	<b>62.8%</b>	<b>34.0%</b>	<b>2.9%</b>	<b>0.3%</b>	<b>100%</b>

Source: KMA analysis of 2021 SCC Survey data. n=1,237.

### 7.3 Step 2 – Resource Test

Respondents that qualitatively identify as experiencing some level of affordability challenges or food insecurity are included in the quantitative analysis of resource adequacy in Step 2. Step 2 compares the aggregate financial resources reported by each individual survey respondent to the living expense budget applicable to the respondent’s household to determine whether there is quantitative evidence of a gap in resources needed to fund housing and other expenses.

Of the 202 respondents identified in the Step 1 screening, 163 provided information about their finances required to complete the resource sufficiency test in Step 2.

#### ***Available Financial Resources***

Financial resources available to graduate students to finance living expenses during their graduate education were identified based on responses to the 2021 SCC Survey. The financial resources considered include:

- **Household income** from any source including but not limited to wages, stipends, grants, fellowships, scholarships, child support, social security, etc.
- **Student loans** available for living expenses (i.e., not used for tuition)
- **Financial support from parents** or other family members who live outside the respondent’s household.

Respondents were asked to identify resources for their entire household, including a spouse or partner who lives with them, but to exclude any unrelated roommates or housemates.

In addition to the income sources listed above, respondents were asked to identify the amount of tuition being paid out-of-pocket. That is, excluding payments from fellowships, student loans, or other outside sources. The intent of the question was to understand what portion of household income that is dedicated to tuition and thus not available to meet living expenses. However, many respondents appeared to identify gross tuition costs rather than net out-of-pocket payments, inferred based on reported out-of-pocket tuition payments that exceed total income. Instead of using data from this question, a conservative assumption was made that none of the reported household income was applied toward tuition.

#### ***Living Expense Budgets***

The household budgets presented in Section 6 are used to evaluate the adequacy of graduate students’ financial resources. The aggregate living expense budgets by household type are summarized in Table 7-2. Figures in Table 7-2 reflect “base” household budgets prior to making the individualized adjustments described below.

Table 7-2. Base Graduate Student Annual Household Budgets <sup>(1)</sup>		
	Single Households	Couple Households
No Children	\$48,490	\$79,910
One Child	\$61,680	\$82,950
Two or More Children	\$72,740	\$95,450

(1) See Section 6 for more information. Budgets are prior to childcare costs and the Cardinal Care Subsidy.

Adjustments were made to the estimated household budgets in Table 7-2 to account for childcare costs and Stanford’s Cardinal Care (health insurance) subsidy. Budget adjustments were made at the individual respondent level, as follows:

- **Childcare Costs** – Budgets in Table 7-2 are presented prior to childcare costs, where applicable. As described in Section 6, given the range of decision-making about childcare and inherent tradeoffs with income, rather than a one-size-fits-all budget for childcare, the analysis uses each individual survey respondent’s actual reported childcare cost. In addition, an estimate of income taxes owed on additional household earnings necessary to pay these childcare costs is included based on a combined effective marginal tax rate of 28% for households with incomes above \$120,000 and 19% for households with incomes below \$120,000<sup>10</sup>, based on the analysis in Appendix Table 6. The actual reported childcare costs of each individual survey respondent were added to the non-childcare living expense budgets presented in Table 7-2.
  
- **Cardinal Care Subsidy** – Stanford provides a subsidy to offset the \$6,192 annual cost of Cardinal Care health insurance for students with at least a 25% fellowship or assistantship. For purposes of the analysis, the announced subsidy of 100% of the cost of health insurance effective as of the 2022-23 academic year is reflected. The subsidy is assumed for all PhD students and is reflected as a reduction to the base graduate student budget requirement. A subsidy is not assumed for graduate students in other degree programs. These assumptions are based on data from the 2020 Graduate Student Life Survey indicating most PhD students receive this subsidy while most students in other degree programs do not.

The base household budgets combined with the individualized adjustments for childcare costs and the Cardinal Care subsidy were used to establish an estimated budget requirement applicable to each survey respondent.

<sup>10</sup> This is the approximate gross income (as distinguished from taxable income) where the marginal federal tax rate increases from 12% to 22% in a married filing jointly return, as of tax year 2021.

## Step 2 Findings – Sufficiency of Financial Resources to Fund Living Expense Budget

Financial resources of individual survey respondents were compared against the expense budgets to identify respondents with quantitative indicators of a gap in resources to meet living expenses.

Of the 163 respondents identified in the Step 1 screening who provided adequate information for purposes of the Step 2 analysis, 84 (approximately half) were identified as having a resource gap based on estimated living expenses that exceeded reported financial resources.

As shown in Table 7-3, approximately 8.2% of respondents had both qualitative and quantitative indicators of a resource gap. Among those with a gap to meet estimated living expenses, the average dollar amount is approximately \$24,000 annually.

	Total Responses <sup>(1)</sup>	Respondents with Qualitative and Quantitative Indicators of a Resource Gap	Percent of Total	Annual Average for Respondents with Qualitative and Quantitative Indicators of Resource Gap <sup>(2)</sup>		
				Reported Resources for Living Expenses	Living Expense Budget	Estimated Resource Gap
PhD	733	50	6.8%	\$41,000	\$62,000	(\$21,000)
Masters	176	22	12.5%	\$30,000	\$56,000	(\$26,000)
Professional	<u>112</u>	<u>12</u>	<u>10.7%</u>	<u>\$34,000</u>	<u>\$64,000</u>	<u>(\$30,000)</u>
Overall Total	1,021	84	8.2%	\$37,000	\$61,000	(\$24,000)

<sup>(1)</sup> Identifies the number of respondents who addressed both qualitative and quantitative questions utilized in the analysis within this section.

<sup>(2)</sup> Rounded to the nearest \$1,000.

Table 7-4 identifies the share of respondents with a resource gap by household type, degree program, and international versus domestic student status. Households with children were approximately twice as likely to have a resource gap as households without children. International students were approximately twice as likely to have a resource gap compared to domestic students. Factors that may contribute to this pattern include:

- Higher expenses for households with children, including housing and childcare.
- For international students with a spouse, visa restrictions often prevent the spouse from working.
- Financial aid access for some international students may be more limited.

<b>Table 7-4. Percent of Respondents with a Resource Gap</b>				
	<b>Single Households</b>	<b>Couple Households with No Children</b>	<b>Households With Children</b>	<b>Combined Total</b>
Total Respondents <sup>(1)</sup>	702	253	66	1,021
<b>Total</b>				
PhD	5%	8%	18%	7%
Masters	14%	6%	18%	13%
Professional	10%	11%	25%	11%
	7%	7%	15%	8%
<b>Domestic</b>				
PhD	4%	6%	17%	6%
Masters	11%	0%	0%	8%
Professional	11%	7%	33%	11%
	6%	5%	16%	7%
<b>International</b>				
PhD	8%	16%	22%	11%
Masters	18%	17%	33%	19%
Professional	0%	25%	0%	12%
	11%	17%	25%	13%

<sup>(1)</sup> Identifies the number of respondents who addressed both qualitative and quantitative questions utilized in the analysis within this section.

## **7.4 Step 3 – Gap Funding**

Step 3 of the analysis takes into consideration potential “gap” funding sources that may help address gaps in financial resources identified in Step 2. The gap funding sources considered include Stanford’s Graduate Family Grant, Graduate Student Aid Fund, and additional student loans. The analysis estimates eligibility for these “gap” funding sources for each individual respondent for whom a financial gap was identified in Step 2.

### ***Graduate Family Grant Program***

Stanford’s Graduate Family Grant program provides a grant of up to \$20,000 for eligible graduate students with dependent children. Stanford provided a chart identifying the eligibility criteria for the program, summarized in Table 7-5. Students with an income under \$47,000 per year and two or more dependent children younger than first grade are eligible for the maximum \$20,000 award. Stanford has indicated that there is a commitment to fund the awards for any eligible recipient, without a dollar cap on total funding.

Table 7-5. Family Grant Program Eligibility		
Household income	Number of Dependents less than 1 <sup>st</sup> grade	Grant Eligibility
Under \$47,000	2 or more	\$20,000
	1	\$18,000
\$47,000 - \$48,999	2 or more	\$18,000
	1	\$16,000
\$55,000 - \$74,999	2 or more	\$16,000
	1	\$14,000
\$75,000 to \$99,999	2 or more	\$14,000
	1	\$12,000
\$100,000 to \$125,000	2 or more	\$12,000
	1	\$10,000
Greater than \$125,000		\$0
Households with dependents first grade and older:		
With household income under \$45,000		\$4,000 per dependent
With household income \$45,000 to \$125,000		\$3,000 per dependent

Source: Stanford University

In addition to the criteria listed above, Stanford reports that other factors considered in the Graduate Family Grant award process include assets, whether children live with the student, special needs, single-parent households, educational debt, and spousal visa status impacting ability to work.

Based the award criteria listed in Table 7-5, it was estimated that 11 of the 84 respondents identified in Step 2 as having a resource gap would be eligible for a Graduate Family Grant award, with estimated awards averaging approximately \$18,000. Estimated awards were less than the estimated resource gap in each case, and thus not sufficient on their own to close the gap.

Inclusion of potential awards under the Graduate Family Grant program represents a conservative assumption because those receiving the grant should have included awards in their reported household income, although it is possible that some of those eligible did not apply. To the extent Graduate Family Grant recipients responded to the survey and included this income source in their reported income were still found to meet eligibility criteria, the estimated award would be double counted with the award funds already included in the respondent's income.

To err on the side of ensuring the benefits of this program are considered in the analysis, including the increase in maximum award announced in January 2022 after the survey was conducted, estimated awards were included. As stated above, estimated awards were not sufficient to close estimated resource gaps for any respondent and so this analysis choice was

not material to the Step 3 findings regarding the percentage share of students with an estimated resource gap.

### ***Stanford Graduate Student Aid Fund***

Stanford's Graduate Student Aid Fund is a need-based grant program for specific health-related costs while graduate students are enrolled. The program funds up to the cost of Cardinal Care Insurance and Campus Health Service Fee, or up to \$2,500 per year toward the cost of covering a spouse. Graduate students with children are not eligible based on availability of the separate Graduate Family Grant described above. For students who receive the Cardinal Care subsidy, costs eligible for funding under the Graduate Student Aid Fund are reduced by the amount of the subsidy. Stanford has indicated that there is a commitment to fund awards for any eligible recipient, without a dollar cap on total funding. Stanford has stated that the only financial criterion for granting an award is a demonstration of financial hardship.

It was estimated that 72 of the 84 respondents identified in Step 2 as having a resource gap would be eligible for a Stanford Graduate Student Aid Fund award, with estimated awards averaging approximately \$3,700. As with the Graduate Family Grant, the analysis errs on the side of ensuring this program is considered in the analysis, although recipients should have already included awards in their reported household income. Estimated awards were sufficient to close estimated resource gaps for three of 84 respondents identified in Step 2.

### ***Other Programs***

In addition to the Graduate Family Grant and Graduate Student Aid Fund programs, Stanford has additional programs designed to address financial hardships in specific circumstances. These include the Graduate Cash Advance, Emergency Grant-in-Aid, and Graduate Housing Loan. These programs do not factor into the Step 3 gap funding analysis based on the nature of the programs, for the reasons described below.

The Graduate Cash Advance Program provides a short-term cash advance prior to financial aid and stipends posting to the students account that is repaid automatically from those funds, once posted. This program helps address timing gaps in the receipt of funds but is not a factor in the Step 3 analysis because it does not increase available funding.

The Emergency Grant-in-Aid program provides need-based funding to graduate students for unanticipated expenses such as medical or dental, or travel costs related to a family emergency that are outside of the typical student budget. Since the program addresses unusual or unexpected expenses, which are not part of the budgets applied in the Step 2 Resource Test, for consistency, this program does not factor into the Step 3 Gap Funding analysis.



The Graduate Housing Loan program is a loan program with a life-time maximum of \$6,000 for costs related to off-campus housing including move-in costs, first and last month's rent and security deposit. As with the Emergency Grant-in-Aid program, costs to be funded by this program are not specifically included. Living expense budgets used in the analysis reflect on-campus housing costs, while this funding is earmarked for off-campus move-in costs, and so is not considered to remain internally consistent.

## ***Student Loans***

### *U.S. Department of Education Loans*

Domestic students are generally eligible for federal student loans and able to borrow up to their cost of attendance, inclusive of living expenses, less other financial aid and stipends that are received. The DOE Direct Loan program has an annual limit on borrowing of \$20,500 and a cumulative limit of \$138,500 including undergraduate debt. The DOE Graduate Plus loan program has no annual or cumulative maximums and is available to students exceeding the Direct Loan limits (but has a higher interest rate and higher origination fees).

Stanford indicated that fewer than ten graduate students per year reach cumulative borrowing limits for the Direct Loan program and thus are only eligible for the Graduate Plus loan. Loan eligibility is not subject to a needs test but students with an adverse credit history, such as debt that is more than 90 days delinquent, a bankruptcy or foreclosure, may not be eligible. Underwriting criteria used by DOE result in a determination of loan eligibility based on living expenses for a single student. However, adjustments based on actual documented expenses are allowed, including housing and childcare costs.

Additional borrowing capacity under the federal student loan program is estimated for respondents identified in Step 2 as having a gap in financial resources. While the 2021 SCC Survey did not include all information relevant to a determination of loan eligibility, an estimate is made to assist in determining whether additional student loan debt may be sufficient to mitigate the resource gaps identified in Step 2 for some respondents. For purposes of estimating loan eligibility, the following assumptions are made:

- (1) ***Cost of Attendance*** – The cost of attendance is a ceiling on loan eligibility and the living expense portion of the cost of attendance is effectively a ceiling on borrowing for living expenses under the DOE loan programs. The living expense component of the cost of attendance budget for a single student was utilized with adjustments for incremental housing expenses estimated for the respondent's household size and the actual reported childcare cost of the respondent, where applicable, as these are eligible additions under DOE rules.

- (2) *Respondent's Reported Income* – For single households and couple households with a non-working partner or spouse, reported income was assumed to be derived from financial aid or stipends that would be reflected in determining loan eligibility, and were therefore subtracted in estimating loan eligibility.
- (3) *Respondent's Reported Borrowing* – the amount of borrowing reported by the respondent to fund living expenses was subtracted in calculating the additional borrowing eligibility estimated in this step.
- (4) *Other Aid Sources* – the amount of any Cardinal Care Subsidy, Graduate Family Grant, or Graduate Student Aid Fund award that respondent is estimated to receive based on the preceding analysis is subtracted in estimating loan eligibility because these sources are includable as financial aid that counts toward meeting the cost of attendance.

Based on this approach, 45 of the 84 respondents identified in the Step 2 analysis were estimated to have additional student loan eligibility averaging approximately \$19,000 annually. This is an estimate based on the information reported by respondents but does not consider factors that may impair loan eligibility such as an adverse credit history or enrollment less than 50% time.

Consideration of additional borrowing capacity under DOE loan programs eliminates estimated resource gaps for domestic students in single households because the programs allow students to borrow up to the full amount of the estimated living expense budget.

#### *Student Loans for International students*

International students are not eligible for loans through the DOE. It is possible some international students could access additional loans, such as through private lenders, over and above the loan funds they already reported accessing. However, private loans for international students may require a U.S. based co-signer, have more onerous financing costs, and more defined limitations on borrowing compared to the open-ended borrowing possible through the DOE. Many international students will not have a U.S. based co-signer and would not have an ability to access loans with such a requirement.

Stanford's website identifies two private lenders offering loan products that do not require a U.S. based co-signer, as follows:

- MPower Financing offers student loans for students within two years of graduating. Loans are capped at \$50,000 per loan and have a lifetime maximum of \$100,000. This includes borrowing for both tuition and living expenses. As of April 2022, MPower reports a current annual percentage rate (APR) of 12.94%, before a 2% promotional discount

expiring at the end of the month. Interest only payments commence while the student is enrolled.

- Prodigy Finance offers financing to Stanford master's students in business, law, engineering, medicine, statistics, and public policy. PhD students and masters' students in other degree programs are ineligible. According to Prodigy, lending limits vary based on an applicant-specific credit assessment. Prodigy reports that its loans have an average annual percentage rate (APR) of 9.8%.

Due to stricter lending criteria associated with these private student loan providers, including borrowing limits, restrictions by degree program or time to degree, these private loans do not provide a comparable uncapped ability to draw student loan debt to the DOE loans programs and not all students will be eligible.

Stanford provided data on private loans originated during the 2019-20 academic year. Based on this data, most private loans (92%) were to students pursuing an MBA, JD, or MD. Private loans to students within the professional degree programs represented approximately 34% of student loan originations within those degree programs. Professional degree students are likely seen by private lenders as especially credit-worthy based on post-graduation earnings potential.

The Stanford data indicating private loans are primarily to professional degree students is consistent with the stated lending criteria of the private lenders cited above, which explicitly limit lending to students within certain degree programs in the case of Prodigy. Stanford's data shows that private loans are rarely used by students outside of the professional degree programs. For the 2019-20 academic year, just 25 PhD and masters' students accessed private student loans, representing 6% of student loan originations. Among these 25 masters and PhD students, all but eight were by engineering students, a degree program that is eligible for the Prodigy Finance loan product.

Based on data indicating private loans are prevalent for students within the professional degree programs but rare for other students, additional use of private loans, beyond what international students already reported, is considered as part of the Step 3 gap funding analysis only for international students that are pursuing a professional degree. Borrowing capacity is estimated using the approach described above with respect to DOE loans, despite lending criteria for private loans that are generally stricter. Based on this approach, none of the respondents identified in the Step 2 analysis who are ineligible for DOE loans due to visa status were estimated to draw additional private loans beyond what respondents had already reported.

Although it is possible that, in limited cases, international students other than those in the professional schools may have an ability to access additional private student loans above and beyond what they already report, due to stricter lending criteria for private loan products, borrowing limits, restrictions on eligible degree programs, limits on time to degree, and data

provided by Stanford showing few non-professional degree students are accessing such loans, additional borrowing for non-professional degree students cannot be assumed to address resource gaps identified in Step 2.

### **Step 3 Findings – Sufficiency of Financial Resources after Estimated Gap Funding**

The findings of the Step 2 resource sufficiency analysis were adjusted to reflect the findings of the estimated gap financing sources identified above. Of the 84 respondents identified in the Step 2 analysis, 41 were identified as having a resource gap after consideration of the gap financing sources described above.

As shown in Table 7-6, approximately 4% of respondents had both qualitative and quantitative indicators of a resource gap after consideration of estimated gap funding sources described above. Among those with an estimated remaining gap to meet living expenses, total financial resources average \$48,000 per year, and living expense budgets average \$69,000 per year, resulting in an average dollar gap of \$21,000 annually.

<b>Table 7-6. Summary of Resource Test Findings After Step 3 Gap Funding Analysis</b>						
	Total Responses <sup>(1)</sup>	Respondents with Qualitative and Quantitative Indicators of a Resource Gap after Gap Funding	Percent of Total	Annual Average for Respondents with Qualitative and Quantitative Indicators of Resource Gap <sup>(2)</sup>		
				Reported Resources for Living Expenses + Estimated Gap Funding	Living Expense Budget	Average Dollar Gap
PhD	733	26	3.5%	\$49,000	\$68,000	(\$19,000)
Masters	176	11	6.3%	\$41,000	\$64,000	(\$23,000)
Professional	112	4	3.6%	\$60,000	\$87,000	(\$27,000)
Total / Average	1,021	41	4.0%	\$48,000	\$69,000	(\$21,000)

<sup>(1)</sup> Identifies the number of respondents who addressed both qualitative and quantitative questions utilized in the analysis within this section.

<sup>(2)</sup> Rounded to the nearest \$1,000.

Table 7-7 identifies the share of respondents with an estimated resource gap, after the Step 3 consideration of estimated gap financing, by household type, degree program, and international versus domestic student status. Households with children are far more likely to be identified as having a resource gap than households without children. International students were far more likely than domestic students to have an estimated resource gap. No domestic students in single households were estimated to have a resource gap after consideration of estimated borrowing capacity under the DOE student loan programs.

<b>Table 7-7. Percent of Respondents with a Resource Gap, after Step 3 Gap Funding Analysis</b>				
	<b>Single Households</b>	<b>Couple Households, No Children</b>	<b>Households With Children</b>	<b>Combined Total</b>
Respondents <sup>(1)</sup>	702	253	66	1,021
<b>Total</b>				
PhD	2%	6%	12%	4%
Masters	5%	6%	18%	6%
Professional	0%	8%	25%	4%
	2%	6%	12%	4%
<b>Domestic</b>				
PhD	0%	3%	10%	2%
Masters	0%	0%	0%	0%
Professional	0%	3%	33%	2%
	0%	3%	10%	1%
<b>International</b>				
PhD	8%	16%	22%	10%
Masters	14%	17%	33%	16%
Professional	0%	25%	0%	12%
	9%	17%	25%	12%

<sup>(1)</sup> Identifies the number of respondents who addressed both qualitative and quantitative questions utilized in the analysis within this section.

## 7.5 Step 4 – Scale to Graduate Student Population

In Step 4, the findings of the analysis provided in Steps 1 through 3 are translated from the survey sample to an estimate of the extent of affordability challenges for the entire graduate student population. Percentage findings of the prior steps are applied to the number of graduate students by degree program and visa status as of the 2021-22 Academic Year reported by Stanford. This effectively weights findings in Steps 2 and 3 by degree program and visa status. As described in Section 4, major degree program and domestic versus international status are determinative of student finances, and for this reason, are used as the basis for weighting the sample to the graduate student population.

Table 7-8 shows the ratio between share of respondents to the 2021 SCC Survey and share of the entire graduate student population. A ratio of 1.0 would indicate that the number of responses to the survey were representative of the share within the graduate student population. A ratio greater than 1 shows an overrepresentation in the sample relative to share of the graduate student population. A ratio less than 1 shows underrepresentation in the sample relative to share of the graduate student population. As shown, domestic PhD students are overrepresented in the sample while international, masters, and professional degree students are underrepresented.

	<u>Domestic</u>	<u>International</u>
PhD Students	1.73	0.88
Academic Masters Students	0.60	0.57
Professional Degree Students	0.55	0.48

Note: Calculated as the percentage of 2021 SCC Survey respondents by degree program and visa status who addressed questions required for the Section 7 Affordability Analysis, divided by the applicable percentage of the entire graduate student population shown in Table 3-1.

Resource gaps identified through the Step 1 to 3 analyses are most prevalent among international students, a group underrepresented in the survey sample, and less prevalent among domestic PhD students, which are overrepresented. Subpopulations of graduate students with greater affordability challenges were less likely to respond, which is an indication of a possible non-response bias toward students for whom affordability challenges are less prevalent. Once findings are weighted to reflect the graduate student population by major degree program and international versus domestic status, the estimated percentage of graduate students with a resource gap increases. In this way, the weighting in Step 4 adjusts for the underrepresentation in the sample of subpopulations who face greater affordability challenges.

Table 7-9 summarizes the conclusion of the analysis after completion of Step 4. As shown, without the gap financing sources evaluated in Step 3, approximately 10% of the graduate student population is estimated to experience challenges meeting living expenses. Including the estimated gap financing described in Step 3, this percentage is reduced to an estimated 5% of the graduate student population. The share estimated to experience affordability challenges is highest among families with children, who disproportionately show evidence of a gap between resources and their expenses for housing, childcare, and other living costs.

Household Type	Estimated total Graduate Student Population by household type	Estimated Number of Graduate Students with Both Qualitative and Quantitative Evidence of a Resource Gap			
		Without Estimated Gap Financing <sup>(1)</sup>		With Estimated Gap Financing <sup>(1)</sup>	
		Total No.	Percent	Total No.	Percent
Single	6,467	603	9.3%	210	3.2%
Couple without children	2,129	191	9.0%	162	7.6%
Families with children	696	116	16.6%	97	13.9%
<b>Grand Total</b>	<b>9,292</b>	<b>910</b>	<b>9.8%</b>	<b>470</b>	<b>5.1%</b>

<sup>(1)</sup> "Gap Financing" consists of the offsetting effect of the Graduate Family Grant program, Graduate Student Aid Fund, and estimated additional student loan borrowing ability, as described in Step 3.

Note: Findings of Steps 2 and 3 are applied to the entire graduate student population and are weighted based upon the makeup of the graduate student population by major degree program and visa status.

**APPENDIX TABLES**

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**Appendix Table 1**  
**Expenses - Supporting Detail**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

<b>Personal Expense Budget</b>	<b>FY 2019-20<sup>(1)</sup></b>			<b>FY 2021-22<sup>(2)</sup></b>		
	<b>Per Quarter</b>	<b>Per Month</b>	<b>Per Year</b>	<b>Per Quarter</b>	<b>Per Month</b>	<b>Per Year</b>
ASSU Fees	\$44	\$14.67	\$176	\$47	\$16	\$190
tech fee + house dues	\$106	\$35.33	\$424	\$114	\$38	\$457
med/den out of pocket	\$110	\$36.64	\$440	\$119	\$40	\$474
clothing	\$184	\$61.36	\$736	\$199	\$66	\$795
personal care	\$122	\$40.82	\$490	\$132	\$44	\$528
recreation	\$304	\$101.37	\$1,216	\$328	\$109	\$1,313
communication	\$133	\$44.33	\$532	\$144	\$48	\$574
CPI All items since survey	\$44	\$14.72	\$177	incl above		
Fed/State taxes	\$1,023	\$341.00	\$4,092	\$1,102	\$367	\$4,409
<b>Total</b>	<b>\$2,071</b>	<b>\$690</b>	<b>\$8,283</b>	<b>\$2,185</b>	<b>\$728</b>	<b>\$8,740</b>
<b>Rounded</b>	<b>\$2,075</b>	<b>\$692</b>	<b>\$8,300</b>	<b>\$2,185</b>	<b>\$728</b>	<b>\$8,740</b>
<b>Transportation Budget</b>						
Transportation	\$406	\$135.38	\$1,625	\$460	\$153	\$1,840
CPI since survey	\$28	\$9.34	\$112	incl above		
<b>Total</b>	<b>\$434</b>	<b>\$145</b>	<b>\$1,737</b>	<b>\$460</b>	<b>\$153</b>	<b>\$1,840</b>
<b>Rounded</b>	<b>\$435</b>	<b>\$145</b>	<b>\$1,740</b>	<b>\$460</b>	<b>\$153</b>	<b>\$1,840</b>
<b>Books and Supplies</b>						
Books	\$71	\$23.67	\$284	\$77	\$26	\$310
Additional for all books	\$143	\$47.67	\$572	\$156	\$52	\$624
Supplies	\$29	\$9.67	\$116	\$32	\$11	\$126
Course Fees	\$16	\$5.33	\$64	\$17	\$6	\$70
Computer Expense	\$44	\$14.67	\$176	\$48	\$16	\$192
CPI since survey	\$20	\$6.77	\$81	incl above		
<b>Total</b>	<b>\$323</b>	<b>\$108</b>	<b>\$1,293</b>	<b>\$330</b>	<b>\$110</b>	<b>\$1,321</b>
<b>Rounded</b>	<b>\$325</b>	<b>\$108</b>	<b>\$1,300</b>	<b>\$330</b>	<b>\$110</b>	<b>\$1,320</b>
<b>Food Budget</b>						
Block Meal Rate	\$550	\$183	\$2,200	\$616	\$205	\$2,465
Food at Residence	\$756	\$252	\$3,026	\$848	\$283	\$3,390
Food away from residence	\$595	\$198	\$2,379	\$666	\$222	\$2,666
CPI All items since survey	\$101	\$34	\$403	incl above		
<b>Total</b>	<b>\$2,002</b>	<b>\$667</b>	<b>\$8,008</b>	<b>\$2,130</b>	<b>\$710</b>	<b>\$8,521</b>
<b>Rounded</b>	<b>\$2,000</b>	<b>\$667</b>	<b>\$8,000</b>	<b>\$2,130</b>	<b>\$710</b>	<b>\$8,520</b>

(1) Breakdown provided by Stanford

(2) Breakdown estimated by KMA based on Stanford reported information for FY19-20 and reported total personal expense budget for FY 2021-22 with increases proportionately allocated across expense items.



**Appendix Table 2**  
**Personal Expenses Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Medical / Dental Not Covered by Insurance**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>
\$0	0	0	0	628	19%
\$0 - \$25	0	25	13	949	28%
\$25 - \$50	25	50	38	618	19%
\$50 - \$100	50	100	75	472	14%
\$100 - \$150	100	150	125	289	9%
\$150 - \$200	150	200	175	115	3%
\$200 - \$250	200	250	225	92	3%
\$250 - \$300	250	300	275	44	1%
\$300 or more	300	or more	300	125	4%
<b>Total</b>				<b>3,332</b>	<b>100%</b>

	<u>w/CPI adj</u>	
weighted average (w/o categories with <5% respondents)	\$37	\$40
weighted average overall	\$59	\$64

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 2**  
**Personal Expenses Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Clothing and Shoes**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>		
\$0	0	0	0	179	5%		
\$0 - \$50	0	50	25	1,498	45%		
\$50 - \$100	50	100	75	900	27%		
\$100 - \$150	100	150	125	381	11%		
\$150 - \$200	150	200	175	177	5%		
\$200 - \$250	200	250	225	88	3%		
\$250 - \$300	250	300	275	41	1%		
\$300 - \$350	300	350	325	26	1%		
\$350 - \$400	350	400	375	10	0%		
\$400 - \$450	400	450	425	6	0%		
\$450 - \$500	450	500	475	3	0%		
\$500 or more	500	or more	500	23	1%		
<b>Total</b>				<b>3,332</b>	<b>100%</b>		
							<u>w/CPI adj</u>
weighted average (w/o categories with no spending or <5% respondents )					\$61		\$66
weighted average overall					\$72		\$78

**Personal Care**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>		
\$0	0	0	0	27	1%		
\$0 - \$25	0	25	13	1,363	41%		
\$25 - \$50	25	50	38	1,122	34%		
\$50 - \$100	50	100	75	558	17%		
\$100 - \$200	100	200	150	205	6%		
\$200 - \$300	200	300	250	27	1%		
\$300 or more	300	or more	300	19	1%		
<b>Total</b>				<b>3,321</b>	<b>100%</b>		
							<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$41		\$44
weighted average overall					\$45		\$49

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 2**  
**Personal Expenses Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Recreation and Entertainment**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	32	1%	
\$0 - \$50	0	50	25	682	21%	
\$50 - \$100	50	100	75	978	29%	
\$100 - \$150	100	150	125	692	21%	
\$150 - \$200	150	200	175	395	12%	
\$200 - \$250	200	250	225	254	8%	
\$250 - \$300	250	300	275	95	3%	
\$300 - \$350	300	350	325	87	3%	
\$350 - \$400	350	400	375	36	1%	
\$400 - \$450	400	450	425	20	1%	
\$450 - \$500	450	500	475	19	1%	
\$500 or more (1)	500	or more	500	35	1%	
<hr/>						
Total				3,325	100%	
						<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$101	\$109
weighted average overall					\$125	\$135

(1) number of respondents in this category is an approximation based on a bar chart provided by Stanford.

**Communication**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	613	18%	
\$0 - \$25	0	25	13	498	15%	
\$25 - \$50	25	50	38	1,020	31%	
\$50 - \$100	50	100	75	790	24%	
\$100 - \$150	100	150	125	286	9%	
\$150 - \$200	150	200	175	66	2%	
\$200 - \$250	200	250	225	35	1%	
\$500 or more (1)	250	or more	250	14	0%	
<hr/>						
Total				3,322	100%	
						<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$44	\$48
weighted average overall					\$49	\$53

(1) number of respondents in this category is an approximation based on a bar chart provided by Stanford.

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 3**  
**Food Expense Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Food Eaten At Residence**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>
\$0	0	0	0	63	2%
\$0 - \$100	0	100	50	345	10%
\$100 - \$200	100	200	150	931	28%
\$200 - \$300	200	300	250	893	26%
\$300 - \$400	300	400	350	485	14%
\$400 - \$500	400	500	450	300	9%
\$500 - \$600	500	600	550	190	6%
\$600 - \$700	600	700	650	63	2%
\$700 - \$800	700	800	750	29	1%
\$800 - \$900	800	900	850	30	1%
\$900 - \$1000	900	1000	950	10	0%
\$1000 or more	1000	or more	1000	36	1%

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Total				3,375	100%
-------	--	--	--	-------	------

					<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)				\$252	\$283
weighted average overall				\$274	\$306

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 3**  
**Food Expense Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Food Eaten Away From Residence**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	28	1%	
\$0 - \$100	0	100	50	702	21%	
\$100 - \$200	100	200	150	939	28%	
\$200 - \$300	200	300	250	668	20%	
\$300 - \$400	300	400	350	382	11%	
\$400 - \$500	400	500	450	246	7%	
\$500 - \$600	500	600	550	146	4%	
\$600 - \$700	600	700	650	96	3%	
\$700 - \$800	700	800	750	54	2%	
\$800 - \$900	800	900	850	37	1%	
\$900 - \$1000	900	1000	950	30	1%	
\$1000 or more	1000	or more	1000	31	1%	
<b>Total</b>				<b>3,359</b>	<b>100%</b>	
						<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$198	\$222
weighted average overall					\$257	\$288

**Stanford Meal Plan Participation**

	<u>respondents</u>	<u>%respondents</u>
5 Meal Block	21	1%
10 Meal Block	93	3%
25 Meal Block	866	25%
Apartment Meal Plan	14	0%
No Meal Plan	2,433	71%
<b>Total</b>		<b>3,427</b>
		<b>100%</b>

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 4**  
**Transportation Expense Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Transportation Expenses, excluding auto-related**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>
\$0	0	0	0	76	8%
\$50 - \$100	50	100	75	538	54%
\$100 - \$150	100	150	125	298	30%
\$150 - \$200	150	200	175	91	9%
Total				1,003	100%

	<u>w/CPI adj</u>	
weighted average (w/o categories with <5% respondents)	\$93	\$105
weighted average overall	\$93	\$105

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 5**  
**Books and Supplies Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Required Books (per quarter)**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>
\$0	0	0	0	932	28%
\$0 - \$100	0	100	50	1,329	40%
\$100 - \$200	100	200	150	584	18%
\$200 - \$300	200	300	250	251	8%
\$300 - \$400	300	400	350	103	3%
\$400 - \$500	400	500	450	36	1%
\$500 - \$600	500	600	550	28	1%
\$600 - \$700	600	700	650	12	0%
\$700 - \$800	700	800	750	2	0%
\$800 - \$900	800	900	850	4	0%
\$900 - \$1000	900	1000	950	2	0%
\$1000 or more	1000	or more	1000	8	0%
Total				3,291	100%

	<u>w/CPI adj</u>	
weighted average (w/o categories with <5% respondents)	\$71	\$78
weighted average overall	\$88	\$96

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 5**  
**Books and Supplies Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Additional to purchase all required books and course material (per quarter)**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	134	10%	
\$0 - \$100	0	100	50	376	27%	
\$100 - \$200	100	200	150	368	27%	
\$200 - \$300	200	300	250	246	18%	
\$300 - \$400	300	400	350	117	9%	
\$400 - \$500	400	500	450	56	4%	
\$500 - \$600	500	600	550	42	3%	
\$600 - \$700	600	700	650	6	0%	
\$700 - \$800	700	800	750	6	0%	
\$800 - \$900	800	900	850	3	0%	
\$900 - \$1000	900	1000	950	6	0%	
\$1000 or more	1000	or more	1000	16	1%	
<b>Total</b>				<b>1,376</b>	<b>100%</b>	
						<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$143	\$156
weighted average overall					\$177	\$193

**Necessary Educational Supplies and equipment (per quarter)**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	490	15%	
\$0 - \$50	0	50	25	2,003	61%	
\$50 - \$100	50	100	75	507	15%	
\$100 - \$150	100	150	125	167	5%	
\$150 - \$200	150	200	175	50	2%	
\$200 - \$250	200	250	225	38	1%	
\$250 - \$300	250	300	275	8	0%	
\$300 - \$350	300	350	325	12	0%	
\$350 - \$400	350	400	375	-	0%	
\$400 - \$450	400	450	425	2	0%	
\$450 - \$500	450	500	475	5	0%	
\$500 or more	500	or more	500	11	0%	
<b>Total</b>				<b>3,293</b>	<b>100%</b>	
						<u>w/CPI adj</u>
weighted average (w/o categories with <6% respondents)					\$29	\$32
weighted average overall					\$39	\$42

Source: Stanford University 2017/2018 Student Expenses Survey



**Appendix Table 5**  
**Books and Supplies Survey Data**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

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**Course Material Fees (per quarter)**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	1,632	50%	
\$0 - \$50	0	50	25	1,083	33%	
\$50 - \$100	50	100	75	305	9%	
\$100 - \$150	100	150	125	136	4%	
\$150 - \$200	150	200	175	52	2%	
\$200 - \$250 (1)	200	250	225	30	1%	
\$250 - \$300	250	300	275	15	0%	
\$300 - \$350	300	350	325	10	0%	
\$350 - \$400 (1)	350	400	375	2	0%	
\$400 - \$450	400	450	425	-	0%	
\$450 - \$500	450	500	475	2	0%	
\$500 or more	500	or more	500		0%	
<hr/>						
Total				3,267	100%	
						<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$16	\$18
weighted average overall					\$26	\$28

(1) number of respondents in this category is an approximation based on a bar chart provided by Stanford.

**Computer Expense (per quarter)**

	<u>lower</u>	<u>upper</u>	<u>midpoint</u>	<u>respondents</u>	<u>%respondents</u>	
\$0	0	0	0	1,026	31%	
\$0 - \$100	0	100	50	1,751	53%	
\$100 - \$200	100	200	150	334	10%	
\$200 - \$300	200	300	250	97	3%	
\$300 - \$400	300	400	350	38	1%	
\$400 - \$500	400	500	450	10	0%	
\$500 - \$600	500	600	550	11	0%	
\$600 - \$700	600	700	650	7	0%	
\$700 - \$800	700	800	750	2	0%	
\$800 - \$900	800	900	850	1	0%	
\$900 - \$1000	900	1000	950	-	0%	
\$500 or more	1000	or more	1000	14	0%	
<hr/>						
Total				3,291	100%	
						<u>w/CPI adj</u>
weighted average (w/o categories with <5% respondents)					\$44	\$48
weighted average overall					\$54	\$58

Source: Stanford University 2017/2018 Student Expenses Survey

**Appendix Table 6**  
**Tax Calculation**  
**Graduate Student Housing Affordability Analysis**  
**County of Santa Clara, CA**

	Single Students	Couples No Children	Couple, One Child		Couple, Two Children		Single, One Child		Single, Two Children	
			without childcare	with childcare	without childcare	with childcare	without childcare	with childcare	without childcare	with childcare
Gross income <sup>(1)</sup>	48,490	79,910	82,950	113,830	95,450	143,050	61,680	90,700	72,740	119,330
standard deduction	(12,550)	(25,100)	(25,100)	(25,100)	(25,100)	(25,100)	(18,800)	(18,800)	(18,800)	(18,800)
less: non-taxable health insurance <sup>(4)</sup>	(4,024)	(9,674)	(12,612)	(12,612)	(14,963)	(14,963)	(6,962)	(6,962)	(9,313)	(9,313)
Dependent Care FSA	-	-	-	(5,000)	-	(5,000)	-	(5,000)	-	(5,000)
Taxable Income	31,916	45,136	45,238	71,118	55,387	102,987	35,918	59,938	44,627	91,217
Federal tax <sup>(2)</sup>	3,667	5,018	5,031	8,136	6,248	14,154	4,026	7,482	5,071	14,461
Less: Child Tax Credit <sup>(6)</sup>			(2,000)	(2,000)	(4,000)	(4,000)	(2,000)	(2,000)	(4,000)	(4,000)
Less: Dependent Care Credit <sup>(6)</sup>			-	(200)	-	(200)	-	(200)	-	(200)
FICA tax <sup>(3)</sup>	n/a	2,366	2,598	4,578	3,555	6,814	n/a	n/a	n/a	n/a
State tax <sup>(5)</sup>	740	735	739	1,774	1,145	3,712	366	1,174	467	3,778
Total state and federal tax	4,407	8,119	6,368	12,288	6,948	20,480	2,392	6,456	1,538	14,039
Per Month	367	677	531	1,024	579	1,707	199	538	128	1,170
incremental versus without childcare				493		1,128		339		1,042
Percent of gross income	9.09%	10.16%	7.68%	10.80%	7.28%	14.32%	3.88%	7.12%	2.11%	11.77%
Percent of incremental income needed to afford childcare expense				19.2%		28.4%				

**Notes:**

(1) Calculated amount needed to afford living expense budget

(2) Calculated using IRS tax table for 2021. Couple household tax calculations assume married filing jointly. Single parent households assume head of household filing status. Single student estimate includes \$36 adjustment from calculated amount to match Stanford budget.

(3) 7.65% gross income, excl TA salary.

(4) Cardinal Care and health fee net of 50% cardinal care subsidy reflected based on current rate for 21-22.

(5) Calculated using Franchise Tax Board tax table for 2021.

(6) Reflects 2020 credit levels rather than the temporarily expanded 2021 benefit level included as part of the American Rescue Plan Act of 2021.

# Stanford Campus Childcare Needs Assessment

Prepared For: The County of Santa Clara

## Authors

Heather Gann, Public Consulting Group LLC

Mark Noyes, MPH, Market Decisions Research



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## EXECUTIVE SUMMARY

The County of Santa Clara (County) requested an assessment of childcare programs and services offered by Stanford University (referred to herein as University or Stanford) as part of a review and update of the County's Stanford Community Plan – the General Plan policy document that governs growth and development in the Stanford Community Plan Area – and in response to public testimony during the consideration of Stanford's 2019 General Use Permit application. This review included original quantitative and qualitative research to learn more about the needs and suitability of the University's current childcare offerings and comparison to a group of public and private peer institutions throughout the country. Peer Institutions refers to those that 1) operate within the Carnegie classification system as R1 institutions, which are doctoral universities with high levels of research, 2) offer on-campus childcare services, and 3) have campuses located in regions with similar costs of living.

Stanford's on-campus childcare centers appear to offer similar levels of service and cost to that offered at peer institutions. However, Stanford does not yet have posted quality ratings in major childcare quality rating systems – in part due to pandemic-related delays as well as California's own historical lack of a quality rating system – which makes quality comparisons difficult. Despite this, the University's childcare centers were characterized in focus groups as high quality by current users and desirable by non-users, and program descriptions on each center's website describe program and curricula models that imply high quality, if followed with fidelity.

While the University offers roughly comparable services overall, it specifically offers more childcare programs and slots per potential user than its peer institutions. This contrasts with perceptions of graduate students, faculty, and staff who reported long wait times and an inability to access on-campus childcare. They were, therefore, unlikely to indicate that their childcare needs were always met. Despite Stanford offering a greater quantity of childcare slots than its peers, there remains a reported unmet need in the population served.

It is important to state clearly that the services offered by Stanford are only roughly comparable to services offered by peer institutions, because none of the University's on-campus childcare facilities have been rated by third-party organizations/ systems such as the National Association for the Education of Young Children (NAEYC) and the California Quality Rating and Improvement System (CA QRIS). Similar standardized third-party rating systems are currently in place and being used by Stanford's peers. Therefore, completing these evaluations and maintaining ratings should be an immediate goal for the University. Without these standardized third-party ratings currently in place, an assessment of childcare offerings and quality at Stanford that can be directly compared to childcare offerings and quality at peer institutions is not feasible within the scope of this study.

Stanford's reported cost for on-campus childcare remains higher than the reported average childcare costs incurred by students, faculty, and staff for on- and off-campus childcare, combined. According to federal metrics of affordability, the cost of Stanford's on-campus childcare centers is unaffordable for the average graduate student, faculty, or staff member. Student, faculty, and staff households report desiring more childcare than they are currently consuming but report being constrained by costs despite current financial aid and subsidies.

In surveys and focus groups, responding Stanford graduate students, faculty, and staff with children reported cost of care as their primary concern and the majority reported having unmet childcare needs. More than half of responding graduate students (60%), and faculty and staff

(60%), ranked cost of childcare as ‘most concerning’, making it the single most concerning issue for both groups. Childcare costs in the area are unaffordable for most families using national affordability standards. Utilizing Stanford’s on-campus childcare would, on average, raise the amount of money families are spending on childcare. While Stanford does work to subsidize the cost of employee childcare, graduate students receive significantly less support from the University.

The landscape of subsidies, grants, and scholarships meant to defray the cost of childcare for students, faculty, and staff at Stanford and its peers is complex, making specific one-to-one comparisons prohibitively challenging. There is significant heterogeneity in funding sources, price schedule criteria, and subsidy qualifications stipulated by Stanford and its peers.

The majority of Stanford graduate students, faculty, and staff ranked ‘providing more substantial childcare subsidies’ as the most preferred form of additional childcare benefit, regardless of whether that benefit could be applied to on- or off-campus childcare facilities. This would allow them to more readily address their most pressing childcare concern – cost – without needing to wait for the University to construct and staff new childcare facilities. A cash subsidy would also allow families to continue making their own choices regarding childcare – in focus groups, some individuals mentioned preferring culturally specific childcare providers and providers in specific locations or those that offer specific programming.

Providing a more generous direct subsidy was ranked by the majority of Stanford graduate students, faculty, and staff as the top choice – above providing more on campus childcare or providing enrollment at off-campus childcare – for how the University could assist families with their childcare needs. The potential reasons for this are many – it keeps families in control of their choices, it provides benefits potentially immediately, and can be provided to all families largely without regard to status or rank.

This inability to access care at on-campus childcare facilities was a repeated theme throughout the primary research. Graduate students, faculty, and staff all noted that enrollment openings at on-campus facilities were highly prized yet limited. Focus groups participants expressed dissatisfaction with the equity of the current order of selection and waitlist practices at these facilities.

Some students, faculty, and staff report having considered moving out of the Bay Area while at Stanford due to affordability issues, or once their degree program ends to pursue the family size they want to have. These findings highlight the crucial role that childcare has in the minds of students, faculty, and staff when they are considering whether to continue living within Santa Clara County as their relationship with Stanford ends due to graduation or employment opportunities elsewhere.

## RECOMMENDATIONS

### FINALIZE QUALITY RATINGS FOR ALL ON-CAMPUS CHILDCARE CENTERS

Stanford University is currently not participating in the California Quality Rating and Improvement System (CA QRIS). This participation has been delayed, in part due to the COVID-19 public health emergency, as well as due to the state's own delay in launching a QRIS. California was one of the last states to implement a QRIS. The University should seek to complete the necessary steps to be included as part of the CA QRIS as quickly as possible. Information on program quality, as measured by the CA QRIS, should be readily available to all students, faculty, and staff so they can make informed choices about their childcare and the relative costs and benefits of providers for their specific childcare needs and circumstances.

While the CA QRIS is in the early stages of implementation, Stanford has an opportunity to contribute to the learning and development of the QRIS as they work closely with their program raters through the assessment process.

### INCREASE TRANSPARENCY AND REDUCE REDUNDANCY FOR ON-CAMPUS CHILDCARE APPLICATIONS

In focus groups, individuals expressed frustration with current wait list practices, wait times, and application fees regarding Stanford's on-campus childcare centers. The University should publish current estimated wait list times for relevant age groups prior to application fees being charged. This could help overcome the perception expressed in focus groups that 'application needed to happen prior to pregnancy' to get a spot in one of the childcare centers.

Stanford has a centralized application process, but each Operator for each childcare program location charges a separate application fee. The University subsidizes \$35 of the \$50 application fee, leaving a \$15 parent/ caregiver fee payment. Since focus group members expressed frustration over having to pay an individual application fee to each specific childcare center, more transparency into the use of the application fee by the program Operators is recommended so prospective parents understand where their \$15 application fee is going and how it is being used.

Graduate students, faculty, and staff expressed a sense of inequity associated with current wait list practices. The established order of selection was reported as designed to be a perk offered to attract and retain elite faculty – who would most likely have the resources to secure other forms of childcare – rather than to allow complete participation in campus life and employment to those who are most in need. Revising wait list practices to focus on providing childcare to those most in need could address these concerns and improve campus equity in a meaningful way. This would require a much greater level of reform than other recommendations in this section.

### ONGOING CHILDCARE NEEDS ASSESSMENTS

This research provides a point-in-time evaluation of Stanford's student, faculty, and staff childcare needs. Numerous factors changed during this research – such as the University beginning to offer an expanded childcare subsidy to employees – and those changes could have impacted assessments of childcare experiences, and thus our findings. Furthermore, data collection conducted over winter 2021/2022 was designed to assess childcare experiences over the course of the prior year, during which the COVID-19 public health emergency had a



pronounced impact on childcare availability, costs, and offerings throughout the country. The relationship between childcare safety and access issues and the COVID-19 public health emergency are unknown and indistinguishable from pre-existing structural conditions. Only by conducting additional research and needs assessments on a regular basis will the exact impact of future University programs and relief from the pandemic be able to be explored.

Any ongoing needs assessment research should be performed by an independent, outside evaluator. The University should be expected to participate fully in any such evaluation, including providing necessary data and contact information to aid in research activities in a timely manner. On-campus stakeholders, such as student organizations, faculty and staff unions, and childcare administrators should be invited to participate in a wide ranging and mutually beneficial needs assessment process.

A current limitation that future needs assessments should attempt to overcome is the exclusion of on-campus contractors. This group includes individuals working on campus in a variety of positions that are necessary for the maintenance of the University's quality of life. This group likely has considerable unmet childcare needs and lower average wages compared to University faculty and staff. Since this group was not included in this research, we cannot report on their childcare experiences. While their employment relationship with the University is mediated by a third party, they remain part of campus life and are likely residents of Santa Clara County. Future needs assessments should take all steps necessary to include them.

## **PROVIDE GREATER INFORMATION ABOUT OFF-CAMPUS CHILDCARE ALTERNATIVES**

Stanford University provides individuals with access to resources to help them find off-campus childcare providers.<sup>1</sup> However, at no point in surveys or focus groups did any individual make clear that they were aware of any of these resources, nor did they state that they had used them. Rather, individuals mentioned finding care through social networks, word-of-mouth referrals, and online tools generally.

The University should seek to publicize these resources more widely among students, faculty, and staff with children. This may mean providing them directly to members of the Stanford community, even those without children. The cost of this effort is low, as all existing resources are available in electronic format. Additionally, Stanford's existing materials should be updated – they provide only telephone numbers for local resource and referral agencies, while the website is updated with links directly to those resources.

Stanford provides grants to eligible University employees to assist with meeting the cost of childcare, including off-campus, non-University affiliated parent selected childcare. Grants are provided in alignment with Internal Revenue Service (IRS) regulations governing dependent care employee benefit programs.

Since respondents in this study reported not being aware of available supports and resources, it is recommended that the University create targeted messaging about available grant and

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<sup>1</sup> <https://cardinalatwork.stanford.edu/benefits-rewards/worklife/children-family/site-early-childhood-child-care-support>

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subsidy programs supporting off-campus “care of choice” or non-University affiliated childcare options for students, faculty, and staff.

### **DESIGN CHILDCARE BENEFITS SPECIFICALLY TARGETED TO GRADUATE STUDENTS**

A majority of graduate students with children express that they have had to forego academic or career opportunities due to lack of childcare. Furthermore, current University childcare resources are reported to be provided in ways incongruous with how students actually live, and rather favor more established individuals with higher incomes. For instance, direct cash subsidies are limited to University employees and wait lists are perceived to place students at the back of the line. While graduate students typically have a great need for childcare, they often perceive that they are offered few resources, and that their childcare needs are rarely met.

## METHODS

Surveys and focus groups were conducted among two populations: Stanford students – including undergraduate, graduate, professional degree, and PhD students – and Stanford faculty and staff – including administrative staff, faculty, and all post-doctoral scholars.

The survey instrument was initially created for Santa Clara County employees. In collaboration with Stanford's Student Government and additional University student organizations, the survey was modified to fit the project's objective and circumstances. This survey considered a respondent to have children if there was at least one child in their household for whom they were the primary caregiver. Student, faculty, and staff survey respondents who reported having children were then invited to participate in follow-up focus groups to learn more about their experiences with childcare while at Stanford University.

### STUDENT SURVEY DETAILS

The student survey was distributed online November to December 2021 using the Qualtrics web-survey platform. Anonymous individualized survey links were sent to email addresses provided by Stanford's Student Government. The survey instrument was available in English and Spanish. In total, 1,732 students anonymously completed at least some of the survey, resulting in a response rate of 10.8%.

**TABLE 1: STUDENT SURVEY RESPONSE DETAILS**

Total Student Body (IPEDS 2019 - 2020)	Student Responses	Response Rate	Responses from Students with Children
15,953	1,732	10.8%	117

To provide reliable and representative results, student surveys were weighted using a raked weighting procedure. In order to execute this procedure properly, additional demographic data (student population size, gender, and race) was obtained through the Integrated Postsecondary Data System (IPEDS) for the population as a whole. Raked weighting is a procedure by which incremental adjustments are made to the weighting variable to align survey totals with population totals. This helps to account for differences in response propensity between groups and provides data that can be called validly representative. The student survey instrument is included as an appendix.

### FACULTY AND STAFF SURVEY DETAILS

The faculty and staff survey was distributed online November to December 2021 using the Qualtrics web-survey platform. Anonymous individualized survey links were sent to email addresses identified on public-facing Stanford websites. Invitations were sent to 5,994 individual email addresses. Of these, 283 anonymously answered at least some of the survey, resulting in a response rate of 4.7%. The faculty and staff survey instrument is included as an appendix.

**TABLE 2: FACULTY AND STAFF SURVEY RESPONSE DETAILS**

Total Faculty and Staff	Faculty and Staff Responses	Response Rate	Responses from Faculty and Staff with Children
5,994	283	4.7%	77

## FOCUS GROUPS

Student, faculty, and staff respondents who had children were invited to participate in follow-up focus groups to learn more about their experiences with childcare while at Stanford University. In total, 18 individuals participated in one of three focus groups – each a mix of students, faculty, and staff – conducted virtually throughout February 2022 using Microsoft Teams teleconferencing software. The moderator’s discussion guide is presented as an appendix.

## LIMITATIONS

All research comes with some limitations. Survey research, in particular, can be misunderstood if limitations are not explicitly noted. There are groups within the surveyed population that this report does not contain findings for and is not representative of. These groups, and the reasons for these limitations, are set forth below.

The response rate from Stanford University undergraduate students was relatively modest, with fewer than 300 completing the survey. Although this provides for robust analysis of the student group as a whole, undergraduates reporting children were extremely rare. Only six undergraduate responses with children were recorded. Combining higher weights for the undergraduate population would distort the overall analysis of childcare needs. Therefore, this report will primarily focus on graduate-, professional-, and PhD-level student results.

The faculty and staff survey results were not weighted to be representative of the population. No data on the overall makeup of the population of faculty and staff was available. Likewise, the sampling frame – taken from public facing websites – was likely not capable of providing universal coverage of this population. Many websites did not provide email addresses or information was out of date. The faculty and staff web survey results should be understood to solely represent those who participated in the survey. Although the results display reliable trends, it cannot be stated to reflect the perspectives of all University faculty and staff.

## PEER INSTITUTION COMPARISONS

As part of this study, Public Consulting Group (PCG) conducted peer institution outreach, researching the publicly available program information online as well as interviewing program directors of childcare programs at the following universities:

- University of Michigan (U of M);
- University of California, Berkeley (UC Berkeley);
- Massachusetts Institute of Technology (MIT); and,
- Harvard University.

Peer Institutions were selected based on several criteria: 1) they operate within the Carnegie classification system as R1 institutions, which are doctoral universities with high levels of research, 2) they offer on-campus childcare services, and 3) they have campuses located in regions with similar costs of living. PCG conducted both phone and email interviews, collecting data from a standard interview protocol of questions asked of each peer institution. Data was collected for comparison across the following areas: (a) capacity and service options, (b) tuition fees, (c) financial aid, (d) quality of program, and (e) waiting lists.

## AREA COSTS OF LIVING

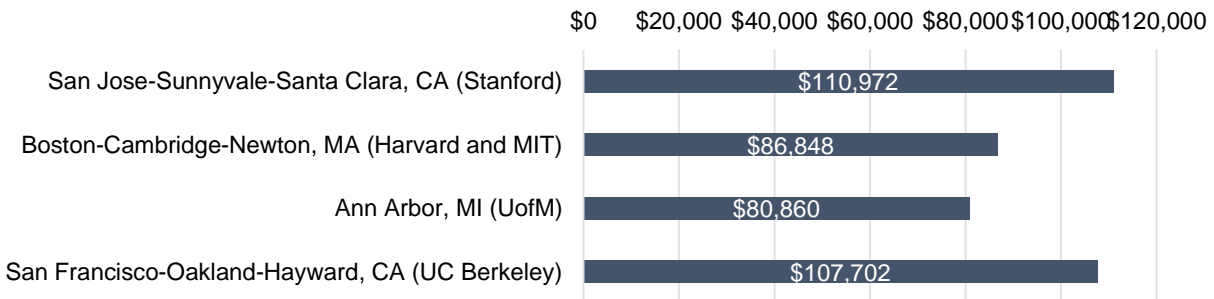
As part of understanding the overall picture of affordability and costs, it is important to consider the interconnected network of costs. Childcare prices are, in part, a reflection of local demand, local trends in wages for potential providers, local requirements surrounding childcare facility and provider licensure, and even land costs. Each one of these items impacts the cost of childcare and can impact the cost of living in an area as well. While creating an individual assessment for all the peer institutions, or even just Stanford University, is outside the scope of this study, we can use previously established work to understand relative cost of living.

Researchers at MIT compile and regularly update a Cost of Living Calculator (Calculator). The Calculator uses a combination of data sources, including original market rate studies, to arrive at a basic, minimum affordability index for an area.<sup>2</sup> This cost is more inclusive than the poverty line established by the United States Department of Agriculture as it includes costs beyond the basic food budget of a family, such as childcare and housing. These figures are a low-end estimate of the cost of living in an area.

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<sup>2</sup> <https://livingwage.mit.edu/resources/Living-Wage-Users-Guide-Technical-Documentation-2021-12-28.pdf>

## Estimated Annual Pre-Tax Living Wage (2 working Adults, 1 child household)



**FIGURE 1: ESTIMATE ANNUAL PRE-TAX LIVING WAGE FOR PEER INSTITUTION LOCAL METROPOLITAN STATISTICAL AREA (MSA)**

Living wage information was collected for each of the four Metropolitan Statistical Areas (MSAs) in which the peer institution campuses reside. MSAs are highly populated residential areas that surround an urban core and are tightly economically integrated with that urban core as measured by items like commuting patterns.<sup>3</sup> All MSAs are determined at the county level. The San Jose-Sunnyvale-Santa Clara MSA has the highest necessary living wage of the four examined. However, their childcare costs are estimated to be slightly lower than that of the other MSAs, while costs are much higher in other categories, particularly housing. Again, it is important to note that this is a low-end estimate of area childcare costs and leaves out any factors a family might consider about their childcare aside from costs.

**TABLE 3: MONTHLY CHILDCARE LOWEST COST ESTIMATE BY PEER INSTITUTION MSA**

Metropolitan Statistical Area (MSA)	Monthly Childcare Lowest Cost Estimate (1 Child)
San Jose-Sunnyvale-Santa Clara, CA (Stanford)	\$1,134
Boston-Cambridge-Newton, MA (Harvard and MIT)	\$1,285
Ann Arbor, MI (U of M)	\$1,591
San Francisco-Oakland-Hayward, CA (UC Berkeley)	\$1,173

While childcare specifically can be purchased for less in the San Jose-Sunnyvale-Santa Clara area than other MSAs, overall cost of living is higher. The primary data collection done for this study shows that it is overall cost that drives concerns about affordability and should be the more important factor when determining the overall adequacy of various childcare subsidy or provision plans offered by these universities.

### PROGRAM CAPACITY AND CHILDCARE SERVICE OPTIONS

Since the 1960s, Stanford University has been offering childcare services to students, faculty, and staff through what began as a student-generated parent cooperative program. By 2014, as reported in an interview with Stanford University program staff, there were over 600 childcare spaces across Stanford's childcare offerings. Spaces were added when new faculty and staff housing was added in 2015, increasing the number of childcare slots by 100. In February 2020,

<sup>3</sup> <https://www2.census.gov/geo/pdfs/reference/GARM/Ch13GARM.pdf>

pre-pandemic, Stanford's childcare services were serving close to 900 children across various programs/ sites, not including the Bing Nursery School, a lab school program operated by the psychology department. For the purposes of this study, the Bing Nursery School is not included because they are a lab school under the School of Humanities and Science and does not offer "typical" childcare schedules, generally offering care to families on a two- or three-day part-time basis, and either mornings or afternoons on those days. Additionally, the services provided generally serve as a support to research on campus rather than being considered as part of the campus childcare offerings.

With a total enrollment capacity around 920 children through operating agreements with three childcare operators (ICRI, CCSC, and Bright Horizons), Stanford offers the following programs:

**TABLE 4: STANFORD CAMPUS CHILDCARE PROGRAMS**

Program Name	Ages Served	Enrollment Capacity	Populations Served (In Order of Priority)	Notes
Stock Farm Road Children's Center (SFRCC)	8 weeks to 5 years	140	Enrollment priority is given to faculty, clinician educators, students, postdocs, university staff, employees of Stanford Health Care and Stanford Children's Health, respectively	Operated by ICRI
The Stanford Arboretum Children's Center (SACC)	8 weeks to 5 years	138	Enrollment priority is given to faculty, students, postdocs, university staff, employees of Stanford Health Care and Stanford Children's Health, respectively	Operated by ICRI
Stanford Madera Grove Children's Center (SMG)	8 weeks to 5 years	204	Enrollment priority is given to faculty, students, postdocs, and university staff, respectively	Operated by ICRI
The Children's Center of the Stanford Community (CCSC)	8 weeks to 5 years	210	Enrollment priority is given to faculty, students, postdocs, and university staff, respectively	Parents may participate in their child's classroom for a reduced tuition fee. Operated by CCSC
Pine Cone Children's Center (PCCC)	8 weeks to 5 years	120	Enrollment priority is given to faculty, students, postdocs, university staff, employees of Stanford Health Care and Stanford Children's Health, respectively	Located at the Stanford Redwood City campus. Operated by Bright Horizons
Stanford West Children's	8 weeks to 5 years	108	Enrollment priority is given to Stanford West apartment residents, faculty, students,	Located in the Stanford West Apartments.

Program Name	Ages Served	Enrollment Capacity	Populations Served (In Order of Priority)	Notes
Center (SWCC)			postdocs, university staff, employees of Stanford Health Care and Stanford Children's Health, respectively	Operated by Bright Horizons

A map of Stanford University's program locations is in Appendix C.

Data collected from peer institutions, related to the number of childcare programs and total number of children served is reflected in Table 5:

**TABLE 5: TOTAL NUMBER OF PROGRAMS AND CHILDREN SERVED AT PEER INSTITUTIONS**

Institution	No. of Childcare Facilities	No. of Children Served	No. of Full Time Students	No. of Faculty and Staff	No. of Full Time Students, Faculty, and Staff	No. of Full Time Students, Faculty, and Staff per Child Served
Stanford	6	920	16,937	17,593	34,530	37.5
U of M	5	500	62,725	37,084 <sup>4</sup>	99,809	199.6
MIT	5	380	11,934	11,855	23,789	62.6
UC Berkeley	6	195 *	45,057	22,439	67,496	N/A
Harvard	6	385	22,200 <sup>5</sup>	19,178	41,378	107.5

\* Data verified at [https://childcarecenter.us/provider\\_detail](https://childcarecenter.us/provider_detail) as university contact from UC Berkeley did not provide this information.

The University's childcare offerings have changed over the years as student, faculty, and staff needs have required. The University has made several land use decisions over the years that impacted the childcare services offered to students, faculty, and staff, including when some of the medical facilities on campus were adding to their parking areas or relocated programs more centrally on campus. This added ability to serve 200 more children.

Of these on-site programs, International Child Resource Institute (ICRI) operates three programs serving approximately 400 children, from infancy to pre-school age. As a local nonprofit organization, this partnership for expanding childcare service options for Stanford's community of students, faculty, and staff came about after an extensive request for proposals process in 2017. Additionally, there is a program located on the Stanford Redwood City campus where many of the administrative functions are managed. This program is operated by Bright Horizons.

Similar to all the peer institutions, temporary childcare options are available through the Back-Up Care plan, managed through Bright Horizons for benefits-eligible faculty and staff, and postdoctoral scholars, but not students. The Back-Up Care plan recently increased the number of days for back up care to 10 days per calendar year and offers:

<sup>4</sup> Excluding Ann Arbor Hospital faculty and staff

<sup>5</sup> Fall 2020 was the most recent publicly available count published by Harvard University.



- \$15 co-pay per child per day with a maximum of \$25 per family per day for center-based childcare (maximum benefit - \$250 based on 10 allowable days per year)
- \$6 co-pay per hour with a four-hour minimum for in home childcare services (maximum benefit - \$240 based on 10 allowable days per year)
- And added during the pandemic, the ability to choose out-of-network care that reimburses a family \$100 per day for a provider of their choosing to help offset the cost of care
- Ability to purchase virtual tutoring services for dependents in school, in lieu of utilizing the days for back-up childcare

## CHILDCARE TUITION FEES

Current rates for childcare services across Stanford's six childcare sites are included below and taken from the University Affiliates Tuition Schedule 2021-2022.<sup>6</sup> They have been reformatted for ease of reading. All costs presented here are monthly.

**TABLE 6: MONTHLY FEE SCHEDULE - CHILDREN'S CENTER OF THE STANFORD COMMUNITY (CCSC)**

		Craig Infant Program and Teen Kids' Place (8 wks - 2.5 yrs)	Little Kids' Place (2 - 3.5 yrs)	Big Kids' Place (3 - 5 yrs)
Full Time: Five Full Days, Weekly	Co-Oping Fee	\$2,505	\$2,258	\$1,924
	Non-Co-Oping Fee	\$2,724	\$2,562	\$2,185
Part Week: Four Full Days, Weekly	Co-Oping Fee	\$2,312	\$2,076	\$1,773
	Non-Co-Oping Fee	\$2,509	\$2,357	\$2,011
Part Week: Three Full Days, Weekly	Co-Oping Fee	\$1,781	\$1,593	\$1,366
	Non-Co-Oping Fee	\$1,938	\$1,810	\$1,550

**TABLE 7: FEE SCHEDULE - PROGRAMS OPERATED BY INTERNATIONAL CHILD RESOURCE INSTITUTE (ICRI); INCLUDES STANFORD ARBORETUM CHILDREN'S CENTER (SACC), STANFORD MADERA GROVE CHILDREN'S CENTER (SMG), AND STOCK FARM ROAD CHILDREN'S CENTER (SFRCC)**

	Infants	Toddlers	Twos	Preschool	Pre-K
Full Time (5 days: M-F)	\$2,489.00	\$2,461.00	\$2,025.00	\$1,988.00	\$1,828.00
Part Week (3 days: M,W,F)	\$1,858.00	\$1,837.00	\$1,520.00	\$1,489.00	\$1,278.00
Part Week (2 days: Tu,Th)	\$1,328.00	\$1,311.00	\$1,135.00	\$1,114.00	\$990.00

<sup>6</sup> <https://stanford.app.box.com/s/x8pxmcqirbx170bpiededx0oq8duzofp>.

**TABLE 8: FEE SCHEDULE - PROGRAMS OPERATED BY BRIGHT HORIZONS, PINE CONE CHILDREN'S CENTER (PCCC), AND STANFORD WEST CHILDREN'S CENTER (SWCC)**

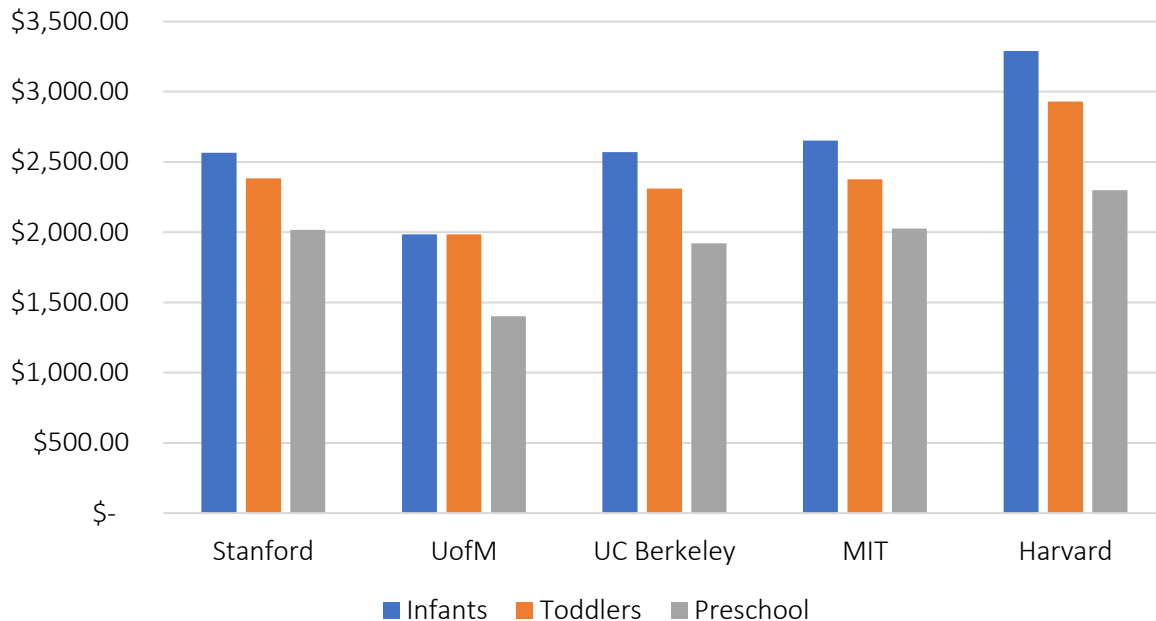
	Infants and Toddlers (6 wks - 24 mo.)	Twos (2 - 3 yrs)	Preschool (3 - 5 yrs)
Full Time (5 days; M-F)	\$2,546	\$2,258	\$1,969
Part Week (3 days; M,W,F)	\$1,910	\$1,694	\$1,477
Part Week (2 days; Tu,Th)	\$1,400	\$1,242	\$1,083

Table 9 presents the childcare tuition fees of peer institutions arranged by children's age, and options such as number of days per week or family status used to arrive at the determined fee.

**TABLE 9: PEER INSTITUTION MONTHLY FEE SCHEDULES**

Institution	Age Range	Option	Monthly Fee
U of M	Infants/ Toddlers	2 days/week	\$882
		3 days/week	\$1,324
		5 days/week	\$1,986
	Preschool	2 days/week	\$623
		3 days/week	\$935
		5 days/week	\$1,401
MIT	Infants	2 days/week	\$1,451
		3 days/week	\$2,032
		5 days/week	\$2,900
	Toddlers	2 days/week	\$1,219
		3 days/week	\$1,698
		5 days/week	\$2,430
	Preschool	2 days/week	\$1,028
		3 days/week	\$1,437
		5 days/week	\$2,057
UC Berkeley	Infants	Employed and student families	\$2,570
		Employed full tuition	\$2,710
	Toddlers	Employed and student families	\$2,310
		Employed full tuition	\$2,440
	Preschool	Employed and student families	\$1,920
		Employed full tuition	\$2,030
Harvard	Infant	N/A	\$3,290
	Young Toddler	N/A	\$3,005
	Toddlers	1	\$2,930
		2	\$2,610
	Preschool	1	\$2,300
		2	\$2,040
	Mixed Preschool Room	N/A	\$2,175

A comparison of childcare tuition rates across peer institutions is included below. Since there are multiple rates at some institutions, an average of the rates by age group was used for this comparison. As represented in Figure 2, compared to the peer institutions included in this analysis, Stanford is at or very near both UC Berkeley and MIT's childcare tuition rates, is slightly higher than the University of Michigan and slightly lower than Harvard.



**FIGURE 2: COMPARISON OF AVERAGE CHILDCARE FEES BY AGE GROUP**

### FINANCIAL AID

Stanford provides childcare operators with rent-free facilities and subsidized utility costs so that tuition can be directly applied to the quality of care. In 2022, Stanford expanded its Childcare Subsidy Grant Program (CCSG) with changes led by the Affordability Task Force, to provide grants to reimburse childcare expenses, expanding the eligibility for reimbursed expenses and increasing the award amounts. The following information was available regarding income requirements and eligibility:<sup>7</sup>

- Maximum household income eligibility increased from \$174,999 to \$200,000.
- Age of eligible children increased from 10 years to 13 years.
- The maximum award amount increased from \$5,000 to \$10,000.

Each childcare program offers at least two financial assistance options providing for an automatic tuition reduction of 5% and a tuition assistance program that reduces tuition for income-eligible families earning less than \$150,000 annually. Childcare tuition rate increases are proposed by the childcare operators, reviewed by the WorkLife Office, and approved by University leadership following benchmarking with local programs, ensuring childcare operator budget alignment, providing for quality of care for children and teacher salary increases.

<sup>7</sup> [Childcare Subsidy Grant program expanded - Stanford Report](#)

Stanford offers childcare financial assistance programs for students, faculty, and staff, described below. Similar to the peer institutions, several of the financial assistance options provide for off-campus, non-University affiliated childcare programming selections of the student/ faculty/ staff parent's choice, including the Faculty Childcare Assistance Program (FCCAP), the Childcare Assistance Grant program (CCAGP), and the Graduate Student Family Grant.

The following information was taken from Stanford's financial online resources:<sup>8</sup>

- The Faculty Childcare Assistance Program (FCCAP) provides a salary supplement to eligible faculty to offset qualified childcare expenses. Awards are based on the applicant's household income, with a sliding scale for award, ranging from a salary of ≤ \$123,999 with an award of \$24,000 to a salary up to \$224,999 and an award of \$6,000.<sup>9</sup>
- The Tuition Reduction Program (TRP) which provides a 5% childcare tuition reduction for all students and postdocs who are enrolled in Stanford on-site childcare.<sup>10</sup>
- The Childcare Assistance Grant program (CCAGP) provides postdocs with up to \$5,000 per year to assist with childcare expenses.
- In addition to the CCAGP, the Family Grant (FG) offers postdocs with families up to \$10,000 per year for living expenses that span beyond childcare, including food, transportation and medical expenses.
- The Graduate Student Family Grant Program (GSFGP) offers graduate students up to \$20,000 to cover child-related expenses such as childcare, healthcare, insurance, and rent.

The peer institutions interviewed also offer various financial supports and services to students to offset the high cost of childcare services. Information was also found on each peer institution website:

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<sup>8</sup> [Stanford's Philosophy for On-site Childcare Programs | Cardinal at Work](#)

<sup>9</sup> [Faculty Childcare Assistance Program | Cardinal at Work \(stanford.edu\)](#)

<sup>10</sup> [Childcare Tuition Support for Students and Postdocs | Cardinal at Work \(stanford.edu\)](#)

**TABLE 10: PEER INSTITUTION CHILDCARE GRANTS, SUBSIDIES, AND SCHOLARSHIPS**

Institution	Subsidy Description	Grants and Scholarships
U of M	<p>The amount awarded to eligible applicants is based on financial need, the number of children the applicant has enrolled in licensed childcare facilities, their childcare expenses, and available funding.</p> <p><u>2021-2022 Maximums</u>            One Child: \$3,118 per term            Two Children: \$4,572 per term            Three+ Children: \$6,028 per term</p>	<p>The Childcare Tuition Grant is offered to U of M affiliated families who are enrolled at one of the U-M Ann Arbor Children's Centers.</p>
UC Berkeley	<p>Fees are assessed on a sliding scale based on age of the child and gross income (adjusted for family size according to State Department of Education rankings). Current subsidized fees go up to \$19.20 per day.</p>	
MIT	<p>Employees are able to request a nontaxable \$2,000 subsidy, per term, for each dependent child, up to a maximum of three children per household.</p>	<p>Grant amounts for the 2021-2022 academic year are:            \$5,000- One dependent child            \$6,000- Two dependent children            \$7,000- Three or more dependent children</p>
Harvard	None Reported	<p>Harvard offers childcare scholarships, based on need, to eligible faculty, staff and postdocs (not for students) that help defray the cost of childcare. Scholarship awards vary from family to family and year to year, and payments are made on a reimbursement basis. Applicants must be eligible for full active benefits AND a faculty, staff member, postdoctoral fellow, or member of one of Harvard's staff unions AND on a Harvard payroll AND working at least half-time (FTE &gt;=0.5). There is also a scholarship for students in the Division of Medical Sciences. Eligible students must be in good academic standing, have a total household income of less than \$100,000, have 1 or more children under the age of 16 who are their legal dependent and are living with them in the US.</p>

## PROGRAM QUALITY

The basic indicators of high quality widely accepted across the field of early care and education include factors such as: health and safety, supervision, group size and ratios, staff credentials/qualifications, curriculum, program leadership and operational policies.

One of the widely held measurements in the early childhood field for market indicators of quality are state Quality Rating and Improvement Systems (QRIS), which in California is Quality Counts California.<sup>11</sup> A QRIS is a method, beyond baseline program licensure, to assess, improve, and communicate the level of quality in a childcare center. The QRIS in California is new since California is one of the last states to implement a state-wide QRIS. As such, Stanford is working with local licensing boards and exploring QRIS participation but has implemented various internal quality measures and set curriculum standards that align with best practices for instruction and engagement, including research-based teaching and caregiving practices known to create high quality early learning environments, such as Reggio Emilia, and others.

National standards of childcare quality are typically set by accreditation standards, such as the National Association for the Education of Young Children (NAEYC). Accreditation standards are the highest quality indicators, exceeding both licensing requirements and, typically, the highest QRIS ratings within a state's QRIS. The pandemic slowed down the pace at which NAEYC supported their accreditation process. NAEYC recently re-started their validation visits.

PCG reached out to the following program site directors to confirm QRIS and NAEYC accreditation status, and received the following responses:

**TABLE 11: PEER INSTITUTION QUALITY RATINGS**

Stanford University Programs	QRIS Rating	NAEYC Accredited
Stanford Arboretum Children's Center (SACC)	QRIS is new in CA, reviewing ratings and requirements	Self-study completed, awaiting validation visit
Stanford Madera Grove Children's Center (SMG)		Self-study completed, awaiting validation visit
Stock Farm Road Children's Center (SFRCC)		Self-study completed, awaiting validation visit
Children's Center of the Stanford Community (CCSC)		Yes
Pine Cone Children's Center (PCCC)	Working on	Preparing to pursue
Stanford West Children's Center (SWCC)	Working on	Eligible to pursue in August 2022

<sup>11</sup> <https://qualitycountsca.net/>.

**TABLE 12: PEER INSTITUTION QUALITY RATINGS (CONTINUED)**

Institution	QRIS Rating	NAEYC Accredited
U of M	4 out of 5 due to using High Scope curriculum	Yes
UC Berkeley	Working on	1 site location is
MIT	Participates, ratings not reported due to state QRIS being paused for the pandemic	Yes
Harvard	Participates, ratings not reported due to state QRIS being paused for the pandemic	Yes

## WAITING LIST

Stanford recently moved to a centralized, cloud-based system for enrollment and wait list tracking across all six childcare site locations. Parents now apply online, centrally through a database where eligibility is verified. If the child/ family is wait listed, Stanford shares information and provides resources on child development during the wait list period. Operators/ Directors of the six childcare sites use the database to fill enrollment vacancies, with data matching for child/ family enrollment needs being matched across the system with open childcare slots within Stanford's network of programs. Matching occurs based on child's age, sibling status, requested schedule. Peer institutions manage their waiting list in the following ways:

**TABLE 13: PEER INSTITUTION WAIT LIST PRACTICES**

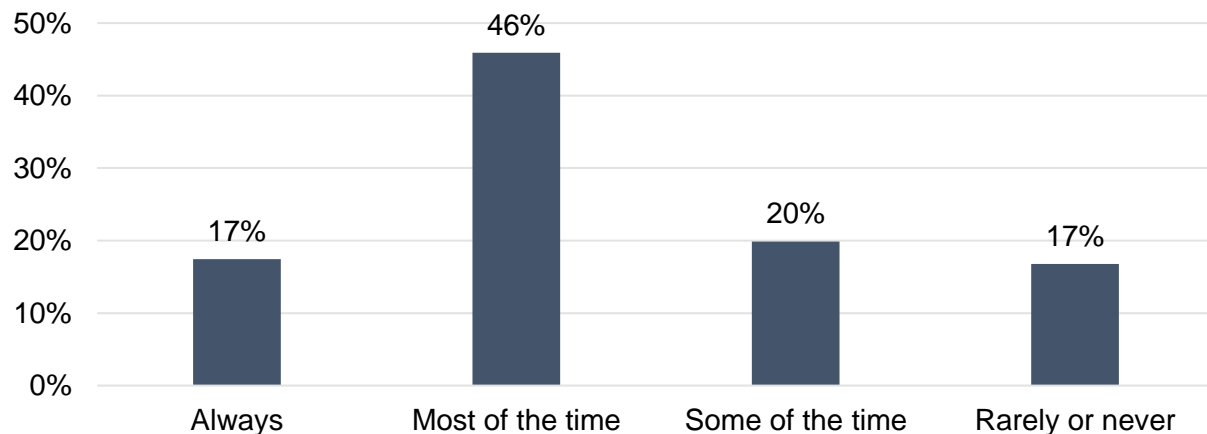
Institution	Wait List Management
U of M	Siblings of currently enrolled children are given priority, followed by children of current U of M faculty, staff, and students. Children of non-affiliated families from the community may also be enrolled, pending availability.
UC Berkeley	First priority are children of UC Berkeley students, faculty, and staff. Second priority are children of visiting scholars, LBNL, UCOP, and other UC campus staff/ faculty families. Third priority are children of community families.
MIT	<u>Level one priority</u> is given to: benefits- eligible MIT employees, then MIT students enrolled in degree programs and MIT post-doctoral associates and fellows, employees of the Howard Hughes Medical Institute at MIT. <u>Level two priority</u> is given to: active MIT affiliates who do not qualify for Level 1 priority (such as visiting engineers, scholars, and scientists only) employees of on-site contracted vendors (non-MIT affiliate tuition rates apply), Broad Institute employees (non-MIT affiliate tuition rates apply) edX employees (non-MIT affiliate tuition rates apply), Whitehead Institute staff (non-MIT affiliate tuition rates apply). <u>Level 3 priority</u> is given to: Draper Laboratory staff (non-MIT affiliate tuition rates apply) non-MIT affiliated community members for TCC Lincoln Laboratory Childcare Center in Lexington, MA, only (non-MIT affiliate tuition rates apply).
Harvard	Each center offers spaces to current families first, giving returning children and siblings priority. Preference is then given to Harvard affiliates according to a tier system established by the university. Harvard faculty eligible for ACCESS Program are considered Tier 1A and have priority enrollment on up to half of all childcare center slots. Preference then given to other benefits-eligible faculty, staff and postdoctoral fellows on a regular Harvard payroll, and to active degree students, all of whom comprise Tier one. Other affiliates who have a Harvard ID number (HUID) but receive their salary and benefits from someone other than Harvard University are considered Tier two. Following these Tier one and Tier two assignments, slots are allocated to all others, including alumni and members of the local communities, generally considered in Tier 3.

## RESEARCH RESULTS

### STUDENT RESEARCH RESULTS

Data reported in focus groups and survey results suggest graduate students with children are cost burdened by childcare. On average, this sub-group is concerned about the cost and overall availability of childcare in the University area. In addition, graduate students report this concern seriously impacts their career goals, current achievement, and aspirations. Qualitative survey and focus group responses suggest that graduate students see the benefits Stanford provides for graduate students with children as necessary, high-quality, and currently insufficient to meet the needs of the entire campus population. Of particular concern for graduate students were long wait times to access on-campus facilities, fees related to application for childcare, cost of childcare both on and off-campus, and the impact of juggling their role as graduate students and parents.

Childcare is an important need for graduate students with children. Only 17% of graduate students with children at Stanford report their childcare needs are 'always' met. This is similar to the number of graduate students reporting their childcare needs are 'never' met, as illustrated in the table below. Qualitative survey and focus group responses reinforce this finding.



**FIGURE 3: HOW OFTEN WERE THE CHILDCARE NEEDS MET FOR ALL YOUR CHILDREN DURING THE LAST 12 MONTHS? (GRADUATE STUDENTS)**

More than one-third (37%) of those who reported that their childcare needs were not 'always' met cited cost as one reason why their needs were not met. The barrier of cost was cited about 20% more frequently than the next two most common barriers related to caretakers being unavailable (31%) and timing of care (31%). Cost of care is clearly a major concern among the graduate student population.



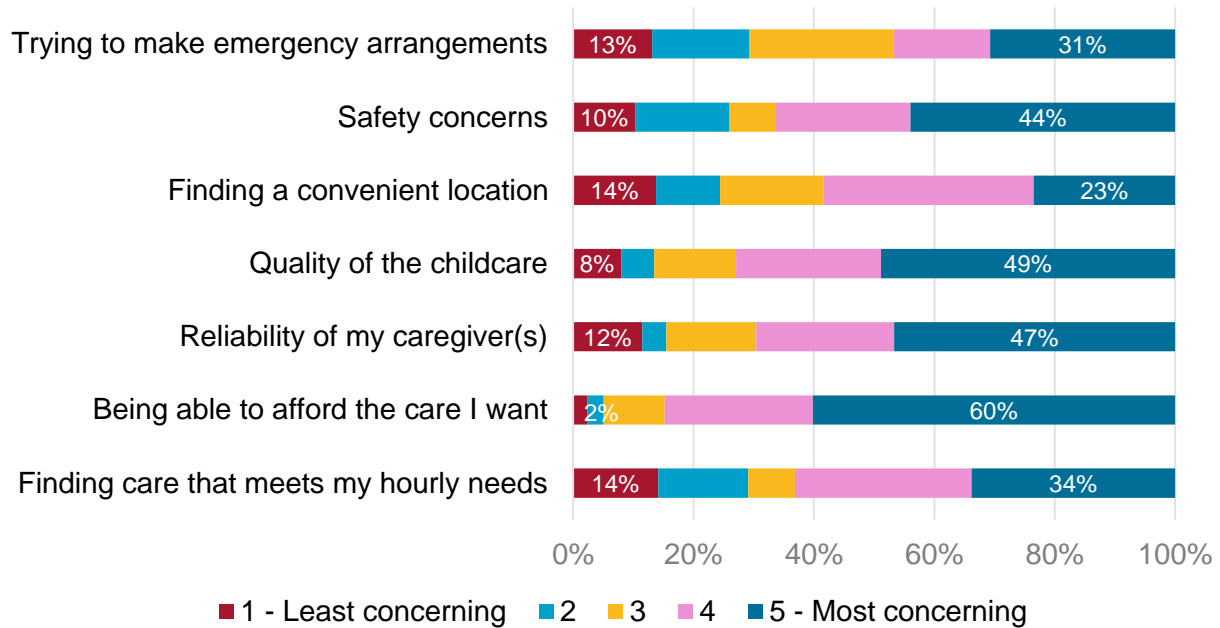
**TABLE 14: REASONS CHILDCARE NEEDS WERE NOT MET (GRADUATE STUDENTS)**

Barrier	Percentage
The cost of care was too high	37%
Couldn't find anyone to care for my children	31%
Care wasn't available when I needed it	31%
Childcare was not available because of pandemic-related closures	28%
I needed sick care for my child	17%
I, or my partner, had a change in work schedule	17%
Care was too far away	8%
Other (Please specify)	5%

Respondents were asked to rate a group of potential concerns about their childcare situation on a scale of one (least concerning) to five (most concerning). Individuals were allowed to rate as many items they wished at any rating from one to five.

The results of the survey analysis found that 60% of graduate students were most likely to select cost of childcare as a most concerning factor. Only 2% of graduate students ranked cost of childcare the least concerning. Childcare affordability was the only factor that received a 'most concerning' rating from over 50% of graduate student respondents.

Figure 4 below provides additional results for questions which were completed.



**FIGURE 4: PLEASE LET US KNOW HOW MUCH EACH OF THE FOLLOWING CONCERNS YOU ABOUT YOUR CHILDCARE SITUATION (GRADUATE STUDENTS)**

The concern over cost of care is driven in part by the amount of childcare this population consumes. Graduate students in particular are most likely to have the youngest children, with 41% having infants and 79% having at least one child under the age of five within their household. Children at this developmental stage often require costly intensive and specialized care facilitated through low staff-to-child ratios.

**TABLE 15: PRESENCE OF CHILDREN WITHIN AGE GROUPS (GRADUATE STUDENTS)**

Child Age	% Present
Infants (newborn – 17 months)	41%
Toddlers (18 months – 2 years)	30%
Preschool (3 – 4 years)	29%
Kindergarten (5 – 6 years)	14%
Elementary (7 – 12 years)	15%
Teenagers (13 -18 years)	9%

Graduate students report their youngest children spend 20 hours a week or more in childcare. The average amount of time graduate students with children report having using childcare is presented in the table below. It is important to consider that this analysis represents current usage, which graduate students report as being inadequate to meet their needs. Were prices and availability better suited to the circumstances of the students they would likely consume more hours of childcare on average.

**TABLE 16: AVERAGE WEEKLY HOURS IN CHILDCARE BY AGE OF CHILD (GRADUATE STUDENTS)**

Age Range	Hours in Childcare
Under the age of 5	22
5 to 12	10
Older than 12	0

The current amount of childcare consumed, and the fact that it is heavily weighted toward the youngest children, may explain why many graduate students experience cost as a major limiting factor on their childcare choices. The average annual household income among these graduate students was \$94,694. While this is above the average income of most Americans, data gathered by MIT in 2019 suggests that the minimum 'living wage' for a family of two working adults with one child in Santa Clara County is \$114,997.<sup>12</sup>

Graduate students with children report far more of their income goes to childcare expenses than is affordable. The Department of Health and Human Services considers affordable childcare as constituting less than 7% of total household income, after any applicable subsidies and benefits.<sup>13</sup> On average, graduate students with children report spending 21% of their household income on childcare. The table below presents the average reported cost of childcare weekly.

**TABLE 17: AVERAGE COST OF CHILDCARE AND HOUSEHOLD INCOMES (GRADUATE STUDENTS)**

	How much do you pay each week in childcare fees, on average?	What is your annual household income?
Mean	\$391	\$94,694

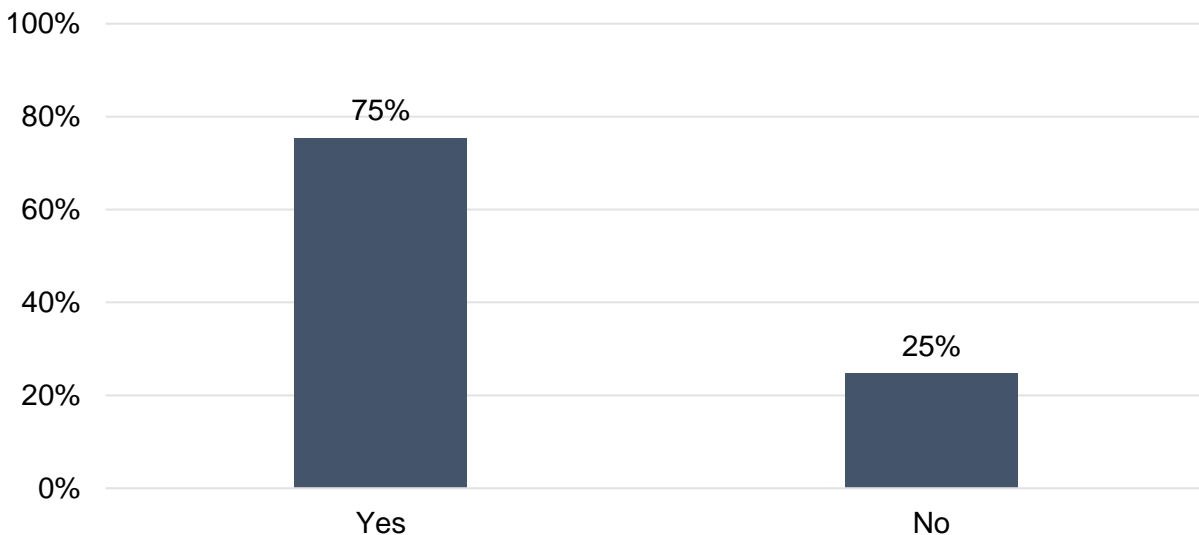
<sup>12</sup> <https://livingwage.mit.edu/counties/06085>

<sup>13</sup> <https://www.acf.hhs.gov/occ>.

The costs reported by graduate students as a weekly amount spent on childcare is both well outside the range of affordability and notably lower than the cost presented by the University for their own on-campus childcare offerings.<sup>14</sup> Those costs ranged from \$457 per week, for older children at less expensive facilities, to \$681 per week for the youngest children at the most expensive on-campus facility. Considering the age of children reported by graduate students (see Table 15), switching to on-campus facilities – should space become available at current costs – would likely increase the already unaffordable childcare costs by almost 75%.

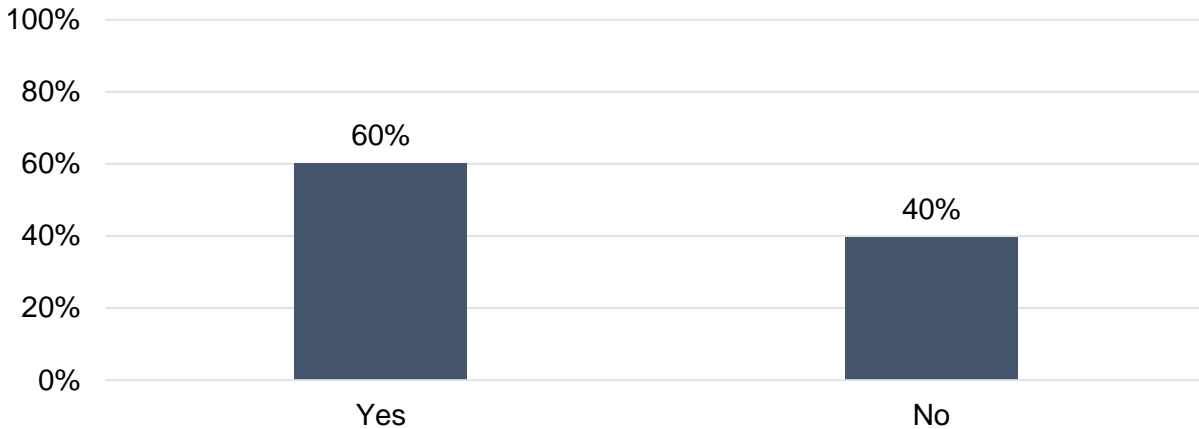
These outsized costs are a driver of some negative associations between childcare situations and experiences of student life. In focus groups, graduate students spoke about difficulty navigating the need for childcare and their complex obligations as graduate students and workers on campus. They reported feelings of missing opportunities and that their situations were not considered with empathy by faculty, staff, and University administration.

The feeling of childcare limiting the ability of graduate students to participate fully in University life is further demonstrated in survey results. Three-quarters of graduate students with children (75%) report that they have had to change a class schedule, turn in an assignment late, or otherwise limited their academic success because of a lack of childcare. More than half (60%) feel they have had to somehow limit their current or future career because of childcare needs while at Stanford. These findings are highlighted in the figures below.



**FIGURE 5: HAVE YOU EVER HAD TO CHANGE YOUR CLASS SCHEDULE, TURN IN AN ASSIGNMENT LATE, BEEN UNABLE TO PARTICIPATE IN AN ACADEMIC ACTIVITY, OR OTHERWISE LIMIT YOUR ACADEMIC SUCCESS BECAUSE YOU WERE NOT ABLE TO FIND CHILDCARE? (GRADUATE STUDENTS)**

<sup>14</sup> Cardinal at Work; On-Site Childcare for the University 2021 – 2022 Monthly Fee Schedule



**FIGURE 6: SINCE YOU HAVE BEEN ENROLLED AT STANFORD UNIVERSITY, HAS A LACK OF CHILDCARE OR CONCERN OVER CHILDCARE ARRANGEMENTS EVER PREVENTED YOU FROM ACCEPTING A JOB, PROMOTION, OR OPPORTUNITY TO ADVANCE YOUR CURRENT OR FUTURE CAREER? (GRADUATE STUDENTS)**

Some graduate students with children report that these hurdles and the experience of missing opportunities while attending Stanford have had notable impacts on their family planning decisions. In focus groups, several graduate students mentioned desiring more children but being unable to afford to have a family of the size they wanted. Some of these students mentioned childcare cost specifically, but others placed childcare among a network of issues that made living in the area of Stanford University unaffordable. This included not only childcare costs, but also housing costs, distance from family, and general cost of living. Others spoke about a need to potentially leave the University area to live somewhere with a lower general cost of living and access to strong social support networks. This feeling – a lack of access to family and friend networks that could reduce some of the costs associated with child rearing – was expressed particularly by international students in focus groups.

More than one-third of graduate students with children (35%) say that ideally, they would like to add more children to their family within a year, while another 40% say they would like to add children to their family a year or two from the time of the survey.

**TABLE 18: REASONS STUDENTS WITH CHILDREN ARE NOT ADDING ADDITIONAL CHILDREN**

Reason	% Graduate Students with Children	% All Students Desiring more children
Lack of space, cost of living in the area	39%	45%
Cost of childcare	35%	45%
Timing, waiting to finish school or reach a specific milestone in my career	27%	61%
Too many hours of work are expected of me at my job to have another child	23%	33%
Lack of childcare	23%	30%
Some other reason	6%	16%

A lack of space and the general cost of living in the Stanford University area (39%) was the most cited reason why these graduate students do not currently have families as large as they would like. This is followed by the cost of childcare (35%) and waiting to finish school or reach a certain milestone, work hours, and lack of childcare, each reported by about 25% of graduate students with children.

Among all students desiring more children, 61% say they are waiting to finish school or reach a specific milestone before having additional children. Otherwise, their responses are similar to the graduate students with children, though each reason tends to be cited by a higher proportion of the population. When specifying answers for other concerns, climate change and desire to find a long-term partner were among the most common reasons for students to be waiting to add children to their families.

Graduate students with children expressed different ideal solutions to their childcare needs in focus groups than in the surveys. Those attending focus groups were vocal about the need for expanding on-campus childcare facilities and for greater equity of access to those facilities among fellow students. However, survey respondents – while in favor of more on-campus childcare centers – preferred expanding and improving childcare subsidies or grants by a substantial margin.

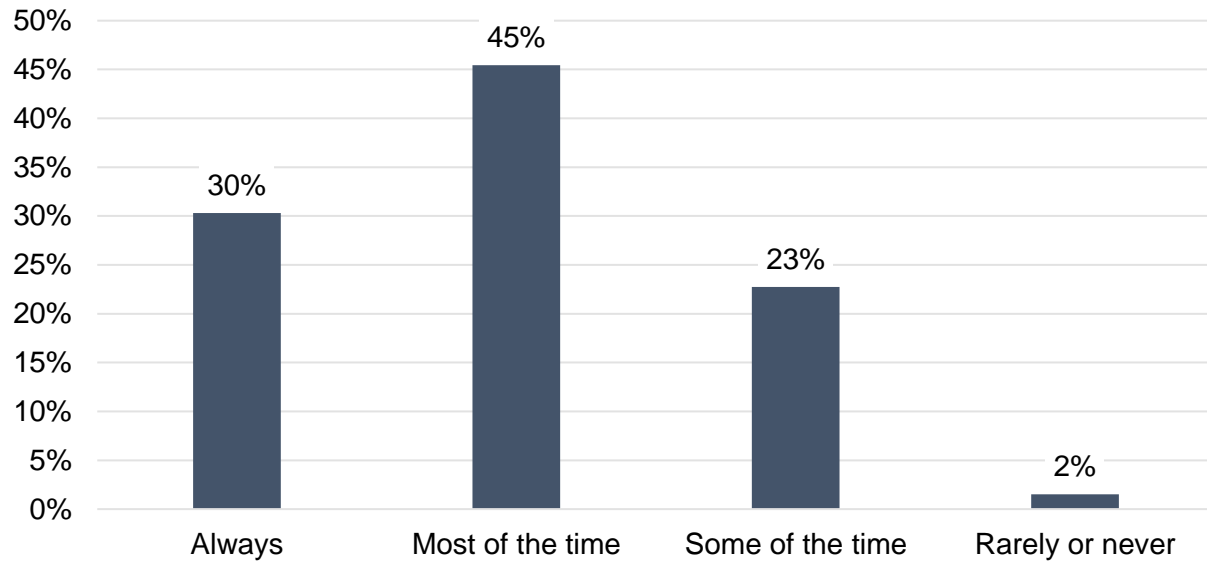
Survey respondents were asked to rank potential options for increasing access to childcare based on their preference. The majority of graduate students (67%) ranked ‘providing a more substantial childcare subsidy’ as the most preferred form of additional childcare benefit. It appears that graduate students have less preference for where this additional subsidy is applied – either at on- or off-campus childcare facilities – as only 25% ranked ‘expanding on-campus childcare offerings’ as the most preferred form of additional childcare benefit. Doing none of the offered choices was ranked number one by 4% of graduate students with children. None of the graduate students with children ranked providing a larger subsidy or expanding on-campus childcare as a least-popular choice.

**TABLE 19: MOST PREFERRED FORM OF ADDITIONAL CHILDCARE BENEFIT (GRADUATE STUDENTS)**

Option	% Ranked No. 1
Providing a more substantial childcare subsidy for students, faculty, and staff to purchase childcare	67%
Expanding on-campus childcare offerings	25%
Offer childcare programs before and after school hours and on school holidays and vacations at or near campus	5%
Reserving slots in nearby, off-campus childcare centers for students, faculty, and staff	0%
None of these	4%

## FACULTY AND STAFF RESEARCH RESULTS

Almost three-quarters (70%) of faculty and staff with children who responded to the survey say they have unmet childcare needs at least some of the time. The largest differences between responding faculty and staff and graduate students appear at the extremes of the scale. The proportion of respondents indicating their childcare needs are 'always' met was much higher among faculty and staff (30%) than graduate students (17%). The proportion of respondents indicating their childcare needs are 'rarely or never' met, however, was much higher among graduate students (17%) than faculty and staff (2%).



**FIGURE 7: HOW OFTEN WERE THE CHILDCARE NEEDS MET FOR ALL YOUR CHILDREN DURING THE LAST 12 MONTHS? (FACULTY AND STAFF)**

When childcare was not available, responding faculty and staff were more likely to state that it was for reasons of availability or difficulties in access than cost-related barriers. Only 19% of responding faculty and staff stated that cost was a reason they were not able to access childcare, making it the fourth most common reason. Availability of childcare when it was needed was most common (30%) followed by the need for sick childcare (26%). Pandemic-related closures were third (25%).

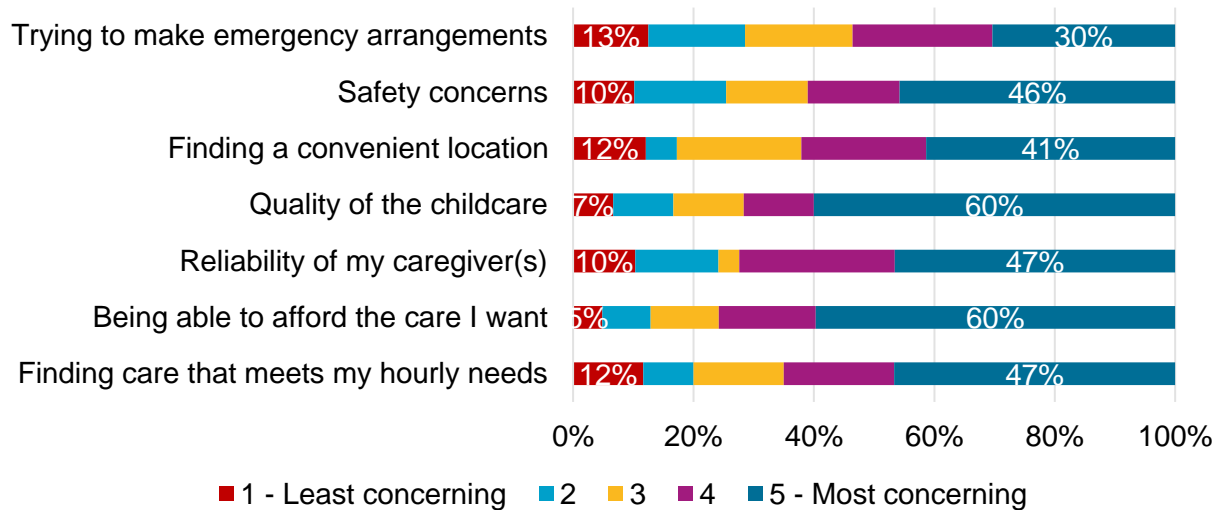
**TABLE 20: REASONS CHILDCARE WAS NOT AVAILABLE (RESPONDING FACULTY AND STAFF)**

Barrier	%
Care wasn't available when I needed it	30%
I needed sick care for my child	26%
Childcare was not available because of pandemic-related closures	25%
The cost of care was too high	19%
Couldn't find anyone to care for my children	18%
I, or my partner, had a change in work schedule	14%
Care was too far away	1%
Other (Please specify)	5%

Faculty and staff underlined these difficulties during focus groups when they spoke about their inability to get access to on-campus facilities. There was a perception of inequity among faculty and staff regarding these facilities. Access was seen as preferentially given to the most senior and high-status faculty and staff who would be most capable of making other arrangements. Lower status faculty and staff were reportedly left on long wait lists or searching for alternate arrangements. While the University states they provide information on other sources of childcare for those who are wait listed, as well as providing tuition reimbursement for off-campus, non-affiliated childcare selections of the student/ faculty/ staff parent’s choice, there were some individuals who reported having no knowledge of other potential means of accessing childcare.

Of particular concern to some faculty and staff with children in the focus groups were precautions related to COVID-19 and ‘out days’. They reported feeling that the system of refunds and timing of absences seemed designed to offer the minimum amount of childcare and maximize payment from parents without regard for parents’ need of childcare.

Asked what aspects of their current childcare situation they found most concerning, responding faculty and staff with children were most likely to choose quality and affordability of childcare (60% each). They were least likely to rate affordability of childcare as a least concerning aspect, with only 5% providing a rating of one.



**FIGURE 8: PLEASE LET US KNOW HOW MUCH EACH OF THE FOLLOWING CONCERNS YOU ABOUT YOUR CHILDCARE SITUATION (FACULTY AND STAFF)**

Cost is a meaningful barrier to accessing childcare for faculty and staff. They reported an average weekly cost of childcare of \$449, against an average household income of \$230,196.<sup>15</sup> This represents an average expenditure of 12% of household income. For reference, the Department of Health and Human Services has set the benchmark for affordable childcare at

<sup>15</sup> Some faculty and staff reported outlier childcare costs. Any cost more than two standard deviations above the average was determined to be likely reporting monthly rather than weekly costs and was reset to the average cost of childcare reported.

7% of household income. The table below sets forth the portion of income going to childcare considering the current average cost, the average cost factoring in Stanford's \$5,000 childcare grant for faculty and staff, and the proposed additional \$5,000 taxable grant the University Affordability Task Force has proposed.

Importantly, this reported cost per week is slightly lower than the cost per week for full time childcare services at any of Stanford's on-campus childcare centers for any age group of children.<sup>16</sup> Those costs ranged from \$457 per week to \$681 per week for the youngest children at the most expensive on-campus facility.

**TABLE 21: AVERAGE CHILDCARE COSTS AND INCOME (FACULTY AND STAFF)**

How much do you pay each week in childcare fees, on average?	Average Household Income	% of income	% income (w/ \$5k grant)	% income (w/ \$10k grant)
\$449	\$230,196	10%	8%	6%

While the childcare grant would offer some relief to faculty and staff, the average income of the faculty and staff respondents would disqualify an individual from receiving any subsidies. The Stanford Childcare Grant is limited to households with incomes under \$200,000. The table below sets forth the portion of income going to childcare using the average reported fees of responding faculty and staff, calculated against the minimum and maximum income within each of the Grant's income brackets.

**TABLE 22: MINIMUM AND MAXIMUM CHILDCARE EXPENSES AS A PERCENT OF INCOME, INCLUDING STANFORD CHILDCARE GRANT**

Income	Base Childcare as % of Income	Tax Free Grant Amount	% Income w/ Grant	Taxable Grant Amount	% Income w/ Grant
\$0	N/A	\$5,000	N/A	\$5,000	N/A
\$124,999	19%	\$5,000	15%	\$5,000	11%
\$125,000	19%	\$3,500	16%	\$3,500	13%
\$174,999	13%	\$3,500	11%	\$3,500	9%
\$175,000	13%	\$2,000	12%	\$2,000	11%
\$200,000	12%	\$2,000	11%	\$2,000	10%

Difficulty accessing childcare can take a meaningful portion of the day for responding faculty and staff – commuting between home, childcare, and campus can be a long route. Responding faculty and staff reported this journey taking, on average, just under an hour in total. Faculty and staff also reported that they miss an hour or more of work on three and a half days each month because of unmet childcare needs.

<sup>16</sup> Cardinal at Work; On-Site Childcare for the University 2021 – 2022 Monthly Fee Schedule



**TABLE 23: AVERAGE TRAVEL TIMES AND DAYS WITH OBLIGATIONS MISSED DUE TO CHILDCARE (FACULTY AND STAFF)**

	How many minutes away from your home is the place where the children in your household go for childcare?	How many minutes away from campus is the place where the children in your household go for childcare?	In the past month, how many days have you had to miss an hour or more of classes, work, or other school obligations because you could not access childcare?
Mean	12.4	45.0	3.5

Parents of children under five report using more than 35 hours of childcare a week, while parents of children twelve or older report using only 2.3 hours of childcare a week for those children. The availability of childcare in the form of school is clearly impactful on the amount of time spent at childcare.

**TABLE 24: AVERAGE TIME IN CHILDCARE PER WEEK BY CHILD'S AGE (FACULTY AND STAFF)**

	How many total hours per week are the children in your household under the age of 5 in childcare, on average?	How many total hours per week are the children in your household 5 to 12 in childcare, on average?	How many total hours per week are the children in your household older than 12 in childcare, on average?
Mean	35.4	17.1	2.3

The most popular potential solution among responding faculty and staff was increasing the size of childcare subsidies provided by Stanford. Again, this survey was conducted before the announcement of the Affordability Task Force's decision to raise the amount of the Childcare Grant the University provides – similar individuals might answer differently today. However, it is clear that responding faculty and staff would prefer receiving a larger subsidy. This may be linked to some issues of equity mentioned earlier – an improved cash subsidy would allow for more individualized decision-making and could be easily provided to all qualifying families.

**TABLE 25: PREFERRED OPTION FOR PROVIDING CHILDCARE BENEFITS (FACULTY AND STAFF)**

Option	% Ranked 1
Providing a more substantial childcare subsidy for students, faculty, and staff to purchase childcare	56%
Expanding on-campus childcare offerings	18%
Offer childcare programs before and after school hours and on school holidays and vacations at or near campus	16%
Reserving slots in nearby, off-campus childcare centers for students, faculty, and staff	3%
None of these	7%

Inaccessibility of current resources and lack of information were common feelings among the faculty and staff present in focus groups. Individuals were grateful that the University was providing some options, but these were seen as insufficient to meet their needs.

## FOCUS GROUP RESPONSES

### STUDENTS

- “The childcare that is there in the facility is excellent but it’s not sufficient for all the demand [. . .] the demand is so much higher than they even realize.”
- “A lot of people say that you have to get onto the wait list when you are pregnant [. . .] In terms of price – it is very expensive, and it makes me wonder if I want to have another kid. In the Bay area you have to have both parents working to be living and that’s the fact.”
- “I don’t know if they care. This is not something that’s new. This problem has been there for a while – ever since I’ve been at Stanford [. . .] I haven’t seen anyone do anything about it.”
- “After I graduate from Stanford University, I feel like I might want to go back to Japan to have another kid, and raise the kids. It doesn’t make sense to stay here.”
- “If we end up deciding to have a second kid, we have to move back to France where we have our family.”
- “Having something reliable on campus would be a big help in meeting the needs of my family.”

### FACULTY AND STAFF

- “I wasn’t able to continue living in the Bay Area.”

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## APPENDIX A: SURVEY INSTRUMENTS

### STUDENT SURVEY INSTRUMENT

**All students are encouraged to participate in this survey.**

**This survey will take about 15 minutes to complete.** Responses will allow us to better understand the experiences of Stanford students like you with questions about mental health, policing, student debt, housing, health insurance, and the childcare needs of student-parents.

Your answers will be anonymous and reported only in aggregate. If you reach a question you prefer not to answer, please skip and continue to the next question.

The questions in this survey were prepared in consultation with several Stanford student groups, including the **Student Solidarity Network**, the **Stanford Students for Workers' Rights**, the **Stanford University Postdoctoral Association**, and the **Associated Students of Stanford University**.

Postdocs will be surveyed in a subsequent faculty and staff survey.

## 1. Demographics

### Demo01

What is your current degree program at Stanford University?

- 1 Undergraduate
- 2 Masters
- 3 Professional degree (JD, MD, MBA, etc.)
- 4 PhD
- 6 Something else (Please specify: *[OPEN TEXT]*)
- 7 Not currently a student *[GO TO END1]*

### End01

Thank you, but this survey is for Stanford undergraduate and graduate students. We are also running a survey to understand the childcare needs of staff, post-doctoral scholars, faculty, and on-campus workers. If you are in one of those groups, please use that survey at this link: [\[SURVEY LINK\]](#)

### Demo02

These first few questions are used to create a demographic profile for the population surveyed.

What zip code do you live in? *[NUMERIC RESPONSE]*

### Demo03

Which of the following best describes your housing situation?

- 1 Stanford on-campus dorm or student housing
- 2 Stanford off-campus housing
- 3 Rent an apartment or house off-campus
- 4 Own a home off-campus
- 5 Currently unhoused
- 6 Live with parents
- 7 Some other situation (Please specify)
- 8 Unsure

*Demo04*

How old are you, in years? *[NUMERIC RESPONSE]*

*Demo05a*

To ensure we track the needs of all students, please consider the following question: What is your sex assigned at birth as stated on your original birth certificate?

- 1 Male
- 2 Female
- 3 Intersex
- 8 I'd prefer not to say, or am unsure

*Demo05b*

What is your current gender identity? Please select the one answer that best fits how you describe yourself.

- 1 Male/Man
- 2 Female/Woman
- 3 Transgender Male/Transman
- 4 Transgender Female/Transwoman
- 5 Nonbinary
- 7 Another gender: *[OPEN TEXT]*
- 8 I'd prefer not to say, or am unsure

*Demo06a*

What is your race? Please select all that apply.

- 1 African, African American, or Black
- 2 Asian
- 3 Hawaiian or Pacific Islander
- 4 Native American or Alaska Native
- 5 White
- 7 Another race (Please specify: *[OPEN TEXT]*)
- 8 I'd prefer not to say, or am unsure

*Demo06b*

Are you of Hispanic or Latino/a/x ethnicity?

- 1 Yes
- 2 No
- 8 I'd prefer not to say, or am unsure

*Demo07*

What is your current residency or visa status?

- ▶ 1 U.S. citizen or permanent resident
- ▶ 2 F-1 Visa

- ▶ 3 J-1 Visa
- ▶ 7 Another status or visa type (Please Specify: *[OPEN TEXT]*)

8 I'd prefer not to say, or am unsure

*Demo08*

What is your current marital or relationship status?

- 1 Married or living with a partner
- 2 Never been married
- 3 Divorced, separated or widowed
- 5 In a committed relationship, not living together
- 8 I'd prefer not to say, or am unsure

*Demo08a*

[ASK IF DEMO08=1]

What is your spouse or partner's residency or visa status?

- ▶ 1 U.S. citizen or permanent resident
- ▶ 2 J-2 or F-2 Visa
- ▶ 3 F-1 or J-1 Visa
- ▶ 7 Another status or visa type (Please Specify: [OPEN TEXT])
- ▶ 8 I'd prefer not to say, or am unsure

*Demo13.*

[ASK IF DEMO08=1]

**For your spouse or partner, please specify their current occupation. Please select all that apply.**

- 1 In school at Stanford
- 2 Attends another school
- 3 Works for a wage or salary
- 4 Cares for children full time
- 5 Other [Open Text]
- 6 I'd prefer not to say, or am unsure

*Demo08b*

Please select the one answer that best fits how you describe your sexual orientation.

- 1 Straight
- 2 Lesbian or Gay
- 3 Bisexual/Pansexual
- 4 Asexual
- 5 Queer
- 6 Questioning/Unsure
- 7 Something Else: [OPEN TEXT]
- 8 I'd prefer not to say, or am unsure

*Child01a*

How many people live in your household? Please **include** yourself and any spouse, partner or children who lives with you. Please **DO NOT include** unrelated roommates or housemates or anyone who usually lives somewhere else.



\_\_\_ [Numeric Entry; if 1 skip to Future01].

## 2. Children and Childcare Needs

### Child01

How many children live in your household for whom you are primarily responsible for providing care? \_\_\_ [Numeric Entry; if 0 skip to Future01]

### Child02

How many children in your household are within each of the following age categories?

- a. Infants (newborn - 17 months) [Numeric Entry]
- b. Toddlers (18 months - 2 years) [Numeric Entry]
- c. Preschool (3 – 4 years) [Numeric Entry]
- d. Kindergarten (5 – 6 years) [Numeric Entry]
- e. Elementary (7 – 12 years) [Numeric Entry]
- f. Teenagers (13 -18 years) [Numeric Entry]

### Child03

Have you needed childcare for any of the children in your household while you were attending classes, doing schoolwork, or attending a job?

- 1 Yes
- 2 No
- 8 Unsure

### Child04

Do you have children in your household who have any special needs? Select all that apply.

- 10 Mobility Impairment
- 11 Developmental delay or intellectual impairment
- 12 Behavioral or Emotional impairment
- 13 Sensory impairment – Blind, visually impaired, deaf, limited hearing

14 Dietary restriction or food allergies

95 Another special need (Please specify [OPEN TEXT])

97 None of the above

99 I'd prefer not to say

### 3. Childcare Use

#### Use01

What forms of childcare do you most commonly use for the children in your household? This includes the forms of childcare you are currently using, and the forms you used or will use outside of the current public health crisis. Please mark all that apply, and to the age ranges of the children using that form of care.

[DISPLAY ALL STATEMENTS, DISPLAY ANSWER GROUPS ONLY IF THAT GROUP >= 1 IN CHILD02]

	Infants (newborn - 17 months)	Toddlers (18 months - 2 years)	Preschool (3 – 4 years)	Kindergarte n (5 – 6 years)	Elementary (7 – 12 years)	Teenagers (13 -18 years)
a. Full-day care						
b. Half-day care						
c. Before/after school care						
d. Night or weekend care (while parent/s work)						
e. Full-day care (summers only)						
f. Half-day care (summers only)						
g. Back up or emergency care						
h. Sick care						
i. I take care of the children in my household and do not use any other form of childcare						
j. Other (please explain: [OPEN TEXT])						

Use02

[SKIP IF USE01<>18 FOR ALL]

What kind of places/program types do the children in your household use for childcare? This includes the forms of childcare you are currently using, and the forms you used or will use outside of the current public health crisis. Please mark all that apply, and to the age ranges of the children using that place/program.

[DISPLAY ALL STATEMENTS, DISPLAY ANSWER GROUPS ONLY IF THAT GROUP>=1 IN CHILD02]

	Infants (newborn - 17 months)	Toddlers (18 months - 2 years)	Preschool (3 – 4 years)	Kindergart en (5 – 6 years)	Elementary (7 – 12 years)	Teenagers (13 -18 years)
a. Relative in our home						
b. In relative's home						
c. Licensed Family Childcare Home						
d. Non-relative in our home (babysitters, nannies)						
e. Off-campus childcare center						
f. On-campus childcare center						
g. Non-relative in their home or other setting						
h. A Before/After-school program at the children's school						
i. A Before/After-school program that is not based at the children's school						
j. Other (please explain: [OPEN TEXT])						

*Use03*

Please let us know how much each of the following concerns you have about your childcare situation.

	<b>Least concerning (1)</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Most concerning (5)</b>	<b>N/A (8)</b>
a. Finding care that meets my hourly needs						
b. Being able to afford the care I want						
c. Reliability of my caregiver(s)						
d. Quality of the childcare						
e. Finding a convenient location						
f. Safety concerns						
g. Trying to make emergency arrangements						

*Use04a*

[ASK IF CHILD01a+CHILD02b+CHILD02c>=1]

How many total hours per week are the children in your household under the age of 5 in childcare, on average? [Numeric Entry]

*Use04b*

[ASK IF CHILD01d+CHILD02e >=1]

How many total hours per week are the children in your household 5 to 12 in childcare, on average? [Numeric Entry]

*Use04b*

[ASK IF CHILD02f >=1]

How many total hours per week are the children in your household older than 12 in childcare, on average? *[Numeric Entry]*

*Use05*

How much do you pay each week in childcare fees, on average? *[Numeric Entry]*

#### 4. Barriers

##### *Barriers01*

How often were the childcare needs met for all your children during the last 12 months?

- 4 Always
- 3 Most of the time
- 2 Some of the time
- 1 Rarely or never
- 8 Unsure

##### *Barriers02*

*[ASK IF BARRIERS01<>4]*

When you could not get childcare, what were the reasons? Please select all that apply.

- 10 The cost of care was too high
- 11 Care was too far away
- 12 Care wasn't available when I needed it
- 13 I couldn't find anyone to care for my children
- 14 I, or my partner, had a change in work schedule
- 15 I needed sick care for my child
- 16 Childcare was not available because of pandemic-related closures
- 95 Other (please explain: [OPEN TEXT])
- 99 I'd prefer not to say

##### *Barrier02a*

*[ASK IF ANY CHILD HAS CHILD04<>"" and <>97]*

Have you ever had difficulty finding childcare that can accommodate the special needs of your child?

- 1 Yes
- 2 No
- 8 Unsure

*Barrier03*

*[ASK IF NOT RECEIVING CHILDCARE IN THE HOME IN USES04]*

How many minutes away from your home is the place where the children in your household go for childcare? Please let us know how many minutes it takes you to from home to care, door to door, on an average day, including traffic. If you have to travel to multiple places, please estimate the entire trip. Your best estimate is fine.

Number of Minutes: *[NUMERIC ENTRY]*

*Barrier04*

*[ASK IF DEMO03<>1]*

How many minutes away from campus is the place where the children in your household go for childcare? Please let us know how many minutes it takes you to travel from care to campus, door to door, on an average day, including traffic. If you have to travel to multiple places, please estimate the entire trip. Your best estimate is fine.

Number of Minutes: *[NUMERIC ENTRY]*

*Barrier05*

In the past month, how many days have you had to miss an hour or more of classes, work, or other school obligations because you could not access childcare? *[NUMERIC ENTRY]*

*Barrier06*

Since you have been enrolled at Stanford University, have you ever had to change your class schedule, turn in an assignment late, been unable to participate in an academic activity such as attending a conference or writing a journal article, or otherwise limit your academic success because you were not able to find childcare?

1 Yes

2 No

*Barrier07*

Since you have been enrolled at Stanford University, has a lack of childcare or concern over childcare arrangements ever prevented you from accepting a job, promotion, or opportunity to advance your current or future career?

1 Yes



2 No

## 5. Future Children

### Future01

In an ideal world, in which childcare access and costs were not constraints, how many children total would you like your family to have? If you are unsure, leave this question blank. [NUMERIC ENTRY]

### Future02

[ASK OF FUTURE01<>0 SUM OF CHILD02]

When would you like to add children to your family?

- 1 Within the next year
- 2 A year to two years from now
- 3 Three to four years from now
- 4 Five or more years from now
- 5 I'm not sure when I would like to add additional children to my family
- 8 I do not plan to add any more children to my family

### Future03

[ASK OF FUTURE01<>0 SUM OF CHILD02 AND FUTURE2<>8]

Are any of the following reasons that your family does not have as many children as you would like to have? Please select all that apply.

- 10 Cost of childcare
- 11 Lack of childcare
- 12 Lack of space, cost of living in the area
- 13 Timing, waiting to finish school or to reach another specific milestone in my career.
- 14 Too many hours of work are expected of me at my job to have another child
- 95 Some other reason (please specify)
- 97 Nothing
- 98 Unsure

## 6. Health Insurance Questions

### Health01

[ASK IF DEMO08=1 OR DEMO08=5]

While Stanford provides students with healthcare coverage, we are also interested in learning more about the healthcare of student families. Is your spouse or significant other **currently** covered by any of the following types of health insurance or health coverage plans? Please select any that apply.

- 10 Insurance through Stanford's Dependent Health Care Plan
- 11 Insurance through my spouse's current or former employer or union
- 12 Insurance through my current or former employer or union
- 11 Insurance purchased directly from an insurance company (of this person or another family member)
- 12 Medicare, for people 65 or older, or people with certain disabilities
- 13 Medicaid, Medi-Cal, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability
- 14 TRICARE or other military healthcare
- 15 VA (enrolled for VA health care)
- 16 Indian Health Service
- 95 Any other type of health insurance or health coverage plan (Please specify: [OPEN TEXT])
- 97 None of these, uninsured [EXCLUSIVE]
- 98 I'm not sure, or would prefer not to say [EXCLUSIVE]

### Health02

[ASK IF CHILD01>=1]

Are the children in your household **currently** covered by any of the following types of health insurance or health coverage plans? Please select any that apply.

- 10 Insurance through Stanford's Dependent Health Care Plan
- 11 Insurance through my spouse's current or former employer or union
- 12 Insurance through my current or former employer or union
- 11 Insurance purchased directly from an insurance company (of this person or another family member)
- 12 Medicare, for people 65 or older, or people with certain disabilities

13 Medicaid, Medi-Cal, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability

14 TRICARE or other military healthcare

15 VA (enrolled for VA health care)

16 Indian Health Service

95 Any other type of health insurance or health coverage plan (Please specify: *[OPEN TEXT]*)

97 None of these, uninsured *[EXCLUSIVE]*

98 I'm not sure, or would prefer not to say *[EXCLUSIVE]*

### *Health03*

*[ASK IF Health03=97 AND Child01>1]*

How many of the children in your household are not currently covered by any health insurance or health coverage plan? *[NUMERIC ENTRY]*

### *Health05*

*[ASK IF Health01<>97 OR Health02<>97]*

How much does your family currently pay, out of pocket, for your family's health insurance premiums? Your best estimate is fine. *[NUMERIC ENTRY]*

### *Health04*

*[ASK IF Health01=97 OR Health02=97]*

Are any of the following reasons why the people in your household are not currently covered by any health insurance or health coverage plan? Please select all that apply.

10 We cannot afford health coverage

11 We are not eligible for government sponsored health coverage options

12 We are not aware of health coverage plans we could be eligible for

13 Employer does not offer health coverage plan

14 We'd prefer not to have health coverage

95 Some other reason (Please specify: *[OPEN TEXT]*)

98 I'm unsure, or would prefer not to say

Health06

[ASK IF Health01<>10 OR Health02<>10]

Why did you choose not to purchase Stanford's Dependent Health Care Plan? [OPEN TEXT]

## 7. Open Questions

Final01

Some potential options that could help provide childcare for students, staff, and faculty are listed below. Please click or press and drag to place them in order of your preferred options, with the option you would most like to see implemented at Stanford University at the top of the list (1) and the option you would least prefer to see implemented at the bottom of the list (5).

- a. Expanding on-campus childcare offerings
- b. Reserving slots in nearby, off campus childcare centers for students, faculty and staff
- c. Providing a more substantial childcare subsidy for students, faculty and staff to purchase childcare
- d. Offer childcare programs before and after school hours and on school holidays and vacations at or near campus
- e. None of these

Final02

What else would you like Stanford University to know or consider about childcare and your family's childcare needs? [OPEN TEXT]

## 8. Income and Affordability

Afford01

Which of the following best describes your current financial circumstances?

- ▶ 1 I always have adequate financial resources to meet basic needs.
- ▶ 2 I usually have adequate resources for basic needs but experience occasional gaps.
- ▶ 3 I frequently experience challenges covering expenses but always have housing and food.
- ▶ 4 I always or frequently have financial challenges and am not always sure if I will have housing or food.
- ▶ 8 Unsure or prefer not to say

Afford02

In a typical academic quarter, which of these statements best describes the food eaten in your household? Please select only one answer:

- 1 Enough of the kinds of food (I/we) wanted to eat
- 2 Enough, but not always the kinds of food (I/we) wanted to eat
- 3 Sometimes not enough to eat
- 4 Often not enough to eat
- ▶ 8 Unsure or prefer not to say

*Afford03*

[ASK IF AFFORD02<>1]

Which of the following would you find most useful in addressing food security?

- 1 Help applying to CalFresh or other assistance
- 2 Locations of free food/nearby food pantries
- 3 Information on how to cook cheaply
- 4 Permanent or more frequent on-campus food pantry
- 5 Help with budgeting or other resources
- 7 Something else (Please specify: [OPEN TEXT])
- 8 Unsure or prefer not to say

*Income01*

What is your annual household income? Please **include** income from all sources for yourself and any spouse or partner who lives with you (e.g., wages, stipends, grants, fellowships, scholarships, child support, social security, or disability). Please **do not** include the income of unrelated roommates or housemates. Do not include tuition waivers as part of income. Your best estimate is fine. If you have no household income, please enter a zero.

[NUMERIC RESPONSE]

*Income02*

Excluding funding from loans, assistantships, fellowships, scholarships, grants, support from parents, or any other source, how much will your household pay, out of your own pocket, for tuition to Stanford University this year? Your best estimate is fine.

[NUMERIC RESPONSE]

*Income03*

*(ASK IF GRADUATE STUDENT)*

In dollars, how much student loan or other debt will your household take on this year? Please include borrowing by a spouse or partner who lives with you. If you will not be incurring any debt this year, enter 0. Your best estimate is fine.

*[NUMERIC RESPONSE]*

*Income04*

*(ASK IF Income03<>0)*

Roughly how much of this debt will be used to cover living expenses; that is, not paid for tuition? Please enter a dollar amount. Your best estimate is fine.

*[NUMERIC RESPONSE]*

*Income05*

*(ASK IF GRADUATE STUDENT)*

Roughly how much of your household's living expenses this year will be covered by financial support from parents or family members who do not live with you? Please enter a dollar amount. Enter 0 if you do not expect any support or if the support is only for tuition. Your best estimate is fine.

*[NUMERIC RESPONSE]*

## 9. Policing

### Police02

We have a few questions about your world view and interactions with police. What types of interaction have you had with the Stanford University Department of Public Safety (SUDPS) in the last 12 months? Please choose all that apply.

- 10 Observed officer on campus
- 11 Observed officer off campus
- 12 Questioned in connection with an investigation
- 13 Questioned without any connection to an investigation
- 14 Stopped by an officer
- 15 Witness to a crime
- 16 Victim of a crime
- 95 Other (Please specify: *[OPEN TEXT]*)
- 98 I have not interacted with SUPDS in any way in the last 12 months

### Police03

Based on your experience (including what you have seen, heard, or read), please let us know the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My views on police and policing are shaped by my own, personal experiences or the experience of my friends and family with law enforcement or SUDPS.					
My views on policing are shaped by news stories I have seen or heard about police conduct nationally.					
Seeing armed police officers on campus makes me feel safe.					



Stanford University should not have armed police officers on campus.					
I can always tell the difference between SUDPS officers and private security guards on campus.					
SUDPS officers always act in the community's best interests.					
SUDPS officers will stop, question, or arrest a person of color in situations where they might not do so with a white person.					

*Police01*

Finally, how would you describe your own political views?

- 1 Very conservative
- 2 Somewhat conservative
- 3 Neither liberal or conservative
- 4 Somewhat liberal
- 5 Very liberal
- 8 Prefer not to say

**10. Mental Health Care***MH01*

Have you ever sought out, or wanted to see out, mental health services while at Stanford?  
Please choose the option that best describes you.

- 1 I have sought out mental health services
- 2 I have wanted to seek out mental health services
- 3 No, I have never sought, or wanted to seek, mental health services while at Stanford
- 8 I'm unsure, or would prefer not to say

*MH02*

*[ASK IF MH01=1 OR MH01=2]*

Where did you receive or seek out mental health services?

- 1 Through Vaden Health Services
- 2 Through mental health services in the community
- 8 I'm unsure, or would prefer not to say

*MH03*

*[ASK IF MH02=1]*

How well did Vaden Health Services resolve your concerns?

- 1 Not at all well
- 2 Not very well
- 3 Somewhat well
- 4 Completely
- 8 I'm unsure, or would prefer not to say

*MH04*

*[ASK IF MH02=2]*

Have you successfully found the mental health services you sought in the community?

- 1 Yes
- 2 No
- 8 I'm unsure, or would prefer not to say

*MH05*

*[ASK IF MH02=2]*

How many months have you spent seeking out the mental health services you wanted? If less than one month, please enter 1. *[NUMERIC ENTRY]*

*MH06*

*[ASK IF MH02=2]*

Are the mental health services you sought covered by your health insurance?

1 Yes

2 No

8 I'm unsure, or would prefer not to say

*MH07*

All in all, do you feel that you have been able to attain adequate mental healthcare while at Stanford?

1 Yes

2 No

8 I'm unsure, or would prefer not to say

## **FACULTY AND STAFF SURVEY INSTRUMENT**

**All faculty, staff, and post-doctoral scholars are encouraged to participate in this survey.**

**This survey will take about 15 minutes to complete.** Responses will allow us to better understand the experiences of Stanford faculty and staff like you with questions about childcare, mental health, and food security needs as well as policing perceptions of Stanford's employees.

Your answers will be anonymous and reported only in aggregate. If you reach a question you prefer not to answer, please skip and continue to the next question.

The questions in this survey were prepared in consultation with several Stanford student groups, including the **Student Solidarity Network**, the **Stanford Students for Workers' Rights**, the **Stanford University Postdoctoral Association**, and the **Associated Students of Stanford University**.

## 1. Demographics

### Demo01

What is your current position at Stanford University?

- 1 Teaching faculty
- 2 University Staff
- 3 On-campus worker or contractor
- 4 Post-doctorate Scholar
- 6 Something else (Please specify: *[OPEN TEXT]*)
- 7 Not currently employed at or by Stanford University *[GO TO END1]*

### End01

Thank you, but this survey is for Stanford faculty, staff, and post-doctoral scholars. We also have a separate Stanford student (graduate and undergraduate) survey to understand university life experiences. If you are in one of those groups, please use that survey at this link: *[SURVEY LINK]*

### Demo02

These first few questions are used to create a demographic profile for the population surveyed.

What zip code do you live in? *[NUMERIC RESPONSE]*

### Demo03

Which of the following best describes your housing situation?

- 1 Own a home off-campus
- 2 Stanford off-campus housing
- 3 Rent an apartment or house off-campus
- 4 Stanford on-campus student housing
- 5 Currently unhoused
- 6 Live with parents
- 7 Some other situation (Please specify)
- 8 Unsure

*Demo04*

How old are you, in years? *[NUMERIC RESPONSE]*

*Demo05a*

To ensure we track the needs of all staff, please consider the following question: What is your sex assigned at birth as stated on your original birth certificate?

- 1 Male
- 2 Female
- 3 Intersex
- 8 I'd prefer not to say, or am unsure

*Demo05b*

What is your current gender identity? Please select the one answer that best fits how you describe yourself.

- 1 Male/Man
- 2 Female/Woman
- 3 Transgender Male/Transman
- 4 Transgender Female/Transwoman
- 5 Nonbinary
- 7 Another gender: *[OPEN TEXT]*
- 8 I'd prefer not to say, or am unsure

*Demo06a*

What is your race? Please select all that apply.

- 1 African, African American, or Black
- 2 Asian
- 3 Hawaiian or Pacific Islander
- 4 Native American or Alaska Native
- 5 White
- 7 Another race (Please specify: *[OPEN TEXT]*)
- 8 I'd prefer not to say, or am unsure

*Demo06b*

Are you of Hispanic or Latino/a/x ethnicity?

- 1 Yes
- 2 No
- 8 I'd prefer not to say, or am unsure

*Demo08*

What is your current marital or relationship status?

- 1 Married or living with a partner

- 2 Never been married
- 3 Divorced, separated or widowed
- 5 In a committed relationship, not living together
- 8 I'd prefer not to say, or am unsure

*Demo08b*

Please select the one answer that best fits how you describe your sexual orientation.

- 1 Straight
- 2 Lesbian or Gay
- 3 Bisexual/Pansexual
- 4 Asexual
- 5 Queer
- 6 Questioning/Unsure
- 7 Something Else: *[OPEN TEXT]*
- 8 I'd prefer not to say, or am unsure

*Child01a*

How many people live in your household? Please **include** yourself and any spouse, partner or children who lives with you. Please **DO NOT include** unrelated roommates or housemates or anyone who usually lives somewhere else.

\_\_\_ *[Numeric Entry; if 1 skip to Future01].*

## ***2. Children and Childcare Needs***

*Child01*

How many children live in your household for whom you are primarily responsible for providing care? \_\_\_ *[Numeric Entry; if 0 skip to Future01]*

*Child02*



How many children in your household are within each of the following age categories?

- a. Infants (newborn - 17 months) *[Numeric Entry]*
- b. Toddlers (18 months - 2 years) *[Numeric Entry]*
- c. Preschool (3 – 4 years) *[Numeric Entry]*
- d. Kindergarten (5 – 6 years) *[Numeric Entry]*
- e. Elementary (7 – 12 years) *[Numeric Entry]*
- f. Teenagers (13 -18 years) *[Numeric Entry]*

*Child03*

Have you needed childcare for any of the children in your household while you were attending classes or attending a job?

- 1 Yes
- 2 No
- 8 Unsure

*Child04*

Do you have children in your household who have any special needs? Select all that apply.

- 10 Mobility Impairment
- 11 Developmental delay or intellectual impairment
- 12 Behavioral or Emotional impairment
- 13 Sensory impairment – Blind, visually impaired, deaf, limited hearing
- 14 Dietary restriction or food allergies
- 95 Another special need (Please specify *[OPEN TEXT]*)
- 97 None of the above
- 99 I'd prefer not to say

### 3. Childcare Use

#### Use01

What forms of childcare do you most commonly use for the children in your household? This includes the forms of childcare you are currently using, and the forms you used or will use outside of the current public health crisis. Please mark all that apply, and to the age ranges of the children using that form of care.

[DISPLAY ALL STATEMENTS, DISPLAY ANSWER GROUPS ONLY IF THAT GROUP >= 1 IN CHILD02]

	Infants (newborn - 17 months)	Toddlers (18 months - 2 years)	Preschool (3 – 4 years)	Kindergarte n (5 – 6 years)	Elementary (7 – 12 years)	Teenagers (13 -18 years)
a. Full-day care						
b. Half-day care						
c. Before/after school care						
d. Night or weekend care (while parent/s work)						
e. Full-day care (summers only)						
f. Half-day care (summers only)						
g. Back up or emergency care						
h. Sick care						
i. I take care of the children in my household and do not use any other form of childcare						
j. Other (please explain: [OPEN TEXT])						

Use02

*[SKIP IF USE01<>18 FOR ALL]*

What kind of places/program types do the children in your household use for childcare? This includes the forms of childcare you are currently using, and the forms you used or will use outside of the current public health crisis. Please mark all that apply, and to the age ranges of the children using that place/program.

*[DISPLAY ALL STATEMENTS, DISPLAY ANSWER GROUPS ONLY IF THAT GROUP>=1 IN CHILD02]*

	Infants (newborn - 17 months)	Toddlers (18 months - 2 years)	Preschool (3 – 4 years)	Kindergart en (5 – 6 years)	Elementary (7 – 12 years)	Teenagers (13 -18 years)
a. Relative in our home						
b. In relative's home						
c. Licensed Family Childcare Home						
d. Non-relative in our home (babysitters, nannies)						
e. Off-campus childcare center						
f. On-campus childcare center						
g. Non-relative in their home or other setting						
h. A Before/After-school program at the children's school						
i. A Before/After-school program that is not based at the children's school						
j. Other (please explain: [OPEN TEXT])						

*Use03*

Please let us know how much each of the following concerns you have about your childcare situation.

	<b>Least concerning (1)</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>Most concerning (5)</b>	<b>N/A (8)</b>
a. Finding care that meets my hourly needs						
b. Being able to afford the care I want						
c. Reliability of my caregiver(s)						
d. Quality of the childcare						
e. Finding a convenient location						
f. Safety concerns						
g. Trying to make emergency arrangements						

*Use04a*

[ASK IF CHILD01a+CHILD02b+CHILD02c>=1]

How many total hours per week are the children in your household under the age of 5 in childcare, on average? [Numeric Entry]

*Use04b*

[ASK IF CHILD01d+CHILD02e >=1]

How many total hours per week are the children in your household 5 to 12 in childcare, on average? [Numeric Entry]

*Use04b*

[ASK IF CHILD02f >=1]

How many total hours per week are the children in your household older than 12 in childcare, on average? *[Numeric Entry]*

*Use05*

How much do you pay each week in childcare fees, on average? *[Numeric Entry]*

#### 4. Barriers

##### *Barriers01*

How often were the childcare needs met for all your children during the last 12 months?

- 4 Always
- 3 Most of the time
- 2 Some of the time
- 1 Rarely or never
- 8 Unsure

##### *Barriers02*

*[ASK IF BARRIERS01<>4]*

When you could not get childcare, what were the reasons? Please select all that apply.

- 10 The cost of care was too high
- 11 Care was too far away
- 12 Care wasn't available when I needed it
- 13 I couldn't find anyone to care for my children
- 14 I, or my partner, had a change in work schedule
- 15 I needed sick care for my child
- 16 Childcare was not available because of pandemic-related closures
- 95 Other (please explain: [OPEN TEXT])
- 99 I'd prefer not to say

##### *Barrier02a*

*[ASK IF ANY CHILD HAS CHILD04<>"" and <>97]*

Have you ever had difficulty finding childcare that can accommodate the special needs of your child?

- 1 Yes
- 2 No
- 8 Unsure

*Barrier03*

*[ASK IF NOT RECEIVING CHILDCARE IN THE HOME IN USES04]*

How many minutes away from your home is the place where the children in your household go for childcare? Please let us know how many minutes it takes you to from home to care, door to door, on an average day, including traffic. If you have to travel to multiple places, please estimate the entire trip. Your best estimate is fine.

Number of Minutes: *[NUMERIC ENTRY]*

*Barrier04*

*[ASK IF DEMO03<>1]*

How many minutes away from the place where you work is the place where the children in your household go for childcare? Please let us know how many minutes it takes you to travel from care to campus, door to door, on an average day, including traffic. If you have to travel to multiple places, please estimate the entire trip. Your best estimate is fine.

Number of Minutes: *[NUMERIC ENTRY]*

*Barrier05*

In the past month, how many days have you had to miss an hour or more of work or other school obligations because you could not access childcare? *[NUMERIC ENTRY]*

*Barrier07*

Since you have been working at Stanford University, has a lack of childcare or concern over childcare arrangements ever prevented you from accepting a job, promotion, or opportunity to advance your current or future career?

1 Yes

2 No

## 5. Future Children

### Future01

In an ideal world, in which childcare access and costs were not constraints, how many children total would you like your family to have? If you are unsure, leave this question blank. *[NUMERIC ENTRY]*

### Future02

*[ASK OF FUTURE01<>0 SUM OF CHILD02]*

When would you like to add children to your family?

- 1 Within the next year
- 2 A year to two years from now
- 3 Three to four years from now
- 4 Five or more years from now
- 5 I'm not sure when I would like to add additional children to my family
- 8 I do not plan to add any more children to my family

### Future03

*[ASK OF FUTURE01<>0 SUM OF CHILD02 AND FUTURE2<>8]*

Are any of the following reasons that your family does not have as many children as you would like to have? Please select all that apply.

- 10 Cost of childcare
- 11 Lack of childcare
- 12 Lack of space, cost of living in the area
- 13 Timing, waiting to reach a specific milestone in my career.
- 14 Too many hours of work are expected of me at my job to have another child
- 95 Some other reason (please specify)
- 97 Nothing
- 98 Unsure



## 7. Open Questions

### Final01

Some potential options that could help provide childcare for staff and faculty are listed below. Please click or press and drag to place them in order of your preferred options, with the option you would most like to see implemented at Stanford University at the top of the list (1) and the option you would least prefer to see implemented at the bottom of the list (5).

- a. Expanding on-campus childcare offerings
- b. Reserving slots in nearby, off campus childcare centers for students, faculty and staff
- c. Providing a more substantial childcare subsidy for students, faculty and staff to purchase childcare
- d. Offer childcare programs before and after school hours and on school holidays and vacations at or near campus
- e. None of these

### Final02

What else would you like Stanford University to know or consider about childcare and your family's childcare needs? *[OPEN TEXT]*

## 8. Health Insurance Questions

### Health01

*[ASK IF DEMO08=1 OR DEMO08=5]*

While Stanford provides employees and students with healthcare coverage, we are also interested in learning more about the healthcare of Stanford families. Is your spouse or significant other **currently** covered by any of the following types of health insurance or health coverage plans? Please select any that apply.

- 10 Insurance through Stanford's Dependent Health Care Plan
- 11 Insurance through my spouse's current or former employer or union
- 12 Insurance through my current or former employer or union
- 11 Insurance purchased directly from an insurance company (of this person or another family member)
- 12 Medicare, for people 65 or older, or people with certain disabilities
- 13 Medicaid, Medi-Cal, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability
- 14 TRICARE or other military healthcare

15 VA (enrolled for VA health care)

16 Indian Health Service

95 Any other type of health insurance or health coverage plan (Please specify: *[OPEN TEXT]*)

97 None of these, uninsured *[EXCLUSIVE]*

98 I'm not sure, or would prefer not to say *[EXCLUSIVE]*

*Health02**[ASK IF CHILD01>=1]*

Are the children in your household **currently** covered by any of the following types of health insurance or health coverage plans? Please select any that apply.

- 10 Insurance through Stanford's Dependent Health Care Plan
- 11 Insurance through my spouse's current or former employer or union
- 12 Insurance through my current or former employer or union
- 11 Insurance purchased directly from an insurance company (of this person or another family member)
- 12 Medicare, for people 65 or older, or people with certain disabilities
- 13 Medicaid, Medi-Cal, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability
- 14 TRICARE or other military healthcare
- 15 VA (enrolled for VA health care)
- 16 Indian Health Service
- 95 Any other type of health insurance or health coverage plan (Please specify: *[OPEN TEXT]*)
- 97 None of these, uninsured *[EXCLUSIVE]*
- 98 I'm not sure, or would prefer not to say *[EXCLUSIVE]*

*Health03**[ASK IF Health03=97 AND Child01>1]*

How many of the children in your household are **not** currently covered by any health insurance or health coverage plan? *[NUMERIC ENTRY]*

*Health05**[ASK IF Health01<>97 OR Health02<>97]*

How much does your family currently pay annually, out of pocket, for your family's health insurance premiums? Your best estimate is fine. *[NUMERIC ENTRY]*

*Health04**[ASK IF Health01=97 OR Health02=97]*

Are any of the following reasons why the people in your household are not currently covered by any health insurance or health coverage plan? Please select all that apply.

- 10 We cannot afford health coverage
- 11 We are not eligible for government sponsored health coverage options
- 12 We are not aware of health coverage plans we could be eligible for
- 13 Employer does not offer health coverage plan
- 14 We'd prefer not to have health coverage
- 95 Some other reason (Please specify: *[OPEN TEXT]*)
- 98 I'm unsure, or would prefer not to say

*Health06*

*[ASK IF Health01<>10 OR Health02<>10]*

Why did you choose **not** to purchase Stanford's Dependent Health Care Plan? *[OPEN TEXT]*

## 9. Income and Food Security

### Afford01

Which of the following best describes your current financial circumstances?

- ▶ 1 I always have adequate financial resources to meet basic needs.
- ▶ 2 I usually have adequate resources for basic needs but experience occasional gaps.
- ▶ 3 I frequently experience challenges covering expenses but always have housing and food.
- ▶ 4 I always or frequently have financial challenges and am not always sure if I will have housing or food.
- ▶ 8 Unsure or prefer not to say

### Afford02

In a typical academic quarter, which of these statements best describes the food eaten in your household? Please select only one answer:

- 1 Enough of the kinds of food (I/we) wanted to eat
- 2 Enough, but not always the kinds of food (I/we) wanted to eat
- 3 Sometimes not enough to eat
- 4 Often not enough to eat
- ▶ 8 Unsure or prefer not to say

### Afford03

[ASK IF AFFORD02<>1]

Which of the following would you find most useful in addressing food security?

- 1 Help applying to CalFresh or other assistance
- 2 Locations of free food/nearby food pantries
- 3 Information on how to cook cheaply
- 4 Permanent or more frequent on-campus food pantry
- 5 Help with budgeting or other resources
- 7 Something else (Please specify: [OPEN TEXT])
- 8 Unsure or prefer not to say

### Income01

What is your annual household income?

[NUMERIC RESPONSE]

## 10. Policing

### Police02

We have a few questions about your world view and interactions with police. What types of interaction have you had with the Stanford University Department of Public Safety (SUDPS) in the last 12 months? Please choose all that apply.

- 10 Observed officer on campus
- 11 Observed officer off campus
- 12 Questioned in connection with an investigation
- 13 Questioned without any connection to an investigation
- 14 Stopped by an officer
- 15 Witness to a crime
- 16 Victim of a crime
- 95 Other (Please specify: [OPEN TEXT])
- 98 I have not interacted with SUPDS in any way in the last 12 months

### Police03

Based on your experience (including what you have seen, heard, or read), please let us know the extent to which you agree or disagree with each of the following statements.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
My views on police and policing are shaped by my own, personal experiences or the experience of my friends and family with law enforcement or SUDPS.					
My views on policing are shaped by news stories I have seen or heard about police conduct nationally.					
Seeing armed police officers on campus makes me feel safe.					

Stanford University should not have armed police officers on campus.					
I can always tell the difference between SUDPS officers and private security guards on campus.					
SUDPS officers always act in the community's best interests.					
SUDPS officers will stop, question, or arrest a person of color in situations where they might not do so with a white person.					

*Police01*

Finally, how would you describe your own political views?

- 1 Very conservative
- 2 Somewhat conservative
- 3 Neither liberal or conservative
- 4 Somewhat liberal
- 5 Very liberal
- 8 Prefer not to say

## 11. Mental Health Care

### MH01

Have you ever sought, or wanted to seek out, mental health services while at Stanford? Please choose the option that best describes you.

- 1 I have sought out mental health services
- 2 I have wanted to seek out mental health services
- 3 No, I have never sought, or wanted to seek, mental health services while at Stanford
- 8 I'm unsure, or would prefer not to say

### MH02

[ASK IF MH01=1 OR MH01=2]

Where did you receive or seek out mental health services?

- 1 Through Vaden Health Services
- 2 Through mental health services in the community
- 8 I'm unsure, or would prefer not to say

### MH03

[ASK IF MH02=1]

How well did Vaden Health Services resolve your concerns?

- 1 Not at all well
- 2 Not very well
- 3 Somewhat well
- 4 Completely
- 8 I'm unsure, or would prefer not to say

### MH04

[ASK IF MH02=2]

Have you successfully found the mental health services you sought in the community?

- 1 Yes
- 2 No



8 I'm unsure, or would prefer not to say

*MH05*

*[ASK IF MH01=1]*

How many months have you spent seeking out the mental health services you wanted? If less than one month, please enter 1. *[NUMERIC ENTRY]*

*MH06*

*[ASK IF MH01=1]*

Are the mental health services you sought covered by your health insurance?

1 Yes

2 No

8 I'm unsure, or would prefer not to say

*MH07*

Overall, do you feel that you have been able to attain adequate mental healthcare while at Stanford?

1 Yes

2 No

8 I'm unsure, or would prefer not to say

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# APPENDIX B: FOCUS GROUP MODERATOR GUIDE

## PCG Stanford University Childcare Needs Assessment

### Focus Group Discussion Guide

**DRAFT**

January 2022

**Target Audience:** Students and faculty at Stanford University with children or childcare needs.

<b>County of Santa Clara</b>	
<b>Introduction</b>	Hi everyone! My name is XXXX and I'm the moderator for today's focus group. The group will run for about an hour and a half, and we want to hear about your experience and thoughts on childcare at Stanford University and your childcare needs.
<b>Agenda</b>	What we're doing today is a free-flowing discussion and you are the experts. I'd like to hear from each one of you about all the topics I will bring up. Say what you think, there are no right or wrong answers, and everyone's opinion is respected.
<b>Moderator Information</b>	I work for a consulting firm, an independent research firm and I've been trained to lead this discussion. We were hired by the County of Santa Clara to help them understand the childcare needs of the individuals on the Stanford campus. The County of Santa Clara is in the midst of updating policy documents that govern growth in the county. Stanford needs to submit application for the next period of development on campus.
<b>Disclosures</b>	This discussion is being video, and audio recorded for note taking and reporting purposes. I need to write a report about what we discuss, and I use the recording to help me. I will have to report <u>what</u> was said, but not <u>who</u> said it. Nothing that you say will be tied back to you in the report and none of your comments will be used to identify you.

<p><b>Guidelines</b></p>	<p>Meeting online like this is becoming more common but it is a little different than a traditional focus group. I'd like to remind everyone to above all be respectful and follow these guidelines:</p> <ul style="list-style-type: none"> <li>• Please allow everyone equal airtime to talk</li> <li>• Please turn on your cameras if possible. It is important for us to see your body language and facial expressions. Though, if you do not have access to a camera or prefer not to use it, I understand.</li> <li>• All points of view can be accepted here. Say what you feel and don't worry about if others agree with you or what Stanford might think. They want to listen to what you have to think about these topics.</li> <li>• If you need to step away for a minute, please mute your microphone to not disrupt the rest of the group.</li> <li>• Please remember that everyone has the right to make the decisions they feel are best for their family, and we are here to share our experiences and thoughts.</li> <li>• If you have a question or comment you would like to share privately, please feel free to use the chat feature and message me. Make sure to send the message to me privately if needed.</li> </ul> <p style="text-align: center;">▶</p>
<p><b>Terminology</b></p>	<p>For simplicity, throughout this discussion I will use 'student' to refer to those whose relationship with Stanford is primarily furthering their education or attaining a credential, no matter what level that is or if they also receive a salary from the university. I'll use the term 'staff' to refer to those whose primary relationship with Stanford is employment, no matter what their specific job is.</p>
<p><b>Self Intros</b></p>	<p>I'd like to have everyone introduce themselves. While I'm sure some of you know each other, I don't know you. Let's go around and please share your name and one thing you're looking forward to in the summer. I'll go first.</p>

<p><b>Part 1: Intro Activity</b></p>	<p>Let's start the discussion with an activity. I am going to read two statements. Please share what comes to mind after I read each statement.</p> <p>First statement: <b>Stanford University provides sufficient childcare options for students and staff.</b></p> <p>Second Statement: <b>It is easy for students and staff at Stanford to utilize these services.</b></p> <p>PROBE: What comes to mind?  PROBE: Tell me more about "topic".</p>
<p><b>Part 2: Experience</b></p>	<p>I want to transition to what you hear from individuals you know personally, as well as your personal experience.</p> <ul style="list-style-type: none"> <li>• <b>What has been your experience in finding and using childcare while at Stanford University?</b> <p>PROBE: What has been your experience with the childcare centers on campus?  PROBE: When you've had to find childcare off campus, what has been your experience?</p> <p style="text-align: center;">▶</p> </li> <li>• <b>What do you look for when choosing a place to send your children for care?</b> <p>PROBE: What are the signs or signals of high quality childcare?  PROBE: Does Stanford's on-campus childcare seem high quality to you?  PROBE: What tools do you use to identify high quality childcare?</p> </li> <li>• <b>How do the people you talk to at Stanford feel about childcare services, in general?</b></li> </ul>

<p><b>Part 3: Barriers</b></p>	<ul style="list-style-type: none"> <li>▶</li> <li>▶ Next, I would like to talk about barriers and the on-campus childcare at Stanford. Some people have difficulty accessing childcare services at Stanford..</li> <li>▶</li> <li>• <b>Can you access the on-campus childcare provided by Stanford?</b></li> </ul> <p>PROBE: What prevents you from accessing the on-campus childcare? Cost, location, number of slots, wait list?</p> <ul style="list-style-type: none"> <li>▶</li> <li>• <b>What effects does being able to access the childcare on the campus have?</b></li> </ul> <ul style="list-style-type: none"> <li>▶</li> <li>▶ PROBE: What does on campus childcare do to improve your life or the lives of your family?</li> </ul> <ul style="list-style-type: none"> <li>• <b>How could accessing the on-campus childcare at Stanford be made easier for you and the people you know?</b></li> </ul>
<p><b>Part 4: Tools and Needs</b></p>	<p>Now I'm going to talk about tools and needs.</p> <ul style="list-style-type: none"> <li>• <b>What additional tools or services would be helpful to you when it comes to accessing childcare?</b></li> </ul> <p>PROBE: How would these tools or services help?</p> <ul style="list-style-type: none"> <li>• <b>What are the most pressing needs of parents or caregivers like you?</b></li> </ul> <p>PROBE: Who is currently trying to address these needs?</p> <ul style="list-style-type: none"> <li>▶ PROBE: What could the County or Stanford do to support those organizations?</li> </ul>

<p><b>Part 6: Decision Making</b></p>	<p>We are just about finished! Only a few more questions. Thank you for the great discussion so far. I'd like to talk a little bit about decision making and how your experiences with childcare have affected your plans for your family.</p> <ul style="list-style-type: none"> <li>• <b>How has access, or lack of access, impacted you and your family while you are at Stanford??</b></li> </ul> <p>PROBE: What sorts of decisions or plans has it impacted?  PROBE: Has your career at Stanford been impacted by your childcare needs? How?</p> <ul style="list-style-type: none"> <li>▶ PROBE: Have your family decisions been impacted by your career at Stanford? How?</li> <li>▶</li> </ul> <ul style="list-style-type: none"> <li>• <b>What has the most impact on how you make decisions about childcare?</b></li> <li>▶</li> </ul> <ul style="list-style-type: none"> <li>• <b>How would you most like to see Stanford help your family when it comes to childcare?</b></li> <li>▶</li> <li>▶</li> </ul>
<p><b>Close</b></p>	<p>Looks like we're running low on time. <b>I'd like to go around to everyone and collect your final thoughts.</b></p> <p>I think we are done! Thank you all for coming. This has been a wonderful discussion.</p> <p>Does anyone have any final questions before we wrap up?</p> <p>Thank you again.</p>



# APPENDIX C: MAP OF STANFORD UNIVERSITY CHILDCARE SITES

