



# KEYSER MARSTON ASSOCIATES

**DRAFT**

**GRADUATE STUDENT HOUSING  
AFFORDABILITY ANALYSIS**

**Addressing the**

**STANFORD COMMUNITY PLAN AREA**

*Prepared for:*  
**County of Santa Clara**

*Prepared by:*  
**Keyser Marston Associates, Inc.**

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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. 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.

## ***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>1</sup>, which suggests a potential loan program could be largely self-supporting.

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<sup>1</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.

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.

## **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>2</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>2</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://irds.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>3</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>3</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>4</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 from Table 3-2	%Need Met by Stanford Provided Housing	No. of Stanford Provided Units by Estimated Affordability Level (units are not income restricted)		
					Low	Moderate	>120% AMI
Single Spaces	5,946	5,946	6,467	92%	1,095	3,755	1,096
Couple Units	918	1,102	2,129	52%	726	192	0
Family Units	294	353	696	51%	224	70	0
<b>Total</b>	<b>7,158</b>	<b>7,401</b>	<b>9,292</b>	<b>80%</b>	<b>2,045</b>	<b>4,017</b>	<b>1,096</b>
					29%	56%	15%

(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. See Table 5-3 for detail.

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 5-2 illustrates the affordability category that units would fall into based on their rents. The analysis indicates approximately 29% of units 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. Supporting analysis is provided in Table 5-3. Estimates reflect the estimated income required to afford the rent assuming 30% of income is dedicated to housing costs<sup>5</sup>. Required incomes are then compared to 2021 income limits published by HCD for Santa Clara County to determine the applicable affordability category. For purposes of this analysis, occupancy levels specified by Stanford are assumed, which reflect unrelated individuals sharing a unit with private bedrooms and is a lower occupancy level 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 and 5-3 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

<sup>4</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.

<sup>5</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.

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.

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 5-3**  
**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	Avg. Sq.Ft.	Affordability Level at Stanford Specified Occupancy	Affordability Level with HCD Occupancy Standard
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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%	460	Low	Low
ES, Low-Rise	3	3	\$1,218	\$3,654	57	525	8.8%	800	Mod	Mod
EV, Low-Rise	3	3	\$1,218	\$3,654	111	636	10.7%	800	Mod	Mod
EV Kennedy Residences	2	2	\$1,300	\$2,600	220	856	14.4%	679	Mod	Low
Rains Houses	4	4	\$1,389	\$5,556	284	1,140	19.2%	1000	Above Mod	Above Mod
ES, Low-Rise	2	2	\$1,396	\$2,792	38	1,178	19.8%	650	Mod	Mod
EV, Low-Rise	2	2	\$1,396	\$2,792	178	1,356	22.8%	650	Mod	Mod
Lyman Graduate Residences	2	2	\$1,396	\$2,792	224	1,580	26.6%	575	Mod	Mod
Rains Houses	2	2	\$1,396	\$2,792	492	2,072	34.8%	500	Mod	Mod
Off-campus: Oak Creek (2)	2	2	\$1,396	\$2,792	122	2,194	36.9%	N/A	Mod	Mod
Off-campus: all other (2)	2	2	\$1,396	\$2,792	486	2,680	45.1%	N/A	Mod	Mod
Off-campus: all other (2)	3	3	\$1,396	\$4,188	114	2,794	47.0%	N/A	Above Mod	Mod
EV Graduate Residences	2	2	\$1,423	\$2,846	480	3,274	55.1%	665	Mod	Mod
Off-campus: Oak Creek (2)	2	2	\$1,717	\$3,434	74	3,348	56.3%	N/A	Mod	Mod
EV Kennedy Residences	2	2	\$1,720	\$3,440	108	3,456	58.1%	878	Mod	Mod
EV, standard	0	1	\$1,747	\$1,747	627	4,083	68.7%	325	Low	Low
EV Graduate Residences	2	2	\$1,747	\$3,494	596	4,679	78.7%	876	Mod	Mod
Munger Graduate Residence	4	4	\$1,954	\$7,816	284	4,963	83.5%	1725	Above Mod	Above Mod
Munger Graduate Residence	2	2	\$1,977	\$3,954	62	5,025	84.5%	1050	Above Mod	Mod
GSB Residences, Schwab	2	2	\$2,055	\$4,110	162	5,187	87.2%	700	Above Mod	Above Mod
GSB Residences, Jack McDonald Hall	2	2	\$2,105	\$4,210	190	5,377	90.4%	700	Above Mod	Above Mod
EV Kennedy Residences, premium	0	1	\$2,144	\$2,144	10	5,387	90.6%	439	Mod	Mod
EV Graduate Residences, premium	0	1	\$2,241	\$2,241	423	5,810	97.7%	438	Mod	Mod
Munger Graduate Residence, standard	0	1	\$2,306	\$2,306	74	5,884	99.0%	450	Mod	Mod
Munger Graduate Residence, premium	0	1	\$2,472	\$2,472	62	5,946	100.0%	500	Mod	Mod
Total / Average			\$1,598		5,946					



Table 5-3  
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	Avg. Sq.Ft.	Affordability Level at Stanford Specified Occupancy	Affordability Level with HCD Occupancy Standard
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Couple with no children options										
EV, standard	0	2		\$1,747	85	85	9.3%	325	Low	Low
Off-campus: all other (2)	0	2		\$2,140	4	89	9.7%	N/A	Low	Mod
EV Kennedy Residences, premium	0	2		\$2,144	98	187	20.4%	439	Low	Mod
Off-campus: Oak Creek (2)	0	2		\$2,176	18	205	22.3%	N/A	Low	Mod
EV Graduate Residences, premium	0	2		\$2,241	98	303	33.0%	438	Low	Mod
EV, McFarland Mid-Rise	1	2		\$2,249	49	352	38.3%	450	Low	Low
EV, Mid-Rise	1	2		\$2,270	249	601	65.5%	450	Low	Low
EV, Low-Rise	1	2		\$2,270	35	636	69.3%	450	Low	Low
Off-campus: all other (2)	1	2		\$2,270	90	726	79.1%	N/A	Low	Low
Munger Graduate Residence, premium	0	2		\$2,472	100	826	90.0%	500	Mod	Mod
EV, Low-Rise with den	1	2		\$2,585	5	831	90.5%	700	Mod	Mod
EV, Low-Rise	2	2		\$2,792	25	856	93.2%	740	Mod	Mod
Off-campus: all other (2)	2	2		\$2,792	0	856	93.2%	N/A	Mod	Mod
GSB Residences, Schwab	1	2		\$3,090	8	864	94.1%	700	Mod	Mod
GSB Residences, Jack McDonald Hall	1	2		\$3,140	6	870	94.8%	700	Mod	Mod
Munger Graduate Residence	1	2		\$3,230	18	888	96.7%	650	Mod	Mod
EV Graduate Residences, premium	2	2		\$3,494	30	918	100.0%	826	Mod	Mod
			Total / Average	\$2,311	918					
			Average - 1 BRs	\$2,334						

**Table 5-3  
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	Avg. Sq.Ft.	Affordability Level at Stanford Specified Occupancy	Affordability Level with HCD Occupancy Standard
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Families with Children Options										
EV / ES Low-Rise	2	3		\$2,490	160	160		740	Low	Low
Off-campus: Oak Creek (2)	2	4		\$2,490	64	224		N/A	Low	Low
EV / ES Low-Rise	3	4		\$3,009	68	292		875	Mod	Mod
ES Low-Rise	4	5		\$3,342	2	294		1050	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.

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>6</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>6</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 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. However, with the assumption of a unit shared by two graduate students, consistent with the assumption made in the budget, together the two students have a living expense budget of \$96,960, which qualifies as Moderate Income.

The analysis in Section 5.2 indicates approximately 80% of Stanford's housing options for single students are affordable at the Low or Moderate Income level, based on the occupancy level specified by Stanford (a shared unit with a private bedroom in most cases), a lesser occupancy level than the standard in California Health and Safety Code Section 50052.5 of one plus the number of bedrooms.

### 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	
Transportation	\$153	2.6	\$397	Reflects average per person expense from the 2019-20 Consumer Expenditure Survey for the Bay Area, for second household member, excluding vehicle purchase costs.
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>7</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>8</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>7</sup> Public Consulting Group LLC. Stanford Campus Childcare Needs Assessment, Prepared for County of Santa Clara.

<sup>8</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>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>9</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>9</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	112	12	10.7%	\$34,000	\$64,000	(\$30,000)
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.



**Table 7-4. Percent of Respondents with a Resource Gap**

	Single Households	Couple Households with No Children	Households With Children	Combined Total
Total Respondents <sup>(1)</sup>	702	253	66	1,021
Total				
PhD	5%	8%	18%	7%
Masters	14%	6%	18%	13%
Professional	10%	11%	25%	11%
	7%	7%	15%	8%
Domestic				
PhD	4%	6%	17%	6%
Masters	11%	0%	0%	8%
Professional	11%	7%	33%	11%
	6%	5%	16%	7%
International				
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
Total				
PhD	2%	6%	12%	4%
Masters	5%	6%	18%	6%
Professional	0%	8%	25%	4%
	2%	6%	12%	4%
Domestic				
PhD	0%	3%	10%	2%
Masters	0%	0%	0%	0%
Professional	0%	3%	33%	2%
	0%	3%	10%	1%
International				
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. Since 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 apparent 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>
Rounded	\$2,075	\$692	\$8,300	\$2,185	\$728	\$8,740
<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>
Rounded	\$435	\$145	\$1,740	\$460	\$153	\$1,840
<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>
Rounded	\$325	\$108	\$1,300	\$330	\$110	\$1,320
<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>
Rounded	\$2,000	\$667	\$8,000	\$2,130	\$710	\$8,520

(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%
Total				3,332	100%

	<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%

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Total				3,325	100%
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					<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%

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Total				3,322	100%
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					<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%
<b>Total</b>				<b>3,375</b>	<b>100%</b>

	<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>	
weighted average (w/o categories with <5% respondents)						w/CPI adj \$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%

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Total				1,003	100%
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					<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%
<b>Total</b>				<b>3,291</b>	<b>100%</b>

	<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.