APPENDIX C

HOUSING IMPACT STUDY

FINAL

Memorandum

To:	John Barnes, UC Santa Cruz Dean Fitch, UC Santa Cruz
From:	Jonathan Stern, BAE Simon Alejandrino, BAE Steve Murphy, BAE
Re:	2005 LRDP Housing Impact Analysis
Date:	September 30, 2005

Purpose of Memorandum

In April 2005, the University of California, Santa Cruz (UCSC) engaged Bay Area Economics (BAE) to analyze the housing impact generated by the campus' 2005 Long Range Development Plan (LRDP). BAE's analysis evaluates the demand for both employee and student housing in Santa Cruz County, and compares that demand to the overall housing supply projected in the region.

This study informs the Population and Housing section of the 2005 LRDP Environmental Impact Report (EIR). However, because the California Environmental Quality Act (CEQA) does not address social and economic effects unless they create adverse impacts on the physical environment, this memorandum augments the EIR, and presents the broader housing effects of the LRDP outside of a CEQA setting.

Housing Market Overview

For-Sale Market

In recent years, Santa Cruz County and the State have experienced a dramatic increase in home values. Historically low interest rates, interest-only and adjustable rate mortgages, limited housing supply, and pent up demand from inside and outside the County have all combined to drive sale prices beyond the reach of many local households. Dataquick reports that between April 2004 and 2005, the median home sale price in the County grew by over 15 percent. As a basis of comparison, California as a whole saw a 16 percent gain in median sale price between May 2004 and May 2005.

Table 1 contains a distribution of housing sale prices in the County between November 2004 and April 2005. The table includes full and verified single-family home and condominium sales in the County Assessor's database, as compiled by First American Real Estate Solutions (FARES). During this sample period, 1,000 full and verified sales were recorded in the County,

Headquarters 510.549.7310
2560 9th Street, Suite 211 fax 510.549.7028
Berkeley, CA 94710 bae1@bae1.com
bayareaeconomics.com

with a median sale price of $640,000.

Like the County and State, the City of Santa Cruz saw significant price gains in the last year. Dataquick reports an eight percent increase in home sale prices in the City between April 2004 and 2005. As shown in Table 1, homes sold in the City between November 2004 and April 2005 had a median price of $700,000.

In addition to the other factors listed above, the City's jobs-housing imbalance contributes to the rapid increase in home sale prices. According to the Association of Monterey Bay Area Governments (AMBAG), the City gained 1,385 new jobs between 2000 and 2005. This level of employment translates into 923 new households, assuming 1.5 employed residents per households. During the same period, the City gained 844 housing units. In other words, new employment in the City over the last five years generated demand for up to 79 more housing units than were built.

These trends are expected to continue over the next 15 years. Through 2020, AMBAG projects a gain of 12,185 new jobs in the City of Santa Cruz, which translates into demand for 8,123 new households (again assuming 1.5 employed residents per household). Over the same period, AMBAG only projects the addition of 1,684 new housing units in the City. In other words, AMBAG projects demand from approximately five new households for every new housing unit in the City of Santa Cruz through 2020. These estimates suggest excess demand for up to 6,439 housing units over the next 15 years.

Rental Market

Compared to the for-sale housing market, residential rents in the County have remained relatively stable in recent years. RealFacts, a private data subscription service, reports that between the first quarter of 2003 and the first quarter of 2005, rents rose by 2.3 percent. This trend stands in contrast to the San Francisco Bay Area, where the economic downturn has led to sharp drops in rents over recent years. The large student population in the City of Santa Cruz buffers the rental market against major declines.

It is important to note that RealFacts bases its data on apartment complexes with 100 or more units. As there are a limited number of projects of this size outside the City of Santa Cruz, the rent trends discussed above should be viewed with the understanding that they primarily include units within the City. Nevertheless, RealFacts' data offers a general perspective of rent trends in the area.

As shown in Table 2, a survey of current rental listings in Santa Cruz County found that the County as a whole had a median monthly rent of $1,386. Rental units in the City had a slightly higher median monthly rent of $1,395.

Affordable Housing Need

The State of California requires the Department of Housing and Community Development (HCD) to identify housing needs for each region in the State in response to projected population and household growth. State law further mandates that each Council of Governments (COG) distribute the housing needs allocation to each jurisdiction in the COG's region. AMBAG oversees the Regional Housing Needs Determination (RHND) process for Monterey and Santa Cruz Counties, and determines each jurisdiction's "fair share" of regional housing need.

The following table shows the City of Santa Cruz's RHND for 2002 to 2007.

City of Santa Cruz Housing Production Goals, 2002-2007

Target Income	Definition (a)	RHND Goals (b)	City Objectives
Very Low Income	0% to 50% of AMI	694	527
Low Income	51% to 80% of AMI	410	312
Moderate Income	81% to 120% of AMI	543	413
Above-Moderate Income	More than 120% of AMI	1,204	915
Total		**2,851**	**2,167**

Notes:
(a) AMI = Area Median Income, as determined by Dept. of Housing and Urban Dev't.
(b) RHND = Regional Housing Needs Determination

Source: City of Santa Cruz Housing Element, 2002-2007

Although the City has set a lower quantified objective than its RHND for the near-term, the City is committed to identifying means to meet the higher RHND goal during the 2005 General Plan Update.

It is important to note that the RHND goals are higher than the AMBAG household projections used later in the analysis. This difference is because the RHND is an estimate of *need*, rather than an estimate of actual unit production.

Table 1: Residential Sales, November 2004 through April 2005 (a)

	SANTA CRUZ COUNTY (b)		CITY OF SANTA CRUZ	
Sales Price	**Number of Units**	**Percent of Total**	**Number of Units**	**Percent of Total**
Less than $299,999	48	4.8%	23	7.3%
$300,000 to $349,999	26	2.6%	2	0.6%
$350,000 to $399,999	51	5.1%	8	2.5%
$400,000 to $449,999	64	6.4%	9	2.9%
$450,000 to $499,999	70	7.0%	12	3.8%
$500,000 to $549,999	59	5.9%	12	3.8%
$550,000 to $599,999	97	9.7%	24	7.6%
$600,000 to $649,999	104	10.4%	30	9.5%
$650,000 to $699,999	103	10.3%	36	11.4%
$700,000 to $749,999	84	8.4%	32	10.2%
$750,000 to $799,999	55	5.5%	25	7.9%
$800,000 to $849,999	52	5.2%	20	6.3%
$850,000 to $899,999	46	4.6%	20	6.3%
$900,000 to $949,999	17	1.7%	5	1.6%
$950,000 to $999,999	29	2.9%	14	4.4%
$1,000,000 +	95	9.5%	43	13.7%
Total	1,000	100.0%	315	100.0%
Median Sale Price	**$640,000**		**$700,000**	
Average Sale Price	**$682,887**		**$754,967**	

Notes:
(a) Represents all full and verified sales in Santa Cruz County and City of Santa Cruz from November 1, 2004 to April 28, 2005
(b) Including City of Santa Cruz.

Sources: First American Real Estate Solutions, 2005; Bay Area Economics, 2005

Table 2: Residential Rent Distribution, June 2005

	SANTA CRUZ COUNTY (a)		CITY OF SANTA CRUZ	
Rental Rate Per Month	**Number of Units**	**Percent of Total**	**Number of Units**	**Percent of Total**
< $1000	52	3.5%	43	3.1%
$1000 - $1199	283	18.8%	239	17.4%
$1200 - $1399	448	29.8%	412	30.1%
$1400 - $1599	359	23.9%	342	24.9%
$1600 - $1799	246	16.3%	243	17.7%
$1800 - $1999	86	5.7%	77	5.6%
$2000 - $2199	13	0.9%	5	0.4%
$2200 - $2399	7	0.5%	5	0.4%
$2400 - $2599	4	0.3%	2	0.1%
$2600 - $2799	2	0.1%	0	0.0%
$2800 - $2999	1	0.1%	1	0.1%
>$3000	4	0.3%	2	0.1%
Total	1,505	100.0%	1,371	100.0%
Median Rent	**$1,386**		**$1,395**	
Average Rent	**$1,399**		**$1,401**	

Notes:
(a) Including City of Santa Cruz.

Sources: RealFacts, 2005; UCSC Housing Registry, 2005; Craigslist, 2005; Bay Area Economics, 2005

Methodology

To evaluate the housing impact generated by the 2005 LRDP, BAE developed a housing demand model that distributes new faculty, staff, and student households in Santa Cruz County. Housing impacts are analyzed within the Primary Market Area, which includes the City of Santa Cruz, and the Secondary Market Area, which covers the rest of the County. As part of this process, the model considers employee and student buying power, as well as local sale prices and rents.

The model assesses the housing impact of the LRDP according to the following steps:

1. **Estimate total number of new employees and students demanding housing in Santa Cruz County.** The LRDP calls for the addition of approximately 1,520 new employees and 6,950 new students through 2020. Based on current residential patterns, the housing demand model assumes that 85 percent of these new employees and 94 percent of new students would require housing on campus or elsewhere in the County. The remaining 15 percent of employees and six percent of students would live in neighboring counties, in the San Francisco Bay Area, or elsewhere in the State.[1] Excluding out-of county residents, the LRDP would result in a total of 1,292 new employees and 6,533 new students requiring housing in the County. Note that this is a relatively conservative approach to estimating housing impacts, as it assumes that none of the new employees already live in Santa Cruz County. In order to identify a lower bound on the housing impacts, an alternate analysis including only new employees hired from outside the County was also performed (see Appendix A for more detailed discussion on this assumption).

2. **Net out new on-campus housing from employee and student demand.** The LRDP plans for 125 new units of on-campus faculty/staff housing and 3,390 new on-campus student beds. The model subtracts this on-campus housing supply from the total housing demand in the County, leaving 1,155 employees and 3,143 students that require off-campus housing in Santa Cruz County.

3. **Transform employee and students into households.** Based on data regarding household formation rates of existing university employees and students this analysis assumes every 1.1 new employee represents a household and every 3.0 new students represents a household. Therefore the model estimates that 1,050 employee households and 1,048 student households require off-campus housing in the County.

4. **Estimate supply and cost of new housing in the Primary and Secondary Market Areas through 2020.** The model uses projections by the Association of Monterey Bay

[1] This assumption is based on current employee residential patterns which show that 15 percent of employees reside in Santa Clara, Monterey, or San Benito Counties, elsewhere in the San Francisco Bay Area (e.g., San Francisco, Berkeley, Oakland), or other parts of California. See Appendix A for more details.

Area Governments (AMBAG) to estimate the amount of new housing developed in each Market Area between 2005 and 2020. The model then separates this new supply into ownership and rental units based on the tenure split of units produced in the City of Santa Cruz and Santa Cruz County between 1995 and 2000.[2] Current sale price and rent distributions are then applied to the ownership and rental units, respectively. This process results in a description (i.e., number of units, tenure split, and cost) of the new housing units being developed in the Primary and Secondary Market Areas through 2020.

5. **Distribute employee households in the Primary and Secondary Market Areas.** As a next step, the model distributes employee households in the Primary and Secondary Market Areas assuming the following order of preferences:

   - Preference 1: Own a home in the Primary Market Area (i.e., City of Santa Cruz)
   - Preference 2: Own a home in the Secondary Market Area (i.e., elsewhere in the County)
   - Preference 3: Rent a home in the Primary Market Area
   - Preference 4: Rent a home in the Secondary Market Area

   The model compares current employee household incomes with current sale prices in the Primary Market Area to determine what portion of new employee households can afford Preference 1. The remaining households that cannot afford Preference 1 are then "moved" into Preference 2.[3] This process is repeated for Preferences 3 and 4 until all employee households have been "housed" in the Primary and Secondary Market Areas.[4]

6. **Distribute student households in the Primary and Secondary Market Areas.** For students, the model follows a similar approach as for employees. The model assumes the following housing preferences for students:

   - Preference 1: Rent a home in the Primary Market Area
   - Preference 2: Rent a home in the Secondary Market Area

   The model compares rents currently paid by students with current rents in the Primary

[2] As reported by the 2000 U.S. Census

[3] For ownership housing, "affordability" is defined as paying a maximum of 35 percent of gross monthly income towards principal, interest, taxes, and insurance. For rental housing, "affordability" is defined as paying a maximum of 30 percent of gross monthly income towards rent and utilities. See Appendix B for affordability calculations.

[4] As a simplifying step, this methodology uses constant 2005$, assuming that the cost of housing and household incomes increase at the same rate through 2020. In recent years, home sale prices have grown at a significantly higher rate than household incomes. It is difficult to project the relationship between these two factors over the next 15 years. However, if prices continue to rise faster than incomes, it is likely that fewer employee households would be able to purchase a unit than described in this analysis. As a result, more households would either commute greater distances from more affordable areas, opt to rent instead of buy a home, or dedicate a greater share of their household income to home payments.

Market Area to determine what portion of new student households can afford Preference 1. The remaining households that cannot afford Preference 1 are then "moved" into Preference 2. The model groups together student households and employee households who require rental housing, assuming both groups compete with one another for units in each Market Area.

This methodology allows an analysis of the housing impact generated by the 2005 LRDP. Appendix A contains a more detailed discussion of the model's key underlying assumptions, and Appendices B and C present the model calculations.

Findings

This analysis results in the following key findings:

Table 3: Distribution of Off-Campus LRDP Households in Santa Cruz Co.

	Primary Market Area (c)		Secondary Market Area (d)		Total	
	# HHs	%	# HHs	%	# HHs	%
Own (a)	303	26%	365	52%	668	36%
Rent (b)	842	74%	332	48%	1,174	64%
Total	1,145	100%	697	100%	1,842	100%
Residual Demand (e)					255	12%

Notes:
(a) Only includes employee households. The housing demand model assumes that 100% of students are renters.
(b) Includes employee households who could not afford to purchase a home and student households.
(c) City of Santa Cruz.
(d) Santa Cruz County, excluding City of Santa Cruz.
(e) Refers to households unable to find affordable housing in the City/County of Santa Cruz. This population could live in the County, in the City, or outside the County altogether, and may have to dedicate a larger share of income towards housing costs to afford a unit. Small discrepancies between numbers and totals is due to rounding.

Source: BAE, 2005.

The 2005 LRDP would generate expressed demand for approximately 1,145 housing units in the Primary Market Area and 697 units in the Secondary Market Area. As shown in Table 3, approximately 26 percent of the units demanded in the Primary Market Area would be owner-occupied and 74 percent would be renter-occupied. Due to the more affordable home prices outside the City of Santa Cruz, a higher ownership rate occurs in the Secondary Market Area. Approximately 52 percent of units demanded in the Secondary Market Area would be owner-occupied units and 48 percent would be renter-occupied. This finding uses the term "expressed demand" because these figures do not include the "Residual Demand" discussed below.

The 2005 LRDP creates unmet demand for affordable housing serving lower income households. The analysis indicates that approximately 255 of the LRDP households expected to seek housing in the County would be unable to buy or rent an affordable unit. This "Residual Demand" represents 12 percent of off-campus LRDP households in the County, and consists primarily of low income households. The proportion of employee and student rental households in these lower income categories suggests that 143 of the Residual Demand households contain employees and 112 contain students. To continue living in the County, these households would likely share a unit with others or dedicate over 30 percent of their income towards rent.

Appendices C-4 and C-5 present this analysis in more detail.

Employees generated by the LRDP are less likely to live in the Primary Market Area than current UCSC employees. The housing demand model indicates that 43 percent of employee households living off-campus in the County would live in the Primary Market Area (see Table 4). In contrast, current UCSC employee residential patterns show that 59 percent of off-campus employees in the County currently live in the Primary Market Area. This trend occurs because housing prices in the area have risen beyond the reach of many employee households, and many existing employees at the University purchased their homes before the surge in the housing market.

In practice, some portion of the Residual Demand shown in Table 4 would likely rent in the Primary Market Area as well, paying over 30 percent of income towards housing, or sharing housing with others to reduce costs.

The relatively low number of employee rental households in the Primary Market Area results from the fact that employee households in the rental market are relatively low income, and must compete with students in the Primary Market Area. Many students share units with multiple roommates or rely on their families for rent, allowing them to afford more expensive units and outcompete employees. As a result, within the housing demand model, most lower income employee households are forced into the Secondary Market Area. Again, in practice, many employee households may actually live in the Primary Market Area and dedicate a greater share of income towards rent.

Table 4: Place of Residence of New Employee Households by Housing Tenure

	Employee HHs	
	Number	Percent
Primary Market Area (a)		
Own	303	33%
Rent	91	10%
Secondary Market Area (a)		
Own	365	40%
Rent	147	16%
Off- Campus Households In Santa Cruz Co.	**906**	**100%**
On Campus	**125**	
Households Outside Santa Cruz County (b)	**207**	
Residual Demand (c)	**144**	
Total New Households (d)	**1,382**	

Notes:
(a) Primary Market Area = City of Santa Cruz. Secondary Market Area = Santa Cruz County excluding City of Santa Cruz.
(b) 15 percent of employee HHs are assumed to live outside the County based on current residence patterns.
(c) Refers to HHs unable to find affordable housing in the City/County of Santa Cruz. This population could live in the County, in the City, or outside the County altogether, and may have to dedicate a larger share of income towards housing costs to afford a unit.
(d) Assumes 1.1 employees per household. Small discrepancies between numbers and totals is due to rounding.
Sources: UCSC; BAE, 2005.

Students generated by the LRDP would show comparable residential patterns to current students. The housing demand model suggests that 80 percent of off-campus student households in the County would live in the Primary Market Area. In comparison, 75 percent of off-campus students in the County currently live in the Primary Market Area. This finding agrees with the notion that students typically prefer to live in the Primary Market Area, close to UCSC and the City of Santa Cruz's amenities.

Table 5: Place of Residence of New Student Households by Housing Tenure

	Student HHs	
	Number	**Percent**
Primary Market Area (a)		
Own	0	0%
Rent	751	80%
Secondary Market Area (a)		
Own	0	0%
Rent	185	20%
Off- Campus Households In Santa Cruz Co.	**936**	**100%**
On Campus	**1,130**	
Households Outside Santa Cruz County (b)	**139**	
Residual Demand (c)	**112**	
Total New Households (d)	**2,317**	

Notes:
(a) Primary Market Area = City of Santa Cruz. Secondary Market Area = Santa Cruz County excluding City of Santa Cruz.
(b) Six percent of student HHs are assumed to live outside the County based on current residence patterns.
(c) Refers to HHs unable to find affordable housing in the City/County of Santa Cruz. This population could live in the County, in the City, or outside the County altogether, and may have to dedicate a larger share of income towards housing costs to afford a unit.
(d) Small discrepancies between numbers and totals is due to rounding.
Sources: UCSC; BAE, 2005.

The LRDP represents a portion of the projected jobs-housing imbalance for the City and County through 2020. As discussed above, AMBAG projections for the City and County suggest a significant jobs-housing imbalance over the next 15 years. To support a jobs-housing balance, a community typically tries to add 1.0 new units for every 1.5 new jobs (or employed residents). AMBAG projects the City of Santa Cruz will add 0.21 housing units for every 1.5 new jobs over the next 15 years (see Table 6). Countywide, AMBAG projects 0.39 new units for every 1.5 jobs.[5]

Based on evaluation of AMBAG data, UC Santa Cruz staff has determined that AMBAG's 2004 population and employment forecast for 2020 include the new employees generated by the LRDP. The LRDP would contribute 1,520 jobs, or 12.5 percent of the 12,185 new jobs in the City of Santa Cruz through 2020. The LRDP would also represent 4.0 percent of the County's new jobs through 2020. Therefore, although the LRDP is not exclusively responsible for the City and County's projected jobs-housing imbalance, it is part of this trend.

AMBAG reports that the 125 new employee housing units planned by the LRDP are not captured by its 2020 housing forecasts. When added to the projected units in the City and County, these new units would slightly improve the local jobs-housing imbalance compared to

[5] Including City of Santa Cruz.

AMBAG's projections. In the City, the LRDP units would improve the jobs-housing ratio from 0.21 housing units for every 1.5 new jobs to 0.22 housing units for every 1.5 new jobs. The effect on the County jobs-housing ratio is minimal.

Table 6: Jobs-Housing Balance

	City of Santa Cruz	Santa Cruz Co. (b)
AMBAG PROJECTIONS		
New Housing Units, '05-'20	1,684	9,831
New Jobs, '05-'20	12,185	37,968
New Units/1.5 New Jobs (c)	0.21	0.39
AMBAG PROJECTIONS + LRDP EMPLOYEE HOUSING UNITS		
2005-2020 Housing Units (d)	1,809	9,956
2005-2020 Jobs	12,185	37,968
New Units/1.5 New Jobs (c)	0.22	0.39

Notes:
(a) AMBAG projections include the 1,520 jobs generated by the 2005 LRDP but do not include the 125 employee housing units planned under the LRDP.
(b) Includes City of Santa Cruz.
(c) A jobs-housing balance typically calls for 1 new unit per 1.5 new jobs.
(d) Includes 125 on-campus employee units called for in 2005 LRDP.

Source: AMBAG; 2005 UCSC LRDP; BAE, 2005.

The LRDP would generate a disproportionate amount of housing demand, relative to its share of total jobs. As shown in Table 7, the new employees generated by the 2005 LRDP would represent 2.5 percent of total jobs in the City of Santa Cruz by 2020. However, the LRDP-generated housing demand would represent 4.6 percent of total units in the City by 2020. Comparing these two percentages suggests that the LRDP would create housing demand that is 1.8 times its proportional share of jobs.

Countywide, this analysis shows a similar pattern. In 2020, the LRDP jobs would represent 0.8 percent of the County's total employment, but the LRDP housing demand would represent 1.6 percent of total units (see Table 4). These figures suggest that the LRDP would generate countywide housing demand that is 2.1 times its proportional share of jobs.

It is important to note that this is a conservative metric for evaluating housing impact, as student households generate almost 48 percent of the LRDP off-campus housing demand in the County. These students are not included in the jobs side of the equation.

Considering employees alone, the LRDP would generate 2.1 percent of total jobs and 1.6 percent of total housing demand in the City in 2020. This suggests that the LRDP would actually generate housing demand that is only 0.6 times its proportional share of jobs.

At the County level, the LRDP would generate 0.8 percent of total jobs in the County and 0.8

percent of total housing demand in 2020, only considering employee housing demand. Using these figures suggests that the LRDP creates housing demand that is only 1.01 times its proportional share of jobs.

Ultimately, this impact measure is a reflection of the imbalance between jobs and housing units projected by AMBAG in 2020. However, it provides a perspective on the portion of this imbalance that the LRDP represents.

Table 7: Jobs-Housing Demand Ratio

CITY OF SANTA CRUZ			SANTA CRUZ COUNTY (b)		
Total Jobs: 2020 (a)	LRDP Jobs: 2020	*LRDP Jobs as % of Total Jobs*	Total Jobs: 2020 (a)	LRDP Jobs: 2020	*LRDP Jobs as % of Total Jobs*
59,783	1,520	*2.5%*	193,066	1,520	*0.8%*
Total Units: 2020 (c)	Unit Demand from LRDP: 2020 (d)	*Unit Demand from LRDP as % of Total Units*	Total Units: 2020 (c)	Unit Demand from LRDP: 2020 (d)	*Unit Demand from LRDP as % of Total Units*
24,635	1,145	*4.6%*	113,390	2,097	*1.8%*

Notes:
(a) Total jobs are from AMBAG projections for 2020, which includes 1,520 LRDP jobs.
(b) Including City of Santa Cruz.
(c) Total units are from AMBAG household projections for 2020, plus 125 on-campus units planned under LRDP.
(d) Residual Demand shown only for Santa Cruz County (see Table 3).

Sources: AMBAG; BAE, 2005.

Considering only employees hired from outside the County, the 2005 LRDP would generate expressed demand for approximately 1,242 housing units and creates unmet demand for 115 affordable housing units serving lower income households. In order to identify a lower bound on the housing impacts, an alternate analysis including only new employees hired from outside the County was also performed (See Appendix Tables C-7 through C-11). According to UCSC data from 1991 to 2004, 31.4 percent of faculty and staff were hired from outside the County. Assuming that only new employees hired from outside the County would create housing demand, the 2005 LRDP would result in 1,001 housing units in the Primary Market Area and 241 units in the Secondary Market Area. As shown in Table 8, approximately 17 percent of the units demanded would be owner-occupied (a lower percentage because there are fewer employees in relationship to students included in this analysis). Additionally, approximately 115 of the LRDP households expected to seek housing in the County would be unable to buy or rent an affordable unit. This “Residual Demand” represents nine percent of off-campus LRDP households in the County, and consists primarily of low income households.

Appendices C-7 and C-11 present this analysis in more detail.

Table 8: Summary of Out of County Hires Projected Residence Patterns, 2005 - 2020

	Students		Employees	
	Number	Percent	Number	Percent
On Campus	1,130	54%	125	31%
City of Santa Cruz				
Own	0	0%	159	40%
Rent	814	39%	28	7%
Santa Cruz County (a)				
Own	0	0%	55	14%
Rent	155	7%	31	8%
Households Inside Santa Cruz County	2,099	100%	398	100%
Households Outside Santa Cruz County (b)	139		0	
Residual Demand (c)	78		37	
Local Hires			947	
Total New Households (d)	**2,317**		**1,382**	

Notes:
(a) Excludes the City of Santa Cruz.
(b) Six percent of student HHs are assumed to live outside the County based on current residence patterns.
(c) Refers to people unable to find affordable housing in the City/County of Santa Cruz.

Small discrepancies between numbers and totals is due to rounding

Sources: UCSC; BAE, 2005.

Conclusions

This analysis suggests that the 2005 LRDP would generate a significant amount of new housing demand in the City of Santa Cruz and the County. It is difficult to accurately project the impact of this additional demand on local rents and home sale prices. Interest rates, regional and national economic trends, new mortgage products, and other factors will all play a considerable role in determining the cost of housing over the next 15 years. However, all other factors being equal, it can be assumed that additional housing demand will contribute to a rise in local house prices.

This analysis also points to the need for affordable housing serving the lower income employee households generated by the LRDP. As reported above, the model found that 255 households would be unable to find affordable housing in either the City or County of Santa Cruz. Of these, approximately 144 are employee households.

These households would benefit from units serving very low and low income households, with rents targeting households earning up to 80 percent of Area Median Income (AMI) as defined by the California Department of Housing and Community Development (HCD). Additional moderate and workforce income units (serving households up to 170 percent AMI) would also assist these households by easing demand at higher income levels.

To address the need for affordable housing, the University and the City of Santa Cruz should explore joint strategies to develop units serving UC employees and City staff, another population that has been impacted by the region’s tight market.

Appendix A: Sources of Key Assumptions

Faculty and Staff Housing Demand

The Draft 2005 LRDP will generate a total of 1,520 new faculty and staff.

New employee will form households at a rate of 1.1 employees per household. It is known that universities often form households of unrelated employees living together and families with two members both employed at the University. Based on analysis of UCSC employee database, the current rate of household formation within the UCSC population is estimated at 1.1 employees per household.

All new employees generated by the 2005 LRDP currently live outside the County. This is a relatively conservative assumption, as UCSC reports that approximately 70 percent of new faculty and staff hires typically come from within the County. However, the methodology is appropriate for this broad-level housing analysis due to the following reasoning:

- Upon being hired at the University, a staff person already living within Santa Cruz County would vacate another job elsewhere in the County.
- The new worker would require a housing unit in the County.

This dynamic suggests that the net housing demand impact created by the LRDP remains the same even if new staff are hired from within the County. In order to identify a lower bound for the housing impact, an alternate analysis of only employees projected to be hired from outside the County wwas performed (See Appendices C-7 through C-11).

Of the new employees indicated in the LRDP, 85 percent will generate housing demand in Santa Cruz County, and the remaining 15 percent will live outside the County. This assumption reflects the current residential pattern of UCSC employees. Employees that live outside of the County report addresses ranging widely from Monterey and Santa Clara Counties, to other Bay Area communities (e.g., San Francisco, the East Bay) and other parts of the State. It is important to note that this is a relatively conservative assumption, as historic trend data from UCSC suggests that new employees are even less likely to live in the County than current employees. A “shift-share” analysis of employee residential patterns suggests that as much as 24 percent of new UCSC employees between 1998 and 2004 live outside of Santa Cruz County.

New employees will prefer to live in the City of Santa Cruz over other parts of the County and prefer to own rather than rent a home. Specifically, the model assumes that new employees will express their demand according to the following choices, in order of decreasing preference:

1) Own a home in the Primary Market Area (i.e., City of Santa Cruz)
2) Own a home in the Secondary Market Area (i.e., other parts of Santa Cruz County)
3) Rent a home in the Primary Market Area
4) Rent a home in the Secondary Market Area

Employee household incomes are based on the results of a May 2005 survey of UCSC faculty and staff. The survey had 503 responses, for a response rate of approximately 13 percent. This response rate achieves a confidence interval of + or – 4.0 at a 95 percent confidence level.

Employee household incomes are translated into affordable sale prices based on standard financing terms and an assumption that 35 percent of household income is directed to principal, interest, taxes, and insurance payments. Specifically, the model assumes a 6.0 percent interest rate, 30-year mortgage, and 5.0 percent down payment.

Employee household incomes are translated into affordable rents assuming 30 percent of household income is directed to rent and utilities. Utility payments are assumed at $75 a month, based on the Santa Cruz County Housing Authority rent utility schedule.

The model assumes that if an affordable unit is available in the Primary or Secondary Market Areas, a UCSC employee household will rent or purchase the unit. This assumption does not account for the possibility that non-UCSC households may out-compete UCSC employee households for units at a given price. Increased competition from non-UCSC households is particularly likely at the lower sale price levels, where fewer units as expected to be built in coming years.

It is worth noting, however, that a May 2005 survey found a median household income of $71,500 among UCSC employees. In comparison, Claritas, Inc. (a private data vendor) estimates the County as a whole has a 2005 median income of approximately $63,100. This difference suggests that UCSC employees generally maintain a competitive advantage over other Santa Cruz County households when bidding on and purchasing a home.

This assumption also discounts the possibility that higher income UCSC households may choose *not* to buy or rent lower priced units. These households could elect to pay a greater share of their income to afford a more expensive unit or choose to live outside the City or County altogether, instead of buying/renting a more affordable home. Both these factors suggest that the impacts presented in this report are conservative when discussing the share of units that would be occupied by UCSC households.

Student Housing Demand

The Draft 2005 LRDP will generate approximately 6,950 new students during the LRDP planning horizon.

All new students generated by the LRDP currently live outside of Santa Cruz County and 94 percent relocate to live on campus or rent a unit in the County. This assumption reflects current student residential patterns, which indicate that approximately 94 percent of students live on campus or elsewhere in the County.

Every 3.0 new students represents an off-campus household. This assumption is based on a May 2005 survey of UCSC students, which showed an average of approximately 3.0 students per household. Over 2,350 students responded to the survey, for a response rate of 17 percent and a confidence interval of + or – 2.0 at a 95 percent confidence level.

New student will prefer to rent a home in the City of Santa Cruz over other parts of the County. This assumption is based on the current student residential patterns which show that approximately 68 percent of off-campus students live in the City of Santa Cruz.

Affordable student rents are based on rents currently paid by UCSC students. Student rent data is derived from the May 2005 survey of UCSC students.

The model assumes that if an affordable unit is available in the Primary or Secondary Market Areas, a UCSC student household will rent the unit. This assumption parallels the approach taken for employee households.

Projected Housing Supply

Household projections by the Association of Monterey Bay Area Governments (AMBAG) are used as a proxy for projected new units in the Primary and Secondary Market Areas. AMBAG projects the addition of 1,373 new households in the Primary Market Area and 9,831 new households in the Secondary Market Area between 2005 and 2020.

As this analysis relies heavily on AMBAG employee and household projections, it is worth noting that AMBAG forecasts have proven relatively accurate when compared to U.S. Census figures. For example, the 1994 AMBAG forecasts for Santa Cruz County showed a 1.68 percent variation from the 2000 Census. The 1997 AMBAG forecasts showed a 0.84 percent variation from the 2000 Census. Over a longer time frame, the forecasts are somewhat less accurate. AMBAG's 1988 forecasts for Santa Cruz County showed a 9.51 percent variation from 2000 Census figures. Nevertheless, these comparisons suggest that AMBAG forecasts provide reasonably reliable projections for the purposes of this study.

Of the projected new housing in the Primary Market Area through 2020, 50 percent will be for-sale and 50 percent will be for rent. Within the Secondary Market Area, 67 percent will be for-sale and 33 percent will be for rent. The tenure split between ownership and rental units in each Market Area is based on data from the 2000 Census which reports that:

- 50 percent of the units built between 1995 and 2000 in the City of Santa Cruz were renter-occupied units;
- 50 percent of the units built between 1995 and 2000 in the City of Santa Cruz were owner-occupied units.
- 33 percent of the units built between 1995 and 2000 in Santa Cruz County (excluding the City of Santa Cruz) were renter-occupied units;
- 67 percent of the units built between 1995 and 2000 in Santa Cruz County (excluding the City of Santa Cruz) were owner-occupied units;

For the purposes of this analysis, it is assumed that units developed from 1995 to 2000 are an indicator of future product type to be developed in each Market Area.

Home sale prices used in the model are based on a distribution of current sales in Santa Cruz County and the City of Santa Cruz. Table 1 contains this data. Current sale prices were obtained from First American Real Estate Services (FARES), a private subscription services that compiles County Assessor's data, and reflect all full and verified sales between November 2004 and April 2005.

Rents used in the model are based on a distribution of current rents in Santa Cruz County and the City of Santa Cruz. Table 2 contains this data. Current rents were obtained via RealFacts (a private data subscription service), the UCSC Housing Office rental listings, and Craigslist.

Appendix B: Affordable Housing Sale Price/Rent Calculations

Appendix B-1: Calculation of Maximum Affordable Sale Price

Household Income	Sale Price	Down Payment (a)	Total Mortgage (a)	Monthly Payment	Monthly Property Tax (b)	Monthly Mortgage Insurance (c)	Monthly Homeowner's Insurance (d)	Total Monthly PITI (e)
$30,000	$115,000	$5,750	$109,250	$679	$120	$47	$34	$880
$40,000	$155,000	$7,750	$147,250	$900	$161	$63	$46	$1,170
$50,000	$195,000	$9,750	$185,250	$1,121	$203	$78	$58	$1,460
$60,000	$235,000	$11,750	$223,250	$1,342	$245	$93	$70	$1,750
$70,000	$275,000	$13,750	$261,250	$1,564	$286	$109	$81	$2,040
$80,000	$315,000	$15,750	$299,250	$1,785	$328	$124	$93	$2,330
$100,000	$395,000	$19,750	$375,250	$2,236	$411	$155	$117	$2,920
$120,000	$470,000	$23,500	$446,500	$2,685	$490	$187	$139	$3,500
$140,000	$550,000	$27,500	$522,500	$3,127	$573	$217	$163	$4,080
$150,000	$590,000	$29,500	$560,500	$3,358	$615	$233	$174	$4,380
$175,000	$685,000	$34,250	$650,750	$3,912	$714	$272	$203	$5,100
$200,000	$785,000	$39,250	$745,750	$4,470	$818	$311	$232	$5,830

Notes:

(a) Mortgage terms:		
FHA Annual Percentage Rate	6.00%	Based on Fannie Mae Weekly Primary Mortgage Market Survey.
Term of mortgage (Years)	30	Assumption
Percent of sale price as down payment	5.0%	Assumption
(b) Initial property tax (annual)	1.25%	County Tax Assessor
(c) Mortgage Insurance as percent of loan amount	0.04%	Standard premium for FHA insured loan.
(d) Annual homeowner's insurance rate as percent of sale price	0.35%	Based on 2005 Insurance Dept. survey of premiums in Santa Cruz.
(e) PITI = Principal, Interest, Taxes, and Insurance		
Percent of household income available for PITI	35.0%	Based on maximum allowable debt to income ratio of 41% for FHA loans.

Sources: Fannie Mae; Ginnie Mae; County Tax Assessor; California Dept. of Insurance; HUD; BAE 2005.

Appendix B-2: Calculation of Maximum Affordable Rent

A	B	C	D	E
Annual Household Income	Monthly Household Income	Total Affordable Monthy Housing Payment (a)	Monthly Utility Cost (b)	Affordable Monthly Rent Payment (c)
$30,000	$2,500	$750	$75	$675
$40,000	$3,333	$1,000	$75	$925
$50,000	$4,167	$1,250	$75	$1,175
$60,000	$5,000	$1,500	$75	$1,425
$70,000	$5,833	$1,750	$75	$1,675
$80,000	$6,667	$2,000	$75	$1,925
$100,000	$8,333	$2,500	$75	$2,425
$120,000	$10,000	$3,000	$75	$2,925
$140,000	$11,667	$3,500	$75	$3,425
$150,000	$12,500	$3,750	$75	$3,675
$175,000	$14,583	$4,375	$75	$4,300
$200,000	$16,667	$5,000	$75	$4,925

Notes:
(a) Affordable monthly housing payment is 30% of gross monthly household income.
(b) Based on utility allowance allowed by the Santa Cruz County Housing Authority.
(c) E= C-D.

Sources: Santa Cruz County Housing Authority; BAE, 2005.

Appendix C: Housing Demand Model Tables

Appendix C-1: Key Assumptions: UCSC 2020 LRDP Housing Impact Analysis

Calculations and Key Assumptions	**City**	**County**	***Source/Comment:***
Percent of owner-occupied housing (all units)	46%	64%	*2000 U.S. Census*
Percent of recently built units (1995 - 2000) that are owner occupied	50%	67%	*2000 U.S. Census*
Total Housing Units in 2000	**21,982**	**98,873**	***2000 U.S. Census***
Owner Occupied Housing Units in 2000	*10,112*	*63,151*	*Calculated based on above percentages*
Renter Occupied Housing Units in 2000	*11,870*	*35,722*	*Calculated based on above percentages*
Total Housing Units in 2005	**22,826**	**103,434**	***AMBAG Estimate***
New Housing Units between 2000 & 2005	844	4,561	*Year 2005 units minus year 2000 units*
Number of New Owner Occupied Units	422	3,047	*Calculated based on recent tenure split shown above*
Owner Occupied Housing Units in 2005	*10,534*	*66,199*	*Year 2000 units plus new units*
Number of New Renter Occupied Units	422	1,514	*Calculated based on recent tenure split shown above*
Renter Occupied Housing Units in 2005	*12,292*	*37,235*	*Year 2000 units plus new units*
Total Housing Units 2020	**24,510**	**113,265**	***AMBAG Estimate***
New Housing Units between 2020 & 2005	1,684	9,831	*Year 2020 units minus year 2005 units*
Number of new owner-occupied units	842	6,569	*Calculated based on recent tenure split shown above*
Owner Occupied Housing Units in 2020	*11,376*	72,767	*Year 2005 units plus new units*
Number of New Renter Occupied Units	842	3,262	*Calculated based on recent tenure split shown above*
Renter Occupied Housing Units in 2020	*13,134*	*40,498*	*Year 2005 units plus new units*

Sources: 2000 U.S. Census; 2004 AMBAG Population, Housing Unit & Employment Forecasts; UCSC Analysis of Staff/Faculty Place of Residence; BAE, 2005.

Appendix C-2: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 1: City of Santa Cruz Ownership Housing Market

NEW SUPPLY: Ownership Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Home Sale Prices	**2005**		**2020**		**New Housing Units**	
(Constant 2005 Dollars)	**Number**	**Percent (a)**	**Number**	**Percent (a)**	**Number**	**Percent (a)**
$115,000 or less	0	0%	0	0%	0	0%
$115,001 to $155,000	105	1%	114	1%	8	1%
$155,001 to $195,000	105	1%	114	1%	8	1%
$195,001 to $235,000	105	1%	114	1%	8	1%
$235,001 to $275,000	211	2%	228	2%	17	2%
$275,001 to $315,000	211	2%	228	2%	17	2%
$315,001 to $395,000	211	2%	228	2%	17	2%
$395,001 to $470,000	632	6%	683	6%	51	6%
$470,001 to $550,000	632	6%	683	6%	51	6%
$550,001 to $590,000	632	6%	683	6%	51	6%
$590,001 to $685,000	2,212	21%	2,389	21%	177	21%
$685,001 to $785,000	1,896	18%	2,048	18%	152	18%
More than $785,000	3,581	34%	3,868	34%	286	34%
Total	10,534	100.0%	11,376	100.0%	842	100.0%

NEW DEMAND: Employee Demand for Ownership Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Home Sale Price Affordability Levels (b)	**New Employee HHs 2005-2020**	
(Constant 2005 Dollars)	**Number**	**Percent (c)**
$115,000 or less	84	8%
$155,000 or less	115	11%
$195,000 or less	126	12%
$235,000 or less	84	8%
$275,000 or less	105	10%
$315,000 or less	84	8%
$395,000 or less	168	16%
$470,000 or less	94	9%
$550,000 or less	63	6%
$590,000 or less	42	4%
$685,000 or less	31	3%
$785,000 or less	21	2%
More than $785,000	31	3%
Total New Employee HHs Residing Off Campus within City/County of Santa Cruz (d)	1,050	100%

RESIDUAL DEMAND: Ownership Housing Market, City of Santa Cruz, 2005 to 2020

Home Sale Price Affordability Levels (b) *(Constant 2005 Dollars)*	**New Employee HHs 2005-2020**	**New Housing Units**	**Expressed Demand (e)**	**Residual Demand (f)**
$115,000 or less	84	0	0	84
$115,001 to $155,000	115	8	0	115
$155,001 to $195,000	126	8	0	126
$195,001 to $235,000	84	8	0	84
$235,001 to $275,000	105	17	0	105
$275,001 to $315,000	84	17	0	84
$315,001 to $395,000	168	17	19	149
$395,001 to $470,000	94	51	94	0
$470,001 to $550,000	63	51	63	0
$550,001 to $590,000	42	51	42	0
$590,001 to $685,000	31	177	31	0
$685,001 to $785,000	21	152	21	0
More than $785,000	31	286	31	0
Total	1,050	842	303	747

Notes:
(a) Percent of housing within price range based on survey of recorded housing sales in the City from Nov 2004 to April 2005.
(b) Refers to the home sales price range affordable to a households in a given income category.
Home sale price affordability levels are calculated based on HH incomes as shown in Appendix B-1.
(c) Percent of employees for each affordability level based on May 2005 survey of UCSC staff/faculty.
(d) Total number of new employee HHs is based on the LRDP projection of 1,520 additional employees by 2020. The analysis assumes 15% of these HHs will live outside the County per current residential patterns and 125 will live on campus as planned for in the LRDP, leaving 1,050 new employee HHs in the City/County of Santa Cruz.
(e) Refers to the number of households able to afford ownership housing within the City.
(f) Refers to the number of households unable to afford ownership housing within the City.

Small discrepancies between numbers and totals is due to rounding.

Sources: First American Real Estate Solutions; AMBAG; BAE, 2005.

Appendix C-3: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 2: Santa Cruz County Ownership Housing Market (a)

NEW SUPPLY: Ownership Housing Units by Affordability Level, Santa Cruz County, 2005 to 2020

Home Sale Prices	**2005**		**2020**		**New Housing Units**	
(Constant 2005 Dollars)	**Number**	**Percent (b)**	**Number**	**Percent (b)**	**Number**	**Percent (b)**
$115,000 or less	0	0%	0	0%	0	0%
$115,001 to $155,000	0	0%	0	0%	0	0%
$155,001 to $195,000	0	0%	0	0%	0	0%
$195,001 to $235,000	662	1%	728	1%	66	1%
$235,001 to $275,000	662	1%	728	1%	66	1%
$275,001 to $315,000	1,324	2%	1,455	2%	131	2%
$315,001 to $395,000	5,296	8%	5,821	8%	525	8%
$395,001 to $470,000	6,620	10%	7,277	10%	657	10%
$470,001 to $550,000	7,944	12%	8,732	12%	788	12%
$550,001 to $590,000	8,606	13%	9,460	13%	854	13%
$590,001 to $685,000	10,592	16%	11,643	16%	1,051	16%
$685,001 to $785,000	10,592	16%	11,643	16%	1,051	16%
More than $785,000	13,902	21%	15,281	21%	1,379	21%
Total	66,199	100%	72,767	100%	6,569	100%

RESIDUAL DEMAND: Ownership Housing Market, Santa Cruz County, 2005 to 2020

Home Sale Price Affordability Levels (c) *(Constant 2005 Dollars)*	**Residual Demand from City (d)**	**New Housing Units**	**Expressed Demand (e)**	**Residual Demand (f)**
$115,000 or less	84	0	0	84
$115,001 to $155,000	115	0	0	115
$155,001 to $195,000	126	0	0	126
$195,001 to $235,000	84	66	27	57
$235,001 to $275,000	105	66	105	0
$275,001 to $315,000	84	131	84	0
$315,001 to $395,000	149	525	149	0
$395,001 to $470,000	0	657	0	0
$470,001 to $550,000	0	788	0	0
$550,001 to $590,000	0	854	0	0
$590,001 to $685,000	0	1,051	0	0
$685,001 to $785,000	0	1,051	0	0
More than $785,000	0	1,379	0	0
Total	747	6,569	365	382

Notes:
(a) Excluding the City of Santa Cruz.
(b) Percent of housing within price range based on survey of recorded housing sales in the City from Nov 2004 to April 2005.
(c) Refers to the home sales price range affordable to a households in a given income category.
Home sale price affordability levels are calculated based on HH incomes as shown in Appendix B-1.
(d) Refers to employee households who were not "housed" in Demand Segments 1 (i.e., could not afford ownership housing in the City). See Appendix C-2.
(e) Refers to the number of households able to afford ownership housing within the County.
(f) Refers to the number of households unable to afford ownership housing within the County.

Small discrepancies between numbers and totals is due to rounding.

Sources: First American Real Estate Solutions; AMBAG; BAE, 2005.

Appendix C-4: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 3: City of Santa Cruz Rental Housing Market

NEW SUPPLY: Rental Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Housing Rents	2005		2020		New Housing Units	
(Constant 2005 Dollars)	Number	Percent (a)	Number	Percent (a)	Number	Percent (a)
Less than $675	36	0.3%	38	0.3%	2	0.3%
$675 - $925	99	0.8%	105	0.8%	7	0.8%
$926 - $1,175	2394	19.5%	2558	19.5%	164	19.5%
$1,176 - $1,425	4187	34.1%	4474	34.1%	287	34.1%
$1,426 - $1,675	4008	32.6%	4282	32.6%	275	32.6%
$1,676- $1,925	1408	11.5%	1504	11.5%	96	11.5%
$1,926 - $2,425	117	0.9%	125	0.9%	8	0.9%
$2,426- $2,925	18	0.1%	19	0.1%	1	0.1%
$2,926 - $3,425	9	0.1%	10	0.1%	1	0.1%
$3,426 and above	18	0.1%	19	0.1%	1	0.1%
Total	12,292	100.0%	13,134	100.0%	842	100.0%

NEW DEMAND: Rental Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Rent Affordability Levels (b)	New Student HHs 2005-2020	
(Constant 2005 Dollars)	Number	Percent (c)
Less than $675	15	1%
$675 - $925	187	18%
$926 - $1,175	130	12%
$1,176 - $1,425	130	12%
$1,426 - $1,675	123	12%
$1,676- $1,925	123	12%
$1,926 - $2,425	134	13%
$2,426- $2,925	86	8%
$2,926 - $3,425	119	11%
$3,426 and above	0	0
Total New Student HHs Residing Off Campus within City/County of Santa Cruz (d)	1,048	100%

RESIDUAL DEMAND: Rental Housing Market, City of Santa Cruz, 2005 to 2020

Rent Affordability Levels (a) *(Constant 2005 Dollars)*	Residual Demand from Employees (e)	New Student HHs 2005-2020	Total Rental Demand	New Housing Units	Expressed Demand from Employees (f)	Expressed Demand from Students (f)	Residual Demand from Employees (g)	Residual Demand from
Less than $675	84	15	99	2	0	0	84	15
$675 - $925	115	187	302	7	0	0	115	187
$926 - $1,175	126	130	256	164	34	36	91	94
$1,176 - $1,425	57	130	187	287	57	130	0	0
$1,426 - $1,675	0	123	123	275	0	123	0	0
$1,676- $1,925	0	123	123	96	0	123	0	0
$1,926 - $2,425	0	134	134	8	0	134	0	0
$2,426- $2,925	0	86	86	1	0	86	0	0
$2,926 - $3,425	0	119	119	1	0	119	0	0
$3,426 and above	0	0	0	1	NA	NA	NA	NA
Total	382	1,048	1,429	842	91	751	291	296

Notes:
(a) Percent of housing within price range based on survey of current rental listings.
(b) Refers to the rental price range affordable to a households in a given income category
Rent affordability levels are calculated based on HH incomes as shown in Appendix B-2
(c) Percent of students for each affordability level based on May 2005 survey of UCSC students.
(d) Total number of new student HHs is based on the LRDP projection of 6,950 additional students by 2020. The analysis assumes 3,390 of these students will live on campus as planned for in the LRDP. Six percent (417 students) are assumed to live outside the County based on current residence patterns. Finally, the analysis assumes 3.0 students per student HH based on May 2005 survey data, leaving 1,048 new student HHs in the City/County of Santa Cruz.

(e) Refers to employee households who were not "housed" in Demand Segments 1 or 2 (i.e., could not afford ownership housing in the City or County). See Appendix C-3.
(f) Refers to the number of households able to afford rental housing within the City
(g) Refers to the number of households unable to afford rental housing within the City

Small discrepancies between numbers and totals is due to rounding.

Sources: UCSC; AMBAG; BAE, 2005.

Appendix C-5: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 4: Santa Cruz County Rental Housing Market (a)

NEW SUPPLY: Rental Housing Units by Affordability Level, Santa Cruz County, 2005 to 2020

Housing Rents	2005		2020		New Housing Units	
(Constant 2005 Dollars)	Number	Percent (b)	Number	Percent (b)	Number	Percent (b)
Less than $675	0	0.0%	0	0.0%	0	0.0%
$675 - $925	1667	4.5%	1813	4.5%	146	4.5%
$926 - $1,175	12782	34.3%	13902	34.3%	1,120	34.3%
$1,176 - $1,425	11115	29.9%	12089	29.9%	974	29.9%
$1,426 - $1,675	4724	12.7%	5138	12.7%	414	12.7%
$1,676- $1,925	1667	4.5%	1813	4.5%	146	4.5%
$1,926 - $2,425	4168	11.2%	4533	11.2%	365	11.2%
$2,426- $2,925	556	1.5%	604	1.5%	49	1.5%
$2,926 - $3,425	278	0.7%	302	0.7%	24	0.7%
$3,426 and above	278	0.7%	302	0.7%	24	0.7%
Total	37,235	100.0%	40,498	100.0%	3,262	100.0%

RESIDUAL DEMAND: Rental Housing Market, Santa Cruz County, 2005 to 2020

Rent Affordability Levels (c) *(Constant 2005 Dollars)*	Residual Demand from Employees	Residual Demand from Students	Total Residual Demand from City	New Housing Units	Expressed Demand from Employees (g)	Expressed Demand from Students (g)	Residual Demand from Employees (g)	Residual Demand from Students (g)
Less than $675	84	15	99	0	0	0	84	15
$675 - $925	115	187	302	146	56	90	60	97
$926 - $1,175	91	94	186	1120	91	94	0	0
$1,176 - $1,425	0	0	0	974	0	0	0	0
$1,426 - $1,675	0	0	0	414	0	0	0	0
$1,676- $1,925	0	0	0	146	0	0	0	0
$1,926 - $2,425	0	0	0	365	0	0	0	0
$2,426- $2,925	0	0	0	49	0	0	0	0
$2,926 - $3,425	0	0	0	24	0	0	0	0
$3,426 and above	NA	NA	NA	24	NA	NA	NA	NA
Total	291	296	587	3,262	147	185	144	112

Notes:
(a) Excluding the City of Santa Cruz.
(b) Percent of housing within price range based on survey of current rental listings
(c) Refers to the rental price range affordable to a households in a given income category
Rent affordability levels are calculated based on HH incomes as shown in Appendix B-2
(d) Residual demand from city refers to employee and student households who were not "housed" in Demand Segments 1, 2, or 3. See Appendix C 4.
(e) Expressed demand refers to the number of households able to afford rental housing within the County
(f) Residual demand refers to the number of households unable to afford rental housing within the County

Small discrepancies between numbers and totals is due to rounding

Sources: UCSC; AMBAG; BAE, 2005.

Appendix C-6: UCSC LRDP, Summary of Residence Patterns, 2005 - 2020

Students	**New Enrollment**	**New HHs**	***Assumptions***	
On Campus	3,390	1,130	*3.0*	*UCSC students per student HH*
Off Campus In County	3,143	1,048	*6%*	*of students live outside the County.*
Off Campus Out of County	417	139		
	6,950	2,317		

Employees	**New Employees**	**New HHs**	***Assumptions***	
Hired Local	1,042	947	*1.1*	*UCSC employee per employee HH*
Hired Out of County	478	435	*69%*	*of employees hired locally*
Total	1,520	1,382		

Out of County Employees	**New Employees**	**New HHs**	***Assumptions***	
Live Out of County	228	207	*1.1*	*UCSC employee per employee HH*
Live On Campus	138	125	*15%*	of all employees live outside County
Live In County Off Campus	1,155	1050	*125*	on campus housing units constructed per LRDP.
Total	1,520	1382		

Place of Residence of New UCSC Households by Housing Tenure

	Students		**Employees**	
	Number	**Percent**	**Number**	**Percent**
On Campus	1,130	55%	125	12%
City of Santa Cruz				
Own	0	0%	303	29%
Rent	751	36%	91	9%
Santa Cruz County (a)				
Own	0	0%	365	35%
Rent	185	9%	147	14%
Households Inside Santa Cruz County	2,065	100%	1,031	100%
Households Outside Santa Cruz County (b)	139		207	
Residual Demand (c)	112		144	
Total New Households	**2,317**		**1,382**	

Notes:
(a) Excludes the City of Santa Cruz.
(b) Six percent of student HHs and 15 percent of employee HHs are assumed to live outside the County based on current residence patterns.
(c) Refers to people unable to find affordable housing in the City/County of Santa Cruz.

Sources: UCSC; BAE, 2005.

Appendix C-7: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 1: City of Santa Cruz Ownership Housing Market

NEW SUPPLY: Ownership Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Home Sale Prices	2005		2020		New Housing Units	
(Constant 2005 Dollars)	Number	Percent (a)	Number	Percent (a)	Number	Percent (a)
$115,000 or less	0	0%	0	0%	0	0%
$115,001 to $155,000	105	1%	114	1%	8	1%
$155,001 to $195,000	105	1%	114	1%	8	1%
$195,001 to $235,000	105	1%	114	1%	8	1%
$235,001 to $275,000	211	2%	228	2%	17	2%
$275,001 to $315,000	211	2%	228	2%	17	2%
$315,001 to $395,000	211	2%	228	2%	17	2%
$395,001 to $470,000	632	6%	683	6%	51	6%
$470,001 to $550,000	632	6%	683	6%	51	6%
$550,001 to $590,000	632	6%	683	6%	51	6%
$590,001 to $685,000	2,212	21%	2,389	21%	177	21%
$685,001 to $785,000	1,896	18%	2,048	18%	152	18%
More than $785,000	3,581	34%	3,868	34%	286	34%
Total	10,534	100.0%	11,376	100.0%	842	100.0%

NEW DEMAND: Employee Demand for Ownership Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Home Sale Price Affordability Levels (b)	New Employee HHs 2005-2020	
(Constant 2005 Dollars)	Number	Percent (c)
$115,000 or less	25	8%
$155,000 or less	34	11%
$195,000 or less	37	12%
$235,000 or less	25	8%
$275,000 or less	31	10%
$315,000 or less	25	8%
$395,000 or less	50	16%
$470,000 or less	28	9%
$550,000 or less	19	6%
$590,000 or less	12	4%
$685,000 or less	9	3%
$785,000 or less	6	2%
More than $785,000	9	3%
Total New Employee HHs Residing Off Campus within City/County of Santa Cruz (d)	310	100%

RESIDUAL DEMAND: Ownership Housing Market, City of Santa Cruz, 2005 to 2020

Home Sale Price Affordability Levels (b) *(Constant 2005 Dollars)*	New Employee HHs 2005-2020	New Housing Units	Expressed Demand (e)	Residual Demand (f)
$115,000 or less	25	0	0	25
$115,001 to $155,000	34	8	0	34
$155,001 to $195,000	37	8	0	37
$195,001 to $235,000	25	8	0	25
$235,001 to $275,000	31	17	1	30
$275,001 to $315,000	25	17	25	0
$315,001 to $395,000	50	17	50	0
$395,001 to $470,000	28	51	28	0
$470,001 to $550,000	19	51	19	0
$550,001 to $590,000	12	51	12	0
$590,001 to $685,000	9	177	9	0
$685,001 to $785,000	6	152	6	0
More than $785,000	9	286	9	0
Total	310	842	159	151

Notes:
(a) Percent of housing within price range based on survey of recorded housing sales in the City from Nov 2004 to April 2005.
(b) Refers to the home sales price range affordable to a households in a given income category.
Home sale price affordability levels are calculated based on HH incomes as shown in Appendix B-1.
(c) Percent of employees for each affordability level based on May 2005 survey of UCSC staff/faculty.
(d) Total number of new employee HHs is based on estimate of 435 employees hired from out of County by 2020. The analysis assumes 125 will live on campus as planned for in the LRDP, leaving 310 new out of County employee HHs in the City/County of Santa Cruz.
(e) Refers to the number of households able to afford ownership housing within the City.
(f) Refers to the number of households unable to afford ownership housing within the City.

Small discrepancies between numbers and totals is due to rounding.

Sources: First American Real Estate Solutions; AMBAG; BAE, 2005.

Appendix C-8: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 2: Santa Cruz County Ownership Housing Market (a)

NEW SUPPLY: Ownership Housing Units by Affordability Level, Santa Cruz County, 2005 to 2020

Home Sale Prices	2005		2020		New Housing Units	
(Constant 2005 Dollars)	Number	Percent (b)	Number	Percent (b)	Number	Percent (b)
$115,000 or less	0	0%	0	0%	0	0%
$115,001 to $155,000	0	0%	0	0%	0	0%
$155,001 to $195,000	0	0%	0	0%	0	0%
$195,001 to $235,000	662	1%	728	1%	66	1%
$235,001 to $275,000	662	1%	728	1%	66	1%
$275,001 to $315,000	1,324	2%	1,455	2%	131	2%
$315,001 to $395,000	5,296	8%	5,821	8%	525	8%
$395,001 to $470,000	6,620	10%	7,277	10%	657	10%
$470,001 to $550,000	7,944	12%	8,732	12%	788	12%
$550,001 to $590,000	8,606	13%	9,460	13%	854	13%
$590,001 to $685,000	10,592	16%	11,643	16%	1,051	16%
$685,001 to $785,000	10,592	16%	11,643	16%	1,051	16%
More than $785,000	13,902	21%	15,281	21%	1,379	21%
Total	66,199	100%	72,767	100%	6,569	100%

RESIDUAL DEMAND: Ownership Housing Market, Santa Cruz County, 2005 to 2020

Home Sale Price Affordability Levels (c) *(Constant 2005 Dollars)*	Residual Demand from City (d)	New Housing Units	Expressed Demand (e)	Residual Demand (f)
$115,000 or less	25	0	0	25
$115,001 to $155,000	34	0	0	34
$155,001 to $195,000	37	0	0	37
$195,001 to $235,000	25	66	25	0
$235,001 to $275,000	30	66	30	0
$275,001 to $315,000	0	131	0	0
$315,001 to $395,000	0	525	0	0
$395,001 to $470,000	0	657	0	0
$470,001 to $550,000	0	788	0	0
$550,001 to $590,000	0	854	0	0
$590,001 to $685,000	0	1,051	0	0
$685,001 to $785,000	0	1,051	0	0
More than $785,000	0	1,379	0	0
Total	151	6,569	55	96

Notes:
(a) Excluding the City of Santa Cruz.
(b) Percent of housing within price range based on survey of recorded housing sales in the City from Nov 2004 to April 2005.
(c) Refers to the home sales price range affordable to a households in a given income category.
Home sale price affordability levels are calculated based on HH incomes as shown in Appendix B-1.
(d) Refers to employee households who were not "housed" in Demand Segments 1 (i.e., could not afford ownership housing in the City). See Appendix C-7.
(e) Refers to the number of households able to afford ownership housing within the County.
(f) Refers to the number of households unable to afford ownership housing within the County.

Small discrepancies between numbers and totals is due to rounding.

Sources: First American Real Estate Solutions; AMBAG; BAE, 2005.

Appendix C-9: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 3: City of Santa Cruz Rental Housing Market

NEW SUPPLY: Rental Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Housing Rents	**2005**		**2020**		**New Housing Units**	
(Constant 2005 Dollars)	**Number**	**Percent (a)**	**Number**	**Percent (a)**	**Number**	**Percent (a)**
Less than $675	36	0.3%	38	0.3%	2	0.3%
$675 - $925	99	0.8%	105	0.8%	7	0.8%
$926 - $1,175	2394	19.5%	2558	19.5%	164	19.5%
$1,176 - $1,425	4187	34.1%	4474	34.1%	287	34.1%
$1,426 - $1,675	4008	32.6%	4282	32.6%	275	32.6%
$1,676- $1,925	1408	11.5%	1504	11.5%	96	11.5%
$1,926 - $2,425	117	0.9%	125	0.9%	8	0.9%
$2,426- $2,925	18	0.1%	19	0.1%	1	0.1%
$2,926 - $3,425	9	0.1%	10	0.1%	1	0.1%
$3,426 and above	18	0.1%	19	0.1%	1	0.1%
Total	12,292	100.0%	13,134	100.0%	842	100.0%

NEW DEMAND: Rental Housing Units by Affordability Level, City of Santa Cruz, 2005 to 2020

Rent Affordability Levels (b)	**New Student HHs 2005-2020**	
(Constant 2005 Dollars)	**Number**	**Percent (c)**
Less than $675	15	1%
$675 - $925	187	18%
$926 - $1,175	130	12%
$1,176 - $1,425	130	12%
$1,426 - $1,675	123	12%
$1,676- $1,925	123	12%
$1,926 - $2,425	134	13%
$2,426- $2,925	86	8%
$2,926 - $3,425	119	11%
$3,426 and above	0	0
Total New Student HHs Residing Off Campus within City/County of Santa Cruz (d)	1,048	100%

RESIDUAL DEMAND: Rental Housing Market, City of Santa Cruz, 2005 to 2020

Rent Affordability Levels (a) *(Constant 2005 Dollars)*	**Residual Demand from Employees (e)**	**New Student HHs 2005-2020**	**Total Rental Demand**	**New Housing Units**	**Expressed Demand from Employees (f)**	**Expressed Demand from Students (f)**	**Residual Demand from Employees (g)**	**Residual Demand from Students (g)**
Less than $675	25	15	40	2	0	0	25	15
$675 - $925	34	187	221	7	0	0	34	187
$926 - $1,175	37	130	167	164	28	99	9	31
$1,176 - $1,425	0	130	130	287	0	130	0	0
$1,426 - $1,675	0	123	123	275	0	123	0	0
$1,676- $1,925	0	123	123	96	0	123	0	0
$1,926 - $2,425	0	134	134	8	0	134	0	0
$2,426- $2,925	0	86	86	1	0	86	0	0
$2,926 - $3,425	0	119	119	1	0	119	0	0
$3,426 and above	0	0	0	1	NA	NA	NA	NA
Total	96	1,048	1,143	842	28	814	68	233

Notes:
(a) Percent of housing within price range based on survey of current rental listings.
(b) Refers to the rental price range affordable to a households in a given income category
Rent affordability levels are calculated based on HH incomes as shown in Appendix B-2.
(c) Percent of students for each affordability level based on May 2005 survey of UCSC students.
(d) Total number of new student HHs is based on the LRDP projection of 6,950 additional students by 2020. The analysis assumes 3,390 of these students will live on campus as planned for in the LRDP. Six percent (417 students) are assumed to live outside the County based on current residence patterns. Finally, the analysis assumes 3.0 students per student HH based on May 2005 survey data, leaving 1,048 new student HHs in the City/County of Santa Cruz.

(e) Refers to employee households who were not "housed" in Demand Segments 1 or 2 (i.e., could not afford ownership housing in the City or County). See Appendix C-8.
(f) Refers to the number of households able to afford rental housing within the City
(g) Refers to the number of households unable to afford rental housing within the City

Small discrepancies between numbers and totals is due to rounding.

Sources: UCSC; AMBAG; BAE, 2005.

Appendix C-10: UCSC 2005 LRDP Housing Impact Analysis
Demand Segment 4: Santa Cruz County Rental Housing Market (a)

NEW SUPPLY: Rental Housing Units by Affordability Level, Santa Cruz County, 2005 to 2020

Housing Rents	2005		2020		New Housing Units	
(Constant 2005 Dollars)	Number	Percent (b)	Number	Percent (b)	Number	Percent (b)
Less than $675	0	0.0%	0	0.0%	0	0.0%
$675 - $925	1667	4.5%	1813	4.5%	146	4.5%
$926 - $1,175	12782	34.3%	13902	34.3%	1,120	34.3%
$1,176 - $1,425	11115	29.9%	12089	29.9%	974	29.9%
$1,426 - $1,675	4724	12.7%	5138	12.7%	414	12.7%
$1,676- $1,925	1667	4.5%	1813	4.5%	146	4.5%
$1,926 - $2,425	4168	11.2%	4533	11.2%	365	11.2%
$2,426- $2,925	556	1.5%	604	1.5%	49	1.5%
$2,926 - $3,425	278	0.7%	302	0.7%	24	0.7%
$3,426 and above	278	0.7%	302	0.7%	24	0.7%
Total	37,235	100.0%	40,498	100.0%	3,262	100.0%

RESIDUAL DEMAND: Rental Housing Market, Santa Cruz County, 2005 to 2020

Rent Affordability Levels (c)	Residual Demand from Employees	Residual Demand from Students	Total Residual Demand from City	New Housing Units	Expressed Demand from Employees (g)	Expressed Demand from Students (g)	Residual Demand from Employees (g)	Residual Demand from Students (g)
(Constant 2005 Dollars)								
Less than $675	25	15	40	0	0	0	25	15
$675 - $925	34	187	221	146	22	124	12	63
$926 - $1,175	9	31	40	1120	9	31	0	0
$1,176 - $1,425	0	0	0	974	0	0	0	0
$1,426 - $1,675	0	0	0	414	0	0	0	0
$1,676- $1,925	0	0	0	146	0	0	0	0
$1,926 - $2,425	0	0	0	365	0	0	0	0
$2,426- $2,925	0	0	0	49	0	0	0	0
$2,926 - $3,425	0	0	0	24	0	0	0	0
$3,426 and above	NA	NA	NA	24	NA	NA	NA	NA
Total	68	233	301	3,262	31	155	37	78

Notes:
(a) Excluding the City of Santa Cruz.
(b) Percent of housing within price range based on survey of current rental listings
(c) Refers to the rental price range affordable to a households in a given income category
Rent affordability levels are calculated based on HH incomes as shown in Appendix B-2
(d) Residual demand from city refers to employee and student households who were not "housed" in Demand Segments 1, 2, or 3. See Appendix C-9.

(e) Expressed demand refers to the number of households able to afford rental housing within the County
(f) Residual demand refers to the number of households unable to afford rental housing within the County

Small discrepancies between numbers and totals is due to rounding

Sources: UCSC; AMBAG; BAE, 2005.

Appendix C-11: UCSC LRDP, Summary of Residence Patterns, 2005 - 2020

Students	**New Enrollment**	**New HHs**	***Assumptions***
On Campus	3,390	1,130	*3.0 UCSC students per student HH*
Off Campus In County	3,143	1,048	*6% of students live outside the County.*
Off Campus Out of County	417	139	
	6,950	2,317	

Employees	**New Employees**	**New HHs**	***Assumptions***
Hired Local	1,042	947	*1.1 UCSC employee per employee HH*
Hired Out of County	478	435	*68.6% of employees hired locally*
Total	1,520	1,382	

Out of County Employees	**New Employees**	**New HHs**	***Assumptions***
			1.1 UCSC employee per employee HH
Live Out of County	0	0	*15%* of all employees live outside County
Live On Campus	138	125	*125* on campus housing units constructed per LRDP.
Live In County Off Campus	341	310	All out of county hires would move to Santa Cruz County.
Total	478	435	

Place of Residence of New UCSC Households by Housing Tenure

	Students		**Employees**	
	Number	**Percent**	**Number**	**Percent**
On Campus	1,130	54%	125	31%
City of Santa Cruz				
Own	0	0%	159	40%
Rent	814	39%	28	7%
Santa Cruz County (a)				
Own	0	0%	55	14%
Rent	155	7%	31	8%
Households Inside Santa Cruz County	2,099	100%	398	100%
Households Outside Santa Cruz County (b)	139		0	
Residual Demand (c)	78		37	
Local Hires			947	
Total New Households	**2,317**		**1,382**	

Notes:
(a) Excludes the City of Santa Cruz.
(b) Six percent of student HHs are assumed to live outside the County based on current residence patterns. For this analysis it has been assumed that all out of county hires would move to Santa Cruz County.
(c) Refers to people unable to find affordable housing in the City/County of Santa Cruz.

Sources: UCSC; BAE, 2005.

Technical Memorandum

To: John Barnes, UC Santa Cruz
Dean Fitch, UC Santa Cruz

From: Jonathan Stern, BAE
Steve Murphy, BAE

Re: Household Generation Rates for the 2005 LRDP

Date: September 30, 2005

Purpose of Memorandum

In May 2005, the University of California, Santa Cruz (UCSC) engaged Bay Area Economics (BAE) to analyze housing and economic impacts generated by the campus' 2005 Long Range Development Plan (LRDP). As part of these analyses it was necessary for BAE to calculate household generation rates for USCS employees and students.

This technical memorandum describes the methodology used to perform these calculations.

Methodology

Calculation of UCSC Employees per Household.

UCSC provided a redacted database listing address information for all current employees. BAE analyzed this database to identify instances where employees share a common address. The results of this analysis are presented in the following table. It was determined that on average there are 1.1 UCSC employees per "UCSC Employee Household" (i.e., a household containing one or more UCSC employees).

Bay Area Economics

Headquarters
1285 66th Street
Emeryville, CA 94608
510.547.9380
fax 510.547.9388
bae1@bae1.com
bayareaeconomics.com

Calculation of UCSC Employee Household Generation Rates

Employees		Notes/Sources:
Total Full-Time (Non-Contract) Employees	3,018	*From UCSC database*
Less Addresses with No Street Number	(249)	*Includes P.O. Boxes and blank address fields*
Total Usable Commuter Employee Records	2,769	*Eliminates records listing on campus*

Analysis of Usable Full-Time Employee Records	Unique Addresses	Total Records	Employees Per Employee HH
City of Santa Cruz	1,556	1,719	1.1
Santa Cruz County, Excluding City of Santa Cruz	624	656	1.1
Outside Santa Cruz County	376	394	1.0
Total	2,556	2,769	1.1

Source: UCSC Database of Employee Addresses; BAE, 2005.

Calculation of UCSC Students Per Household

In order to calculate the average household size of UCSC student households, BAE attempted a similar analysis to the one described above, examining a database of student addresses. In the case of student addresses, due to a large number of students listing permanent rather than local addresses, this analysis was not workable. As an example of students listing permanent rather than local addresses, hundreds of students list their address as being in Los Angeles, San Diego, or elsewhere in Southern California. Other student addresses were spread throughout the state, country, and beyond.

As an alternative, BAE determined average student household size utilizing a survey, and confirmed results using data from the 2000 Public-Use Microdata Samples (PUMS), a subset of data gathered as part of the U.S. Census. As explained in a separate technical memorandum, BAE developed surveys to gather data from UCSC students and employees as part of its housing and economic impact analyses. These surveys were administered in May 2005. Over 2,350 students responded to the survey.

As part of this survey, students were asked to report the number of persons living in their household. Looking at those students who reported living independent of their families in non-university off campus housing it was determined that there are approximately 3.0 persons per student household. Details of this analysis are shown below.

Student Household Size

Person Per HH	No. of Responses	Percent
1	104	9.9%
2	310	29.5%
3	250	23.8%
4	204	19.4%
5 or more	183	17.4%
	1,051	100.0%
Median	3.0	
Weighted Average (a)	3.0	

Note:

(a) Because respondents were offered the choice of stating "5 or more" as an answer, it is not possible to calculate a true weighted average. The weighted average calculated above assumes that all respondents indicating "5 or more" persons per household lived in a household with only 5 persons. This methodology results in a weighted average that is somewhat lower than the actual value, because it does not recognize that some respondents live in households with more than 5 members.

Source: Survey of UCSC Students Conducted by BAE, May 2005.

As a means of confirming results from the survey, BAE examined PUMS data for Santa Cruz County. The PUMS dataset allows detailed cross tab analyses, in which one can examine specific demographic characteristics for a narrowly defined population. In this instance, PUMS data was consulted to determine the average household size of households containing one or more college (undergraduate or graduate) students. The results of this analysis are shown below.

Average HH Size of College Student HHs in Santa Cruz City and immediate area = 2.91 persons
Average HH Size of College Student HHs throughout other areas of County = 3.24 persons

With approximately 75% of students who live off campus residing in the City of Santa Cruz and its environs, the PUMS data confirm that the average size of a UCSC student household is approximately 3.0 persons.