

The Economics of Land Use



Report

Nexus-Based Affordable Housing Fee Analysis for Rental Housing

Prepared for:

City of Sunnyvale

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EXECUTIVE SUMMARY

Economic & Planning Systems, Inc. (EPS) was retained by the City of Sunnyvale (City) to conduct a nexus study analyzing the impact that development of market-rate rental housing has on the demand for below-market-rate housing and, based on the results, to determine the defensible nexus-based fee that could be charged to market-rate development.

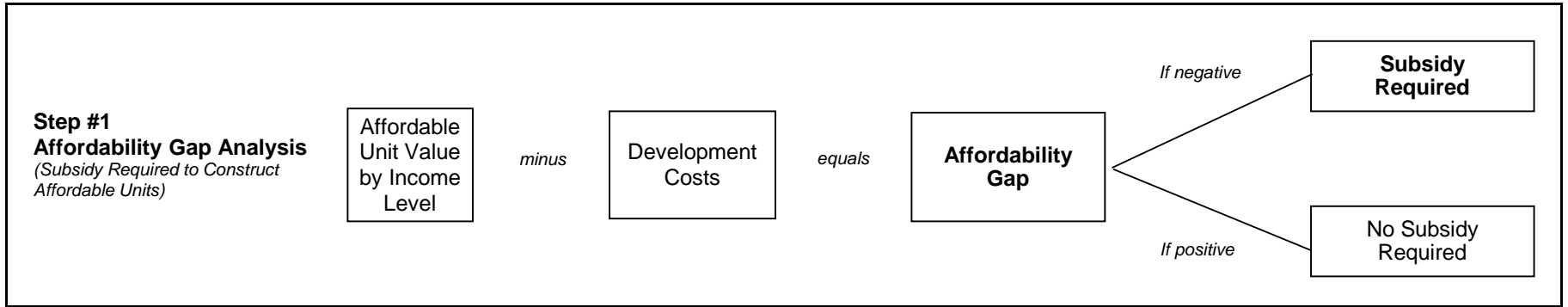
The technical approach used herein quantifies the impacts that the introduction of market-rate rental apartments have on the local economy and the demand for additional affordable housing. As new households are added to the community, local employment also will grow to provide the goods and services required by the new households. To the extent that these new jobs do not pay adequate wages for the employees to afford market-rate housing in the community, the new households' spending is creating a need for affordable housing. A nexus-based affordable housing fee is therefore based on the impact of the new market-rate homes on the demand for affordable housing. The fee calculated in this study represents the maximum fee that may be charged to new market-rate housing units to mitigate their impacts on the affordable housing supply. Such fees are then used by the City to subsidize the production of new affordable units for low- and very-low-income households not accommodated by market-rate projects.

Calculating the impact of market-rate development in the City on affordable housing needs, and the fees needed to mitigate those impacts, involves three main analytical steps:

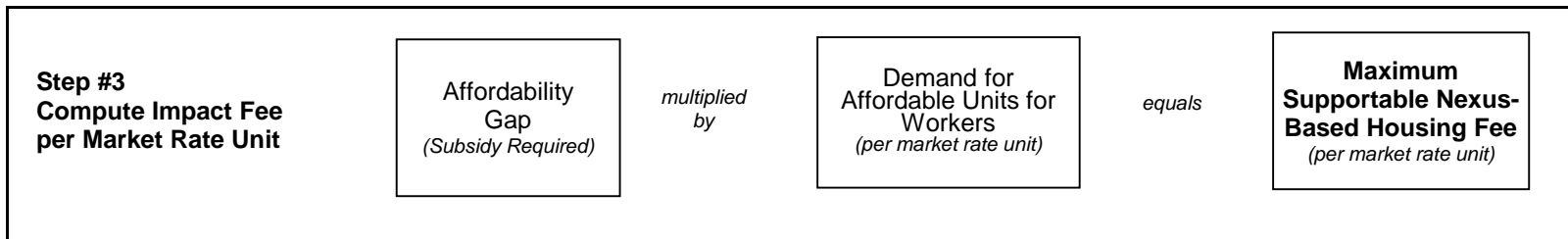
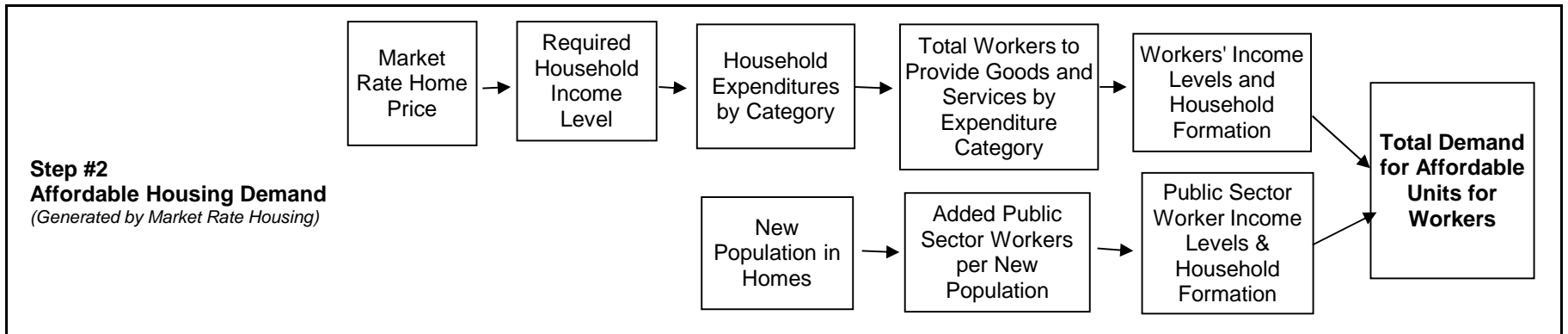
- **Step #1.** Estimate the typical subsidy required to construct units affordable at various income levels (the "affordability gap"). The analysis focuses on very-low and low-income households.
- **Step #2.** Determine the market-rate households' demand for goods and services, the jobs created by that demand, and the affordable housing needs of workers in those jobs.
- **Step #3.** Combine the affordability gap with the affordable housing demand projections to compute the maximum supportable nexus-based affordable housing fees per market-rate unit.

These technical steps are illustrated in **Figure 1** and detailed in the body of this Report and the attached Technical Appendices. The findings regarding each of these steps are presented below.

Figure 1
Illustration of Nexus-Based Housing Fee Methodology



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- 1. The costs to construct affordable housing units affordable to many households exceed those units' values based on the rents or prices that the households can afford to pay. The subsidy required to construct affordable housing units in Sunnyvale range from \$12,100 for a Median Income household to \$302,500 for a Very Low Income (VLI) household. Moderate Income households do not appear to require subsidies, as affordable prices for such households appear able to support the costs of construction due to favorable current financing terms.**

An "affordability gap analysis" evaluates whether or not the costs to construct affordable units exceed the values of units that are affordable to lower- and moderate-income households. For each affordable housing income level (Very Low Income [VLI], Low Income [LI], Median Income, and Moderate Income) this analysis estimates the subsidy required to construct affordable housing units.

The affordability gap analysis assumes that the average affordable unit for all income levels will be a 2-bedroom unit in a multifamily development. The estimated costs to construct the prototypical affordable unit are based on recent Sunnyvale development projects and transactions, as well as other development cost data sources. The costs of land acquisition are included in these development cost calculations.

A household's ability to pay is estimated based on standard percentages of income available for housing costs at each household income level. Income available for housing costs is then converted into a monthly affordable rent and a capitalized unit value or an affordable mortgage payment and supportable home price. This unit value is then compared to the costs of development to determine the subsidy, if any, required to make the unit affordable to each income level.

- 2. The demand for affordable housing generated by the expenditures of new households in Sunnyvale increases along with the market-rate rent price (and related renter income). For example, a studio unit that rents for \$2,500 per month is estimated to create demand for 0.182 affordable housing units requiring development subsidy, while a 3-bedroom unit that rents for \$4,600 per month creates demand for 0.317 affordable units.**

Any justified nexus fee is based on the total demand for affordable housing units generated by construction of market-rate units. The link (or nexus) between market-rate housing and increased demand for affordable housing is that residents of market-rate units demand goods and services that rely on wage earners (for example, retail sales clerks) who typically cannot afford market-rate housing and thus require affordable housing.

Because more expensive housing units require renters to have higher incomes, and higher income households create more jobs through their spending, the nexus impacts and thus the justified fees for rental units vary according to the rental price range of the market-rate units. Typically, larger apartments (i.e., more bedrooms) command higher rents, so their occupants are required to have higher household incomes than renters of smaller units. Thus, larger units create more jobs as a result of their occupants' spending. Nexus impacts and the justified fees for market-rate rental apartments, therefore, vary based on unit size.

This analysis evaluates the demand for affordable housing generated by a range of for-rent unit sizes. For each unit size, the demand-based nexus fee calculation involves the following steps:

- A. Market-Rate Household Income Levels.** The required income levels of households occupying new market-rate housing are derived based on the rental rate, assuming standard housing cost expenses as a proportion of overall household income. For example, a typical household renting a recently constructed market-rate two-bedroom unit for around \$3,700 per month would have an annual income of roughly \$153,700, if they spent 30 percent of their income on housing costs (rent and utilities).
- B. Household Expenditures.** Based on the household income computed in Step A, Consumer Expenditure Survey data was used to evaluate the spending patterns of the household. This analysis provides an estimate of how much the household spends on specific categories of expenditures, such as "Food at Home." As the households' income increases along with the price and size of the market-rate units, the total spending on goods and services also increases. The Consumer Expenditure Survey also indicates that these relationships are not linear (e.g., a household with twice the income does not necessarily spend twice as much on food).
- C. Job Creation and Worker Households.** Having estimated the households' spending on various items, that spending is then converted into an estimation of jobs created. For each expenditure category, data regarding average worker wages and the ratio between gross business receipts and wages were used to translate these household expenditures into the total number of private-sector workers. For selected public-sector jobs that typically grow in proportion to the local population size (e.g., teachers), the demand for new workers was estimated by relating current levels of employment in such categories to the current population and applying this ratio to future development. Because each new worker does not represent an independent household (Sunnyvale has an average of 1.53 workers per working household), the total number of new households created is somewhat less than the number of new jobs created. EPS has further adjusted the household formation rates to reflect the fact that a certain proportion of workers will *not* form their own households, particularly those of younger ages.¹
- D. Worker Households by Income Category.** Each worker household generated is assigned to an income category—Very Low Income (VLI), Low Income (LI), Median, Moderate, and Above Moderate—based on its estimated gross wages. This provides the total number of households generated at each income level by construction of market-rate units at various price points. The results indicate that residents of lower-priced units generate fewer worker households requiring affordable housing than do residents of higher-priced units.

¹ BLS data indicates that 12.5 percent of retail/restaurant workers are age 16-19, but an average of only 1.9 percent of workers in other industries. EPS has assumed that such young workers do not form their own households.

These steps of the nexus-based fee calculation provide the total number of income-qualified workers required to meet the needs for goods and services generated by market-rate housing. The number of workers servicing market-rate housing (at each unit size) is then converted to total income qualified households requiring affordable housing subsidy, and each such household is assumed to require one housing unit.

- 3. This analysis calculates the fees that could be charged to fully mitigate the impact that new market-rate housing has on Sunnyvale's affordable housing demand at various representative unit sizes. These fees could range from roughly \$47,200 for studio apartments to \$85,300 for 3-bedroom apartments.***

The nexus fee is calculated by applying the number of affordable units needed by income qualified households to the affordability gap for each housing income category. This calculation is made for several different apartment sizes. **Table 1** summarizes the maximum nexus-based fees calculated for representative rental unit sizes. The City may also consider whether to allow developers to provide affordable units within their projects, rather than paying the nexus-based fee. **Table 1** illustrates the proportions of affordable units that correspond to the fee calculation and demands created by the market-rate units. For instance, a project offering only two-bedroom units would effectively mitigate the demand being created by the market-rate units if it provided 0.253 affordable units (very-low, low, and median income) for each market-rate unit. Please note that these maximum fees are based on the nexus relationship of affordable housing demand created by new market-rate units; EPS recommends that the City consider the feasibility impact of imposing fees while setting any fee on rental housing.

Table 1
Summary of Maximum Supportable Nexus-Based Housing Fees or Unit Requirements In-Lieu of Fees
City of Sunnyvale Rental Housing Fee, EPS #21123

	Maximum Nexus-Based Fees		Unit Requirements by Income Level			Total
	<i>Fee per Unit</i>	<i>Fee/Sq Ft [1]</i>	<i>VLI (50% of AMI)</i>	<i>Low (80% of AMI)</i>	<i>Median (100% of AMI)</i>	
For-Rent Apartments						
Studio	\$47,154	\$98	14.1%	3.0%	1.1%	18.2%
1 Bedroom	\$47,563	\$60	14.3%	2.8%	1.1%	18.2%
2 Bedroom	\$66,042	\$55	20.3%	3.0%	2.0%	25.3%
3 Bedroom	\$85,343	\$61	26.2%	4.1%	1.4%	31.7%

[1] Fee/Sq Ft is calculated by dividing the maximum fee per unit by the average square footage of various unit types, as shown on Table 4.

Source: Economic & Planning Systems, Inc.

1. AFFORDABILITY GAP ANALYSIS

For any nexus-based affordable housing fee calculation, it is necessary to estimate the subsidy required to construct affordable housing units. **Table 2** shows the subsidy needed to produce multifamily for-sale housing that is affordable to median- and moderate-income households, while **Table 3** calculates the subsidies for rental housing affordable to very low-, low-, median- and moderate-income households.

Product Type

This analysis assumes that new lower-income worker households would be housed in multifamily developments in Sunnyvale. Developable residential land in Sunnyvale is very expensive, assumed to be approximately \$4.1 million per acre but with other transactions reflecting still higher rates². Constructing single-family detached or even attached housing would require land costs of several hundred thousand dollars per unit, in addition to the costs of actually building the housing units. Multifamily affordable housing is more financially feasible in this market context because the high land costs can be spread over more units per acre, and the overall prices to develop the affordable units can be closer to the prices that income-qualified households can afford. EPS has assumed that these projects will have an average density of 42 units per acre, and be built in wood-frame buildings of three to four stories over parking podiums beneath the building (but not fully underground).

In order to determine the average household size of future affordable housing units, EPS used two estimates from the 2010 Census. The American Community Survey indicates that the average household size in Sunnyvale is 2.64 people and the average family size is 3.22 people. Each of these figures rounds to an average of three people per household, so EPS uses this assumption to determine the applicable income limits for the new units.

California State law (California Health and Safety Code Section 50052.5) assumes that a 2-bedroom unit is occupied by a 3-person household, and this assumption is used in this analysis. Typically, a 2-bedroom unit in the Bay Area has a gross size of about 1,100 square feet (accounting for shared lobbies, hallways, etc.) and a net size of 950 square feet.

This analysis assumes that all new affordable housing for very low- and low-income households would be rental units, rather than for-sale units. This assumption reflects the fact that many households at lower incomes will not have adequate wealth reserves for down payments on homeownership units, and may have further difficulty absorbing the ongoing costs of homeownership (taxes, repairs, etc.) that they can effectively avoid by renting their homes rather than buying. For median- and moderate-income households, EPS has assumed the housing could be either rental or for-sale, as these households are more likely to have wealth

² Based on an appraisal of 485 North Wolfe Rd completed in January 2013; higher potential values are suggested by a recent land acquisition for a residential project on Mathilda Avenue at \$5.75 million per acre as well as calculations of residual land value (building values based on achievable market pricing less development costs) for residential development.

Table 2
Affordability Gap Analysis -- For-Sale Affordable Unit Type
City of Sunnyvale Rental Housing Fee, EPS #21123

	3-4 Stories Multifamily Building With Podium Parking	
	Median Income (100% AMI)	Moderate Income (120% AMI)
Development Program Assumptions		
Density/Acre	42	42
Gross Unit Size	1,100	1,100
Net Unit Size	950	950
Number of Bedrooms	2	2
Number of Persons per 2-bedroom Unit [1]	3	3
Parking Spaces/Unit	2.00	2.00
Cost Assumptions		
Land/Acre [2]	\$4,094,000	\$4,094,000
Land/Unit	\$97,476	\$97,476
Direct Costs		
Direct Construction Costs/Net SF [3]	\$194	\$194
Direct Construction Costs/Unit	\$184,718	\$184,718
Parking Construction Costs/Space	\$15,084	\$15,084
Parking Construction Costs/Unit	\$30,168	\$30,168
Subtotal, Direct Costs/Unit	\$214,886	\$214,886
Indirect Costs as a % of Direct Costs [4]		
Indirect Costs/Unit	40%	40%
	\$85,954	\$85,954
Developer Profit Margin (% of all costs)		
Developer Profit	10%	10%
	\$39,832	\$39,832
Total Cost/Unit	\$438,147	\$438,147
Maximum Supported Home Price		
Household Income [5]	\$94,950	\$113,950
Income Available for Housing Costs/Year [6]	\$33,233	\$39,883
Less Annual HOA Fees and Insurance [7]	\$3,826	\$3,826
Less Property Taxes [8]	\$4,465	\$5,500
Income Available for Mortgage	\$24,942	\$30,557
Mortgage Interest Rate [9]	5.00%	5.00%
Mortgage Repayment Period (years)	30	30
Down Payment [10]	\$42,602	\$52,192
Total Supportable Unit Value	\$426,017	\$521,924
Affordability Gap	\$12,130	\$0

[1] An average of 3 persons is used for this analysis based on Census data indicating the average family and household size in Sunnyvale is approximately 3 persons, and State law (Health and Safety Code Section 50052.5) indicates that a 2-bedroom unit should be assumed to be occupied by a 3-person household. Thus, EPS has assumed an average unit for income-qualified

[2] Based on an appraisal of 485 North Wolfe Rd completed in January of 2013 and corroborated by a calculation of residual land value. Asking prices of recent listings of residential land tend to be higher, so this estimate is considered conservative. For example, 1103 E. El Camino Real is a 1.02 acre developable parcel was recently appraised for \$4.45 million.

[3] Includes on-site work, offsite work, vertical construction, general requirements, overhead and developer fees. Assumes a for-profit builder of moderate-income homes can build a unit for 10% less per square foot than can a non-profit builder. The cost estimate from 2013 is adjusted by a one-year inflation factor reported by ENR.

[4] Includes costs for architecture and engineering; entitlement and fees; project management, marketing, commissions, and general administration; financing and charges; insurance; and contingency

[5] Based on 2014 income limits for a three-person household in Santa Clara County, at 80%, 100% and 120% of AMI,

[6] Assumes housing costs to be 35% of gross household income.

[7] Assumes HOA dues of \$275 per month and insurance costs of 0.12% of the total cost/unit.

[8] Includes special assessment districts in addition to the base tax rate of 1.00%, and is applied to total price/unit.

[9] Based on typical 30-year fixed rate mortgage terms.

[10] Assumes a 10% down payment.

Source: City of Sunnyvale; HUD; Economic & Planning Systems, Inc.

Table 3
Affordability Gap Analysis -- Rental Product Type
City of Sunnyvale Rental Housing Fee, EPS #21123

	3 - 4 Stories Multifamily Building With Podium Parking			
	Very Low Income (50% AMI)	Low Income (80% AMI)	Median Income (100% AMI)	Moderate Income (120% AMI)
Development Program Assumptions				
Density/Acre	42	42	42	42
Gross Unit Size	1,100	1,100	1,100	1,100
Net Unit Size	950	950	950	950
Number of Bedrooms	2	2	2	2
Number of Persons per 2-bedroom Unit [1]	3	3	3	3
Parking Spaces/Unit	2.00	2.00	2.00	2.00
Cost Assumptions				
Land/Acre [2]	\$4,094,000	\$4,094,000	\$4,094,000	\$4,094,000
Land/Unit	\$97,476	\$97,476	\$97,476	\$97,476
Direct Costs				
Direct Construction Costs/Net SF [3]	\$210	\$210	\$189	\$189
Direct Construction Costs/Unit	\$199,424	\$199,424	\$179,968	\$179,968
Parking Construction Costs/Space	\$16,500	\$16,500	\$15,500	\$15,500
Parking Construction Costs/Unit	\$33,000	\$33,000	\$31,000	\$31,000
Subtotal, Direct Costs/Unit	\$232,424	\$232,424	\$210,968	\$210,968
Indirect Costs as a % of Direct Costs [4]				
Indirect Costs/Unit	\$92,970	\$92,970	\$84,387	\$84,387
Total Cost/Unit	\$422,870	\$422,870	\$392,831	\$392,831
Maximum Supported Home Price				
Household Income [5]	\$47,750	\$76,400	\$94,950	\$113,950
Income Available for Housing Costs/Year [6]	\$14,325	\$22,920	\$28,485	\$34,185
Less Utility Costs [7]	\$1,704	\$1,704	\$1,704	\$1,704
Income Available for Rent Payments	\$12,621	\$21,216	\$26,781	\$32,481
Operating Expenses per Unit/Year	\$6,000	\$6,000	\$10,611	\$10,611
Net Operating Income [8]	\$6,621	\$15,216	\$16,170	\$21,870
Capitalization Rate [9]	5.5%	5.5%	5.5%	5.5%
Total Supportable Unit Value [10]	\$120,374	\$276,647	\$293,991	\$397,628
Affordability Gap	\$302,496	\$146,223	\$98,840	\$0

[1] An average of 3 persons is used for this analysis based on Census data indicating the average family and household size in Sunnyvale is approximately 3 persons, and State law (Health and Safety Code Section 50052.5) indicates that a 2-bedroom unit should be assumed to be occupied by a 3-person household. Thus, EPS has assumed an average unit for income-qualified worker households would be 2-bedrooms

[2] Based on an appraisal of 485 North Wolfe Rd completed in January of 2013 and corroborated by a calculation of residual land value. Asking prices of recent listings of residential land tend to be higher, so this estimate is considered conservative. For example, 1103 E. El Camino Real is a 1.02 acre developable parcel was recently appraised for \$4.45 million.

[3] Includes on-site work, offsite work, vertical construction, general requirements, overhead and developer fees. Assumes a for-profit builder of moderate-income homes can build a unit for 10% less per square foot than can a non-profit builder. The cost estimate from 2013 is adjusted by a one-year inflation factor reported by ENR.

[4] Includes costs for architecture and engineering; entitlement and fees; project management; appraisal and market study; marketing, commissions, and general administration; financing and charges; insurance; developer fee and contingency.

[5] Based on 2014 income limits for a three person household in Santa Clara County at the four income-levels shown.

[6] Assumes housing costs to be 30% of gross household income based on maximum rents established under Sunnyvale's current BMR rental program.

[7] Based on Santa Clara County Authority 2012 Utility Allowance assuming a low-rise apartment and natural gas service; inflated to 2014 based on CPI.

[8] Moderate income units generate rents similar to market-rate units, so EPS assumes that any moderate income units would be subject to property tax (1.0% of unit cost). Units for lower income levels are assumed to be produced by non-profit builders and thus not taxable

[9] The capitalization rate is used to determine the current value of a property based on estimated future operating income, and is typically a measure of estimated operating risk. Capitalization rate assumptions are based on recent PwC Real Estate Investor Surveys.

[10] The total supportable unit value is determined by dividing the net operating income by the capitalization rate.

Sources: City of Sunnyvale; Affordable housing developers; HUD; PwC; Economic & Planning Systems, Inc.

reserves for down payments. This analysis assumes homes for these households would be provided in whatever tenure (rental vs. for-sale) required the least subsidy. As shown on **Tables 2** and **3**, for-sale units are estimated to require a lower subsidy at median income level under present market conditions, partially due to the low interest rates available to qualified homebuyers. Other reasons for the lower for-sale unit subsidy relative to rentals include assumption of a down payment and a higher share of the income attributed to a mortgage payment relative to rent (35 percent rather than 30 percent). This assumption is based on the Department of Housing and Community Standard and reflects the notion that households typically attribute a larger share of income towards mortgage rather than rent.

Development Cost Assumptions

Affordable housing development costs include land costs, direct costs (e.g. labor and materials), indirect or “soft” costs (e.g., architecture, entitlement, marketing, etc.), and developer profit. For rental projects, operating costs also must be incorporated into the analysis. Data from recent Sunnyvale development and recent land transactions have been combined with EPS’s information from various market-rate and affordable housing developers to determine development cost assumptions for use in Sunnyvale. Where appropriate, these costs were converted to 2014 dollars with assumptions shown on **Tables 2** and **3**.

Revenue Assumptions

To calculate the values of the affordable units, assumptions must be made regarding the applicable income level (moderate, median, LI, and VLI) and the percentage of income spent on housing costs. In addition, translating these assumptions into unit prices and values requires estimates of operating expenses, capital reserves, and capitalization rates. The following assumptions were used in these calculations:

- *Income Levels*—The maximum allowable incomes used in each affordable housing income category are consistent with those set forth by both the federal government (U.S. Department of Housing and Urban Development [HUD]) and State government (California Department of Housing and Community Development [HCD]): VLI = 50 percent of Area Median Income (AMI), LI = 80 percent of AMI, Median Income = 100 percent of AMI, and Moderate Income = 120 percent of AMI.
- *Percentage of Gross Household Income Available for Housing Costs*—HCD standards on overpaying for rent indicate that households earning less than 80 percent of AMI should pay no more than 30 percent of their gross income on housing costs. For this analysis, EPS has assumed that rental households shall spend 30 percent of their gross income on housing costs, including rent and utilities in rental projects or mortgage payments, homeowner association fees, insurance, and property taxes for for-sale units. For-sale unit households are assumed to spend no more than 35 percent of their gross income on a mortgage payment, assuming a 10 percent down payment.
- *Other Costs Included for Rental Units*—In addition to rent payments, the analysis assumes approximately \$142 per month in utility costs based on the Santa Clara County Housing Authority utility allowance table. This amount is subtracted from the total available housing costs (30 percent of household income) to determine the net amount available for rent payments.

- *Operating Costs for Rental Units*—The analysis assumes that apartment operators incur annual costs of \$6,000 per unit for LI and VLI units and about \$10,600 for Median and Moderate units. EPS has assumed the Median and Moderate income units would be built by for-profit builders and subject to property taxes.

Affordability Gap Results

Table 3 shows the subsidies for construction of for-rent apartments for VLI through moderate-income households. The affordability gap ranges from \$0 for moderate-income households (i.e., moderate-income households can afford home prices adequate to cover the costs of construction) to \$302,500 for VLI households. The affordability gap for VLI households is much higher because these households have significantly less income available for housing costs, while construction costs remain essentially the same. **Table 2** also indicates that moderate income households can afford to pay prices that can support the cost of for-sale development, primarily due to the low interest rates currently available for qualified homebuyers. However, median income ownership units also require a subsidy. Therefore, EPS has assumed a smaller median income subsidy required to produce for-sale housing and rental housing subsidies on low and very-low income levels.

The affordability gaps by income level then were used to calculate the justified nexus-based fees by multiplying this required subsidy by the number of units required to house workers providing goods and services to new market-rate housing development. This methodology is discussed in more detail in the following chapter.

2. DEMAND-BASED NEXUS FEE CALCULATION

The maximum supportable nexus fees are based on both the affordability gap, calculated in the previous chapter, and the estimated impact that new market-rate units have on the need for affordable units, as reflected in the number of income-qualified local workers required to support the residents of market-rate units and the total subsidy required to construct housing for those workers. This approach is based on the following logic: (a) residents of market-rate housing have disposable incomes and require a variety of goods and services (including private sector goods and services and government services); (b) the provision of those goods and services will require some workers who make moderate or lower incomes and cannot afford market-rate housing; and (c) fees charged to market-rate projects can mitigate the impact of those projects on the increased need for affordable housing.

Market-Rate Household Income Levels

Households with larger incomes typically spend more on goods and services, therefore creating additional lower income jobs, which in turn generate a greater demand for affordable housing. To assess the impact that market-rate rental units have on the need for affordable housing, EPS determined the minimum income required to rent a market-rate apartment at various bedroom sizes, as shown in **Table 4**. Average rents for various apartment sizes (studio, and 1, 2, and 3 bedrooms) are based on a survey of rental rates for four market-rate multifamily projects developed in Sunnyvale since 2011. New apartment rents are significantly higher, on average, than rental rates for existing rental housing stock, both because the newer units are of better-than-average quality and because the higher rents are required to cover the costs of construction. The rents for the most recent apartment projects were used, rather than average rents for all apartments, because these newer apartments best represent the rents that can be expected with new market-rate apartment development. Assuming utility costs for each unit size based on the Sunnyvale Housing Authority utility allowance table, the minimum household income needed to rent each unit is then computed, predicated on the assumption that a household will spend 30 percent of their income on housing costs (rent and utility payments). As shown, required household incomes range from approximately \$105,000 for a studio apartment to roughly \$192,000 for a 3-bedroom apartment.

Household Expenditures and Job Creation by Income Level

Having established the income requirements for renting apartments of various sizes, the fee calculation then requires an analysis of the household spending patterns at those required income levels. Consistent with nexus fee calculations and impact analysis for schools, parks, roads, etc., this analysis also assumes that all households renting new market-rate units in Sunnyvale are “net new” households to the City. To assume otherwise—for instance, that only those buyers or renters of new housing units relocating from outside Sunnyvale should be counted in the impact analysis—would require assuming that the homes left by those households

Table 4
Required Income by Unit Type - Market-Rate Rental Apartments
City of Sunnyvale Rental Housing Fee, EPS #21123

Apartment Size	Average Unit Sq. Ft. [1]	Average Rent [1]	Required Income by Unit Type			
			Utility Allowance [2]	Subtotal Rent and Utilities	Annual Rent and Utility Expenditures	Minimum Annual Household
<i>Formula</i>		A	B	C = A + B	D = C * 12	E = D / 30%
Studio	480	\$2,500	\$114	\$2,614	\$31,364	\$104,545
1-Bedroom	790	\$2,700	\$126	\$2,826	\$33,915	\$113,050
2-Bedroom	1,190	\$3,700	\$142	\$3,842	\$46,104	\$153,681
3-Bedroom	1,390	\$4,600	\$193	\$4,793	\$57,510	\$191,701

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[1] Based on average sizes and rents for new rental project in each unit size category as determined by a Q3 2014 survey of the City's most recently developed multifamily projects - Lawrence Station, Loft House, Via, and Solstice. Because none of these projects have three-bedroom units, EPS estimated the price for new 3-bdr units based on the ratio of 2-bdr units found in Sunnyvale's older apartment complexes.

[2] Based on Santa Clara County Housing Authority 2012 Utility Allowance Table for a low-rise apartment with natural gas; inflated to \$2014.

[3] Assumes that a maximum of 30% of annual household income is dedicated to utility and rent expenditures.

Source: City of Sunnyvale; Santa Clara County Housing Authority; Economic & Planning Systems, Inc.

relocating *within* Sunnyvale would be demolished or left vacant in perpetuity. This would only be the case were the City experiencing a significant loss of population and housing inventory, as has occurred, for instance, in Detroit. Sunnyvale has not experienced such declines.

The Consumer Expenditure Survey from the United States Bureau of Labor Statistics provides data for households at a variety of income levels, detailing the amounts that typical households spend on things like "Food at Home," "Apparel and Services," and "Vehicle Maintenance and Repairs." Interestingly, household expenditures by category are not uniformly proportional to household income levels. For example, households earning around \$113,000 (adequate to rent a one-bedroom apartment) spend roughly 9.6 percent of their income on food and drink (at home and eating out), while households earning \$150,000 who can afford to rent a two-bedroom apartment spend only about 8.8 percent of their income on these items. Because of these and other differences in proportionate spending, the expenditure profile varies at different income levels.

The household's typical expenditures were converted to the number of jobs created by their spending. The first step in this process is to determine how much of an industry's gross receipts are used to pay wages and employee compensation. EPS relied on data from the Economic Census,³ which provides employment, gross sales, and payroll data by industry for Santa Clara County. In certain instances, Santa Clara County data was not available for every Economic Census industry—in those cases, EPS relied on statewide Economic Census data for that industry.

To link the Economic Census data and the Consumer Expenditure Survey data, EPS made determinations as to the industries involved with expenditures in various categories. For example, purchases in the Consumer Expenditure Survey's "Food at Home" category would likely involve the Economic Census's "Food & Beverage Stores" industry, where gross receipts were more than 8 times the employees' wages. By contrast, purchases in the Consumer Expenditure Survey's "Entertainment Fees and Admissions" category were attributed to the Economic Census' "Arts, Entertainment, and Recreation" industry, where gross receipts are only about 3 times the employees' wages. Where more than one Economic Census category was attributable to a Consumer Expenditure Survey category, EPS estimated the proportion of expenditures associated with each Economic Census category.

After determining the amount of the household's expenditures that were used for employee wages, an estimation of the number of employees those aggregate wages represent is required. EPS calculated the number of workers supported by that spending using the average wage per worker (also from the 2007 Economic Census). These wages ranged from a low of roughly \$16,000 per year for workers in the food services industry to a high of more than \$96,000 average salary for architectural and engineering services.⁴

³ Note that the Consumer Expenditure Survey data is based on information current as of 2010 and data from the Economic Census was published in 2007. Because the data sources were from different years, EPS converted the 2010 expenditures to 2007 dollars using the Consumer Price Index (CPI) for the San Francisco Metropolitan Statistical Area (MSA) from the Bureau of Labor Statistics.

⁴ Note that the average salary reported for architectural and engineering services reflects the full range of workers employed by that industry sector, including administrative staff and entry-level employees, as well as the professional and technical architects and engineers.

This methodology recognizes that a range of occupations and incomes exist in a given industry sector. For instance, the methodology used to generate **Tables A-1 to A-4** in **Appendix A** distinguishes between the typical incomes of workers in different types of retail stores (e.g., “food and beverage stores” versus “general merchandise stores”), rather than assuming all retail sector workers earn the same income. However, the average wage is used for each sub-category of industry employment and represents a reasonable proxy for the range of incomes in that group: while some employees will have higher wages and require lower subsidies, others will have lower incomes and require higher subsidies. Using the average approximates the total housing subsidy needed by workers in that industry.

To calculate the number of *households* supported by the expenditures of market-rate housing units, EPS estimated the employees’ household formation rates. Importantly, employees generated from the increase in housing units do not all form households; some employees, in the retail and food services industries in particular, are young workers and do not form households. Data from the Bureau of Labor Statistics indicates that 12.5 percent of retail/restaurant workers are age 16-19, but an average of only 1.9 percent of workers in other industries. EPS applied these discounts to household formation to get a more accurate calculation of households formed by the employees and the average total incomes of those households.

To get the overall households’ income rather than the individual workers’, the wages of workers forming households were multiplied by the average of approximately 1.53 workers per working household in Sunnyvale.⁵ This assumption implies the workers in a given household will have roughly equivalent pay per hour. While certainly there will often be some variation in wages per employee within a household, on average this assumption is reasonable because it implies comparable levels of education and training among all workers in a household. The average household incomes then are allocated to various income categories to estimate the number of affordable housing units demanded in each income category (VLI, LI, Median, and moderate-income).

⁵ Workers per working household based on American Community Survey (ACS) Census data current as of February 2012. Although ACS data reported is based on historical figures, these figures can vary somewhat based on ongoing revisions to the ACS data. The average workers per working household estimate is calculated by taking the total number of employed residents and dividing it by the number of households with earnings. This methodology seeks to provide a conservative estimate of household formation by excluding households without workers or earnings (such as those with retired persons).

A simplified example of these calculations follows:

A.	Number of Households (prototype project)	1,000
B.	Average Household Income (in the project)	\$125,000
C.	Aggregate Household Income (A x B)	\$125 million
D.	Average Income Spent on Retail (Consumer Expenditure Survey)	\$40,000
E.	Aggregate Retail Spending (A x D)	\$40 million
F.	Retail Gross Receipts: Payroll Ratio (Economic Census)	8:1
G.	Estimated Retail Payroll (E ÷ F)	\$5 million
H.	Average Retail Wage (Economic Census)	\$25,000
I.	Estimated Total Retail Jobs (G ÷ H)	200
J.	Percent Age 20+ (Bureau of Labor Statistics)	87.5%
K.	Total Retail Workers Forming Households	175
J.	Average Workers/Household (Census Data)	1.53
K.	Estimated Households Created (I ÷ J)	130
L.	Average Household Income (H x J)	\$38,250
M.	Income Category (HCD Income Standards)	VLI

In this simplified example, 1,000 new market-rate apartments rented to households earning \$125,000 per year would create demand for 130 VLI housing units for retail workers. Actual calculations and impact distinctions by type of household expenditure for various rental unit sizes are shown in the series of tables presented in **Appendix A**.

Demand for Public-Sector Workers

In addition to the jobs created by the spending of the new market-rate households, this analysis also aims to evaluate the number of public-sector employees generated by the public service demands of new market-rate households. Rather than a comprehensive computation of public-sector employment, the analysis aims to be conservative by sampling only certain public-sector jobs (e.g., teachers and transportation providers) that are expected to grow in proportionate measure to household growth.

Data from the 2011 Occupational Employment Survey for the San Jose-Sunnyvale-Santa Clara MSA was used to determine the number of these public-sector employees needed to serve new market-rate development. This data was generated by the California Employment Development Department (EDD) and provides employment and wage information for a variety of occupational categories. EPS reviewed the data and sampled occupations that were public sector-related, as shown in **Table A-5** in **Appendix A**.

Based on the ratio of the selected public-sector jobs to the total households in the MSA, EPS estimates that approximately 47 government jobs or 31 households with a government employee are required per 1,000 total households. These figures are conservative (i.e., low) because numerous types of public-sector jobs are *not* included in this analysis (such as federal postal workers, County health and human services workers, etc.). Also, please note that EPS has no basis to distinguish differences in the number of public-sector workers demanded by households based on different income levels or in different sizes of units, so the same numbers of public-sector jobs are assumed to be generated by units of all sizes and prices.

Combined Demand for Income-Qualified Workers

The total number of income-qualified households required to support the expenditure and public-sector service needs of new market-rate units were determined based on the affordable housing income limits from HUD and HCD for a 3-person household. **Table 5** summarizes the HUD and HCD income limits used to compute the total number of income-qualified households generated by construction of market-rate units.⁶ The numbers of income-qualified households required to provide goods and services to new housing units are summarized in **Table 6** and detailed in **Appendix B**.

The nexus methodology used herein computes the total number of income-qualified households generated by market-rate units and calculates the impact fee based on the estimated cost to subsidize the production of units to meet that affordable housing demand. This methodology does not suggest that all lower income service workers serving City residents reside in the City, but it does assume that new development should mitigate for the new affordable housing demand it creates.

Fee Calculation

The affordability gap analysis quantifies the subsidy required to construct affordable housing at various income levels (VLI, LI, Median, etc.). Analysis of consumer expenditures that rely on lower wage workers provides an estimate of the total number of income-qualified households generated by new for-rent units. Then for each category of market-rate units, the nexus-based fee is calculated by applying the total number of income-qualified households generated to the affordability gap computed for each affordable household income level. The analysis provides the maximum supportable nexus-based fees for new housing development in the City of Sunnyvale.

Tables 7 through **10** show the impact fee calculation by number of bedrooms for rental units. The total impact fees required for a representative project of 100 units is calculated by multiplying the number of affordable units required per income level by the cost of subsidizing such housing. All income-qualified households are assumed to be housed in multifamily units and the subsidies needed are calculated as the affordability gaps shown in **Tables 2** and **3**. This assumption reflects the lower of the affordability gaps (and therefore fee amounts) associated with providing multifamily rental or for-sale units. The resulting maximum impact fee for market-rate rental units ranges from approximately \$47,200 for a studio apartment to roughly \$85,300 for a 3-bedroom apartment.

⁶ To correspond to the available data regarding employee wages, the 2007 Santa Clara County affordable housing income limits from HUD and HCD were used to determine the number of income-qualified households, based on household expenditures, while 2011 income limits were used for public-sector employment.

Table 5
Income Limits for Affordable Housing
City of Sunnyvale Rental Housing Fee, EPS #21123

Affordability Category	Percentage of County Median	2007 Max Income 3-person household	2010 Max Income 3-person household	2014 Max Income 3-person household
		[1]	[2]	[3]
Very Low Income (VLI)	< 50%	\$47,750	\$46,600	\$47,750
Low Income (LI)	51% - 80%	\$76,400	\$72,650	\$76,400
Median Income	81% - 100%	\$95,500	\$93,200	\$94,950
Moderate Income (Mod) [4]	101% - 120%	\$114,600	\$111,800	\$113,950

[1] 2007 HUD maximum income thresholds are used to relate 2007 economic census data regarding average worker wages and total worker household income to affordable housing categories.

[2] 2010 HUD maximum income thresholds are used to relate 2010 EDD data regarding public sector employment, wages and total worker household incomes to affordable housing categories and to compute supportable housing costs based on household income levels.

[3] 2014 HCD maximum income thresholds are used to estimate the values of units built to house the workers generated by spending from new households.

[4] HUD does not list moderate incomes limits. Value is taken from the California Department of Housing and Community Development.

Source: U.S. Department of Housing and Urban Development; California Housing and Community Development; Economic & Planning Systems, Inc.

Table 6
Summary of Worker and Household Generation per 100 Market-Rate Units
City of Sunnyvale Rental Housing Fee, EPS #21123

Unit Type	Minimum Household Income Requirement	Total Workers Generated	Total Worker Households	Worker Households by Income Category			Median Income Households
				Total Income Qualified Households	Very Low Income Households	Low Income Households	
For-Rent Apartments		[1]	[2]	[3]			
Studio	\$104,545	33.9	20.4	17.1	14.1	3.0	1.1
1-Bedroom	\$113,050	33.8	20.4	17.1	14.3	2.8	1.1
2-Bedroom	\$153,681	45.9	27.5	23.3	20.3	3.0	2.0
3-Bedroom	\$191,701	56.4	33.9	30.3	26.2	4.1	1.4

[1] Total workers generated detailed by rental apartment size in Tables B-1 through B-4.

[2] Total worker households derived assuming 1.53 workers per household. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[3] Total income qualified households reflects those low- and very-low income households eligible for affordable housing based on total household income. See Tables B-1 through B-4 for detail.

Source: Economic & Planning Systems, Inc.

Table 7
Nexus-Based Housing Fee Calculations (For-Rent Studio Apartment)
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	Affordable Units Required Per 100 Market-Rate Units [1]	Affordability Gap per Affordable Unit [2]	Total Nexus-Based Fee Supported		
	(A)	(B)	Per 100 Market-Rate Units (C = A * B)	Per Market-Rate Unit (D = C / 100)	Per Sq.Ft.
Affordable Units - Very Low Income	14.1	\$302,496	\$4,265,628		
Affordable Units - Low Income	3.0	\$146,223	\$436,877		
Affordable Units - Median Income	<u>1.1</u>	<u>\$12,130</u>	<u>\$12,891</u>		
<i>Total</i>	18.2		\$4,715,395	\$47,154	\$98

[1] See Table 6.

[2] See Table 3. EPS has assumed units for very-low and low-income households will be rental apartments.

Source: Economic & Planning Systems, Inc.

Table 8
Nexus-Based Housing Fee Calculations (For-Rent 1-Bedroom Apartment)
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	Affordable Units Required Per 100 Market-Rate Units [1]	Affordability Gap per Affordable Unit [2]	Total Nexus-Based Fee Supported		
			Per 100 Market-Rate Units	Per Market-Rate Unit	Per Sq.Ft.
	(A)	(B)	(C = A * B)	(D = C / 100)	
Affordable Units - Very Low Income	14.3	\$302,496	\$4,329,942		
Affordable Units - Low Income	2.8	\$146,223	\$413,472		
Affordable Units - Median Income	1.1	\$12,130	<u>\$12,891</u>		
Total	18.2		\$4,756,304	\$47,563	\$60

[1] See Table 6.

[2] See Table 3. EPS has assumed units for very-low and low-income households will be rental apartments.

Source: Economic & Planning Systems, Inc.

Table 9
Nexus-Based Housing Fee Calculations (For-Rent 2-Bedroom Apartment)
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	Affordable Units Required Per 100 Market-Rate Units [1]	Affordability Gap per Affordable Unit [2]	Total Nexus-Based Fee Supported		
			Per 100 Market-Rate Units	Per Market-Rate Unit Per Sq.Ft.	
	(A)	(B)	(C = A * B)	(D = C / 100)	
Affordable Units - Very Low Income	20.3	\$302,496	\$6,142,720		
Affordable Units - Low Income	3.0	\$146,223	\$436,659		
Affordable Units - Median Income	<u>2.0</u>	\$12,130	<u>\$24,771</u>		
<i>Total</i>	25.3		\$6,604,150	\$66,042	\$55

[1] See Table 6.

[2] See Table 3. EPS has assumed units for very-low and low-income households will be rental apartments.

Source: Economic & Planning Systems, Inc.

Table 10
Nexus-Based Housing Fee Calculations (For-Rent 3-Bedroom Apartment)
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	Affordable Units Required Per 100 Market-Rate Units [1]	Affordability Gap per Affordable Unit [2]	Total Nexus-Based Fee Supported		
			Per 100 Market-Rate Units	Per Market-Rate Unit Per Sq.Ft.	
	(A)	(B)	(C = A * B)	(D = C / 100)	
Affordable Units - Very Low Income	26.2	\$302,496	\$7,914,381		
Affordable Units - Low Income	4.1	\$146,223	\$603,420		
Affordable Units - Median Income	<u>1.4</u>	<u>\$12,130</u>	<u>\$16,519</u>		
<i>Total</i>	<i>31.7</i>		<i>\$8,534,320</i>	<i>\$85,343</i>	<i>\$61</i>

[1] See Table 6.

[2] See Table 3. EPS has assumed units for very-low and low-income households will be rental apartments.

Source: Economic & Planning Systems, Inc.



APPENDICES:

Appendix A: Household Expenditures and
Employment Generation

Appendix B: Income Levels for Worker Households

APPENDIX A:

Household Expenditures and Employment Generation

Table A-1	Household Expenditures and Employment Generation— For-Rent Studio Apartment (3 pages).....	A-1
Table A-2	Household Expenditures and Employment Generation— For-Rent 1-Bedroom Apartment (3 pages)	A-4
Table A-3	Household Expenditures and Employment Generation— For-Rent 2-Bedroom Apartment (3 pages)	A-7
Table A-4	Household Expenditures and Employment Generation— For-Rent 3-Bedroom Apartment (3 pages)	A-10
Table A-5	Representative Public-Sector Employment and Wages, 2010	A-13



Table A-1
Household Expenditures and Employment Generation - For Rent Studio Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>l = h * j</i>	
Calculation														
Food at Home	5.3%	100%	\$5,553	\$5,347										
Food & Beverage Stores		100%	\$5,553	\$5,347	\$5,346,673	8.43	\$634,251	\$26,299	24.1	87.5%	1.53	13.8	\$40,350	VLI Households
Food Away From Home	4.3%	100%	\$4,469	\$4,303										
Food Services and Drinking Places		100%	\$4,469	\$4,303	\$4,302,779	3.46	\$1,242,450	\$15,867	78.3	87.5%	1.53	44.7	\$24,345	VLI Households
Alcoholic Beverages	0.6%	100%	\$638	\$614										
Food & Beverage Stores		50%	\$318.81	\$307	\$306,946	8.43	\$36,412	\$26,299	1.4	87.5%	1.53	0.8	\$40,350	VLI Households
Food Services and Drinking Places		50%	\$319	\$307	\$306,946	3.46	\$88,632	\$15,867	5.6	87.5%	1.53	3.2	\$24,345	VLI Households
Housing Maintenance, Repairs, Insurance, Other expenses	1.6%	100%	\$1,644	\$1,583										
Personal and Household Goods Repair and Maintenance [7]		45%	\$740	\$712	\$712,406	3.72	\$191,555	\$26,783	7.2	98.1%	1.53	4.6	\$41,092	VLI Households
Building Material and Garden Equipment and Supplies Dealer		45%	\$740	\$712	\$712,406	8.13	\$87,618	\$30,589	2.9	87.5%	1.53	1.6	\$46,932	VLI Households
Real Estate and Rental and Leasing		10%	\$164	\$158	\$158,312	6.91	\$50,476	\$50,476	1.0	98.1%	1.53	0.6	\$77,443	Median Income
Fuel oil and Other fuels [8]	0.2%		\$162	\$156										
Nonstore Retailers [7]		100%	\$162	\$156	\$156,238	10.67	\$14,644	\$48,800	0.3	87.5%	1.53	0.2	\$74,872	LI Households
Water and Other Public Services [8]	0.8%	100%	\$842	\$810										
Waste Management and Remediation Services		100%	\$842	\$810	\$810,228	3.61	\$224,618	\$53,951	4.2	98.1%	1.53	2.7	\$82,776	Median Income
Household Operations Personal Services	0.5%	100%	\$560	\$539										
Nursing and Residential Care Facilities [7]		40%	\$224	\$216	\$215,692	2.37	\$91,104	\$25,627	3.6	98.1%	1.53	2.3	\$39,319	VLI Households
Social Assistance [7]		60%	\$336	\$324	\$323,538	2.98	\$108,443	\$23,861	4.5	98.1%	1.53	2.9	\$36,609	VLI Households
Household Operations Other Household Expenses	1.0%	100%	\$995	\$958										
Services to Buildings and Dwellings		100%	\$995	\$958	\$958,167	2.50	\$383,037	\$27,214	14.1	98.1%	1.53	9.0	\$41,754	VLI Households
Housekeeping Supplies	1.1%	100%	\$1,172	\$1,128										
Building Materials and Garden Equipment and Supplies Dealers		10%	\$117	\$113	\$112,824	8.13	\$13,876	\$30,589	0.5	87.5%	1.53	0.3	\$46,932	VLI Households
Food & Beverage Stores		35%	\$410	\$395	\$394,882	8.43	\$46,843	\$26,299	1.8	87.5%	1.53	1.0	\$40,350	VLI Households
General Merchandise [7]		35%	\$410	\$395	\$394,882	11.05	\$35,744	\$21,132	1.7	87.5%	1.53	1.0	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		20%	\$234	\$226	\$225,647	7.16	\$31,525	\$19,488	1.6	87.5%	1.53	0.9	\$29,900	VLI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

[3] 2010 expenditures are based on the estimated household income distributed based on the percent of income spent per the 2010 U.S. Consumer Expenditure Survey. Per Table 4 the rental of a typical new Studio Apartment requires a household income of

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

Table A-1
Household Expenditures and Employment Generation - For Rent Studio Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>l = h * j</i>	
Household Furnishings and Equipment	2.6%	100%	\$2,671	\$2,572										
Furniture and Home Furnishings Stores [7]		40%	\$1,068	\$1,029	\$1,028,685	7.14	\$144,103	\$28,287	5.1	87.5%	1.53	2.9	\$43,400	VLI Households
Electronics and Appliance Stores		40%	\$1,068	\$1,029	\$1,028,685	9.19	\$111,893	\$28,142	4.0	87.5%	1.53	2.3	\$43,178	VLI Households
General Merchandise Stores [7]		10%	\$267	\$257	\$257,171	11.05	\$23,279	\$21,132	1.1	87.5%	1.53	0.6	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$267	\$257	\$257,171	7.16	\$35,929	\$19,488	1.8	87.5%	1.53	1.1	\$29,900	VLI Households
Apparel and Services	2.5%	100%	\$2,637	\$2,539										
Clothing and Clothing Accessories Stores		40%	\$1,055	\$1,015	\$1,015,412	7.88	\$128,867	\$19,149	6.7	87.5%	1.53	3.8	\$29,380	VLI Households
General Merchandise [7]		40%	\$1,055	\$1,015	\$1,015,412	11.05	\$91,913	\$21,132	4.3	87.5%	1.53	2.5	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$264	\$254	\$253,853	7.16	\$35,465	\$19,488	1.8	87.5%	1.53	1.0	\$29,900	VLI Households
Personal and Household Goods Repair and Maintenance [7]		5%	\$132	\$127	\$126,926	3.72	\$34,129	\$26,783	1.3	87.5%	1.53	0.7	\$41,092	VLI Households
Drycleaning and Laundry Services [7]		5%	\$132	\$127	\$126,926	3.17	\$40,091	\$25,028	1.6	87.5%	1.53	0.9	\$38,399	VLI Households
Vehicle Purchases (net outlay)	5.8%	100%	\$6,063	\$5,838										
Motor Vehicle and Parts Dealers		100%	\$6,063	\$5,838	\$5,837,510	11.17	\$522,672	\$47,758	10.9	87.5%	1.53	6.2	\$73,274	LI Households
Gasoline and motor oil	3.7%	100%	\$3,857	\$3,714										
Gasoline Stations [7]		100%	\$3,857	\$3,714	\$3,713,774	37.73	\$98,440	\$17,786	5.5	87.5%	1.53	3.2	\$27,288	VLI Households
Vehicle Maintenance and Repairs	1.4%	100%	\$1,448	\$1,394										
Repair and Maintenance		100%	\$1,448	\$1,394	\$1,393,702	3.43	\$406,375	\$32,171	12.6	98.1%	1.53	8.1	\$49,358	LI Households
Medical Services	1.2%	100%	\$1,264	\$1,217										
Ambulatory Health Care Services [7]		40%	\$505	\$487	\$486,690	2.67	\$182,429	\$51,890	3.5	98.1%	1.53	2.2	\$79,613	Median Income
General Medical and Surgical Hospitals [7]		30%	\$379	\$365	\$365,017	2.63	\$138,784	\$58,054	2.4	98.1%	1.53	1.5	\$89,070	Median Income
Nursing and Residential Care Facilities [7]		30%	\$379	\$365	\$365,017	2.37	\$154,175	\$25,627	6.0	98.1%	1.53	3.8	\$39,319	VLI Households
Drugs	0.8%	100%	\$804	\$774										
Health and Personal Care Stores		100%	\$804	\$774	\$774,279	7.33	\$105,586	\$28,959	3.6	87.5%	1.53	2.1	\$44,431	VLI Households
Medical Supplies	0.2%	100%	\$233	\$224										
Health and Personal Care Stores		100%	\$233	\$224	\$223,988	7.33	\$30,544	\$28,959	1.1	87.5%	1.53	0.6	\$44,431	VLI Households
Entertainment Fees and Admissions	0.8%	100%	\$876	\$843										
Arts, Entertainment, & Recreation [7]		100%	\$876	\$843	\$843,411	3.07	\$274,674	\$39,299	7.0	87.5%	1.53	4.0	\$60,295	LI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

\$104,545.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

**Table A-1
Household Expenditures and Employment Generation - For Rent Studio Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123**

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
	a	b	c	d	e = d * 1000	f	g = e / f	f	i = g / h	j	k	l = i * k	l = h * j	
Entertainment Audio and Visual Equipment and Services	1.6%	100%	\$1,630	\$1,569										
Electronics and Appliance Stores		100%	\$1,630	\$1,569	\$1,569,297	9.19	\$170,696	\$28,142	6.1	87.5%	1.53	3.5	\$43,178	VLI Households
Entertainment Pets, Toys, Hobbies, and Playground Equip.	1.2%	100%	\$1,255	\$1,208										
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$502	\$483	\$483,371	8.09	\$59,769	\$17,104	3.5	87.5%	1.53	2.0	\$26,242	VLI Households
Miscellaneous Store Retailers [7]		40%	\$502	\$483	\$483,371	7.16	\$67,531	\$19,488	3.5	87.5%	1.53	2.0	\$29,900	VLI Households
Veterinary Services		20%	\$251	\$242	\$241,686	2.59	\$93,358	\$37,233	2.5	98.1%	1.53	1.6	\$57,125	LI Households
Other Entertainment Supplies, Equipment, and Services	0.5%	100%	\$516	\$496										
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$438	\$422	\$421,913	8.09	\$52,170	\$17,104	3.1	87.5%	1.53	1.7	\$26,242	VLI Households
Photographic Services		15%	\$77	\$74	\$74,455	3.18	\$23,381	\$21,566	1.1	98.1%	1.53	0.7	\$33,088	VLI Households
Personal Care Products and Services	0.9%	100%	\$893	\$860										
Unspecified Retail [7]		50%	\$447	\$430	\$430,001	7.46	\$57,639	\$26,687	2.2	87.5%	1.53	1.2	\$40,946	VLI Households
Personal Care Services		50%	\$447	\$430	\$430,001	2.83	\$152,054	\$17,009	8.9	98.1%	1.53	5.7	\$26,096	VLI Households
Reading	0.1%	100%	\$154	\$148										
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$154	\$148	\$147,943	8.09	\$18,293	\$17,104	1.1	87.5%	1.53	0.6	\$26,242	VLI Households
Education	1.0%	100%	\$1,063	\$1,023										
Educational Services		100%	\$1,063	\$1,023	\$1,023,154	2.70	\$378,940	\$23,026	16.5	98.1%	1.53	10.5	\$35,328	VLI Households
Tobacco Products and Smoking Supplies	0.6%	100%	\$583	\$561										
Unspecified Retail [7]		100%	\$583	\$561	\$561,352	7.46	\$75,246	\$26,687	2.8	87.5%	1.53	1.6	\$40,946	VLI Households
Miscellaneous	1.5%	100%	\$1,535	\$1,478										
Accounting		20%	\$307	\$296	\$295,609	2.84	\$104,194	\$51,465	2.0	98.1%	1.53	1.3	\$78,960	Median Income
Architectural, Engineering, and Related [9]		20%	\$307	\$296	\$295,609	2.22	\$132,869	\$96,314	1.4	98.1%	1.53	0.9	\$147,771	Above Mod
Specialized Design Services [7]		20%	\$307	\$296	\$295,609	3.72	\$79,564	\$53,888	1.5	98.1%	1.53	0.9	\$82,678	Median Income
Death Care Services [7]		20%	\$307	\$296	\$295,609	3.47	\$85,076	\$36,983	2.3	98.1%	1.53	1.5	\$56,741	LI Households
Legal Services [7]		20%	\$307	\$296	\$295,609	2.76	\$107,046	\$85,734	1.2	98.1%	1.53	0.8	\$131,538	Above Mod
Total per 1,000 Market Rate Households									292.6			173.6		

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

[3] 2010 expenditures are based on the estimated household income distributed based on the percent of income spent per the 2010 U.S. Consumer Expenditure Survey. Per Table 4 the rental of a typical new Studio Apartment requires a household income of

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

[9] Note that average salary reported for architecture, engineering and related industries reflects the full range of employees within the industry, not solely professional and technical staff.

Source: 2010 Consumer Expenditure Survey, U.S. Bureau of Labor Statistics; 2007 Economic Census, U.S. Census Bureau; Census 2010; Economic & Planning Systems, Inc.

**Table A-2
Household Expenditures and Employment Generation - For Rent 1-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123**

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = j * k</i>	<i>l = h * j</i>	
Food at Home	5.2%	100%	\$5,915	\$5,695										
Food & Beverage Stores		100%	\$5,915	\$5,695	\$5,694,877	8.43	\$675,557	\$26,299	25.7	87.5%	1.53	14.6	\$40,350	VLI Households
Food Away From Home	3.8%	100%	\$4,272	\$4,113										
Food Services and Drinking Places		100%	\$4,272	\$4,113	\$4,113,106	3.46	\$1,187,681	\$15,867	74.9	87.5%	1.53	42.7	\$24,345	VLI Households
Alcoholic Beverages	0.6%	100%	\$691	\$665										
Food & Beverage Stores		50%	\$345	\$332	\$345,253	8.43	\$40,956	\$26,299	1.6	87.5%	1.53	0.9	\$40,350	VLI Households
Food Services and Drinking Places		50%	\$345	\$332	\$345,253	3.46	\$99,694	\$15,867	6.3	87.5%	1.53	3.6	\$24,345	VLI Households
Housing Maintenance, Repairs, Insurance, Other expenses	1.5%	100%	\$1,660	\$1,598										
Personal and Household Goods Repair and Maintenance [7]		45%	\$747	\$719	\$719,135	3.72	\$193,364	\$26,783	7.2	98.1%	1.53	4.6	\$41,092	VLI Households
Building Material and Garden Equipment and Supplies Dealer		45%	\$747	\$719	\$719,135	8.13	\$88,445	\$30,589	2.9	87.5%	1.53	1.6	\$46,932	VLI Households
Real Estate and Rental and Leasing		10%	\$166	\$160	\$159,808	6.91	\$23,128	\$50,476	0.5	98.1%	1.53	0.3	\$77,443	Median Income
Fuel oil and Other fuels [8]	0.2%		\$245	\$236										
Nonstore Retailers [7]		100%	\$245	\$236	\$235,823	10.67	\$22,104	\$48,800	0.5	87.5%	1.53	0.3	\$74,872	LI Households
Water and Other Public Services [8]	0.7%	100%	\$813	\$783										
Waste Management and Remediation Services		100%	\$813	\$783	\$782,732	3.61	\$216,996	\$53,951	4.0	98.1%	1.53	2.6	\$82,776	Median Income
Household Operations Personal Services	0.6%	100%	\$707	\$681										
Nursing and Residential Care Facilities [7]		40%	\$283	\$272	\$272,451	2.37	\$115,077	\$25,627	4.5	98.1%	1.53	2.9	\$39,319	VLI Households
Social Assistance [7]		60%	\$424	\$409	\$408,676	2.98	\$136,979	\$23,861	5.7	98.1%	1.53	3.7	\$36,609	VLI Households
Household Operations Other Household Expenses	1.0%	100%	\$1,076	\$1,036										
Services to Buildings and Dwellings		100%	\$1,076	\$1,036	\$1,036,116	2.50	\$414,198	\$27,214	15.2	98.1%	1.53	9.7	\$41,754	VLI Households
Housekeeping Supplies	0.9%	100%	\$1,016	\$978										
Building Materials and Garden Equipment and Supplies Dealers		10%	\$102	\$98	\$97,841	8.13	\$12,033	\$30,589	0.4	87.5%	1.53	0.2	\$46,932	VLI Households
Food & Beverage Stores		35%	\$356	\$342	\$342,445	8.43	\$40,623	\$26,299	1.5	87.5%	1.53	0.9	\$40,350	VLI Households
General Merchandise [7]		35%	\$356	\$342	\$342,445	11.05	\$30,997	\$21,132	1.5	87.5%	1.53	0.8	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		20%	\$203	\$196	\$195,683	7.16	\$27,339	\$19,488	1.4	87.5%	1.53	0.8	\$29,900	VLI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

\$113,050.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

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Table A-2
Household Expenditures and Employment Generation - For Rent 1-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = j * k</i>	<i>l = h * j</i>	
Household Furnishings and Equipment	2.1%	100%	\$2,339	\$2,252										
Furniture and Home Furnishings Stores [7]		40%	\$935	\$901	\$900,644	7.14	\$126,166	\$28,287	4.5	87.5%	1.53	2.5	\$43,400	VLI Households
Electronics and Appliance Stores		40%	\$935	\$901	\$900,644	9.19	\$97,965	\$28,142	3.5	87.5%	1.53	2.0	\$43,178	VLI Households
General Merchandise Stores [7]		10%	\$234	\$225	\$225,161	11.05	\$20,381	\$21,132	1.0	87.5%	1.53	0.6	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$234	\$225	\$225,161	7.16	\$31,457	\$19,488	1.6	87.5%	1.53	0.9	\$29,900	VLI Households
Apparel and Services	2.2%	100%	\$2,492	\$2,400										
Clothing and Clothing Accessories Stores		40%	\$997	\$960	\$959,850	7.88	\$121,816	\$19,149	6.4	87.5%	1.53	3.6	\$29,380	VLI Households
General Merchandise [7]		40%	\$997	\$960	\$959,850	11.05	\$86,883	\$21,132	4.1	87.5%	1.53	2.3	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$249	\$240	\$239,963	7.16	\$33,525	\$19,488	1.7	87.5%	1.53	1.0	\$29,900	VLI Households
Personal and Household Goods Repair and Maintenance [7]		5%	\$125	\$120	\$119,981	3.72	\$32,261	\$26,783	1.2	87.5%	1.53	0.7	\$41,092	VLI Households
Drycleaning and Laundry Services [7]		5%	\$125	\$120	\$119,981	3.17	\$37,898	\$25,028	1.5	87.5%	1.53	0.9	\$38,399	VLI Households
Vehicle Purchases (net outlay)	4.3%	100%	\$4,843	\$4,663										
Motor Vehicle and Parts Dealers		100%	\$4,843	\$4,663	\$4,662,524	11.17	\$417,467	\$47,758	8.7	87.5%	1.53	5.0	\$73,274	LI Households
Gasoline and motor oil	3.3%	100%	\$3,777	\$3,636										
Gasoline Stations [7]		100%	\$3,777	\$3,636	\$3,636,442	37.73	\$96,390	\$17,786	5.4	87.5%	1.53	3.1	\$27,288	VLI Households
Vehicle Maintenance and Repairs	1.2%	100%	\$1,360	\$1,310										
Repair and Maintenance		100%	\$1,360	\$1,310	\$1,309,571	3.43	\$381,844	\$32,171	11.9	98.1%	1.53	7.6	\$49,358	LI Households
Medical Services	1.2%	100%	\$1,305	\$1,257										
Ambulatory Health Care Services [7]		40%	\$522	\$503	\$502,755	2.67	\$188,451	\$51,890	3.6	98.1%	1.53	2.3	\$79,613	Median Income
General Medical and Surgical Hospitals [7]		30%	\$392	\$377	\$377,066	2.63	\$143,365	\$58,054	2.5	98.1%	1.53	1.6	\$89,070	Median Income
Nursing and Residential Care Facilities [7]		30%	\$392	\$377	\$377,066	2.37	\$159,265	\$25,627	6.2	98.1%	1.53	4.0	\$39,319	VLI Households
Drugs	0.6%	100%	\$715	\$689										
Health and Personal Care Stores		100%	\$715	\$689	\$688,654	7.33	\$93,909	\$28,959	3.2	87.5%	1.53	1.8	\$44,431	VLI Households
Medical Supplies	0.2%	100%	\$199	\$192										
Health and Personal Care Stores		100%	\$199	\$192	\$191,920	7.33	\$26,171	\$28,959	0.9	87.5%	1.53	0.5	\$44,431	VLI Households
Entertainment Fees and Admissions	0.9%	100%	\$993	\$956										
Arts, Entertainment, & Recreation [7]		100%	\$993	\$956	\$955,836	3.07	\$311,288	\$39,299	7.9	87.5%	1.53	4.5	\$60,295	LI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.
\$113,050.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

Table A-2
Household Expenditures and Employment Generation - For Rent 1-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>l = h * j</i>	
Entertainment Audio and Visual Equipment and Services	1.4%	100%	\$1,609	\$1,549										
Electronics and Appliance Stores		100%	\$1,609	\$1,549	\$1,549,157	9.19	\$168,506	\$28,142	6.0	87.5%	1.53	3.4	\$43,178	VLI Households
Entertainment Pets, Toys, Hobbies, and Playground Equip.	0.9%	100%	\$969	\$933										
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$388	\$373	\$373,303	8.09	\$46,159	\$17,104	2.7	87.5%	1.53	1.5	\$26,242	VLI Households
Miscellaneous Store Retailers [7]		40%	\$388	\$373	\$373,303	7.16	\$52,154	\$19,488	2.7	87.5%	1.53	1.5	\$29,900	VLI Households
Veterinary Services		20%	\$194	\$187	\$186,651	2.59	\$72,100	\$37,233	1.9	98.1%	1.53	1.2	\$57,125	LI Households
Other Entertainment Supplies, Equipment, and Services	0.4%	100%	\$492	\$474										
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$419	\$403	\$403,032	8.09	\$49,835	\$17,104	2.9	87.5%	1.53	1.7	\$26,242	VLI Households
Photographic Services		15%	\$74	\$71	\$71,123	3.18	\$22,334	\$21,566	1.0	98.1%	1.53	0.7	\$33,088	VLI Households
Personal Care Products and Services	0.9%	100%	\$1,016	\$978										
Unspecified Retail [7]		50%	\$508	\$489	\$489,207	7.46	\$65,575	\$26,687	2.5	87.5%	1.53	1.4	\$40,946	VLI Households
Personal Care Services		50%	\$508	\$489	\$489,207	2.83	\$172,990	\$17,009	10.2	98.1%	1.53	6.5	\$26,096	VLI Households
Reading	0.1%	100%	\$158	\$152										
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$158	\$152	\$151,780	8.09	\$18,768	\$17,104	1.1	87.5%	1.53	0.6	\$26,242	VLI Households
Education	1.2%	100%	\$1,350	\$1,300										
Educational Services		100%	\$1,350	\$1,300	\$1,299,536	2.70	\$481,303	\$23,026	20.9	98.1%	1.53	13.4	\$35,328	VLI Households
Tobacco Products and Smoking Supplies	0.5%	100%	\$515	\$495										
Unspecified Retail [7]		100%	\$515	\$495	\$495,479	7.46	\$66,416	\$26,687	2.5	87.5%	1.53	1.4	\$40,946	VLI Households
Miscellaneous	1.3%	100%	\$1,420	\$1,367										
Accounting		20%	\$284	\$273	\$273,454	2.84	\$96,385	\$51,465	1.9	98.1%	1.53	1.2	\$78,960	Median Income
Architectural, Engineering, and Related [9]		20%	\$284	\$273	\$273,454	2.22	\$122,912	\$96,314	1.3	98.1%	1.53	0.8	\$147,771	Above Mod
Specialized Design Services [7]		20%	\$284	\$273	\$273,454	3.72	\$73,601	\$53,888	1.4	98.1%	1.53	0.9	\$82,678	Median Income
Death Care Services [7]		20%	\$284	\$273	\$273,454	3.47	\$78,700	\$36,983	2.1	98.1%	1.53	1.4	\$56,741	LI Households
Legal Services [7]		20%	\$284	\$273	\$273,454	2.76	\$99,023	\$85,734	1.2	98.1%	1.53	0.7	\$131,538	Above Mod
Total per 1,000 Market Rate Households									291.7			173.5		

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

[3] 2010 expenditures are based on the estimated household income distributed based on the percent of income spent per the 2010 U.S. Consumer Expenditure Survey. Per Table 4 the rental of a typical new 1-Bedroom Apartment requires a household income of

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

[9] Note that average salary reported for architecture, engineering and related industries reflects the full range of employees within the industry, not solely professional and technical staff.

Source: 2010 Consumer Expenditure Survey, U.S. Bureau of Labor Statistics; 2007 Economic Census, U.S. Census Bureau; Census 2010; Economic & Planning Systems, Inc.

Table A-3
Household Expenditures and Employment Generation - For Rent 2-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
	a	b	c	d	e = d * 1000	f	g = e / f	f	i = g / h	j	k	l = j * k	i = h * j	
Calculation														
Food at Home	4.9%	100%	\$7,606	\$7,323										
Food & Beverage Stores		100%	\$7,606	\$7,323	\$7,323,236	8.43	\$868,722	\$26,299	33.0	87.5%	1.53	18.8	\$40,350	VLI Households
Food Away From Home	4.0%	100%	\$6,182	\$5,952										
Food Services and Drinking Places		100%	\$6,182	\$5,952	\$5,952,077	3.46	\$1,718,693	\$15,867	108.3	87.5%	1.53	61.8	\$24,345	VLI Households
Alcoholic Beverages	0.6%	100%	\$949	\$914										
Food & Beverage Stores		50%	\$474	\$457	\$456,817	8.43	\$54,190	\$26,299	2.1	87.5%	1.53	1.2	\$40,350	VLI Households
Food Services and Drinking Places		50%	\$474	\$457	\$456,817	3.46	\$131,908	\$15,867	8.3	87.5%	1.53	4.7	\$24,345	VLI Households
Housing Maintenance, Repairs, Insurance, Other expenses	1.6%	100%	\$2,467	\$2,375										
Personal and Household Goods Repair and Maintenance [7]		45%	\$1,110	\$1,069	\$1,068,952	3.72	\$287,425	\$26,783	10.7	98.1%	1.53	6.9	\$41,092	VLI Households
Building Material and Garden Equipment and Supplies Dealer		45%	\$1,110	\$1,069	\$1,068,952	8.13	\$131,469	\$30,589	4.3	87.5%	1.53	2.5	\$46,932	VLI Households
Real Estate and Rental and Leasing		10%	\$247	\$238	\$237,545	6.91	\$34,379	\$50,476	0.7	98.1%	1.53	0.4	\$77,443	Median Income
Fuel oil and Other fuels [8]	0.2%		\$250	\$241										
Nonstore Retailers [7]		100%	\$250	\$241	\$240,803	10.67	\$22,570	\$48,800	0.5	87.5%	1.53	0.3	\$74,872	LI Households
Water and Other Public Services [8]	0.6%	100%	\$990	\$953										
Waste Management and Remediation Services		100%	\$990	\$953	\$953,295	3.61	\$264,281	\$53,951	4.9	98.1%	1.53	3.1	\$82,776	Median Income
Household Operations Personal Services	0.6%	100%	\$922	\$888										
Nursing and Residential Care Facilities [7]		40%	\$369	\$355	\$355,255	2.37	\$150,052	\$25,627	5.9	98.1%	1.53	3.7	\$39,319	VLI Households
Social Assistance [7]		60%	\$553	\$533	\$532,882	2.98	\$178,610	\$23,861	7.5	98.1%	1.53	4.8	\$36,609	VLI Households
Household Operations Other Household Expenses	0.9%	100%	\$1,352	\$1,302										
Services to Buildings and Dwellings		100%	\$1,352	\$1,302	\$1,301,751	2.50	\$520,388	\$27,214	19.1	98.1%	1.53	12.2	\$41,754	VLI Households
Housekeeping Supplies	0.8%	100%	\$1,251	\$1,204										
Building Materials and Garden Equipment and Supplies Dealers		10%	\$125	\$120	\$120,401	8.13	\$14,808	\$30,589	0.5	87.5%	1.53	0.3	\$46,932	VLI Households
Food & Beverage Stores		35%	\$438	\$421	\$421,405	8.43	\$49,989	\$26,299	1.9	87.5%	1.53	1.1	\$40,350	VLI Households
General Merchandise [7]		35%	\$438	\$421	\$421,405	11.05	\$38,145	\$21,132	1.8	87.5%	1.53	1.0	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		20%	\$250	\$241	\$240,803	7.16	\$33,642	\$19,488	1.7	87.5%	1.53	1.0	\$29,900	VLI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.
\$153,681.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

Table A-3
Household Expenditures and Employment Generation - For Rent 2-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = j / k</i>	<i>l = h * j</i>	
Household Furnishings and Equipment	2.3%	100%	\$3,469	\$3,340										
Furniture and Home Furnishings Stores [7]		40%	\$1,388	\$1,336	\$1,336,030	7.14	\$187,157	\$28,287	6.6	87.5%	1.53	3.8	\$43,400	VLI Households
Electronics and Appliance Stores		40%	\$1,388	\$1,336	\$1,336,030	9.19	\$145,323	\$28,142	5.2	87.5%	1.53	2.9	\$43,178	VLI Households
General Merchandise Stores [7]		10%	\$347	\$334	\$334,008	11.05	\$30,234	\$21,132	1.4	87.5%	1.53	0.8	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$347	\$334	\$334,008	7.16	\$46,664	\$19,488	2.4	87.5%	1.53	1.4	\$29,900	VLI Households
Apparel and Services	2.3%	100%	\$3,588	\$3,455										
Clothing and Clothing Accessories Stores		40%	\$1,435	\$1,382	\$1,381,924	7.88	\$175,382	\$19,149	9.2	87.5%	1.53	5.2	\$29,380	VLI Households
General Merchandise [7]		40%	\$1,435	\$1,382	\$1,381,924	11.05	\$125,089	\$21,132	5.9	87.5%	1.53	3.4	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$359	\$345	\$345,481	7.16	\$48,267	\$19,488	2.5	87.5%	1.53	1.4	\$29,900	VLI Households
Personal and Household Goods Repair and Maintenance [7]		5%	\$179	\$173	\$172,741	3.72	\$46,447	\$26,783	1.7	87.5%	1.53	1.0	\$41,092	VLI Households
Drycleaning and Laundry Services [7]		5%	\$179	\$173	\$172,741	3.17	\$54,562	\$25,028	2.2	87.5%	1.53	1.2	\$38,399	VLI Households
Vehicle Purchases (net outlay)	4.6%	100%	\$7,060	\$6,798										
Motor Vehicle and Parts Dealers		100%	\$7,060	\$6,798	\$6,797,719	11.17	\$608,646	\$47,758	12.7	87.5%	1.53	7.3	\$73,274	LI Households
Gasoline and motor oil	3.1%	100%	\$4,778	\$4,601										
Gasoline Stations [7]		100%	\$4,778	\$4,601	\$4,600,749	37.73	\$121,951	\$17,786	6.9	87.5%	1.53	3.9	\$27,288	VLI Households
Vehicle Maintenance and Repairs	1.2%	100%	\$1,889	\$1,819										
Repair and Maintenance		100%	\$1,889	\$1,819	\$1,818,769	3.43	\$530,316	\$32,171	16.5	98.1%	1.53	10.5	\$49,358	LI Households
Medical Services	1.2%	100%	\$1,896	\$1,826										
Ambulatory Health Care Services [7]		40%	\$759	\$730	\$730,341	2.67	\$273,758	\$51,890	5.3	98.1%	1.53	3.4	\$79,613	Median Income
General Medical and Surgical Hospitals [7]		30%	\$568.92	\$548	\$547,755	2.63	\$208,264	\$58,054	3.6	98.1%	1.53	2.3	\$89,070	Median Income
Nursing and Residential Care Facilities [7]		30%	\$569	\$548	\$547,755	2.37	\$231,360	\$25,627	9.0	98.1%	1.53	5.8	\$39,319	VLI Households
Drugs	0.7%	100%	\$999	\$962										
Health and Personal Care Stores		100%	\$999	\$962	\$961,794	7.33	\$131,156	\$28,959	4.5	87.5%	1.53	2.6	\$44,431	VLI Households
Medical Supplies	0.2%	100%	\$269	\$259										
Health and Personal Care Stores		100%	\$269	\$259	\$259,217	7.33	\$35,348	\$28,959	1.2	87.5%	1.53	0.7	\$44,431	VLI Households
Entertainment Fees and Admissions	1.1%	100%	\$1,630	\$1,569										
Arts, Entertainment, & Recreation [7]		100%	\$1,630	\$1,569	\$1,569,467	3.07	\$511,130	\$39,299	13.0	87.5%	1.53	7.4	\$60,295	LI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type. \$153,681.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

Table A-3
Household Expenditures and Employment Generation - For Rent 2-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = j * k</i>	<i>l = h * j</i>	
Entertainment Audio and Visual Equipment and Services	1.2%	100%	\$1,876	\$1,806										
Electronics and Appliance Stores		100%	\$1,876	\$1,806	\$1,806,020	9.19	\$196,445	\$28,142	7.0	87.5%	1.53	4.0	\$43,178	VLI Households
Entertainment Pets, Toys, Hobbies, and Playground Equip.	1.1%	100%	\$1,693	\$1,630										
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$677	\$652	\$652,150	8.09	\$80,639	\$17,104	4.7	87.5%	1.53	2.7	\$26,242	VLI Households
Miscellaneous Store Retailers [7]		40%	\$677	\$652	\$652,150	7.16	\$91,111	\$19,488	4.7	87.5%	1.53	2.7	\$29,900	VLI Households
Veterinary Services		20%	\$339	\$326	\$326,075	2.59	\$125,956	\$37,233	3.4	98.1%	1.53	2.2	\$57,125	LI Households
Other Entertainment Supplies, Equipment, and Services	0.8%	100%	\$1,167	\$1,123										
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$992	\$955	\$954,783	8.09	\$118,059	17,104.08	6.9	87.5%	1.53	3.9	\$26,242	VLI Households
Photographic Services		15%	\$175	\$168	\$168,491	3.18	\$52,910	21,565.73	2.5	98.1%	1.53	1.6	\$33,088	VLI Households
Personal Care Products and Services	0.9%	100%	\$1,406	\$1,354										
Unspecified Retail [7]		50%	\$703	\$677	\$677,081	7.46	\$90,758	26,687.41	3.4	87.5%	1.53	1.9	\$40,946	VLI Households
Personal Care Services		50%	\$703	\$677	\$677,081	2.83	\$239,424	17,009.12	14.1	98.1%	1.53	9.0	\$26,096	VLI Households
Reading	0.1%	100%	\$225	\$217										
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$225	\$217	\$216,722	8.09	\$26,798	17,104.08	1.6	87.5%	1.53	0.9	\$26,242	VLI Households
Education	1.4%	100%	\$2,133	\$2,054										
Educational Services		100%	\$2,133	\$2,054	\$2,053,906	2.70	\$760,695	\$23,026	33.0	98.1%	1.53	21.1	\$35,328	VLI Households
Tobacco Products and Smoking Supplies	0.3%	100%	\$433	\$416										
Unspecified Retail [7]		100%	\$433	\$416	\$416,447	7.46	\$55,822	26,687.41	2.1	87.5%	1.53	1.2	\$40,946	VLI Households
Miscellaneous	0.9%	100%	\$1,356	\$1,306										
Accounting		20%	\$271	\$261	\$261,200	2.84	\$92,066	51,464.51	1.8	98.1%	1.53	1.1	\$78,960	Median Income
Architectural, Engineering, and Related [9]		20%	\$271	\$261	\$261,200	2.22	\$117,404	\$96,314	1.2	98.1%	1.53	0.8	\$147,771	Above Mod
Specialized Design Services [7]		20%	\$271	\$261	\$261,200	3.72	\$70,303	\$53,888	1.3	98.1%	1.53	0.8	\$82,678	Median Income
Death Care Services [7]		20%	\$271	\$261	\$261,200	3.47	\$75,173	\$36,983	2.0	98.1%	1.53	1.3	\$56,741	LI Households
Legal Services [7]		20%	\$271	\$261	\$261,200	2.76	\$94,586	\$85,734	1.1	98.1%	1.53	0.7	\$131,538	Above Mod
Total per 1,000 Market Rate Households									411.7			244.7		

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type. \$153,681.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

[9] Note that average salary reported for architecture, engineering and related industries reflects the full range of employees within the industry, not solely professional and technical staff.

Source: 2010 Consumer Expenditure Survey, U.S. Bureau of Labor Statistics; 2007 Economic Census, U.S. Census Bureau; Census 2010; Economic & Planning Systems, Inc.

Table A-4
Household Expenditures and Employment Generation - For Rent 3-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j</i>	<i>l = h * j</i>	
Calculation														
Food at Home	4.4%	100%	\$8,493	\$8,177										
Food & Beverage Stores		100%	\$8,493	\$8,177	\$8,177,470	8.43	\$970,055	\$26,299	36.9	87.5%	1.53	21.0	\$40,350	VLI Households
Food Away From Home	3.8%	100%	\$7,237	\$6,967										
Food Services and Drinking Places		100%	\$7,237	\$6,967	\$6,967,494	3.46	\$2,011,900	\$15,867	126.8	87.5%	1.53	72.3	\$24,345	VLI Households
Alcoholic Beverages	0.6%	100%	\$1,201	\$1,156										
Food & Beverage Stores		50%	\$601	\$578	\$578,212	8.43	\$68,591	\$26,299	2.6	87.5%	1.53	1.5	\$40,350	VLI Households
Food Services and Drinking Places		50%	\$601	\$578	\$578,212	3.46	\$166,962	\$15,867	10.5	87.5%	1.53	6.0	\$24,345	VLI Households
Housing Maintenance, Repairs, Insurance, Other Expenses	1.4%	100%	\$2,641	\$2,543										
Personal and Household Goods Repair and Maintenance [7]		45%	\$1,189	\$1,144	\$1,144,339	3.72	\$307,695	\$26,783	11.5	98.1%	1.53	7.3	\$41,092	VLI Households
Building Material and Garden Equipment and Supplies Dealer		45%	\$1,189	\$1,144	\$1,144,339	8.13	\$140,740	\$30,589	4.6	87.5%	1.53	2.6	\$46,932	VLI Households
Real Estate and Rental and Leasing		10%	\$264	\$254	\$254,298	6.91	\$36,803	\$50,476	0.7	98.1%	1.53	0.5	\$77,443	Median Income
Fuel oil and Other fuels [8]	0.2%		\$316	\$304										
Nonstore Retailers [7]		100%	\$316	\$304	\$303,941	10.67	\$28,488	\$48,800	0.6	87.5%	1.53	0.3	\$74,872	LI Households
Water and Other Public Services [8]	0.6%	100%	\$1,118	\$1,077										
Waste Management and Remediation Services		100%	\$1,118	\$1,077	\$1,076,821	3.61	\$298,525	\$53,951	5.5	98.1%	1.53	3.5	\$82,776	Median Income
Household Operations Personal Services	0.6%	100%	\$1,068	\$1,028										
Nursing and Residential Care Facilities [7]		40%	\$427	\$411	\$411,153	2.37	\$173,662	\$25,627	6.8	98.1%	1.53	4.3	\$39,319	VLI Households
Social Assistance [7]		60%	\$641	\$617	\$616,729	2.98	\$206,714	\$23,861	8.7	98.1%	1.53	5.5	\$36,609	VLI Households
Household Operations Other Household Expenses	1.0%	100%	\$1,906	\$1,835										
Services to Buildings and Dwellings		100%	\$1,906	\$1,835	\$1,835,227	2.50	\$733,651	\$27,214	27.0	98.1%	1.53	17.2	\$41,754	VLI Households
Housekeeping Supplies	0.9%	100%	\$1,733	\$1,669										
Building Materials and Garden Equipment and Supplies Dealers		10%	\$173	\$167	\$166,878	8.13	\$20,524	\$30,589	0.7	87.5%	1.53	0.4	\$46,932	VLI Households
Food & Beverage Stores		35%	\$607	\$584	\$584,074	8.43	\$69,286	\$26,299	2.6	87.5%	1.53	1.5	\$40,350	VLI Households
General Merchandise [7]		35%	\$607	\$584	\$584,074	11.05	\$52,869	\$21,132	2.5	87.5%	1.53	1.4	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		20%	\$347	\$334	\$333,757	7.16	\$46,629	\$19,488	2.4	87.5%	1.53	1.4	\$29,900	VLI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

[3] 2010 expenditures are based on the estimated household income distributed based on the percent of income spent per the 2010 U.S. Consumer Expenditure Survey. Per Table 4 the rental of a typical new 3-Bedroom Apartment requires a household income of \$191,701.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

Table A-4
Household Expenditures and Employment Generation - For Rent 3-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/ HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>l = h * j</i>	
Household Furnishings and Equipment	2.3%	100%	\$4,469	\$4,303										
Furniture and Home Furnishings Stores [7]		40%	\$1,788	\$1,721	\$1,721,177	7.14	\$241,110	\$28,287	8.5	87.5%	1.53	4.9	\$43,400	VLI Households
Electronics and Appliance Stores		40%	\$1,788	\$1,721	\$1,721,177	9.19	\$187,216	\$28,142	6.7	87.5%	1.53	3.8	\$43,178	VLI Households
General Merchandise Stores [7]		10%	\$447	\$430	\$430,294	11.05	\$38,949	\$21,132	1.8	87.5%	1.53	1.1	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$447	\$430	\$430,294	7.16	\$60,116	\$19,488	3.1	87.5%	1.53	1.8	\$29,900	VLI Households
Apparel and Services	3.4%	100%	\$6,515	\$6,273										
Clothing and Clothing Accessories Stores		40%	\$2,606	\$2,509	\$2,509,108	7.88	\$318,434	\$19,149	16.6	87.5%	1.53	9.5	\$29,380	VLI Households
General Merchandise [7]		40%	\$2,606	\$2,509	\$2,509,108	11.05	\$227,119	\$21,132	10.7	87.5%	1.53	6.1	\$32,422	VLI Households
Miscellaneous Store Retailers [7]		10%	\$652	\$627	\$627,277	7.16	\$87,636	\$19,488	4.5	87.5%	1.53	2.6	\$29,900	VLI Households
Personal and Household Goods Repair and Maintenance [7]		5%	\$326	\$314	\$313,639	3.72	\$84,333	\$26,783	3.1	87.5%	1.53	1.8	\$41,092	VLI Households
Drycleaning and Laundry Services [7]		5%	\$326	\$314	\$313,639	3.17	\$99,067	\$25,028	4.0	87.5%	1.53	2.3	\$38,399	VLI Households
Vehicle Purchases (net outlay)	4.6%	100%	\$8,728	\$8,403										
Motor Vehicle and Parts Dealers		100%	\$8,728	\$8,403	\$8,403,255	11.17	\$752,400	\$47,758	15.8	87.5%	1.53	9.0	\$73,274	LI Households
Gasoline and motor oil	2.5%	100%	\$4,857	\$4,676										
Gasoline Stations [7]		100%	\$4,857	\$4,676	\$4,676,355	37.73	\$123,955	\$17,786	7.0	87.5%	1.53	4.0	\$27,288	VLI Households
Vehicle Maintenance and Repairs	1.0%	100%	\$1,939	\$1,867										
Repair and Maintenance		100%	\$1,939	\$1,867	\$1,867,068	3.43	\$544,399	\$32,171	16.9	98.1%	1.53	10.8	\$49,358	LI Households
Medical Services	0.9%	100%	\$1,795	\$1,728										
Ambulatory Health Care Services [7]		40%	\$718	\$691	\$691,249	2.67	\$259,105	\$51,890	5.0	98.1%	1.53	3.2	\$79,613	Median Income
General Medical and Surgical Hospitals [7]		30%	\$538	\$518	\$518,437	2.63	\$197,117	\$58,054	3.4	98.1%	1.53	2.2	\$89,070	Median Income
Nursing and Residential Care Facilities [7]		30%	\$538	\$518	\$518,437	2.37	\$218,977	\$25,627	8.5	98.1%	1.53	5.5	\$39,319	VLI Households
Drugs	0.5%	100%	\$932	\$897										
Health and Personal Care Stores		100%	\$932	\$897	\$897,351	7.33	\$122,368	\$28,959	4.2	87.5%	1.53	2.4	\$44,431	VLI Households
Medical Supplies	0.2%	100%	\$310	\$298										
Health and Personal Care Stores		100%	\$310	\$298	\$298,152	7.33	\$40,658	\$28,959	1.4	87.5%	1.53	0.8	\$44,431	VLI Households
Entertainment Fees and Admissions	1.0%	100%	\$1,971	\$1,897										
Arts, Entertainment, & Recreation [7]		100%	\$1,971	\$1,897	\$1,897,462	3.07	\$617,948	\$39,299	15.7	87.5%	1.53	9.0	\$60,295	LI Households

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

[3] 2010 expenditures are based on the estimated household income distributed based on the percent of income spent per the 2010 U.S. Consumer Expenditure Survey. Per Table 4 the rental of a typical new 3-Bedroom Apartment requires a household income of \$191,701.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

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Table A-4
Household Expenditures and Employment Generation - For Rent 3-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures [3]	2007 Expenditures [4]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [5]	Workers/HH [6]	Total Worker HH	2007 Avg. Worker HH Income	Income Category
	<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>f</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>l = h * j</i>	
Entertainment Audio and Visual Equipment and Services	1.2%	100%	\$2,354	\$2,267										
Electronics and Appliance Stores		100%	\$2,354	\$2,267	\$2,266,534	9.19	\$246,536	\$28,142	8.8	87.5%	1.53	5.0	\$43,178	VLI Households
Entertainment Pets, Toys, Hobbies, and Playground Equip.	0.9%	100%	\$1,736	\$1,672										
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$695	\$669	\$668,671	8.09	\$82,682	\$17,104	4.8	87.5%	1.53	2.8	\$26,242	VLI Households
Miscellaneous Store Retailers [7]		40%	\$695	\$669	\$668,671	7.16	\$93,419	\$19,488	4.8	87.5%	1.53	2.7	\$29,900	VLI Households
Veterinary Services		20%	\$347	\$334	\$334,335	2.59	\$129,147	\$37,233	3.5	98.1%	1.53	2.2	\$57,125	LI Households
Other Entertainment Supplies, Equipment, and Services	0.8%	100%	\$1,593	\$1,534										
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$1,354	\$1,304	\$1,304,053	8.09	\$161,247	\$17,104	9.4	87.5%	1.53	5.4	\$26,242	VLI Households
Photographic Services		15%	\$239	\$230	\$230,127	3.18	\$72,265	\$21,566	3.4	98.1%	1.53	2.1	\$33,088	VLI Households
Personal Care Products and Services	0.9%	100%	\$1,712	\$1,649										
Unspecified Retail [7]		50%	\$856	\$824	\$824,260	7.46	\$110,487	\$26,687	4.1	87.5%	1.53	2.4	\$40,946	VLI Households
Personal Care Services		50%	\$856	\$824	\$824,260	2.83	\$291,468	\$17,009	17.1	98.1%	1.53	11.0	\$26,096	VLI Households
Reading	0.1%	100%	\$269	\$259										
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$269	\$259	\$259,074	8.09	\$32,035	\$17,104	1.9	87.5%	1.53	1.1	\$26,242	VLI Households
Education	2.1%	100%	\$3,966	\$3,818										
Educational Services		100%	\$3,966	\$3,818	\$3,818,082	2.70	\$1,414,084	\$23,026	61.4	98.1%	1.53	39.3	\$35,328	VLI Households
Tobacco Products and Smoking Supplies	0.2%	100%	\$377	\$363										
Unspecified Retail [7]		100%	\$377	\$363	\$363,282	7.46	\$48,696	\$26,687	1.8	87.5%	1.53	1.0	\$40,946	VLI Households
Miscellaneous	0.9%	100%	\$1,687	\$1,624										
Accounting		20%	\$337	\$325	\$324,783	2.84	\$114,477	\$51,465	2.2	98.1%	1.53	1.4	\$78,960	Median Income
Architectural, Engineering, and Related [9]		20%	\$337	\$325	\$324,783	2.22	\$145,983	\$96,314	1.5	98.1%	1.53	1.0	\$147,771	Above Mod
Specialized Design Services [7]		20%	\$337	\$325	\$324,783	3.72	\$87,416	\$53,888	1.6	98.1%	1.53	1.0	\$82,678	Median Income
Death Care Services [7]		20%	\$337	\$325	\$324,783	3.47	\$93,472	\$36,983	2.5	98.1%	1.53	1.6	\$56,741	LI Households
Legal Services [7]		20%	\$337	\$325	\$324,783	2.76	\$117,611	\$85,734	1.4	98.1%	1.53	0.9	\$131,538	Above Mod
Total per 1,000 Market Rate Households									517.6			308.2		

[1] Percent of income spent per category is based on the 2010 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimate of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, tobacco, health insurance, personal/ life insurance, cash contributions, and financing charges.

[2] Where multiple business types are likely to provide goods and services in the expenditure category, EPS has estimated the proportion accruing to each business type.

[3] 2010 expenditures are based on the estimated household income distributed based on the percent of income spent per the 2010 U.S. Consumer Expenditure Survey. Per Table 4 the rental of a typical new 3-Bedroom Apartment requires a household income of \$191,701.

[4] 2010 expenditures converted to 2007 dollars using the CPI for San Francisco-Oakland-San Jose from the BLS.

[5] BLS data indicates that 12.5% of retail/restaurant workers are age 16-19, but an average of only 1.9% of workers in other industries. EPS has assumed that such young workers do not form their own households.

[6] Based on the U.S. 2010 Census.

[7] Santa Clara County data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data.

[8] Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

[9] Note that average salary reported for architecture, engineering and related industries reflects the full range of employees within the industry, not solely professional and technical staff.

Source: 2010 Consumer Expenditure Survey, U.S. Bureau of Labor Statistics; 2007 Economic Census, U.S. Census Bureau; Census 2010; Economic & Planning Systems, Inc.

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Table A-5
Representative Public Sector Employment and Wages, 2010 [1]
City of Sunnyvale Rental Housing Fee, EPS #21123

Item	Estimated Public Sector Empl.	2010 Total MSA HH	Public Sector Empl/ 1,000 MSA HH	Public Sector Employee HH [2]	2010 Avg. Wage	Public Sector Employee HH Income [2]	Income Category [3]
Preschool Teachers, Except Special Education	3,150	604,204	5.2	3.4	\$33,240	\$50,999	LI
Kindergarten Teachers, Except Special Education	1,660	604,204	2.7	1.8	\$57,430	\$88,113	Median
Elementary School Teachers, Except Special Education	9,700	604,204	16.1	10.5	\$60,840	\$93,345	Mod
Middle School Teachers, Except Special and Vocational Education	2,840	604,204	4.7	3.1	\$64,040	\$98,254	Mod
Secondary School Teachers, Except Special and Vocational Education	4,750	604,204	7.9	5.1	\$70,850	\$108,703	Mod
Special Education Teachers, Preschool, Kindergarten, and Elementary School	740	604,204	1.2	0.8	\$65,070	\$99,835	Mod
Special Education Teachers, Middle School	230	604,204	0.4	0.2	\$63,960	\$98,132	Mod
Special Education Teachers, Secondary School [4]	640	604,204	1.1	0.7	\$77,650	\$119,136	Above Mod
Teachers and Instructors, All Other	3,020	604,204	5.0	3.3	\$42,360	\$64,991	LI
Bus Drivers	1,550	604,204	<u>2.6</u>	<u>1.7</u>	\$32,690	\$50,155	LI
Total			46.8	30.5			

[1] Not a comprehensive list of public sector employment. Rather a sampling of public sector jobs for which employment and wage data was available for the San Jose-Sunnyvale-Santa Clara MSA from the Employment Development Department (EDD).

[2] Total worker households derived assuming 1.53 workers per household based on 2010 Census estimates for the City of Sunnyvale.

[3] See Table 5.

[4] Estimated employment is for 2009 because that was the last year data was available.

Source: 2010 Occupational Employment Statistics, CA Employment Development Department; U.S. 2010 Census; Economic & Planning Systems, Inc.

APPENDIX B:

Income Levels for Worker Households

Table B-1	Income Levels for Worker Households—Worker Household Generation per 1,000 Market-Rate Units— For-Rent Studio Apartment	B-1
Table B-2	Income Levels for Worker Households—Worker Household Generation per 1,000 Market-Rate Units— For-Rent 1-Bedroom Apartment.....	B-2
Table B-3	Income Levels for Worker Households—Worker Household Generation per 1,000 Market-Rate Units— For-Rent 2-Bedroom Apartment.....	B-3
Table B-4	Income Levels for Worker Households—Worker Household Generation per 1,000 Market-Rate Units— For-Rent 3-Bedroom Apartment.....	B-4



Table B-1
Income Levels for Worker Households
Worker Household Generation per 1,000 Market Rate Units - For Rent Studio Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Industry	Total Workers	Total Worker Households [1]	VLI Households	LI Households	Median Income Households	Moderate Income Households	Above Moderate Income Households
Retail							
Unspecified Retail	5.0	2.8	2.8	0.0	0.0	0.0	0.0
Food & Beverage Stores	27.3	15.6	15.6	0.0	0.0	0.0	0.0
Food Services and Drinking Places	83.9	47.8	47.8	0.0	0.0	0.0	0.0
Health and Personal Care Stores	4.7	2.7	2.7	0.0	0.0	0.0	0.0
General Merchandise	7.1	4.1	4.1	0.0	0.0	0.0	0.0
Furniture and Home Furnishings Stores	5.1	2.9	2.9	0.0	0.0	0.0	0.0
Building Material and Garden Equipment and Supplies Dealer	3.3	1.9	1.9	0.0	0.0	0.0	0.0
Electronics and Appliance Stores	10.0	5.7	5.7	0.0	0.0	0.0	0.0
Clothing and Clothing Accessories Stores	6.7	3.8	3.8	0.0	0.0	0.0	0.0
Motor Vehicle and Parts Dealers	10.9	6.2	0.0	6.2	0.0	0.0	0.0
Gasoline Stations	5.5	3.2	3.2	0.0	0.0	0.0	0.0
Sporting Goods, Hobby, and Musical Instrument Stores	7.6	4.3	4.3	0.0	0.0	0.0	0.0
Miscellaneous Store Retailers	8.7	5.0	5.0	0.0	0.0	0.0	0.0
Nonstore Retailers	0.3	0.2	0.0	0.2	0.0	0.0	0.0
Arts, Entertainment, & Recreation	7.0	4.0	0.0	4.0	0.0	0.0	0.0
Medical/Health							
Ambulatory Health Care Services	3.5	2.2	0.0	0.0	2.2	0.0	0.0
General Medical and Surgical Hospitals	2.4	1.5	0.0	0.0	1.5	0.0	0.0
Nursing and Residential Care Facilities	9.6	6.1	6.1	0.0	0.0	0.0	0.0
Social Assistance	4.5	2.9	2.9	0.0	0.0	0.0	0.0
Services							
Personal and Household Goods Repair and Maintenance	8.4	5.3	5.3	0.0	0.0	0.0	0.0
Services to Buildings and Dwellings	14.1	9.0	9.0	0.0	0.0	0.0	0.0
Waste Management and Remediation Services	4.2	2.7	0.0	0.0	2.7	0.0	0.0
Real Estate and Rental and Leasing	1.0	0.6	0.0	0.0	0.6	0.0	0.0
Personal Care Services	8.9	5.7	5.7	0.0	0.0	0.0	0.0
Dry Cleaning and Laundry Services	1.6	0.9	0.9	0.0	0.0	0.0	0.0
Auto Repair and Maintenance	12.6	8.1	0.0	8.1	0.0	0.0	0.0
Veterinary Services	2.5	1.6	0.0	1.6	0.0	0.0	0.0
Photographic Services	1.1	0.7	0.7	0.0	0.0	0.0	0.0
Educational Services	16.5	10.5	10.5	0.0	0.0	0.0	0.0
Accounting	2.0	1.3	0.0	0.0	1.3	0.0	0.0
Architectural, Engineering, and Related	1.4	0.9	0.0	0.0	0.0	0.0	0.9
Specialized Design Services	1.5	0.9	0.0	0.0	0.9	0.0	0.0
Death Care Services	2.3	1.5	0.0	1.5	0.0	0.0	0.0
Legal Services	1.2	0.8	0.0	0.0	0.0	0.0	0.8
Government	46.8	30.5	0.0	8.3	1.8	19.7	0.7
Total Workers and Households	339.4	204.1	141.0	29.9	11.1	19.7	2.4
Total Income-Qualified HH Generated Per 1,000 Market-Rate Units [2]		182.0	141.0	29.9	11.1	0.0	0.0
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]		18.2	14.1	3.0	1.1	0.0	0.0

[1] Assumes 1.53 workers per worker household in the City of Sunnyvale based on 2010 Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes median-income households and above, because housing can be produced for these income groups without subsidy per Table 2.

Source: Economic & Planning Systems, Inc.

Table B-2
Income Levels for Worker Households
Worker Household Generation per 1,000 Market Rate Units - For Rent 1-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Industry	Total Workers	Total Worker Households [1]	VLI Households	LI Households	Median Income Households	Moderate Income Households	Above Moderate Income Households
Retail							
Unspecified Retail	4.9	2.8	2.8	0.0	0.0	0.0	0.0
Food & Beverage Stores	28.8	16.4	16.4	0.0	0.0	0.0	0.0
Food Services and Drinking Places	81.1	46.3	46.3	0.0	0.0	0.0	0.0
Health and Personal Care Stores	4.1	2.4	2.4	0.0	0.0	0.0	0.0
General Merchandise	6.5	3.7	3.7	0.0	0.0	0.0	0.0
Furniture and Home Furnishings Stores	4.5	2.5	2.5	0.0	0.0	0.0	0.0
Building Material and Garden Equipment and Supplies Dealer	3.3	1.9	1.9	0.0	0.0	0.0	0.0
Electronics and Appliance Stores	9.5	5.4	5.4	0.0	0.0	0.0	0.0
Clothing and Clothing Accessories Stores	6.4	3.6	3.6	0.0	0.0	0.0	0.0
Motor Vehicle and Parts Dealers	8.7	5.0	0.0	5.0	0.0	0.0	0.0
Gasoline Stations	5.4	3.1	3.1	0.0	0.0	0.0	0.0
Sporting Goods, Hobby, and Musical Instrument Stores	6.7	3.8	3.8	0.0	0.0	0.0	0.0
Miscellaneous Store Retailers	7.4	4.2	4.2	0.0	0.0	0.0	0.0
Nonstore Retailers	0.5	0.3	0.0	0.3	0.0	0.0	0.0
Arts, Entertainment, & Recreation	7.9	4.5	0.0	4.5	0.0	0.0	0.0
Medical/Health							
Ambulatory Health Care Services	3.6	2.3	0.0	0.0	2.3	0.0	0.0
General Medical and Surgical Hospitals	2.5	1.6	0.0	0.0	1.6	0.0	0.0
Nursing and Residential Care Facilities	10.7	6.8	6.8	0.0	0.0	0.0	0.0
Social Assistance	5.7	3.7	3.7	0.0	0.0	0.0	0.0
Services							
Personal and Household Goods Repair and Maintenance	8.4	5.3	5.3	0.0	0.0	0.0	0.0
Services to Buildings and Dwellings	15.2	9.7	9.7	0.0	0.0	0.0	0.0
Waste Management and Remediation Services	4.0	2.6	0.0	0.0	2.6	0.0	0.0
Real Estate and Rental and Leasing	0.5	0.3	0.0	0.0	0.3	0.0	0.0
Personal Care Services	10.2	6.5	6.5	0.0	0.0	0.0	0.0
Dry Cleaning and Laundry Services	1.5	0.9	0.9	0.0	0.0	0.0	0.0
Auto Repair and Maintenance	11.9	7.6	0.0	7.6	0.0	0.0	0.0
Veterinary Services	1.9	1.2	0.0	1.2	0.0	0.0	0.0
Photographic Services	1.0	0.7	0.7	0.0	0.0	0.0	0.0
Educational Services	20.9	13.4	13.4	0.0	0.0	0.0	0.0
Accounting	1.9	1.2	0.0	0.0	1.2	0.0	0.0
Architectural, Engineering, and Related	1.3	0.8	0.0	0.0	0.0	0.0	0.8
Specialized Design Services	1.4	0.9	0.0	0.0	0.9	0.0	0.0
Death Care Services	2.1	1.4	0.0	1.4	0.0	0.0	0.0
Legal Services	1.2	0.7	0.0	0.0	0.0	0.0	0.7
Government	46.8	30.5	0.0	8.3	1.8	19.7	0.7
Total Workers and Households	338.5	204.0	143.1	28.3	10.6	19.7	2.2
Total Income-Qualified HH Generated Per 1,000 Market-Rate Units [2]		182.0	143.1	28.3	10.6	0.0	0.0
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]		18.2	14.3	2.8	1.1	0.0	0.0

[1] Assumes 1.53 workers per worker household in the City of Sunnyvale based on 2010 Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes median-income households and above, because housing can be produced for these income groups without subsidy per Table 2.

Source: Economic & Planning Systems, Inc.

Table B-3
Income Levels for Worker Households
Worker Household Generation per 1,000 Market Rate Units - For Rent 2-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Industry	Total Workers	Total Worker Households [1]	VLI Households	LI Households	Median Income Households	Moderate Income Households	Above Moderate Income Households
Retail							
Unspecified Retail	5.5	3.1	3.1	0.0	0.0	0.0	0.0
Food & Beverage Stores	37.0	21.1	21.1	0.0	0.0	0.0	0.0
Food Services and Drinking Places	116.6	66.5	66.5	0.0	0.0	0.0	0.0
Health and Personal Care Stores	5.7	3.3	3.3	0.0	0.0	0.0	0.0
General Merchandise	9.2	5.2	5.2	0.0	0.0	0.0	0.0
Furniture and Home Furnishings Stores	6.6	3.8	3.8	0.0	0.0	0.0	0.0
Building Material and Garden Equipment and Supplies Dealer	4.8	2.7	2.7	0.0	0.0	0.0	0.0
Electronics and Appliance Stores	12.1	6.9	6.9	0.0	0.0	0.0	0.0
Clothing and Clothing Accessories Stores	9.2	5.2	5.2	0.0	0.0	0.0	0.0
Motor Vehicle and Parts Dealers	12.7	7.3	0.0	7.3	0.0	0.0	0.0
Gasoline Stations	6.9	3.9	3.9	0.0	0.0	0.0	0.0
Sporting Goods, Hobby, and Musical Instrument Stores	13.2	7.5	7.5	0.0	0.0	0.0	0.0
Miscellaneous Store Retailers	11.3	6.4	6.4	0.0	0.0	0.0	0.0
Nonstore Retailers	0.5	0.3	0.0	0.3	0.0	0.0	0.0
Arts, Entertainment, & Recreation	13.0	7.4	0.0	0.0	7.4	0.0	0.0
Medical/Health							
Ambulatory Health Care Services	5.3	3.4	0.0	0.0	3.4	0.0	0.0
General Medical and Surgical Hospitals	3.6	2.3	0.0	0.0	2.3	0.0	0.0
Nursing and Residential Care Facilities	14.9	9.5	9.5	0.0	0.0	0.0	0.0
Social Assistance	7.5	4.8	4.8	0.0	0.0	0.0	0.0
Services							
Personal and Household Goods Repair and Maintenance	12.5	7.9	7.9	0.0	0.0	0.0	0.0
Services to Buildings and Dwellings	19.1	12.2	12.2	0.0	0.0	0.0	0.0
Waste Management and Remediation Services	4.9	3.1	0.0	0.0	3.1	0.0	0.0
Real Estate and Rental and Leasing	0.7	0.4	0.0	0.0	0.4	0.0	0.0
Personal Care Services	14.1	9.0	9.0	0.0	0.0	0.0	0.0
Dry Cleaning and Laundry Services	2.2	1.2	1.2	0.0	0.0	0.0	0.0
Auto Repair and Maintenance	16.5	10.5	0.0	10.5	0.0	0.0	0.0
Veterinary Services	3.4	2.2	0.0	2.2	0.0	0.0	0.0
Photographic Services	2.5	1.6	1.6	0.0	0.0	0.0	0.0
Educational Services	33.0	21.1	21.1	0.0	0.0	0.0	0.0
Accounting	1.8	1.1	0.0	0.0	1.1	0.0	0.0
Architectural, Engineering, and Related	1.2	0.8	0.0	0.0	0.0	0.0	0.8
Specialized Design Services	1.3	0.8	0.0	0.0	0.8	0.0	0.0
Death Care Services	2.0	1.3	0.0	1.3	0.0	0.0	0.0
Legal Services	1.1	0.7	0.0	0.0	0.0	0.0	0.7
Government	46.8	30.5	0.0	8.3	1.8	19.7	0.7
Total Workers and Households	458.5	275.2	203.1	29.9	20.4	19.7	2.2
Total Income-Qualified HH Generated Per 1,000 Market-Rate Units [2]		253.4	203.1	29.9	20.4	0.0	0.0
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]		25.3	20.3	3.0	2.0	0.0	0.0

[1] Assumes 1.53 workers per worker household in the City of Sunnyvale based on 2010 Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes median-income households and above, because housing can be produced for these income groups without subsidy per Table 2.

Source: Economic & Planning Systems, Inc.

Table B-4
Income Levels for Worker Households
Worker Household Generation per 1,000 Market Rate Units - For Rent 3-Bedroom Apartment
City of Sunnyvale Rental Housing Fee, EPS #21123

Industry	Total Workers	Total Worker Households [1]	VLI Households	LI Households	Median Income Households	Moderate Income Households	Above Moderate Income Households
Retail							
Unspecified Retail	6.0	3.4	3.4	0.0	0.0	0.0	0.0
Food & Beverage Stores	42.1	24.0	24.0	0.0	0.0	0.0	0.0
Food Services and Drinking Places	137.3	78.3	78.3	0.0	0.0	0.0	0.0
Health and Personal Care Stores	5.6	3.2	3.2	0.0	0.0	0.0	0.0
General Merchandise	15.1	8.6	8.6	0.0	0.0	0.0	0.0
Furniture and Home Furnishings Stores	8.5	4.9	4.9	0.0	0.0	0.0	0.0
Building Material and Garden Equipment and Supplies Dealer	5.3	3.0	3.0	0.0	0.0	0.0	0.0
Electronics and Appliance Stores	15.4	8.8	8.8	0.0	0.0	0.0	0.0
Clothing and Clothing Accessories Stores	16.6	9.5	9.5	0.0	0.0	0.0	0.0
Motor Vehicle and Parts Dealers	15.8	9.0	0.0	9.0	0.0	0.0	0.0
Gasoline Stations	7.0	4.0	4.0	0.0	0.0	0.0	0.0
Sporting Goods, Hobby, and Musical Instrument Stores	16.1	9.2	9.2	0.0	0.0	0.0	0.0
Miscellaneous Store Retailers	14.8	8.4	8.4	0.0	0.0	0.0	0.0
Nonstore Retailers	0.6	0.3	0.0	0.3	0.0	0.0	0.0
Arts, Entertainment, & Recreation	15.7	9.0	0.0	9.0	0.0	0.0	0.0
Medical/Health							
Ambulatory Health Care Services	5.0	3.2	0.0	0.0	3.2	0.0	0.0
General Medical and Surgical Hospitals	3.4	2.2	0.0	0.0	2.2	0.0	0.0
Nursing and Residential Care Facilities	15.3	9.8	9.8	0.0	0.0	0.0	0.0
Social Assistance	8.7	5.5	5.5	0.0	0.0	0.0	0.0
Services							
Personal and Household Goods Repair and Maintenance	14.6	9.1	9.1	0.0	0.0	0.0	0.0
Services to Buildings and Dwellings	27.0	17.2	17.2	0.0	0.0	0.0	0.0
Waste Management and Remediation Services	5.5	3.5	0.0	0.0	3.5	0.0	0.0
Real Estate and Rental and Leasing	0.7	0.5	0.0	0.0	0.5	0.0	0.0
Personal Care Services	17.1	11.0	11.0	0.0	0.0	0.0	0.0
Dry Cleaning and Laundry Services	4.0	2.3	2.3	0.0	0.0	0.0	0.0
Auto Repair and Maintenance	16.9	10.8	0.0	10.8	0.0	0.0	0.0
Veterinary Services	3.5	2.2	0.0	2.2	0.0	0.0	0.0
Photographic Services	3.4	2.1	2.1	0.0	0.0	0.0	0.0
Educational Services	61.4	39.3	39.3	0.0	0.0	0.0	0.0
Accounting	2.2	1.4	0.0	0.0	1.4	0.0	0.0
Architectural, Engineering, and Related	1.5	1.0	0.0	0.0	0.0	0.0	1.0
Specialized Design Services	1.6	1.0	0.0	0.0	1.0	0.0	0.0
Death Care Services	2.5	1.6	0.0	1.6	0.0	0.0	0.0
Legal Services	1.4	0.9	0.0	0.0	0.0	0.0	0.9
Government	46.8	30.5	0.0	8.3	1.8	19.7	0.7
Total Workers and Households	564.5	338.8	261.6	41.3	13.6	19.7	2.5
Total Income-Qualified HH Generated Per 1,000 Market-Rate Units [2]		316.5	261.6	41.3	13.6	0.0	0.0
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]		31.7	26.2	4.1	1.4	0.0	0.0

[1] Assumes 1.53 workers per worker household in the City of Sunnyvale based on 2010 Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes median-income households and above, because housing can be produced for these income groups without subsidy per Table 2.

Source: Economic & Planning Systems, Inc.