

The Economics of Land Use



Draft Report

Nexus-Based Affordable Housing Fee Analysis for Rental Housing

Prepared for:

Santa Rosa

Prepared by:

Economic & Planning Systems, Inc.

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*Economic & Planning Systems, Inc.
2501 Ninth Street, Suite 200
Berkeley, CA 94710-2257
510 841 9190 tel
510 841 9208 fax*

*Berkeley
Denver
Los Angeles
Sacramento*

www.epsys.com

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EXECUTIVE SUMMARY

Economic & Planning Systems, Inc. (EPS) was retained by The City of Santa Rosa 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.

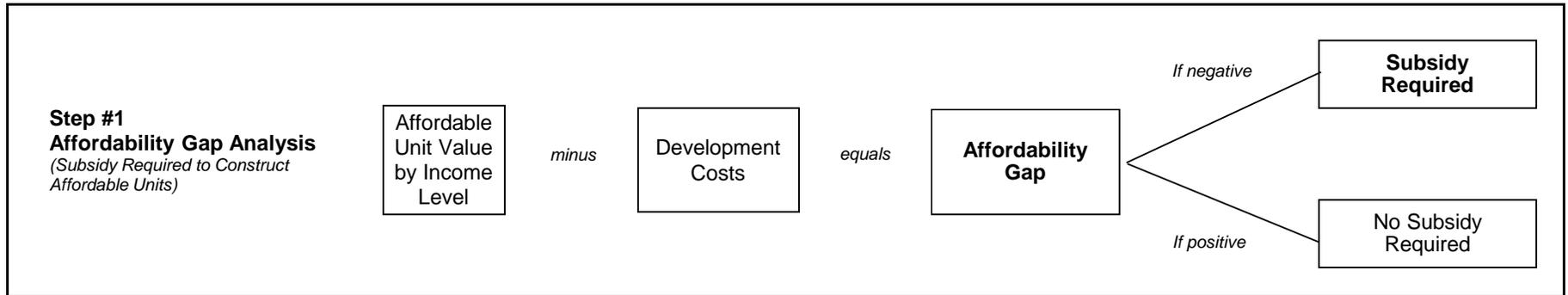
The technical approach used herein quantifies the impacts that the introduction of market-rate rental apartments have on the local economy and the demand for additional affordable housing. As new households are added to the community, local employment also will grow to provide the goods and services 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 then may be used by the City to subsidize the production of new affordable units for lower-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:

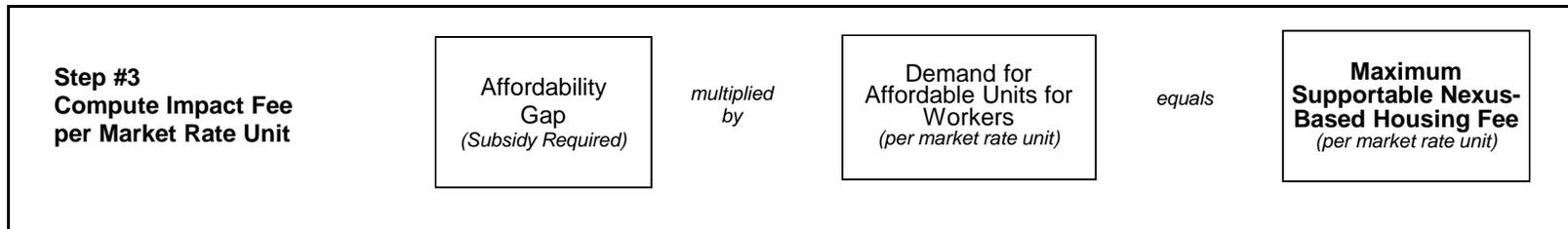
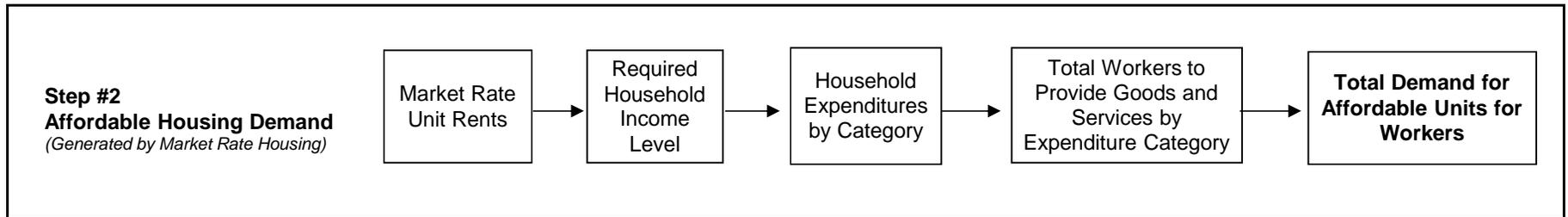
- **Step #1.** Estimate the typical subsidy required to construct units affordable at various income levels (the "affordability gap").
- **Step #2.** Determine the market-rate households' demand for goods and services, the jobs created by that demand, and the affordable housing needs of workers in those 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 housing units affordable to many households exceed those units' values based on the rents or prices that the households can afford to pay. The estimated subsidy required to construct affordable housing units in Santa Rosa range from roughly \$8,250 for a Median Income household to \$141,800 for a Very Low Income household earning 50 percent of AMI. Households with above-median incomes do not appear to require subsidies, as affordable prices for such households can support the costs of construction.**

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 – households with incomes at 50, 60, 80, 100, and 120 percent of Area Median Income (AMI) – 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 Santa Rosa (and other Sonoma County) 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 Santa Rosa increases along with the market-rate rent price (and related renter income). For example, a 1-bedroom unit that rents for \$1,400 per month is estimated to create demand for 0.116 affordable housing units, while a 3-bedroom unit that rents for \$2,000 per month creates demand for 0.143 affordable units.**

Any justified nexus-based 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 expected rental price of the unit is based on market data regarding the actual asking rents of apartments of various sizes. 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 market-rate two-bedroom unit for around \$1,800 per month would have an income of roughly \$80,000, 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 is used to evaluate the typical 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 are 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 is 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 (Santa Rosa has an average of 1.56 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—represented as a proportion of AMI ranging from 50 to 120 percent—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 sizes and price points. The results indicate that residents of smaller, lower-priced units generate fewer worker households requiring affordable housing than do residents of larger, higher-priced units.

¹ 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.

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 rental housing. The number of workers servicing market-rate housing (at each apartment unit size) is then converted to total income qualified households 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 Santa Rosa's affordable housing demand at various representative unit sizes. These fees could range from \$7,583 for studio apartments to \$12,741 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 apartment 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 two-bedroom units would effectively mitigate the demand being created by the market-rate units if it provided 0.129 affordable units for each market-rate unit.

Table 1
Summary of Housing Impact Fees or Unit Equivalents per Market-Rate Unit
Santa Rosa Housing Impact Fee, EPS #121110

Market-Rate Unit Size	Maximum Impact Fee	Total	Affordable Units Generated/100 Market-Rate Units			
			Low (50%)	Low (60%)	Low (80%)	Med (100%)
Studio	\$7,583	8.9	3.6	0.8	3.8	0.7
1 Bedroom	\$10,294	11.6	5.0	1.2	4.6	0.8
2 Bedroom	\$11,417	12.9	5.4	1.5	5.0	1.0
3 Bedroom	\$12,741	14.3	6.1	1.7	5.5	1.1

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 low- through moderate-income households (60 through 120 percent of AMI), while **Table 3** calculates the subsidies for rental housing affordable to very low- through moderate-income households (50 through 120 percent of AMI).

Product Type

According to City staff, at this time in Santa Rosa the housing subsidies available are most efficiently used to develop multifamily affordable units. As a result, the subsidy required to construct affordable units of this multifamily product type is used to determine the impact fee that applies to all types of market-rate apartments. EPS has assumed that these affordable multifamily projects will have an average density of 30 units per acre and will adhere to Santa Rosa Code that requires 2.5 parking spaces per unit, assumed to be surface parking.

In order to determine the average household size of future affordable housing units, EPS used two estimates from the US Census American Community Survey. The Census indicates that the average household size is 2.71 people and the average family size in Santa Rosa is 3.44 people. Each of these figures rounds to an average of three people per unit, 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 estimates the subsidy that would be required to build for-sale and for-rent housing for the lower-income worker households. The subsequent impact fee analysis would assume that the most cost-efficient tenure type would be used; if for-sale units can be built for less subsidy than units offered for rent, the analysis would assume new affordable units would be for-sale. As shown on **Tables 2 and 3** and discussed below, however, for-rent units are estimated to require a lower subsidy under present market conditions. In addition to representing cost savings, and thus a minimization of the impact fee, the reliance on rental housing may be more easily implemented and sustained, as 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.

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

Table 2
Financing Gap Analysis -- For-Sale Product Type
Santa Rosa Housing Impact Fee, EPS #121110

Item	2 Stories Multifamily With Surface Parking			
	Low Income (60% AMI)	Low Income (80% AMI)	Median Income (100% AMI)	Moderate Income (120% AMI)
Development Program Assumptions				
Density/Acre	30	30	30	30
Average Gross Unit Size	1,100	1,100	1,100	1,100
Average Net Unit Size	950	950	950	950
Average Number of Bedrooms	2	2	2	2
Average Number of Persons per Household	3	3	3	3
Parking Spaces/Unit	2.50	2.50	2.50	2.50
Cost Assumptions				
Land/Acre [1]	\$375,988	\$375,988	\$375,988	\$375,988
Land/Unit	\$12,533	\$12,533	\$12,533	\$12,533
Direct Construction Costs/Gross SF [2]	\$150	\$150	\$150	\$150
Direct Construction Costs/Unit	\$165,000	\$165,000	\$165,000	\$165,000
Parking Construction Costs/Space	\$3,000	\$3,000	\$3,000	\$3,000
Parking Construction Costs/Unit	\$7,500	\$7,500	\$7,500	\$7,500
Subtotal, Direct Costs/Unit	\$172,500	\$172,500	\$172,500	\$172,500
Indirect Costs as a % of Direct Costs [3]	33%	33%	33%	33%
Indirect Costs/Unit	\$56,925	\$56,925	\$56,925	\$56,925
Developer Profit Margin (% of all costs)	8%	8%	8%	8%
Developer Profit	\$19,357	\$19,357	\$19,357	\$19,357
Total Cost/Unit [4]	\$261,315	\$261,315	\$261,315	\$261,315
Maximum Supported Home Price				
Household Income [5]	\$44,640	\$58,500	\$74,350	\$89,200
Income Available for Housing Costs/Year [6]	\$13,392	\$17,550	\$22,305	\$26,760
Less Annual HOA Fees [7]	\$2,585	\$2,585	\$2,585	\$2,585
Less Property Taxes (1.25%) [8]	\$1,700	\$2,363	\$3,125	\$3,125
Less Annual Insurance [7]	\$215	\$215	\$215	\$215
Income Available for Mortgage [9]	\$8,892	\$12,388	\$16,380	\$20,835
Mortgage Interest Rate [10]	5.5%	5.5%	5.5%	5.5%
Mortgage Repayment Period (years)	30	30	30	30
Down Payment [11]	\$6,802	\$9,476	\$12,530	\$15,937
Total Supportable Home Price	\$136,036	\$189,512	\$250,592	\$318,748
Financing Gap	\$125,279	\$71,802	\$10,722	\$0

[1] The land costs represented are based on the weighted average listed price for multifamily land in the Santa Rosa market area, as shown in Appendix A.

[2] Includes costs for labor and materials.

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

[4] A review of total development costs for four Burbank Housing developments (Fife Creek Commons, Windsor Redwoods, Amorosa Village I and Amorosa Village II) comprising 263 family rental units constructed in 2011 and 2012 indicate average costs per unit at nearly \$370,000 or over \$350/SF. The costs shown here are thus considered optimistic and yield a more modest subsidy requirement.

[5] Based on HCD 2012 income limits for Sonoma County.

[6] Assumes housing costs to be 30% of gross household income for low-income and moderate-income households.

[7] Homeowner association fees and insurance costs provided by Sonoma County CDC based on recent for-sale affordable housing projects.

[8] Exceeds basic 1.00% tax rate to include allowance for special assessment districts.

[9] Income available for mortgage payments consists of total income available for housing less property taxes, insurance and HOA fees.

[10] Reflects CalHFA mortgage rates, as discussed with Sonoma County CDC.

[11] Assumes a 5% down payment.

Sources: Sonoma County housing developers; Sonoma County Community Development Commission; Economic & Planning Systems, Inc.

Table 3
Financing Gap Analysis -- Rental Product Type
Santa Rosa Housing Impact Fee, EPS #121110

Item	2 Stories Multifamily With Surface Parking				
	Very Low Income (50% AMI)	Low Income (60% AMI)	Low Income (80% AMI)	Median Income (100% AMI)	Moderate Income (120% AMI)
Development Program Assumptions					
Density/Acre	30	30	30	30	30
Average Gross Unit Size	1,100	1,100	1,100	1,100	1,100
Average Net Unit Size	950	950	950	950	950
Average Number of Bedrooms	2	2	2	2	2
Average Number of Persons per Household	3	3	3	3	3
Parking Spaces/Unit	2.50	2.50	2.50	2.50	2.50
Cost Assumptions [1]					
Land/Acre [2]			\$375,988	\$375,988	\$375,988
Land/Unit	\$59,168	\$59,168	\$12,533	\$12,533	\$12,533
Direct Construction Costs/Gross SF [3]			\$140	\$140	\$140
Direct Construction Costs/Unit			\$154,000	\$154,000	\$154,000
Parking Construction Costs/Space			\$3,000	\$3,000	\$3,000
Parking Construction Costs/Unit			\$7,500	\$7,500	\$7,500
Subtotal, Direct Costs/Unit	\$212,147	\$212,147	\$161,500	\$161,500	\$161,500
Indirect Costs as a % of Direct Costs [4]			35%	35%	35%
Indirect Costs/Unit	\$102,801	\$102,801	\$56,525	\$56,525	\$56,525
Total Cost/Unit	\$374,116	\$374,116	\$230,558	\$230,558	\$230,558
Less Value of 4% Tax Credits [5]	40%	40%	0%	0%	0%
Net Development Costs per Unit	\$224,469	\$224,469	\$230,558	\$230,558	\$230,558
Maximum Supported Unit Value					
Household Income [6]	\$37,200	\$44,640	\$58,500	\$74,350	\$89,200
Income Available for Housing Costs/Year [7]	\$11,160	\$13,392	\$17,550	\$22,305	\$26,760
Operating Expenses per Unit/Year [8]	\$6,200	\$6,200	\$6,200	\$8,967	\$8,967
Net Operating Income	\$4,960	\$7,192	\$11,350	\$13,338	\$17,793
Capitalization Rate [9]	6.0%	6.0%	6.0%	6.0%	6.0%
Total Supportable Unit Value	\$82,667	\$119,867	\$189,167	\$222,305	\$296,555
Financing Gap	\$141,803	\$104,603	\$41,391	\$8,253	\$0

[1] Costs for 50-60% AMI units are based on recent affordable housing projects as shown in Appendix A. For units at 80-120% of AMI, EPS has assumed lower development costs consistent with for-profit builders' cost bases.

[2] The land costs represented are based on the weighted average listed price for multifamily land in the Santa Rosa market area, as shown in Appendix A.

[3] Includes costs for labor and materials. Assumes Direct Construction Costs for rentals are \$10/SF less than for-sale developments.

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

[5] Projects at 50-60% AMI are assumed to receive 4% Low Income Housing Tax Credits which cover an estimated 40% of total development costs, per CDC staff.

[6] Based on HCD 2012 income limits for Sonoma County.

[7] Assumes housing costs to be 30% of gross household income.

[8] Operating expenses provided by Sonoma County CDC, and include costs of tenants' utilities. Units for median- and moderate-income households are assumed to be built as for-profit projects and thus subject to property tax.

[9] Reflects average investor interest for apartment capitalization rates from RealShare/Jones Lang LaSalle's Apartments Outlook 2012 Survey.

Sources: Sonoma County housing developers; Sonoma County Community Development Commission; Economic & Planning Systems, Inc.

recent Santa Rosa development and recent land transactions have been combined with EPS's information from various market-rate and affordable housing developers to estimate appropriate development cost assumptions for use in Santa Rosa. These assumptions are shown on **Tables 2 and 3**.

This analysis assumes that the City will use the proceeds of the nexus-based fees as subsidies for affordable housing developers. EPS has gathered development cost information from six recent affordable housing projects in Sonoma County, as shown on **Appendix Table A-1**. For units required for households earning 50 to 60 percent of Area Median Income, subsidies known as "4% Low Income Housing Tax Credits (LIHTC)" are typically available to offset roughly 40 percent of the total costs of development. **Table 3** uses the "weighted average" cost information from the six recent affordable housing projects as the assumed base costs of development for these units at 50 to 60 percent of AMI, and then reduces those costs by 40 percent to yield the net costs to the developer.

For units serving households earning 80 to 120 percent of AMI, no such tax credit subsidies are available. However, it is generally recognized that the costs for LIHTC-eligible projects are significantly higher than the costs for market-rate projects built by for-profit builders.² EPS has investigated the listed prices of multifamily residential land in Santa Rosa's city boundaries and urban growth limit, as shown on **Appendix Table A-2**. For this analysis, EPS has assumed that land costs for projects eligible for tax credits would reflect the recent land purchases for such projects, while land purchases for projects at higher incomes levels would actually be significantly lower, consistent with typical market-rate transactions. EPS has further estimated the costs of direct and indirect development costs for multifamily housing based on reviews of recent Bay Area project pro formas, with adjustments for location factors. In addition, EPS has reviewed all these cost estimates with Sonoma County housing developers to ensure that they are reasonably representative of expectations.³ As shown on **Table 3**, the total costs for apartment development for households earning 80 to 120 percent of AMI are estimated to be roughly 40 percent below the total costs for LIHTC-eligible projects at 50 and 60 percent of AMI – a differential that EPS believes represents a conservative assumption but is reflective of the actual known costs of affordable projects (shown on **Appendix Table A-1**) and the expected costs of market-rate development as vetted with locally active developers.

Table 2 shows the same types of calculations for for-sale multifamily housing to determine if it would be more cost-effective to provide for-sale units rather than rental units for the low-income workers generated in the City. As shown, the for-sale unit costs are similar to those for the 80 to 120 percent AMI rental units on **Table 3**, but are slightly higher due to higher levels of finish and liability insurance required for condominium development, and also include a modest profit margin for the developers. For-sale projects are not eligible for LIHTC funding, so no offsetting

² In recognition of this persistent dynamic, the California Department of Housing and Community Development has commissioned a 2012 consulting study to determine the causes of these significant differences in development costs for affordable housing vs. market-rate housing.

³ In addition to discussing the cost assumptions with Sonoma County developers in a stakeholder meeting in Spring 2012 as part of a similar study for the County, EPS has reviewed the development cost assumptions provided to the City in an analysis by local developer Hugh Futrell dated April 4, 2010 and found our current assumptions to reflect lower costs than were included by Mr. Futrell.

subsidy is shown here, but likewise the analysis does not assume a major difference in costs associated with non-profit builders.

Revenue Assumptions

To calculate the values of the affordable units, assumptions must be made regarding the applicable income level (moderate, median, and low) 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*— This analysis estimates the subsidy required to produce units for households earning 50, 60, 80, 100, and 120 percent of Area Median Income for a three-person household. In 2012, AMI for these households was \$74,350, as shown in the California Department of Housing and Community Development's (HCD's) income limits chart.
- *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 all households shall spend 30 percent of their gross income on housing costs, including rent in rental projects or mortgage payments, homeowner association fees, insurance, and property taxes for for-sale units.
- *Operating Costs for Rental Units*—The analysis assumes that apartment operators incur annual operating costs of \$6,200 per unit, which include the cost of utilities, for units affordable at 80 percent of AMI or below. EPS has assumed the units for median income households and above would have similar operating costs but would be built by for-profit builders and thus also subject to property taxes.

Affordability Gap Results

Table 2 shows the estimated subsidies for construction of affordable for-sale units for low and moderate-income households. As shown, a unit for a household at 60 percent of AMI is expected to require a subsidy of roughly \$119,100, and units for higher-income households require lower subsidies (or none, for units at 120 percent of AMI). **Table 3** shows the subsidies for construction of for-rent apartments for households at various income levels. For any equivalent income level (e.g., 60 percent of AMI), a comparison of **Tables 2 and 3** indicates the affordability gap for low-income rental units is estimated to be less than if the same unit were offered for-sale. This is generally due to slightly higher development costs for for-sale units (including the need for immediate rather than longer-term profit returns) and the fact that for-sale projects are not eligible for LIHTC funding.

These affordability gaps 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 section.

2. DEMAND-BASED NEXUS FEE CALCULATION

The maximum supportable nexus-based fees are based on both the affordability gap, calculated in the previous section, and the estimated impact that new market-rate rental 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 apartments 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 estimated 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 recently developed in Santa Rosa. 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 City of Santa Rosa Housing and Redevelopment Department Allowances for Tenant Furnished Utilities and other Services, 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 \$42,000 for a studio apartment to roughly \$90,000 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 Santa Rosa are “net new” households to the City. To assume otherwise—for instance,

Table 4
Required Income by Unit Type- Market-Rate Rental Apartments
Santa Rosa Housing Impact Fee, EPS #121110

Apartment Size	Required Income by Unit Type				
	Average Rent [1]	Utility Allowance [2]	Subtotal Rent and Utilities	Annual Rent and Utility Expenditures	Minimum Annual Household Income Required [3]
<i>Formula</i>	<i>A</i>	<i>B</i>	<i>C = A + B</i>	<i>D = C * 12</i>	<i>E = D / 30%</i>
Studio	\$925	\$125	\$1,050	\$12,600	\$42,000
1-Bedroom	\$1,400	\$152	\$1,552	\$18,624	\$62,080
2-Bedroom	\$1,800	\$204	\$2,004	\$24,048	\$80,160
3-Bedroom	\$2,000	\$246	\$2,246	\$26,952	\$89,840

[1] Based on average rents for new rental project in each unit size category as determined by a survey of the City's most recently developed multifamily projects - The Boulders at Fountaingrove, Acacia on Santa Rosa Creek, and Renaissance.

[2] Based on City of Santa Rosa 2012 Allowances for Tenant Furnished Utilities and other Services assuming a low-rise garden apartment and natural gas for heating and cooking.

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

Sources: ForRent.com; City of Santa Rosa Housing and Redevelopment; Economic & Planning Systems, Inc.

that only those buyers or renters of new housing units relocating from outside Santa Rosa should be counted in the impact analysis—would require assuming that the homes left by those households relocating *within* Santa Rosa 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. Santa Rosa 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 \$42,000 (adequate to rent a studio apartment) spend roughly 13.1 percent of their income on food and drink (at home and eating out), while households earning \$90,000 who can afford to rent a three-bedroom apartment spend only about 9.6 percent of their income on food and drink. Because of these and other differences in proportionate spending, the expenditure profile varies at different income levels.

The renter 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,⁴ which provides employment, gross sales, and payroll data by industry for Sonoma County. In certain instances, Sonoma 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 eight 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 three 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, EPS estimated the number of employees those aggregate wages represent. 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

⁴ Note that the Consumer Expenditure Survey data is based on information current as of 2010. The latest data available for 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.

\$14,500 per year for workers in the food services industry to a high of more than \$86,000 average salary for legal services.

This methodology recognizes that a range of occupations and incomes exist in a given industry sector. For instance, the methodology used to generate **Tables B-1 to B-4 in Appendix B** 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 to 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 1.56 workers per working household in Santa Rosa.^{5,6} 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 (50 through 120 percent of AMI).

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

⁵ Workers per working household based on American Community Survey (ACS) Census data current as of August 2011. Although ACS data reported is based on historical figures, these figures can vary somewhat based on ongoing revisions to the ACS data.

⁶ The average workers per working household estimate is calculated by taking the total number of employed residents age 18 to 64 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).

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)	1.56
K.	Estimated Households Created (K ÷ J)	112
L.	Average Household Income (H x J)	\$39,000
M.	Income Category	Low-Income (up to 60% of AMI)

In this simplified example, 1,000 new market-rate apartments rented to households earning \$125,000 per year would create demand for 112 housing units for retail workers with household incomes below 60 percent of AMI. 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 B**.

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 Santa Rosa-Petaluma 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 B-5** in **Appendix B**.

Based on the ratio of the selected public-sector jobs to the total households in the MSA, EPS estimates that approximately 60 government jobs or 38.5 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, City 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 HCD for a 3-person household. **Table 5** summarizes the HCD income limits

Table 5
Sonoma County Affordable Housing Income Limits
Santa Rosa Housing Impact Fee, EPS #121110

Affordability Category	Percentage of County Median	2007 Max Income Threshold 3-person household	2010 Max Income Threshold 3-person household	2012 Max Income Threshold 3-person household
Very Low Income (LI) - 50%	31% - 50%	\$33,800	\$36,200	\$37,200
Low Income (LI) - 60%	51% - 60%	\$40,560	\$43,440	\$44,640
Low Income (LI) - 80%	61% - 80%	\$53,650	\$57,900	\$58,500
Median Income (Med)	81% - 100%	\$67,600	\$72,350	\$74,350
Moderate Income (Mod)	101% - 120%	\$81,120	\$86,850	\$89,200
Above Moderate Income (Above Mod)	120%+			

*Note: Data for Santa Rosa-Petaluma, CA MSA

17 Sources: US Department of Housing and Urban Development; California Department of Housing and Community Development; Economic & Planning Systems, Inc.

used to compute the total number of income-qualified households generated by construction of market-rate units.⁷ The number of income-qualified households required to provide goods and services to new housing units is summarized on **Tables 6** through **9** and detailed in **Appendix C**.

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 will reside in the City, but it does assume that new development should mitigate for the new affordable housing demand it creates, even if some of those lower income households reside outside the City.

Fee Calculation

The affordability gap analysis quantifies the subsidy required to construct affordable housing at various income levels. 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 rental 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 rental housing development in Santa Rosa.

Tables 6 through **9** 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 **Table 3**. The resulting maximum impact fee for market-rate rental units ranges from \$7,583 for a studio apartment to \$12,741 for a 3-bedroom apartment.

⁷ To correspond to the available data regarding employee wages, the 2007 Sonoma County affordable housing income limits from 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 6
Maximum Impact Fee Calculations -- Studio
Santa Rosa Housing Impact Fee, EPS #121110

Item	Affordable Units Required Per 100 Market-Rate Units (A)	Financing Gap per Affordable Unit [1] (B)	Total In-Lieu Fee Required	
			Per 100 Market-Rate Units (C = A * B)	Per Market Rate Unit (D = C / 100)
Affordable Units - Very Low Income (50%)	3.6	\$141,803	\$511,067	
Affordable Units - Low Income (60%)	0.8	\$104,603	\$85,667	
Affordable Units - Low Income (80%)	3.8	\$41,391	\$156,176	
Affordable Units - Median Income	<u>0.7</u>	\$8,253	<u>\$5,416</u>	
Total	8.9		\$758,325	\$7,583

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[1] Subsidies are based on financing gap for rental units, as shown on **Table 3**.

Source: Economic & Planning Systems, Inc.

Table 7
Maximum Impact Fee Calculations -- 1 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Item	Affordable Units Required Per 100 Market-Rate Units (A)	Financing Gap per Affordable Unit [1] (B)	Total In-Lieu Fee Required	
			Per 100 Market-Rate Units (C = A * B)	Per Market Rate Unit (D = C / 100)
Affordable Units - Very Low Income (50%)	5.0	\$141,803	\$706,636	
Affordable Units - Low Income (60%)	1.2	\$104,603	\$125,616	
Affordable Units - Low Income (80%)	4.6	\$41,391	\$190,173	
Affordable Units - Median Income	<u>0.8</u>	\$8,253	<u>\$6,941</u>	
Total	11.6		\$1,029,365	\$10,294

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[1] Subsidies are based on financing gap for rental units, as shown on **Table 3**.

Source: Economic & Planning Systems, Inc.

Table 8
Maximum Impact Fee Calculations -- 2 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Item	Affordable Units Required Per 100 Market-Rate Units (A)	Financing Gap per Affordable Unit [1] (B)	Total In-Lieu Fee Required	
			Per 100 Market-Rate Units (C = A * B)	Per Market Rate Unit (D = C / 100)
Affordable Units - Very Low Income (50%)	5.4	\$141,803	\$769,507	
Affordable Units - Low Income (60%)	1.5	\$104,603	\$158,077	
Affordable Units - Low Income (80%)	5.0	\$41,391	\$206,246	
Affordable Units - Median Income	<u>1.0</u>	\$8,253	<u>\$7,901</u>	
Total	12.9		\$1,141,732	\$11,417

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[1] Subsidies are based on financing gap for rental units, as shown on **Table 3**.

Source: Economic & Planning Systems, Inc.

Table 9
Maximum Impact Fee Calculations -- 3 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Item	Affordable Units Required Per 100 Market-Rate Units (A)	Financing Gap per Affordable Unit [1] (B)	Total In-Lieu Fee Required	
			Per 100 Market-Rate Units (C = A * B)	Per Market Rate Unit (D = C / 100)
Affordable Units - Very Low Income (50%)	6.1	\$141,803	\$862,432	
Affordable Units - Low Income (60%)	1.7	\$104,603	\$177,166	
Affordable Units - Low Income (80%)	5.5	\$41,391	\$225,685	
Affordable Units - Median Income	1.1	\$8,253	\$8,856	
Total	14.3		\$1,274,138	\$12,741

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[1] Subsidies are based on financing gap for rental units, as shown on **Table 3**.

Source: Economic & Planning Systems, Inc.



APPENDICES:

Appendix A: Development Cost Assumptions

Appendix B: Household Expenditures and
Employment Generation

Appendix C: Income Levels for Worker Households

APPENDIX A:

Development Cost Assumptions

Table A-1	Summary of Affordable Housing Development Costs	A-1
Table A-2	Santa Rosa Residential Land Sales	A-2
Table A-3	Survey of Home Ownership Association Fees in Sonoma County	A-3



Table A-1
Summary of Affordable Housing Development Costs
Santa Rosa Housing Impact Fee, EPS #121110

Project	Location	# of units	Total Cost	Land Costs	Direct Costs	Indirect Costs
Fife Creek Commons per unit	Unincorporated	48	\$20,546,000 \$428,042	\$1,742,000 \$36,292	\$13,016,000 \$271,167	\$5,788,000 \$120,583
Windsor Redwoods per unit	Windsor	65	\$23,540,000 \$362,154	\$2,713,000 \$41,738	\$13,851,000 \$213,092	\$6,976,000 \$107,323
Amorosa Village I per unit	Santa Rosa	97	\$34,965,000 \$360,464	\$7,470,000 \$77,010	\$18,751,000 \$193,309	\$8,744,000 \$90,144
Amorosa Village II per unit	Santa Rosa	53	\$17,916,000 \$338,038	\$4,093,000 \$77,226	\$8,428,000 \$159,019	\$5,395,000 \$101,792
A-1 Petaluma Avenue Homes per unit	Sebastopol	45	\$16,595,994 \$368,800	\$2,220,000 \$49,333	\$9,853,626 \$218,969	\$4,522,368 \$100,497
Valley Oak Homes per unit	Sonoma	43	\$17,751,592 \$412,828	\$2,530,000 \$58,837	\$10,563,933 \$245,673	\$4,657,659 \$108,318
Total		351	\$131,314,586	\$20,768,000	\$74,463,559	\$36,083,027
Weighted Avg/Unit			\$374,116	\$59,168	\$212,147	\$102,801

Sources: Affordable Housing Associates; Burbank Housing; Economic & Planning Systems, Inc.

Table A-2
Santa Rosa Multifamily Listings
Santa Rosa Housing Impact Fee, EPS #121110

Property Address	Acres	Listed Price	\$/Acre	Source
201 Farmers Lane	1.21	\$499,000	\$412,397	Loopnet
500 Kawana Springs Road	2.70	\$2,500,000	\$925,926	Loopnet
Dutton Meadow & Bellevue Aven	3.79	\$460,000	\$121,372	Loopnet
1569 Sebastopol Road	3.91	\$2,115,000	\$540,921	Loopnet
2542 Old Stony Point Road	4.39	\$280,000	\$63,781	Loopnet
3731 Airway Drive	4.49	\$1,850,000	\$412,027	Loopnet
310 Bellevue Avenue	9.72	3750000	\$385,802	Loopnet
Average			\$408,889	
Weighted Average			\$375,988	

A-2 Source: Loopnet Multifamily Land Sale listings on 1/2/13; Economic & Planning Systems, Inc

Table A-3
Survey of Home Ownership Association Fees in Sonoma County
Santa Rosa Housing Impact Fee, EPS #121110

Property Name	Year Built	Monthly HOA	Unit List Price
Chianti	1983	\$219	\$199,950
Bernice	1986	\$381	\$175,000
College View	1980	\$322	\$125,000
Avram	1972	\$295	\$94,900
Tokay	2007	\$107	\$270,000
Tokay 2	2007	\$107	\$269,900
McBride	1980	\$280	\$157,900
Sonoma	1984	\$90	\$157,900
Camino Collegio	1980	\$330	\$119,900
Coffey	1971	\$265	\$79,900
Bodega Ave	1986	\$265	\$205,000
Occidental Rd	1986	\$260	\$119,000
La Mancha	1975	\$326	\$239,000
Acorn 1	1982	\$364	\$176,000
Acorn 2	1982	\$364	\$179,000
Acorn 3	1984	\$396	\$182,000
City Center	2007	\$251	\$171,900
Shade Ln	1982	\$368	\$287,000
Oakmont	1973	\$185	\$269,000
Windmill	1981	\$215	\$215,000
Windmill 2	1981	\$215	\$209,000
Neotomas	1975	\$275	\$144,900
Southeast	1975	\$257	\$199,900
Chanate	2007	\$100	\$289,200
Los Alamos	1975	\$440	\$149,000
Sosaa Circle	1986	\$375	\$148,900
Stonefield	1992	\$490	\$229,000
Martina	2006	\$145	\$145,000
Meadowgreen	1972	\$180	\$217,500
Racquet Club	1979	\$334	\$265,000
La Esplanada	2003	\$210	\$80,000
Oakmont	1981	\$205	\$238,000
Woodbine	1985	\$200	\$147,500
Country Club	1979	\$279	\$125,900
Campoy	2007	\$145	\$140,000
White Oak	1971	\$200	\$219,900
Southwest	1973	\$330	\$89,500
Meadowbrook	1989	\$268	\$199,500
Meridian	1991	\$299	\$299,000
Harbor	1986	\$330	\$138,000
Shady Oak	1974	\$200	\$215,000
Average	1985	\$265	\$184,950

Sources: Redfin.com; Economic & Planning Systems, Inc

APPENDIX B:

Household Expenditures and Employment Generation

Table B-1	Estimated Average Annual Household Expenditures and Associated Employment Generation—Studio (3 pages)	B-1
Table B-2	Estimated Average Annual Household Expenditures and Associated Employment Generation—1-Bedroom (3 pages)...	B-4
Table B-3	Estimated Average Annual Household Expenditures and Associated Employment Generation—2-Bedroom (3 pages)...	B-7
Table B-4	Estimated Average Annual Household Expenditures and Associated Employment Generation—3-Bedroom (3 pages).	B-10
Table B-5	Representative Government Employment and Wages, 2010	B-13



Table B-1
Estimated Average Annual Household Expenditures and Associated Employment Generation - Studio
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>m = h * j</i>
Food at Home	7.6%	100%	\$3,203	\$3,042	\$3,041,867	8.07	\$377,126	\$26,541	14	87.5%	1.56	8.0	\$41,404
Food & Beverage Stores		100%	\$3,203	\$3,042	\$3,041,867	8.07	\$377,126	\$26,541	14	87.5%	1.56	8.0	\$41,404
Food Away From Home	4.8%	100%	\$2,003	\$1,902	\$1,902,400	3.49	\$545,577	\$14,455	38	87.5%	1.56	21.2	\$22,550
Food Services and Drinking Places		100%	\$2,003	\$1,902	\$1,902,400	3.49	\$545,577	\$14,455	38	87.5%	1.56	21.2	\$22,550
Alcoholic Beverages	0.7%	100%	\$311	\$296	\$296,000	3.49	\$44,665	\$14,455	3	87.5%	1.56	2.0	\$22,550
Food & Beverage Stores		50%	\$156	\$148	\$155,744	8.07	\$19,309	\$26,541	1	87.5%	1.56	0.5	\$41,404
Food Services and Drinking Places		50%	\$156	\$148	\$155,744	3.49	\$44,665	\$14,455	3	87.5%	1.56	2.0	\$22,550
Housing Maintenance, Repairs, Insurance, Other expenses	2.1%	100%	\$883	\$839	\$839,000	7.52	\$101,534	\$26,783	4	98.1%	1.56	2.4	\$41,782
Personal and Household Goods Repair and Maintenance [7]		45%	\$398	\$378	\$377,611	3.72	\$101,534	\$26,783	4	98.1%	1.56	2.4	\$41,782
Building Material and Garden Equipment and Supplies Dealer		45%	\$398	\$378	\$377,611	7.52	\$50,227	\$35,469	1	87.5%	1.56	0.8	\$55,331
Real Estate and Rental and Leasing		10%	\$88	\$84	\$83,914	5.29	\$15,865	\$35,283	0	98.1%	1.56	0.3	\$55,041
Fuel Oil and Other Fuels [6]	0.3%	100%	\$114	\$108	\$108,478	6.95	\$15,612	\$37,028	0	87.5%	1.56	0.2	\$57,764
Nonstore Retailers		100%	\$114	\$108	\$108,478	6.95	\$15,612	\$37,028	0	87.5%	1.56	0.2	\$57,764
Water and Other Public Services [6]	1.0%	100%	\$420	\$399	\$399,948	4.79	\$83,265	\$40,694	2	98.1%	1.56	1.3	\$63,483
Waste Management and Remediation Services		100%	\$420	\$399	\$399,948	4.79	\$83,265	\$40,694	2	98.1%	1.56	1.3	\$63,483
Household Operations Personal Services	0.4%	100%	\$177	\$169	\$169,000	2.98	\$33,895	\$23,861	1	98.1%	1.56	0.9	\$37,223
Nursing and Residential Care Facilities		40%	\$71	\$67	\$67,418	2.49	\$27,042	\$28,988	1	98.1%	1.56	0.6	\$45,221
Social Assistance [7]		60%	\$106	\$101	\$101,127	2.98	\$33,895	\$23,861	1	98.1%	1.56	0.9	\$37,223
Household Operations Other Household Expenses	1.2%	100%	\$496	\$471	\$471,000	2.64	\$177,995	\$25,071	7	98.1%	1.56	4.5	\$39,111
Services to Buildings and Dwellings [7]		100%	\$496	\$471	\$471,000	2.64	\$177,995	\$25,071	7	98.1%	1.56	4.5	\$39,111
Housekeeping Supplies	1.2%	100%	\$515	\$489	\$489,000	12.13	\$14,121	\$21,273	1	87.5%	1.56	0.4	\$33,186
Building Materials and Garden Equipment and Supplies Dealers		10%	\$52	\$49	\$48,950	7.52	\$6,511	\$35,469	0	87.5%	1.56	0.1	\$55,331
Food & Beverage Stores		35%	\$180	\$171	\$171,324	8.07	\$21,240	\$26,541	1	87.5%	1.56	0.4	\$41,404
General Merchandise		35%	\$180	\$171	\$171,324	12.13	\$14,121	\$21,273	1	87.5%	1.56	0.4	\$33,186
Miscellaneous Store Retailers		20%	\$103	\$98	\$97,899	6.46	\$15,163	\$20,030	1	87.5%	1.56	0.4	\$31,248
Household Furnishings and Equipment	2.5%	100%	\$1,050	\$997	\$997,000	6.15	\$64,813	\$29,550	2	87.5%	1.56	1.2	\$46,098
Furniture and Home Furnishings Stores		40%	\$420	\$399	\$398,769	6.15	\$64,813	\$29,550	2	87.5%	1.56	1.2	\$46,098
Electronics and Appliance Stores		40%	\$420	\$399	\$398,769	9.53	\$41,864	\$26,708	2	87.5%	1.56	0.9	\$41,665
General Merchandise Stores		10%	\$105	\$100	\$99,692	12.13	\$8,217	\$21,273	0	87.5%	1.56	0.2	\$33,186
Miscellaneous Store Retailers		10%	\$105	\$100	\$99,692	6.46	\$15,440	\$20,030	1	87.5%	1.56	0.4	\$31,248

B-1

Table B-1
Estimated Average Annual Household Expenditures and Associated Employment Generation - Studio
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>m = h * j</i>
Apparel and Services	3.1%	100%	\$1,304	\$1,238									
Clothing and Clothing Accessories Stores		40%	\$521	\$495	\$495,234	7.80	\$63,476	\$16,289	4	87.5%	1.56	2.2	\$25,411
General Merchandise		40%	\$521	\$495	\$495,234	12.13	\$40,818	\$21,273	2	87.5%	1.56	1.1	\$33,186
Miscellaneous Store Retailers		10%	\$130	\$124	\$123,808	6.46	\$19,175	\$20,030	1	87.5%	1.56	0.5	\$31,248
Personal and Household Goods Repair and Maintenance [7]		5%	\$65	\$62	\$61,904	3.72	\$16,645	\$26,783	1	87.5%	1.56	0.3	\$41,782
Dry Cleaning and Laundry Services [7]		5%	\$65	\$62	\$61,904	3.17	\$19,553	\$25,028	1	87.5%	1.56	0.4	\$39,044
Vehicle Purchases (net outlay)	5.1%	100%	\$2,161	\$2,052									
Motor Vehicle and Parts Dealers		100%	\$2,161	\$2,052	\$2,052,117	8.79	\$233,557	\$42,196	6	87.5%	1.56	3.1	\$65,826
Gasoline and motor oil	4.8%	100%	\$2,031	\$1,929									
Gasoline Stations		100%	\$2,031	\$1,929	\$1,929,295	38.48	\$50,136	\$18,946	3	87.5%	1.56	1.5	\$29,556
Vehicle Maintenance and Repairs	1.7%	100%	\$719	\$683									
Repair and Maintenance [7]		100%	\$719	\$683	\$683,143	3.55	\$192,609	\$29,204	7	98.1%	1.56	4.1	\$45,558
Medical Services	1.2%	100%	\$525	\$498									
Ambulatory Health Care Services		40%	\$210	\$199	\$199,384	2.55	\$78,145	\$54,753	1	98.1%	1.56	0.9	\$85,414
General Medical and Surgical Hospitals [7]		30%	\$157	\$150	\$149,538	2.63	\$56,856	\$58,054	1	98.1%	1.56	0.6	\$90,564
Nursing and Residential Care Facilities		30%	\$157	\$150	\$149,538	2.49	\$59,982	\$28,988	2	98.1%	1.56	1.3	\$45,221
Drugs	1.1%	100%	\$466	\$443									
Health and Personal Care Stores		100%	\$466	\$443	\$442,877	7.51	\$58,988	\$29,774	2	87.5%	1.56	1.1	\$46,447
Medical Supplies	0.2%	100%	\$91	\$86									
Health and Personal Care Stores		100%	\$91	\$86	\$86,065	7.51	\$11,463	\$29,774	0	87.5%	1.56	0.2	\$46,447
Entertainment Fees and Admissions	0.8%	100%	\$326	\$309									
Arts, Entertainment, & Recreation		100%	\$326	\$309	\$309,297	3.34	\$92,615	\$28,077	3	87.5%	1.56	1.9	\$43,800
Audio and Visual Equipment and Services	2.0%	100%	\$857	\$814									
Electronics and Appliance Stores		100%	\$857	\$814	\$814,033	9.53	\$85,460	\$26,708	3	87.5%	1.56	1.8	\$41,665
Pets, Toys, Hobbies, and Playground Equip.	1.2%	100%	\$483	\$459									
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$193	\$184	\$183,606	7.66	\$23,968	\$16,640	1	87.5%	1.56	0.8	\$25,958
Miscellaneous Store Retailers		40%	\$193	\$184	\$183,606	6.46	\$28,437	\$20,030	1	87.5%	1.56	0.8	\$31,248
Veterinary Services [7]		20%	\$97	\$92	\$91,803	2.81	\$32,628	\$34,148	1	98.1%	1.56	0.6	\$53,270

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Table B-1
Estimated Average Annual Household Expenditures and Associated Employment Generation - Studio
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wages	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
	a	b	c = Income * a * b	d = c * (inflation adjustment)	e = d * 1000	f	g = e / f	h	i = g / h	j	k	l = i * j / k	m = h * j
Other Entertainment Supplies, Equipment, and Services	0.3%	100%	\$143	\$135									
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$121	\$115	\$115,067	7.66	\$15,021	\$16,640	1	87.5%	1.56	0.5	\$25,958
Photographic Services [7]		15%	\$21	\$20	\$20,306	4.55	\$4,459	\$22,554	0	98.1%	1.56	0.1	\$35,184
Personal Care Products and Services	1.1%	100%	\$457	\$434									
Unspecified Retail		50%	\$228	\$217	\$216,956	6.46	\$33,602	\$20,030	2	87.5%	1.56	0.9	\$31,248
Personal Care Services [7]		50%	\$228	\$217	\$216,956	2.99	\$72,462	\$16,484	4	98.1%	1.56	2.8	\$25,716
Reading	0.2%	100%	\$74	\$70									
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$74	\$70	\$69,928	7.66	\$9,128	\$16,640	1	98.1%	1.56	0.3	\$25,958
Education	1.1%	100%	\$451	\$429									
Educational Services		100%	\$451	\$429	\$428,533	4.34	\$98,767	\$24,412	4	87.5%	1.56	2.3	\$38,083
Miscellaneous	1.9%	100%	\$812	\$771									
Accounting [7]		20%	\$162	\$154	\$154,200	1.98	\$77,810	\$33,564	2	98.1%	1.56	1.5	\$52,360
Architectural, Engineering, and Related [7,8]		20%	\$162	\$154	\$154,200	2.80	\$54,992	\$74,995	1	98.1%	1.56	0.5	\$116,992
Specialized Design Services [7]		20%	\$162	\$154	\$154,200	3.72	\$41,503	\$53,888	1	98.1%	1.56	0.5	\$84,065
Death Care Services [7]		20%	\$162	\$154	\$154,200	3.47	\$44,379	\$36,983	1	98.1%	1.56	0.8	\$57,693
Legal Services [7]		20%	\$162	\$154	\$154,200	2.76	\$55,839	\$85,734	1	98.1%	1.56	0.4	\$133,745
Total per 1,000 Market Rate Households									138			80.5	

Per **Table 4**, the rental of a Studio apartment requires a household income of **\$42,000**

[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 represents a conservative estimation 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 converted to 2007 dollars using the Consumer Price Index for the San Francisco Metropolitan Statistical Area from the Bureau of Labor Statistics.

[4] 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.

[5] Based on 2011 ACS Census data for City of Santa Rosa, calculated as the number of "employed persons age 18 to 64" divided by the number of "households with earnings."

[6] 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.

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

[8] 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.

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

Table B-2
Estimated Average Annual Household Expenditures and Associated Employment Generation - 1 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j * k</i>	<i>m = h * j</i>
Food at Home	6.3%	100%	\$3,930	\$3,733									
Food & Beverage Stores		100%	\$3,930	\$3,733	\$3,732,541	8.07	\$462,755	\$26,541	17	87.5%	1.56	9.8	\$41,404
Food Away From Home	4.5%	100%	\$2,784	\$2,644									
Food Services and Drinking Places		100%	\$2,784	\$2,644	\$2,644,136	3.49	\$758,295	\$14,455	52	87.5%	1.56	29.4	\$22,550
Alcoholic Beverages	0.8%	100%	\$485	\$460									
Food & Beverage Stores		50%	\$242	\$230	\$242,288	8.07	\$30,038	\$26,541	1	87.5%	1.56	0.7	\$41,404
Food Services and Drinking Places		50%	\$242	\$230	\$242,288	3.49	\$69,484	\$14,455	5	87.5%	1.56	3.1	\$22,550
Housing Maintenance, Repairs, Insurance, Other expenses	2.0%	100%	\$1,233	\$1,171									
Personal and Household Goods Repair and Maintenance [7]		45%	\$555	\$527	\$527,108	3.72	\$141,731	\$26,783	5	98.1%	1.56	3.3	\$41,782
Building Material and Garden Equipment and Supplies Dealer		45%	\$555	\$527	\$527,108	7.52	\$70,113	\$35,469	2	87.5%	1.56	1.1	\$55,331
Real Estate and Rental and Leasing		10%	\$123	\$117	\$117,135	5.29	\$22,146	\$35,283	1	98.1%	1.56	0.4	\$55,041
Fuel Oil and Other Fuels [6]	0.3%	100%	\$160	\$152									
Nonstore Retailers		100%	\$160	\$152	\$151,729	6.95	\$21,836	\$37,028	1	87.5%	1.56	0.3	\$57,764
Water and Other Public Services [6]	0.9%	100%	\$569	\$540									
Waste Management and Remediation Services		100%	\$569	\$540	\$540,156	4.79	\$112,737	\$40,694	3	98.1%	1.56	1.7	\$63,483
Household Operations Personal Services	0.5%	100%	\$299	\$284									
Nursing and Residential Care Facilities		40%	\$120	\$114	\$113,696	2.49	\$45,605	\$28,988	2	98.1%	1.56	1.0	\$45,221
Social Assistance [7]		60%	\$180	\$171	\$170,544	2.98	\$57,163	\$23,861	2	98.1%	1.56	1.5	\$37,223
Household Operations Other Household Expenses	1.1%	100%	\$689	\$654									
Services to Buildings and Dwellings [7]		100%	\$689	\$654	\$654,459	2.64	\$247,499	\$25,071	10	98.1%	1.56	6.2	\$39,111
Housekeeping Supplies	1.0%	100%	\$632	\$600									
Building Materials and Garden Equipment and Supplies Dealers		10%	\$63	\$60	\$59,984	7.52	\$7,979	\$35,469	0	87.5%	1.56	0.1	\$55,331
Food & Beverage Stores		35%	\$221	\$210	\$209,943	8.07	\$26,028	\$26,541	1	87.5%	1.56	0.6	\$41,404
General Merchandise		35%	\$221	\$210	\$209,943	12.13	\$17,304	\$21,273	1	87.5%	1.56	0.5	\$33,186
Miscellaneous Store Retailers		20%	\$126	\$120	\$119,967	6.46	\$18,580	\$20,030	1	87.5%	1.56	0.5	\$31,248
Household Furnishings and Equipment	2.4%	100%	\$1,472	\$1,398									
Furniture and Home Furnishings Stores		40%	\$589	\$559	\$559,173	6.15	\$90,883	\$29,550	3	87.5%	1.56	1.7	\$46,098
Electronics and Appliance Stores		40%	\$589	\$559	\$559,173	9.53	\$58,704	\$26,708	2	87.5%	1.56	1.2	\$41,665
General Merchandise Stores		10%	\$147	\$140	\$139,793	12.13	\$11,522	\$21,273	1	87.5%	1.56	0.3	\$33,186
Miscellaneous Store Retailers		10%	\$147	\$140	\$139,793	6.46	\$21,651	\$20,030	1	87.5%	1.56	0.6	\$31,248

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Table B-2
Estimated Average Annual Household Expenditures and Associated Employment Generation - 1 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
	<i>a</i>	<i>b</i>	$c = \text{Income} * a * b$	$d = c * (\text{inflation adjustment})$	$e = d * 1000$	<i>f</i>	$g = e / f$	<i>h</i>	$i = g / h$	<i>j</i>	<i>k</i>	$l = i * j * k$	$m = h * j$
Apparel and Services	2.7%	100%	\$1,655	\$1,572									
Clothing and Clothing Accessories Stores		40%	\$662	\$629	\$628,766	7.80	\$80,591	\$16,289	5	87.5%	1.56	2.8	\$25,411
General Merchandise		40%	\$662	\$629	\$628,766	12.13	\$51,824	\$21,273	2	87.5%	1.56	1.4	\$33,186
Miscellaneous Store Retailers		10%	\$166	\$157	\$157,192	6.46	\$24,346	\$20,030	1	87.5%	1.56	0.7	\$31,248
Personal and Household Goods Repair and Maintenance [7]		5%	\$83	\$79	\$78,596	3.72	\$21,133	\$26,783	1	87.5%	1.56	0.4	\$41,782
Dry Cleaning and Laundry Services [7]		5%	\$83	\$79	\$78,596	3.17	\$24,826	\$25,028	1	87.5%	1.56	0.6	\$39,044
Vehicle Purchases (net outlay)	4.1%	100%	\$2,544	\$2,417									
Motor Vehicle and Parts Dealers		100%	\$2,544	\$2,417	\$2,416,542	8.79	\$275,033	\$42,196	7	87.5%	1.56	3.7	\$65,826
Gasoline and motor oil	4.2%	100%	\$2,615	\$2,483									
Gasoline Stations		100%	\$2,615	\$2,483	\$2,483,303	38.48	\$64,533	\$18,946	3	87.5%	1.56	1.9	\$29,556
Vehicle Maintenance and Repairs	1.3%	100%	\$799	\$759									
Repair and Maintenance [7]		100%	\$799	\$759	\$758,647	3.55	\$213,897	\$29,204	7	98.1%	1.56	4.6	\$45,558
Medical Services	1.3%	100%	\$784	\$744									
Ambulatory Health Care Services		40%	\$314	\$298	\$297,794	2.55	\$116,715	\$54,753	2	98.1%	1.56	1.3	\$85,414
General Medical and Surgical Hospitals [7]		30%	\$235	\$223	\$223,346	2.63	\$84,919	\$58,054	1	98.1%	1.56	0.9	\$90,564
Nursing and Residential Care Facilities		30%	\$235	\$223	\$223,346	2.49	\$89,587	\$28,988	3	98.1%	1.56	1.9	\$45,221
Drugs	0.8%	100%	\$525	\$499									
Health and Personal Care Stores		100%	\$525	\$499	\$498,684	7.51	\$66,421	\$29,774	2	87.5%	1.56	1.3	\$46,447
Medical Supplies	0.2%	100%	\$108	\$102									
Health and Personal Care Stores		100%	\$108	\$102	\$102,164	7.51	\$13,608	\$29,774	0	87.5%	1.56	0.3	\$46,447
Entertainment Fees and Admissions	0.9%	100%	\$533	\$506									
Arts, Entertainment, & Recreation		100%	\$533	\$506	\$505,764	3.34	\$151,445	\$28,077	5	87.5%	1.56	3.0	\$43,800
Audio and Visual Equipment and Services	1.8%	100%	\$1,108	\$1,052									
Electronics and Appliance Stores		100%	\$1,108	\$1,052	\$1,051,990	9.53	\$110,442	\$26,708	4	87.5%	1.56	2.3	\$41,665
Pets, Toys, Hobbies, and Playground Equip.	1.0%	100%	\$644	\$612									
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$258	\$245	\$244,790	7.66	\$31,955	\$16,640	2	87.5%	1.56	1.1	\$25,958
Miscellaneous Store Retailers		40%	\$258	\$245	\$244,790	6.46	\$37,913	\$20,030	2	87.5%	1.56	1.1	\$31,248
Veterinary Services [7]		20%	\$129	\$122	\$122,395	2.81	\$43,501	\$34,148	1	98.1%	1.56	0.8	\$53,270

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Table B-2
Estimated Average Annual Household Expenditures and Associated Employment Generation - 1 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
	<i>a</i>	<i>b</i>	$c = \text{Income} * a * b$	$d = c * (\text{inflation adjustment})$	$e = d * 1000$	<i>f</i>	$g = e / f$	<i>h</i>	$i = g / h$	<i>j</i>	<i>k</i>	$l = i * j * k$	$m = h * j$
Calculation													
Other Entertainment Supplies, Equipment, and Services	0.6%	100%	\$343	\$326									
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$291	\$277	\$276,855	7.66	\$36,141	\$16,640	2	87.5%	1.56	1.2	\$25,958
Photographic Services [7]		15%	\$51	\$49	\$48,857	4.55	\$10,728	\$22,554	0	98.1%	1.56	0.3	\$35,184
Personal Care Products and Services	1.0%	100%	\$602	\$572									
Unspecified Retail		50%	\$301	\$286	\$285,757	6.46	\$44,258	\$20,030	2	87.5%	1.56	1.2	\$31,248
Personal Care Services [7]		50%	\$301	\$286	\$285,757	2.99	\$95,441	\$16,484	6	98.1%	1.56	3.6	\$25,716
Reading	0.2%	100%	\$100	\$95									
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$100	\$95	\$95,084	7.66	\$12,412	\$16,640	1	98.1%	1.56	0.5	\$25,958
Education	1.1%	100%	\$684	\$649									
Educational Services		100%	\$684	\$649	\$649,401	4.34	\$149,671	\$24,412	6	87.5%	1.56	3.4	\$38,083
Miscellaneous	1.8%	100%	\$1,131	\$1,074									
Accounting [7]		20%	\$226	\$215	\$214,849	1.98	\$108,414	\$33,564	3	98.1%	1.56	2.0	\$52,360
Architectural, Engineering, and Related [7,8]		20%	\$226	\$215	\$214,849	2.80	\$76,621	\$74,995	1	98.1%	1.56	0.6	\$116,992
Specialized Design Services [7]		20%	\$226	\$215	\$214,849	3.72	\$57,827	\$53,888	1	98.1%	1.56	0.7	\$84,065
Death Care Services [7]		20%	\$226	\$215	\$214,849	3.47	\$61,833	\$36,983	2	98.1%	1.56	1.1	\$57,693
Legal Services [7]		20%	\$226	\$215	\$214,849	2.76	\$77,801	\$85,734	1	98.1%	1.56	0.6	\$133,745
Total per 1,000 Market Rate Households									187			108.8	

Per **Table 4**, the rental of a 1 Bedroom apartment requires a household income of **\$62,080**

[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 represents a conservative estimation 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 converted to 2007 dollars using the Consumer Price Index for the San Francisco Metropolitan Statistical Area from the Bureau of Labor Statistics.

[4] 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.

[5] Based on 2011 ACS Census data for City of Santa Rosa, calculated as the number of "employed persons age 18 to 64" divided by the number of "households with earnings."

[6] 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.

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

[8] 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.

Sources: 2010 Consumer Expenditure Survey, U.S. Bureau of Labor Statistics; 2007 Economic Census, U.S. Census Bureau; Census ACS 2011; Economic & Planning Systems, Inc.

Table B-3
Estimated Average Annual Household Expenditures and Associated Employment Generation - 2 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>m = h * j</i>
Food at Home	5.2%	100%	\$4,194	\$3,983									
Food & Beverage Stores		100%	\$4,194	\$3,983	\$3,983,474	8.07	\$493,865	\$26,541	19	87.5%	1.56	10.4	\$41,404
Food Away From Home	3.8%	100%	\$3,029	\$2,877									
Food Services and Drinking Places		100%	\$3,029	\$2,877	\$2,877,051	3.49	\$825,091	\$14,455	57	87.5%	1.56	32.0	\$22,550
Alcoholic Beverages	0.6%	100%	\$490	\$465									
Food & Beverage Stores		50%	\$245	\$233	\$244,807	8.07	\$30,351	\$26,541	1	87.5%	1.56	0.7	\$41,404
Food Services and Drinking Places		50%	\$245	\$233	\$244,807	3.49	\$70,207	\$14,455	5	87.5%	1.56	3.1	\$22,550
Housing Maintenance, Repairs, Insurance, Other expenses	1.5%	100%	\$1,177	\$1,118									
Personal and Household Goods Repair and Maintenance [7]		45%	\$530	\$503	\$503,023	3.72	\$135,255	\$26,783	5	98.1%	1.56	3.2	\$41,782
Building Material and Garden Equipment and Supplies Dealer		45%	\$530	\$503	\$503,023	7.52	\$66,909	\$35,469	2	87.5%	1.56	1.1	\$55,331
Real Estate and Rental and Leasing		10%	\$118	\$112	\$111,783	5.29	\$21,134	\$35,283	1	98.1%	1.56	0.4	\$55,041
Fuel Oil and Other Fuels [6]	0.2%	100%	\$174	\$165									
Nonstore Retailers		100%	\$174	\$165	\$164,954	6.95	\$23,739	\$37,028	1	87.5%	1.56	0.4	\$57,764
Water and Other Public Services [6]	0.7%	100%	\$576	\$548									
Waste Management and Remediation Services		100%	\$576	\$548	\$547,508	4.79	\$114,271	\$40,694	3	98.1%	1.56	1.8	\$63,483
Household Operations Personal Services	0.6%	100%	\$502	\$476									
Nursing and Residential Care Facilities		40%	\$201	\$191	\$190,575	2.49	\$76,442	\$28,988	3	98.1%	1.56	1.7	\$45,221
Social Assistance [7]		60%	\$301	\$286	\$285,863	2.98	\$95,815	\$23,861	4	98.1%	1.56	2.5	\$37,223
Household Operations Other Household Expenses	1.0%	100%	\$763	\$725									
Services to Buildings and Dwellings [7]		100%	\$763	\$725	\$724,747	2.64	\$274,080	\$25,071	11	98.1%	1.56	6.9	\$39,111
Housekeeping Supplies	0.9%	100%	\$721	\$684									
Building Materials and Garden Equipment and Supplies Dealers		10%	\$72	\$68	\$68,439	7.52	\$9,103	\$35,469	0	87.5%	1.56	0.1	\$55,331
Food & Beverage Stores		35%	\$252	\$240	\$239,535	8.07	\$29,697	\$26,541	1	87.5%	1.56	0.6	\$41,404
General Merchandise		35%	\$252	\$240	\$239,535	12.13	\$19,743	\$21,273	1	87.5%	1.56	0.5	\$33,186
Miscellaneous Store Retailers		20%	\$144	\$137	\$136,877	6.46	\$21,199	\$20,030	1	87.5%	1.56	0.6	\$31,248
Household Furnishings and Equipment	2.1%	100%	\$1,658	\$1,575									
Furniture and Home Furnishings Stores		40%	\$663	\$630	\$629,986	6.15	\$102,393	\$29,550	3	87.5%	1.56	1.9	\$46,098
Electronics and Appliance Stores		40%	\$663	\$630	\$629,986	9.53	\$66,138	\$26,708	2	87.5%	1.56	1.4	\$41,665
General Merchandise Stores		10%	\$166	\$157	\$157,496	12.13	\$12,981	\$21,273	1	87.5%	1.56	0.3	\$33,186
Miscellaneous Store Retailers		10%	\$166	\$157	\$157,496	6.46	\$24,393	\$20,030	1	87.5%	1.56	0.7	\$31,248

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Table B-3
Estimated Average Annual Household Expenditures and Associated Employment Generation - 2 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
	<i>a</i>	<i>b</i>	$c = \text{Income} * a * b$	$d = c * (\text{inflation adjustment})$	$e = d * 1000$	<i>f</i>	$g = e / f$	<i>h</i>	$i = g / h$	<i>j</i>	<i>k</i>	$l = i * j / k$	$m = h * j$
Apparel and Services	2.2%	100%	\$1,767	\$1,678									
Clothing and Clothing Accessories Stores		40%	\$707	\$671	\$671,400	7.80	\$86,055	\$16,289	5	87.5%	1.56	3.0	\$25,411
General Merchandise		40%	\$707	\$671	\$671,400	12.13	\$55,338	\$21,273	3	87.5%	1.56	1.5	\$33,186
Miscellaneous Store Retailers		10%	\$177	\$168	\$167,850	6.46	\$25,997	\$20,030	1	87.5%	1.56	0.7	\$31,248
Personal and Household Goods Repair and Maintenance [7]		5%	\$88	\$84	\$83,925	3.72	\$22,566	\$26,783	1	87.5%	1.56	0.5	\$41,782
Dry Cleaning and Laundry Services [7]		5%	\$88	\$84	\$83,925	3.17	\$26,509	\$25,028	1	87.5%	1.56	0.6	\$39,044
Vehicle Purchases (net outlay)	4.3%	100%	\$3,434	\$3,261									
Motor Vehicle and Parts Dealers		100%	\$3,434	\$3,261	\$3,261,360	8.79	\$371,184	\$42,196	9	87.5%	1.56	4.9	\$65,826
Gasoline and motor oil	3.3%	100%	\$2,678	\$2,544									
Gasoline Stations		100%	\$2,678	\$2,544	\$2,543,632	38.48	\$66,101	\$18,946	3	87.5%	1.56	2.0	\$29,556
Vehicle Maintenance and Repairs	1.2%	100%	\$964	\$916									
Repair and Maintenance [7]		100%	\$964	\$916	\$916,024	3.55	\$258,268	\$29,204	9	98.1%	1.56	5.6	\$45,558
Medical Services	1.2%	100%	\$926	\$879									
Ambulatory Health Care Services		40%	\$370	\$352	\$351,669	2.55	\$137,830	\$54,753	3	98.1%	1.56	1.6	\$85,414
General Medical and Surgical Hospitals [7]		30%	\$278	\$264	\$263,752	2.63	\$100,282	\$58,054	2	98.1%	1.56	1.1	\$90,564
Nursing and Residential Care Facilities		30%	\$278	\$264	\$263,752	2.49	\$105,795	\$28,988	4	98.1%	1.56	2.3	\$45,221
Drugs	0.6%	100%	\$507	\$482									
Health and Personal Care Stores		100%	\$507	\$482	\$481,702	7.51	\$64,159	\$29,774	2	87.5%	1.56	1.2	\$46,447
Medical Supplies	0.2%	100%	\$141	\$134									
Health and Personal Care Stores		100%	\$141	\$134	\$134,245	7.51	\$17,880	\$29,774	1	87.5%	1.56	0.3	\$46,447
Entertainment Fees and Admissions	0.9%	100%	\$704	\$669									
Arts, Entertainment, & Recreation		100%	\$704	\$669	\$668,592	3.34	\$200,202	\$28,077	7	87.5%	1.56	4.0	\$43,800
Audio and Visual Equipment and Services	1.4%	100%	\$1,141	\$1,084									
Electronics and Appliance Stores		100%	\$1,141	\$1,084	\$1,083,610	9.53	\$113,762	\$26,708	4	87.5%	1.56	2.4	\$41,665
Pets, Toys, Hobbies, and Playground Equip.	0.9%	100%	\$687	\$653									
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$275	\$261	\$261,119	7.66	\$34,087	\$16,640	2	87.5%	1.56	1.1	\$25,958
Miscellaneous Store Retailers		40%	\$275	\$261	\$261,119	6.46	\$40,442	\$20,030	2	87.5%	1.56	1.1	\$31,248
Veterinary Services [7]		20%	\$137	\$131	\$130,560	2.81	\$46,403	\$34,148	1	98.1%	1.56	0.9	\$53,270

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Table B-3
Estimated Average Annual Household Expenditures and Associated Employment Generation - 2 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
	<i>a</i>	<i>b</i>	$c = \text{Income} * a * b$	$d = c * (\text{inflation adjustment})$	$e = d * 1000$	<i>f</i>	$g = e / f$	<i>h</i>	$i = g / h$	<i>j</i>	<i>k</i>	$l = i * j / k$	$m = h * j$
Calculation													
Other Entertainment Supplies, Equipment, and Services	0.4%	100%	\$349	\$332									
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$297	\$282	\$281,914	7.66	\$36,801	\$16,640	2	87.5%	1.56	1.2	\$25,958
Photographic Services [7]		15%	\$52	\$50	\$49,750	4.55	\$10,924	\$22,554	0	98.1%	1.56	0.3	\$35,184
Personal Care Products and Services	0.9%	100%	\$721	\$684									
Unspecified Retail		50%	\$360	\$342	\$342,193	6.46	\$52,999	\$20,030	3	87.5%	1.56	1.5	\$31,248
Personal Care Services [7]		50%	\$360	\$342	\$342,193	2.99	\$114,290	\$16,484	7	98.1%	1.56	4.4	\$25,716
Reading	0.1%	100%	\$112	\$106									
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$112	\$106	\$106,167	7.66	\$13,859	\$16,640	1	98.1%	1.56	0.5	\$25,958
Education	1.2%	100%	\$957	\$909									
Educational Services		100%	\$957	\$909	\$909,004	4.34	\$209,504	\$24,412	9	87.5%	1.56	4.8	\$38,083
Miscellaneous	1.3%	100%	\$1,007	\$956									
Accounting [7]		20%	\$201	\$191	\$191,277	1.98	\$96,519	\$33,564	3	98.1%	1.56	1.8	\$52,360
Architectural, Engineering, and Related [7,8]		20%	\$201	\$191	\$191,277	2.80	\$68,215	\$74,995	1	98.1%	1.56	0.6	\$116,992
Specialized Design Services [7]		20%	\$201	\$191	\$191,277	3.72	\$51,483	\$53,888	1	98.1%	1.56	0.6	\$84,065
Death Care Services [7]		20%	\$201	\$191	\$191,277	3.47	\$55,049	\$36,983	1	98.1%	1.56	0.9	\$57,693
Legal Services [7]		20%	\$201	\$191	\$191,277	2.76	\$69,265	\$85,734	1	98.1%	1.56	0.5	\$133,745
Total per 1,000 Market Rate Households									209			121.7	

Per **Table 4**, the rental of a 2 Bedroom apartment requires a household income of **\$80,160**

[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 represents a conservative estimation 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 converted to 2007 dollars using the Consumer Price Index for the San Francisco Metropolitan Statistical Area from the Bureau of Labor Statistics.

[4] 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.

[5] Based on 2011 ACS Census data for City of Santa Rosa, calculated as the number of "employed persons age 18 to 64" divided by the number of "households with earnings."

[6] 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.

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

[8] 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.

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

Table B-4
Estimated Average Annual Household Expenditures and Associated Employment Generation - 3 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>m = h * j</i>
Food at Home	5.2%	100%	\$4,701	\$4,465									
Food & Beverage Stores		100%	\$4,701	\$4,465	\$4,464,512	8.07	\$553,503	\$26,541	21	87.5%	1.56	11.7	\$41,404
Food Away From Home	3.8%	100%	\$3,395	\$3,224									
Food Services and Drinking Places		100%	\$3,395	\$3,224	\$3,224,479	3.49	\$924,727	\$14,455	64	87.5%	1.56	35.9	\$22,550
Alcoholic Beverages	0.6%	100%	\$549	\$521									
Food & Beverage Stores		50%	\$274	\$261	\$274,370	8.07	\$34,016	\$26,541	1	87.5%	1.56	0.8	\$41,404
Food Services and Drinking Places		50%	\$274	\$261	\$274,370	3.49	\$78,685	\$14,455	5	87.5%	1.56	3.5	\$22,550
Housing Maintenance, Repairs, Insurance, Other expenses	1.5%	100%	\$1,319	\$1,253									
Personal and Household Goods Repair and Maintenance [7]		45%	\$594	\$564	\$563,768	3.72	\$151,588	\$26,783	6	98.1%	1.56	3.6	\$41,782
Building Material and Garden Equipment and Supplies Dealer		45%	\$594	\$564	\$563,768	7.52	\$74,989	\$35,469	2	87.5%	1.56	1.2	\$55,331
Real Estate and Rental and Leasing		10%	\$132	\$125	\$125,282	5.29	\$23,686	\$35,283	1	98.1%	1.56	0.4	\$55,041
Fuel Oil and Other Fuels [6]	0.2%	100%	\$195	\$185									
Nonstore Retailers		100%	\$195	\$185	\$184,874	6.95	\$26,606	\$37,028	1	87.5%	1.56	0.4	\$57,764
Water and Other Public Services [6]	0.7%	100%	\$646	\$614									
Waste Management and Remediation Services		100%	\$646	\$614	\$613,625	4.79	\$128,070	\$40,694	3	98.1%	1.56	2.0	\$63,483
Household Operations Personal Services	0.6%	100%	\$562	\$534									
Nursing and Residential Care Facilities		40%	\$225	\$214	\$213,589	2.49	\$85,673	\$28,988	3	98.1%	1.56	1.9	\$45,221
Social Assistance [7]		60%	\$337	\$320	\$320,383	2.98	\$107,385	\$23,861	5	98.1%	1.56	2.8	\$37,223
Household Operations Other Household Expenses	1.0%	100%	\$855	\$812									
Services to Buildings and Dwellings [7]		100%	\$855	\$812	\$812,266	2.64	\$307,178	\$25,071	12	98.1%	1.56	7.7	\$39,111
Housekeeping Supplies	0.9%	100%	\$808	\$767									
Building Materials and Garden Equipment and Supplies Dealers		10%	\$81	\$77	\$76,703	7.52	\$10,203	\$35,469	0	87.5%	1.56	0.2	\$55,331
Food & Beverage Stores		35%	\$283	\$268	\$268,461	8.07	\$33,283	\$26,541	1	87.5%	1.56	0.7	\$41,404
General Merchandise		35%	\$283	\$268	\$268,461	12.13	\$22,127	\$21,273	1	87.5%	1.56	0.6	\$33,186
Miscellaneous Store Retailers		20%	\$162	\$153	\$153,406	6.46	\$23,759	\$20,030	1	87.5%	1.56	0.7	\$31,248
Household Furnishings and Equipment	2.1%	100%	\$1,858	\$1,765									
Furniture and Home Furnishings Stores		40%	\$743	\$706	\$706,062	6.15	\$114,757	\$29,550	4	87.5%	1.56	2.2	\$46,098
Electronics and Appliance Stores		40%	\$743	\$706	\$706,062	9.53	\$74,125	\$26,708	3	87.5%	1.56	1.6	\$41,665
General Merchandise Stores		10%	\$186	\$177	\$176,515	12.13	\$14,549	\$21,273	1	87.5%	1.56	0.4	\$33,186
Miscellaneous Store Retailers		10%	\$186	\$177	\$176,515	6.46	\$27,339	\$20,030	1	87.5%	1.56	0.8	\$31,248

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Table B-4
Estimated Average Annual Household Expenditures and Associated Employment Generation - 3 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>m = h * j</i>
Apparel and Services	2.2%	100%	\$1,981	\$1,881									
Clothing and Clothing Accessories Stores		40%	\$792	\$752	\$752,477	7.80	\$96,447	\$16,289	6	87.5%	1.56	3.3	\$25,411
General Merchandise		40%	\$792	\$752	\$752,477	12.13	\$62,020	\$21,273	3	87.5%	1.56	1.6	\$33,186
Miscellaneous Store Retailers		10%	\$198	\$188	\$188,119	6.46	\$29,136	\$20,030	1	87.5%	1.56	0.8	\$31,248
Personal and Household Goods Repair and Maintenance [7]		5%	\$99	\$94	\$94,060	3.72	\$25,291	\$26,783	1	87.5%	1.56	0.5	\$41,782
Dry Cleaning and Laundry Services [7]		5%	\$99	\$94	\$94,060	3.17	\$29,710	\$25,028	1	87.5%	1.56	0.7	\$39,044
Vehicle Purchases (net outlay)	4.3%	100%	\$3,848	\$3,655									
Motor Vehicle and Parts Dealers		100%	\$3,848	\$3,655	\$3,655,196	8.79	\$416,008	\$42,196	10	87.5%	1.56	5.5	\$65,826
Gasoline and motor oil	3.3%	100%	\$3,002	\$2,851									
Gasoline Stations		100%	\$3,002	\$2,851	\$2,850,798	38.48	\$74,083	\$18,946	4	87.5%	1.56	2.2	\$29,556
Vehicle Maintenance and Repairs	1.2%	100%	\$1,081	\$1,027									
Repair and Maintenance [7]		100%	\$1,081	\$1,027	\$1,026,641	3.55	\$289,456	\$29,204	10	98.1%	1.56	6.2	\$45,558
Medical Services	1.2%	100%	\$1,037	\$985									
Ambulatory Health Care Services		40%	\$415	\$394	\$394,136	2.55	\$154,475	\$54,753	3	98.1%	1.56	1.8	\$85,414
General Medical and Surgical Hospitals [7]		30%	\$311	\$296	\$295,602	2.63	\$112,392	\$58,054	2	98.1%	1.56	1.2	\$90,564
Nursing and Residential Care Facilities		30%	\$311	\$296	\$295,602	2.49	\$118,570	\$28,988	4	98.1%	1.56	2.6	\$45,221
Drugs	0.6%	100%	\$568	\$540									
Health and Personal Care Stores		100%	\$568	\$540	\$539,872	7.51	\$71,907	\$29,774	2	87.5%	1.56	1.4	\$46,447
Medical Supplies	0.2%	100%	\$158	\$150									
Health and Personal Care Stores		100%	\$158	\$150	\$150,456	7.51	\$20,040	\$29,774	1	87.5%	1.56	0.4	\$46,447
Entertainment Fees and Admissions	0.9%	100%	\$789	\$749									
Arts, Entertainment, & Recreation		100%	\$789	\$749	\$749,330	3.34	\$224,378	\$28,077	8	87.5%	1.56	4.5	\$43,800
Audio and Visual Equipment and Services	1.4%	100%	\$1,279	\$1,214									
Electronics and Appliance Stores		100%	\$1,279	\$1,214	\$1,214,465	9.53	\$127,499	\$26,708	5	87.5%	1.56	2.7	\$41,665
Pets, Toys, Hobbies, and Playground Equip.	0.9%	100%	\$770	\$732									
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$308	\$293	\$292,652	7.66	\$38,203	\$16,640	2	87.5%	1.56	1.3	\$25,958
Miscellaneous Store Retailers		40%	\$308	\$293	\$292,652	6.46	\$45,326	\$20,030	2	87.5%	1.56	1.3	\$31,248
Veterinary Services [7]		20%	\$154	\$146	\$146,326	2.81	\$52,007	\$34,148	2	98.1%	1.56	1.0	\$53,270

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Table B-4
Estimated Average Annual Household Expenditures and Associated Employment Generation - 3 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Expenditure Category/ Business Type	% of Household Income Spent per Category [1]	% of Category Expenditure per Type of Business [2]	2010 Expenditures	2007 Expenditures [3]	2007 Expenditures per 1000 Households	Gross Receipts to Wages	2007 Total Wages	2007 Avg. Wage	# of Workers	% Forming HH [4]	Workers/ HH [5]	Total Worker HH	2007 Avg. HH Income
<i>Calculation</i>	<i>a</i>	<i>b</i>	<i>c = Income * a * b</i>	<i>d = c * (inflation adjustment)</i>	<i>e = d * 1000</i>	<i>f</i>	<i>g = e / f</i>	<i>h</i>	<i>i = g / h</i>	<i>j</i>	<i>k</i>	<i>l = i * j / k</i>	<i>m = h * j</i>
Other Entertainment Supplies, Equipment, and Services	0.4%	100%	\$391	\$372									
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$333	\$316	\$315,958	7.66	\$41,245	\$16,640	2	87.5%	1.56	1.4	\$25,958
Photographic Services [7]		15%	\$59	\$56	\$55,757	4.55	\$12,243	\$22,554	1	98.1%	1.56	0.3	\$35,184
Personal Care Products and Services	0.9%	100%	\$808	\$767									
Unspecified Retail		50%	\$404	\$384	\$383,515	6.46	\$59,399	\$20,030	3	87.5%	1.56	1.7	\$31,248
Personal Care Services [7]		50%	\$404	\$384	\$383,515	2.99	\$128,092	\$16,484	8	98.1%	1.56	4.9	\$25,716
Reading	0.1%	100%	\$125	\$119									
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$125	\$119	\$118,988	7.66	\$15,533	\$16,640	1	98.1%	1.56	0.6	\$25,958
Education	1.2%	100%	\$1,073	\$1,019									
Educational Services		100%	\$1,073	\$1,019	\$1,018,774	4.34	\$234,803	\$24,412	10	87.5%	1.56	5.4	\$38,083
Miscellaneous	1.3%	100%	\$1,129	\$1,072									
Accounting [7]		20%	\$226	\$214	\$214,375	1.98	\$108,175	\$33,564	3	98.1%	1.56	2.0	\$52,360
Architectural, Engineering, and Related [7,8]		20%	\$226	\$214	\$214,375	2.80	\$76,452	\$74,995	1	98.1%	1.56	0.6	\$116,992
Specialized Design Services [7]		20%	\$226	\$214	\$214,375	3.72	\$57,700	\$53,888	1	98.1%	1.56	0.7	\$84,065
Death Care Services [7]		20%	\$226	\$214	\$214,375	3.47	\$61,697	\$36,983	2	98.1%	1.56	1.0	\$57,693
Legal Services [7]		20%	\$226	\$214	\$214,375	2.76	\$77,630	\$85,734	1	98.1%	1.56	0.6	\$133,745
Total per 1,000 Market Rate Households									234			136.4	

Per **Table 4**, the rental of a 3 Bedroom apartment requires a household income of **\$89,840**

[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 represents a conservative estimation 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 converted to 2007 dollars using the Consumer Price Index for the San Francisco Metropolitan Statistical Area from the Bureau of Labor Statistics.

[4] 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.

[5] Based on 2011 ACS Census data for City of Santa Rosa, calculated as the number of "employed persons age 18 to 64" divided by the number of "households with earnings."

[6] 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.

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

[8] 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 B-5
Representative Government Employment and Wages, 2010 [1]
Santa Rosa Housing Impact Fee, EPS #121110

Item	2010 Estimated Govt. Empl.	2010 County Total HH	Govt. Empl/ 1,000 County HH	Govt. Employee HH [2]	2011 Avg. Wage	Govt. Employee HH Income [2]	Income Category [3]
Protective Service Occupations	3,420	185,825	18	11.8	\$60,293	\$94,326	Above Med
Preschool Teachers, Except Special Education	410	185,825	2	1.4	\$33,004	\$51,633	Low (80%)
Kindergarten Teachers, Except Special Education	380	185,825	2	1.3	\$59,392	\$92,916	Above Med
Elementary School Teachers, Except Special Education	1,930	185,825	10	6.6	\$60,032	\$93,918	Above Med
Middle School Teachers, Except Special and Vocational Education	1,120	185,825	6	3.9	\$60,758	\$95,053	Above Med
Secondary School Teachers, Except Special and Vocational Education	760	185,825	4	2.6	\$57,645	\$90,183	Above Med
Special Education Teachers, Preschool, Kindergarten, and Elementary School	210	185,825	1	0.7	\$65,539	\$102,533	Above Med
Special Education Teachers, Middle School	100	185,825	1	0.3	\$67,804	\$106,077	Above Med
Special Education Teachers, Secondary School	60	185,825	0	0.2	\$58,967	\$92,251	Above Med
Teachers and Instructors, All Other	1,530	185,825	8	5.3	\$35,655	\$55,781	Low (80%)
Bus Drivers, Transit and Intercity	830	185,825	4	2.9	\$34,529	\$54,019	Low (80%)
Bus Drivers, School	410	185,825	2	1.4	\$36,278	\$56,755	Low (80%)
Total			60	38.4			

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[1] Not a comprehensive list of government employment. Rather a sampling of government jobs for which employment and wage data was available for the County from the Employment Development Department (EDD).

[2] Assumes 1.56 workers per worker household based on the 2011 ACS Census.

[3] See **Table 5**.

Sources: 2011 Occupational Employment Statistics, CA Employment Development Department; Economic & Planning Systems, Inc.



APPENDIX C:

Income Levels for Worker Households

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

Table C-1
Household Generation per 1,000 Market Rate Units - Studio
Santa Rosa Housing Impact Fee, EPS #121110

Industry	Total Employees	HH [1]	Low (50%)	Low (60%)	Low (80%)	Med	Above Med
Retail							
Unspecified Retail	2	1	1	0	0	0	0
Food & Beverage Stores	16	9	0	0	9	0	0
Food Services and Drinking Places	41	23	23	0	0	0	0
Health and Personal Care Stores	2	1	0	0	1	0	0
General Merchandise	3	2	2	0	0	0	0
Furniture and Home Furnishings Stores	2	1	0	0	1	0	0
Building Material and Garden Equipment and Supplies Dealer	2	1	0	0	0	1	0
Electronics and Appliance Stores	5	3	0	0	3	0	0
Clothing and Clothing Accessories Stores	4	2	2	0	0	0	0
Motor Vehicle and Parts Dealers	6	3	0	0	0	3	0
Gasoline Stations	3	1	1	0	0	0	0
Sporting Goods, Hobby, and Musical Instrument Stores	3	2	2	0	0	0	0
Miscellaneous Store Retailers	4	2	2	0	0	0	0
Nonstore Retailers	0	0	0	0	0	0	0
Arts, Entertainment, & Recreation	3	2	0	0	2	0	0
Medical/Health							
Ambulatory Health Care Services	1	1	0	0	0	0	1
General Medical and Surgical Hospitals	1	1	0	0	0	0	1
Nursing and Residential Care Facilities	3	2	0	0	2	0	0
Social Assistance	1	1	0	1	0	0	0
Services							
Personal and Household Goods Repair and Maintenance	4	3	0	0	3	0	0
Services to Buildings and Dwellings	7	4	0	4	0	0	0
Waste Management and Remediation Services	2	1	0	0	0	1	0
Real Estate and Rental and Leasing	0	0	0	0	0	0	0
Personal Care Services	4	3	3	0	0	0	0
Dry Cleaning and Laundry Services	1	0	0	0	0	0	0
Auto Repair and Maintenance	7	4	0	0	4	0	0
Veterinary Services	1	1	0	0	1	0	0
Photographic Services	0	0	0	0	0	0	0
Educational Services	4	2	0	2	0	0	0
Accounting	2	1	0	0	1	0	0
Architectural, Engineering, and Related	1	0	0	0	0	0	0
Specialized Design Services	1	0	0	0	0	0	0
Death Care Services	1	1	0	0	0	1	0
Legal Services	1	0	0	0	0	0	0
Government	60	38	0	0	11	0	27
Total HH Generated Per 1,000 Market-Rate Units	198	119	36	8	38	7	30
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]			4	1	4	1	0

[1] Assumes 1.56 workers per worker household based on the 2011 ACS Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes above moderate-income households because these incomes are adequate to acquire market-rate housing.

Source: Economic & Planning Systems, Inc.

Table C-2
Household Generation per 1,000 Market Rate Units - 1 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Industry	Total Employees	HH [1]	Low (50%)	Low (60%)	Low (80%)	Med	Above Med
Retail							
Unspecified Retail	2	1	1	0	0	0	0
Food & Beverage Stores	20	11	0	0	11	0	0
Food Services and Drinking Places	57	33	33	0	0	0	0
Health and Personal Care Stores	3	2	0	0	2	0	0
General Merchandise	4	2	2	0	0	0	0
Furniture and Home Furnishings Stores	3	2	0	0	2	0	0
Building Material and Garden Equipment and Supplies Dealer	2	1	0	0	0	1	0
Electronics and Appliance Stores	6	4	0	0	4	0	0
Clothing and Clothing Accessories Stores	5	3	3	0	0	0	0
Motor Vehicle and Parts Dealers	7	4	0	0	0	4	0
Gasoline Stations	3	2	2	0	0	0	0
Sporting Goods, Hobby, and Musical Instrument Stores	5	3	3	0	0	0	0
Miscellaneous Store Retailers	5	3	3	0	0	0	0
Nonstore Retailers	1	0	0	0	0	0	0
Arts, Entertainment, & Recreation	5	3	0	0	3	0	0
Medical/Health							
Ambulatory Health Care Services	2	1	0	0	0	0	0
General Medical and Surgical Hospitals	1	1	0	0	0	0	0
Nursing and Residential Care Facilities	5	3	0	0	3	0	0
Social Assistance	2	2	0	2	0	0	0
Services							
Personal and Household Goods Repair and Maintenance	6	4	0	0	4	0	0
Services to Buildings and Dwellings	10	6	0	6	0	0	0
Waste Management and Remediation Services	3	2	0	0	0	2	0
Real Estate and Rental and Leasing	1	0	0	0	0	0	0
Personal Care Services	6	4	4	0	0	0	0
Dry Cleaning and Laundry Services	1	1	0	1	0	0	0
Auto Repair and Maintenance	7	5	0	0	5	0	0
Veterinary Services	1	1	0	0	1	0	0
Photographic Services	0	0	0	0	0	0	0
Educational Services	6	3	0	3	0	0	0
Accounting	3	2	0	0	2	0	0
Architectural, Engineering, and Related	1	1	0	0	0	0	0
Specialized Design Services	1	1	0	0	0	0	0
Death Care Services	2	1	0	0	0	1	0
Legal Services	1	1	0	0	0	0	0
Government	60	38	0	0	11	0	27
Total HH Generated Per 1,000 Market-Rate Units	248	148	50	12	46	8	27
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]			5	1	5	1	0

[1] Assumes 1.56 workers per worker household based on the 2011 ACS Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes above moderate-income households because these incomes are adequate to acquire market-rate housing.

Source: Economic & Planning Systems, Inc.

Table C-3
Household Generation per 1,000 Market Rate Units - 2 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Industry	Total Employees	HH [1]	Low (50%)	Low (60%)	Low (80%)	Med	Above Med
Retail							
Unspecified Retail	3	1	1	0	0	0	0
Food & Beverage Stores	21	12	0	0	12	0	0
Food Services and Drinking Places	62	35	35	0	0	0	0
Health and Personal Care Stores	3	2	0	0	2	0	0
General Merchandise	4	2	2	0	0	0	0
Furniture and Home Furnishings Stores	3	2	0	0	2	0	0
Building Material and Garden Equipment and Supplies Dealer	2	1	0	0	0	1	0
Electronics and Appliance Stores	7	4	0	0	4	0	0
Clothing and Clothing Accessories Stores	5	3	3	0	0	0	0
Motor Vehicle and Parts Dealers	9	5	0	0	0	5	0
Gasoline Stations	3	2	2	0	0	0	0
Sporting Goods, Hobby, and Musical Instrument Stores	5	3	3	0	0	0	0
Miscellaneous Store Retailers	6	3	3	0	0	0	0
Nonstore Retailers	1	0	0	0	0	0	0
Arts, Entertainment, & Recreation	7	4	0	0	4	0	0
Medical/Health							
Ambulatory Health Care Services	3	2	0	0	0	0	0
General Medical and Surgical Hospitals	2	1	0	0	0	0	0
Nursing and Residential Care Facilities	6	4	0	0	4	0	0
Social Assistance	4	3	0	3	0	0	0
Services							
Personal and Household Goods Repair and Maintenance	6	4	0	0	4	0	0
Services to Buildings and Dwellings	11	7	0	7	0	0	0
Waste Management and Remediation Services	3	2	0	0	0	2	0
Real Estate and Rental and Leasing	1	0	0	0	0	0	0
Personal Care Services	7	4	4	0	0	0	0
Dry Cleaning and Laundry Services	1	1	0	1	0	0	0
Auto Repair and Maintenance	9	6	0	0	6	0	0
Veterinary Services	1	1	0	0	1	0	0
Photographic Services	0	0	0	0	0	0	0
Educational Services	9	5	0	5	0	0	0
Accounting	3	2	0	0	2	0	0
Architectural, Engineering, and Related	1	1	0	0	0	0	0
Specialized Design Services	1	1	0	0	0	0	0
Death Care Services	1	1	0	0	0	1	0
Legal Services	1	1	0	0	0	0	0
Government	60	38	0	0	11	0	27
Total HH Generated Per 1,000 Market-Rate Units	270	161	54	15	50	10	27
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]			5	2	5	1	0

[1] Assumes 1.56 workers per worker household based on the 2011 ACS Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes above moderate-income households because these incomes are adequate to acquire market-rate housing

Source: Economic & Planning Systems, Inc.

Table C-4
Household Generation per 1,000 Market Rate Units - 3 Bedroom
Santa Rosa Housing Impact Fee, EPS #121110

Industry	Total Employees	HH [1]	Low (50%)	Low (60%)	Low (80%)	Med	Above Med
Retail							
Unspecified Retail	3	2	2	0	0	0	0
Food & Beverage Stores	23	13	0	0	13	0	0
Food Services and Drinking Places	69	39	39	0	0	0	0
Health and Personal Care Stores	3	2	0	0	2	0	0
General Merchandise	5	3	3	0	0	0	0
Furniture and Home Furnishings Stores	4	2	0	0	2	0	0
Building Material and Garden Equipment and Supplies Dealer	2	1	0	0	0	1	0
Electronics and Appliance Stores	8	4	0	0	4	0	0
Clothing and Clothing Accessories Stores	6	3	3	0	0	0	0
Motor Vehicle and Parts Dealers	10	6	0	0	0	6	0
Gasoline Stations	4	2	2	0	0	0	0
Sporting Goods, Hobby, and Musical Instrument Stores	6	3	3	0	0	0	0
Miscellaneous Store Retailers	6	4	4	0	0	0	0
Nonstore Retailers	1	0	0	0	0	0	0
Arts, Entertainment, & Recreation	8	4	0	0	4	0	0
Medical/Health							
Ambulatory Health Care Services	3	2	0	0	0	0	0
General Medical and Surgical Hospitals	2	1	0	0	0	0	0
Nursing and Residential Care Facilities	7	4	0	0	4	0	0
Social Assistance	5	3	0	3	0	0	0
Services							
Personal and Household Goods Repair and Maintenance	7	4	0	0	4	0	0
Services to Buildings and Dwellings	12	8	0	8	0	0	0
Waste Management and Remediation Services	3	2	0	0	0	2	0
Real Estate and Rental and Leasing	1	0	0	0	0	0	0
Personal Care Services	8	5	5	0	0	0	0
Dry Cleaning and Laundry Services	1	1	0	1	0	0	0
Auto Repair and Maintenance	10	6	0	0	6	0	0
Veterinary Services	2	1	0	0	1	0	0
Photographic Services	1	0	0	0	0	0	0
Educational Services	10	5	0	5	0	0	0
Accounting	3	2	0	0	2	0	0
Architectural, Engineering, and Related	1	1	0	0	0	0	0
Specialized Design Services	1	1	0	0	0	0	0
Death Care Services	2	1	0	0	0	1	0
Legal Services	1	1	0	0	0	0	0
Government	60	38	0	0	11	0	27
Total HH Generated Per 1,000 Market-Rate Units	295	175	61	17	55	11	27
Total Income-Qualified HH Generated Per 100 Market-Rate Units [2]			6	2	5	1	0

[1] Assumes 1.56 workers per worker household based on the 2011 ACS Census. Includes a 12.5% discount for retail and 1.9% discount for other industries to account for workers under age 20.

[2] Excludes above moderate-income households because these incomes are adequate to acquire market-rate housing.

Source: Economic & Planning Systems, Inc.