

*The Economics of Land Use*



## **Administrative Draft Report**

# Nonresidential Development Housing Linkage Fee Nexus Study

Prepared for:

City of Walnut Creek

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# 1. INTRODUCTION AND EXECUTIVE SUMMARY

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## Background

Incorporated in 1914, the City of Walnut Creek (City) adopted its affordable housing impact fee and commercial linkage fee in 2005 after adoption of inclusionary zoning policies in 2004. The affordable housing impact fee was updated in 2010. Given adoption of a new Housing Element in 2014 as well as a number of changes in local housing supply, regional housing needs, and broader economic and housing trends, the City retained Economic & Planning Systems, Inc. (EPS) to conduct a *Nonresidential Development Housing Linkage Fee Nexus Study* to update and re-affirm an affordable housing impact fee for new commercial development.

## Purpose

EPS was retained by the City of Walnut Creek to conduct a nexus study that quantifies the relationship between the growth in nonresidential land uses and the demand for and cost of affordable housing for the local workforce. As a development impact fee, the nonresidential linkage fee (fee) can only be charged to new development and must be based on the impact of new development on the need for resources to subsidize the development of new affordable housing. The purpose of this report is to provide the nexus (or reasonable relationship) between new nonresidential development that occurs in the City and the need for additional affordable housing as a result of this new development.

The fee generated by this program will be deposited in the City's Housing Trust Fund, to provide assistance for production, acquisition of at-risk units, or rehabilitation of affordable housing.

## Authority

This study serves as the basis for requiring development impact fees under AB 1600 legislation, as codified by the Mitigation Fee Act (California Government Code sections 66000 *et seq.*). This section of the Mitigation Fee Act sets forth the procedural requirements for establishing and collecting development impact fees. These procedures require that a reasonable relationship, or nexus, must exist between a governmental exaction and the purpose of the condition.

In 1991, the Ninth Circuit U.S. Court of Appeals upheld the City of Sacramento's nonresidential linkage fee.<sup>1</sup> In that case, the court found that the City's fee program "substantially advanced a legitimate interest." EPS is using a similar methodology to the nexus study reviewed in that case to develop the City of Walnut Creek's fee program.

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<sup>1</sup> *Commercial Builders of Northern California v. City of Sacramento*, 941 F2d 872 (1991).

### Required Nexus Findings

- Identify the purpose of the fee.
- Identify how the fee is to be used.
- Determine how a reasonable relationship exists between the fee's use and the type of development project on which the fee is imposed.
- Determine how a reasonable relationship exists between the demand for the affordable housing and the type of development project on which the fee is imposed.
- Demonstrate a reasonable relationship between the amount of the fee and the cost of the public benefit attributable to the development on which the fee is imposed.

## Summary

As new employment-generating development continues to occur in the City, additional affordable housing will be required to house a portion of the new lower wage workforce. The cost to construct new housing units is higher than can be supported by the rents that many workers will be able to pay. The difference between costs and affordable rent levels is considered an "affordability gap." The costs allocated to new nonresidential development through this fee reflect this affordability gap that would need to be filled in order to provide housing for additional workforce demanded by nonresidential development.

**Table 1** summarizes the maximum justifiable fee by employment category. While the maximum fee for each land use category is much higher than the fees currently being imposed by the City, the eating and drinking places results yield a particularly high fee due to a combination of high employment density and low wage generally received by employees in this category. Specifically, over 95 percent of worker households employed in eating and drinking places would fall in the very low income category, which requires substantial housing subsidy based on the funding gap analysis. The methodology used to establish maximum justifiable fees is described in the subsequent chapters.

It is understood that a lower fee level below the maximum fee may be appropriate given a range of development feasibility and economic development considerations. The lower fee may also be appropriate due to the fact that affordable housing development is not the sole responsibility of nonresidential developers, as the City, State, and federal government have other programs and resources that can offset some affordable housing production costs. This notion will be further explored by EPS in subsequent analyses.

**Table 1 Summary of Maximum Allowable Fees and Current Fee Levels**

<b>Employment Category</b>	<b>Maximum Fee per sq. ft.</b>	<b>Current Fee per sq. ft. [1]</b>
Lodging	\$213	\$5.00
Hospitals	\$189	N/A
Retail	\$243	\$5.00
Eating and Drinking	\$694	\$5.00
Office	\$197	\$5.00
Light Industrial/Service Commercial	\$167	\$5.00
Recreation and Entertainment	\$113	\$5.00
Auto Dealership	\$131	\$5.00

[1] The City currently charges a commercial linkage impact fee with hospitals and recreation and entertainment uses exempt from the fee.

Source: City of Walnut Creek; EPS.

## Sources

To estimate the fee, EPS relied on numerous sources of data, including the following:

- U.S. Bureau of Labor Statistics (BLS) "May 2014 National Industry-Specific Occupational Employment and Wage Estimates".
- State Department of Housing and Community Development (HCD) annual income limits for 2015.
- U.S. Census Bureau American Community Survey (ACS).
- Input from City of Walnut Creek's staff regarding affordability levels, recently developed affordable housing projects, market assumptions, and nexus study methodology.

These and other data sources are identified on the tables provided throughout this report. In addition, EPS established development and operating cost assumptions by reviewing pro forma materials and development applications for recently developed affordable housing projects in the City and interviews with housing developers active in the local market.

## Organization of Report

Following this **Introduction and Executive Summary**, this study includes the following chapters:

- **Chapter 2** presents the nexus findings based on the methodology.
- **Chapter 3** provides a general discussion of the City's development trends and employment composition.
- **Chapter 4** describes the methodology used to calculate the fee.

## 2. FINDINGS FOR FEE PROGRAM

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### **Purpose of Fee**

The fee program developed through this Nexus Study would fund the development and preservation of affordable housing projects in the City as required by the increase in local lower wage workers employed by new nonresidential construction projects. The businesses that occupy new nonresidential buildings will demand employees, many of whom will have difficulty finding suitable local housing they can afford.

### **Use of Fee**

The fee will be deposited in the City's Housing Trust Fund. The funds are used to provide assistance for production, acquisition of at-risk units, or rehabilitation of affordable housing. The fee also will fund the studies and administration to support the fee program.

### **Relationship between Use of Fee and Type of Development**

The development of new nonresidential land uses in the City will generate need for additional workers. The wages of a significant portion of the new employees will be inadequate to support sufficient rent prices to attract residential developers to provide housing opportunities without further subsidy. The fee will be used to help to fill the "affordability gap" for housing development and increase the number of homes available for the local workforce.

### **Relationship between Demand for Affordable Housing and Type of Project**

The City and EPS have identified eight employment categories for which a separate fee has been calculated. The proportion of lower wage workers and the number of square feet per employee for each employment category has been assessed to ensure a proper nexus is established.

### **Relationship between Amount of Fee and Cost of Public Benefit Attributed to New Development**

EPS estimated the gap between the cost of developing new rental housing and the achievable value of the new rental units based on prices affordable at different income levels for households below certain income levels. The affordable rents yielded unit values below the cost of construction, indicating an "affordability gap". To estimate the maximum fee for each nonresidential development category, this gap was then multiplied by the number of lower wage workers anticipated by the new development projects and the number of households of various income categories those workers are likely to form. As the fee is one of several mechanisms for generating resources for or reducing the cost of housing development, a fee level below the maximum calculated fee may be appropriate.

### 3. EMPLOYMENT AND HOUSING CONTEXT

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#### Community Profile

Walnut Creek is located in the East Bay region of the San Francisco Bay Area and is in the northern portion of the I-680 corridor at the crossing with Highway 24. Its 2015 population was 70,300 with roughly 51,400 jobs. The City's evolution into a regional hub for retail, housing, and office space has been driven by its strategic location, high quality of life, BART expansion, and effective land use policies.

Walnut Creek experienced fairly low population growth during the 2000s, increasing by 4.0 percent between 2000 and 2015, as shown in **Table 2**. As shown, housing was added at the pace of about 100 units a year or 0.3 percent over the last 15 years. This is attributed to the largely built out nature of the City with a constrained supply of developable land. Walnut Creek's household size has been gradually increasing during this time frame, while the housing stock remained well-diversified with single family housing comprising 53 percent of the housing total (relative to the State average of 62 percent). Major employers include Bank of the West, AAA Insurance, John Muir Hospital, and Kaiser Permanente Hospital based on the data reported by the California Employment Development Department.

**Table 2 Walnut Creek Demographic Factors (2000-2015)**

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Item	2000	2010	2015	2000-2015	
				% Change	Annual Growth Rate
Housing Units	31,425	32,681	33,038	5.1%	0.3%
Population	64,296	64,173	66,868	4.0%	0.3%

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Sources: California Department of Finance, 2015 and Economic & Planning Systems, Inc.

Walnut Creek's desirability can be attributed to a variety of community attributes, including good schools, low crime rate, recreational amenities, and an attractive, pedestrian-friendly Downtown. Walnut Creek's evolution as a higher-end community combined with its robust job market offering a diverse mix of professions and pay levels, contributing to high housing costs. In these types of communities, local workers compete for a limited housing supply with retirees who may have built substantial equity in their prior homes or higher income households who have more flexibility regarding where they choose to live. As a result of this type of demand on the City's housing supply, it will be difficult for new lower wage workers to find suitable housing in the City without a program designed to bring the cost of housing down to an affordable range.



## Employment and Income Composition

This report provides information regarding income categories as commonly defined by State and federal agencies that administer affordable housing programs. **Table 3** presents the income categories that are relevant for this fee program. EPS uses acronyms in several of the tables provided and those acronyms are also included in **Table 3** for reference.

**Table 3 Contra Costa County Income Category Definitions (2015)**

Affordability Category	Acronym	Maximum Percentage of County Median	Maximum Income Threshold 3-person household
Very Low Income (1)	VLI	50%	\$42,100
Low Income	LI - 80	80%	\$64,450
Median Income	Median	100%	\$84,150
Moderate Income (2)	Moderate	120%	\$101,000

(1) The "Very Low Income" category also captures a combination of extremely low (0% to 30% of median incomes) and very low income (31% to 50% of median incomes) in Contra Costa County.

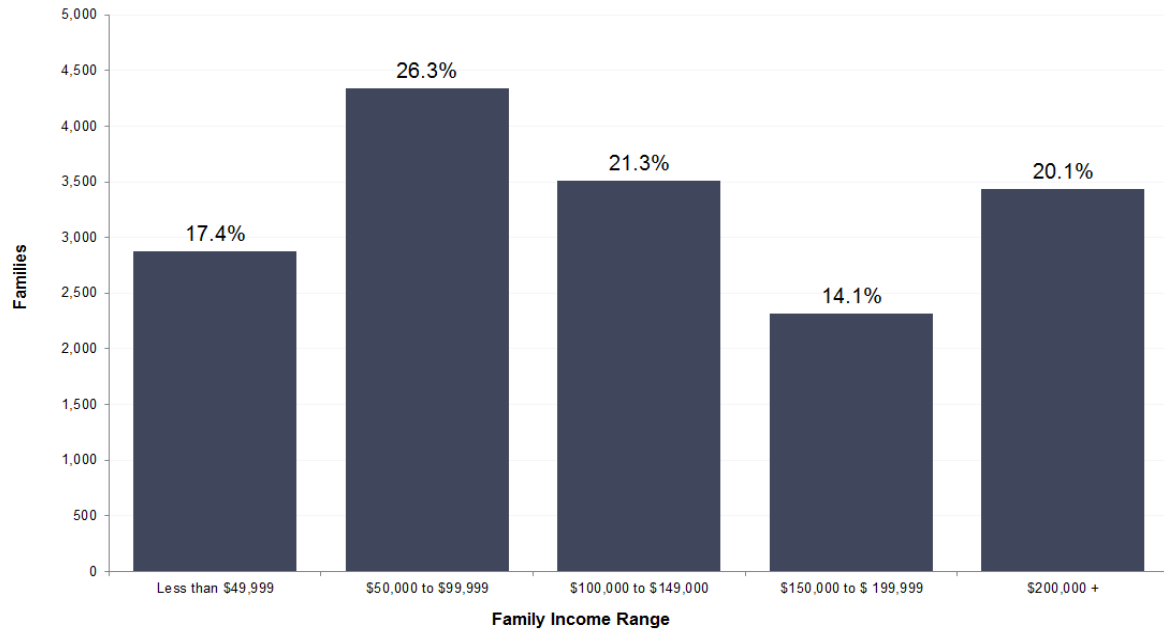
(2) This analysis uses a midpoint for the moderate income category of 110% based on direction from City staff.

Sources: California HCD and EPS.

The City's income was fairly mixed in 2013 based on the latest data from the America Community Survey. Although 20 percent of the families made over \$200,000 a year, nearly 44 percent of the families made less than \$100,000 a year, as shown in **Figure 1**. Comparing these Walnut Creek income distributions to the County income levels shown on **Table 3** above, it is clear that Walnut Creek has somewhat higher than average incomes compared to the County. Still, nearly half of all households earn incomes below the maximum rate for "moderate income" households potentially qualifying for affordable housing.

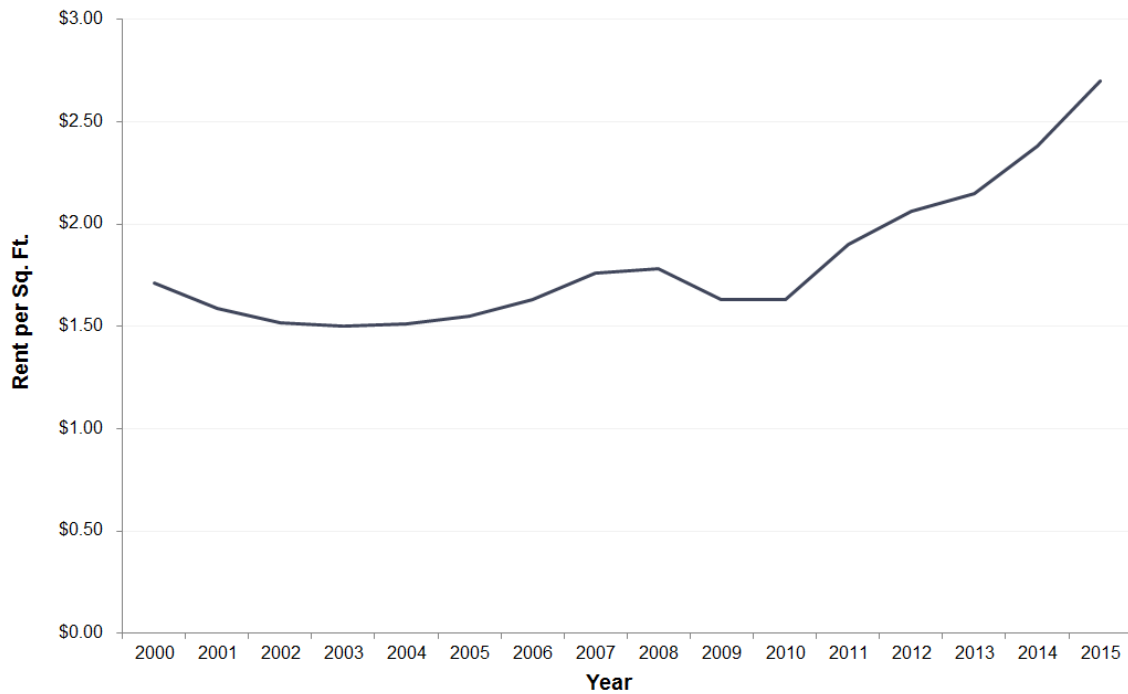
Within this context, rental growth in the City has exhibited rapid appreciation since 2010, as shown in **Figure 2**. Rental trends are an important indicator of relative affordability as apartments typically house a large share of households in the lower income brackets.

**Figure 1 Family Income Distribution in Walnut Creek, 2013**



Source: American Census Survey, 2013

**Figure 2 Historical Rent Trend in Walnut Creek (per sq.ft.)**



Source: CoStar

## 4. METHODOLOGY AND FEE CALCULATION

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### Employment Categories

Employment categories utilized in this analysis are displayed in **Table 4** along with a description of the types of businesses that are included in each category. In general, each employment category is intended to be associated with a particular type of building or land use, to which the fees can be applied. While the prior nexus study used three land use categories, the City has asked EPS to evaluate eight distinct categories to better match potential land uses and nexus linkages to employment categories. While most employment categories are discretely associated with a particular type of building, others may be interchangeable as tenants may shift between building types (e.g. medical services locating in retail or office space). This analysis bases its employment projections on NAICS codes, as defined in **Appendix B**, considered the most typical tenants for each land use category.

**Table 4** Employment Category Descriptions

Employment Category	Description and Examples
Lodging	Temporary accommodations for non-residents. Examples include resorts, hotels, motels, and bed and breakfast inns.
Hospitals	Healthcare-based facilities and campuses.
Retail	Businesses selling merchandise, entertainment, and personal services to the general public. Examples include grocery stores, drug stores, clothing stores, general merchandise stores, beauty salons, movie theaters, and gas stations.
Eating and Drinking	Businesses selling food and beverage to the general public. Examples include restaurants, bars, and fast food establishments.
Office	Employers engaged in business activity with limited direct access from the general public; businesses focused on professional and financial services. Examples include finance, insurance, real estate, law, engineering, and science and technology.
Light Industrial/Service Commercial	Employers engaged in business activity with limited direct access from the general public; businesses focused on assembling, distributing, or repairing products, and businesses focused on the testing and invention of new materials, products, or processes. Examples include warehouses, auto repair, and self-storage facilities.
Recreation and Entertainment	Businesses focused on entertainment, such as fitness, rock climbing gyms, movie theaters, and bocce courts.
Auto Dealership	Businesses focused on new and used auto sales.

### Occupational Category and Wage Distribution

EPS used U.S. Bureau of Labor Statistics (BLS) *National Industry-Specific Occupational Employment and Wage Estimates* for 2014 – the most recent year available - to estimate the wages earned by employees in industry sectors related to the employment categories. This BLS data set includes wage data at both the national and Metropolitan Statistical Area (MSA) levels. The San Francisco-Oakland-Hayward MSA covers the Bay Area, including San Francisco, the East Bay, and the San Francisco Peninsula regions. Wage data for the MSA are provided for

occupations for all industries in aggregate, while national-level wage data are provided by industry sector (e.g. "management" workers in retail industries versus in healthcare services). To account for regional wage disparities, EPS calculated wage adjustment factors as displayed in **Table 5** to show that Bay Area wages exceed national averages across all occupation categories. EPS applied these adjustment factors to the nationwide income level data by industry sector to estimate the wages for the Bay Area.

EPS used BLS nationwide data regarding industries and occupation categories to estimate the proportion of occupations likely to be represented under each employment category. For example, EPS evaluated the occupation categories for the lodging industry to determine the proportional distribution of occupations for the employment category "Lodging." North American Industry Classification System (NAICS) sector 721000 ("Accommodation") shows that nationwide 4.2 percent of the jobs in the lodging industry are taken by managers while 28.6 percent are in the category of buildings and grounds cleaning and maintenance (see **Table B-1**). The occupational distribution for all designated employment categories are provided in **Appendix B**.

The wages of each occupation were multiplied by 1.58, the average number of workers per working household in the City according to Census Bureau's American Community Survey data. The resulting figure is assumed to represent the annual household wage assuming workers form households with those of similar earning potential. 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. Also according to the American Community Survey, the average household size for working households in Walnut Creek is 2.52 while average family size is 2.87. Rounding these averages, EPS compared the estimated household wage with the income thresholds for a 3-person household to identify the income category into which each occupation would fall. An example of this calculation is illustrated in **Table 6**. Key assumptions and their sources are summarized in **Appendix A**.

## Distribution of Workers by Land Use Type

After identifying income ranges for each occupation and employment category, EPS summed the percentages of occupations by income bracket. These proportions of anticipated household income brackets by employment category are presented in **Table 7**.

As shown, Eating and Drinking, Retail and Lodging are expected to generate significant numbers of households at the low- and very-low-income levels, while most jobs in the Office and Hospitals uses are expected to yield household incomes at or above Moderate income levels.

## Employment Densities

Commercial operations have varying levels of employment requirements. Industrial uses, for example, do not require a significant number of employees but do require a significant amount of building square feet. Office space, on the other hand, may not require a significant amount of square footage, but often require a significant number of employees. The number of building square feet of property anticipated for a certain number of employees is termed the "employment density" of each employment category.

**Table 5**  
**Adjustment Factors for Converting National Wages to San Francisco-Oakland-Hayward MSA Wages**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Occupation Category	US Average Wage	San Francisco-Oakland -Hayward MSA Avg. Wage	San Francisco-Oakland -Hayward MSA as % of US Average
Management	\$112,490	\$131,090	116.5%
Business and Financial Operations	\$72,410	\$83,830	115.8%
Computer and Mathematical Science	\$83,970	\$100,990	120.3%
Architecture and Engineering	\$81,520	\$98,440	120.8%
Life, Physical, and Social Science	\$70,070	\$86,880	124.0%
Community and Social Services	\$45,310	\$55,180	121.8%
Legal Occupations	\$101,110	\$110,790	109.6%
Education, Training and Library	\$52,210	\$59,830	114.6%
Arts, Design, Entertainment, Sports, and Media	\$55,790	\$58,850	105.5%
Healthcare Practitioner and Technical	\$76,010	\$105,920	139.4%
Healthcare Support	\$28,820	\$39,090	135.6%
Protective Services	\$43,980	\$56,560	128.6%
Food Preparation and Serving	\$21,980	\$23,270	105.9%
Buildings and Grounds Cleaning and Maintenance	\$26,370	\$32,410	122.9%
Personal Care and Service	\$24,980	\$27,320	109.4%
Sales and Related Occupations	\$38,660	\$44,540	115.2%
Office and Administrative Support	\$35,530	\$43,490	122.4%
Farming, Fishing and Forestry	\$25,160	\$28,020	111.4%
Construction and Extraction	\$46,600	\$61,490	132.0%
Installation, Maintenance, and Repair	\$45,220	\$55,260	122.2%
Production	\$35,490	\$40,900	115.2%
Transportation and Material Moving	\$34,460	\$41,870	121.5%

Sources: BLS *National Industry-Specific Occupational Employment and Wage Estimates*, May 2014.

**Table 6**  
**Illustration of Employees' Household Income Calculation**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Source	Example
Employment Category	City of Walnut Creek and EPS	Lodging
Industry	Bureau of Labor Statistics (BLS)	Accommodation (NAICS Code 721000)
Occupation Category	BLS	Buildings and Grounds Cleaning and Maintenance
Nationwide Median Income for Occupation	BLS	\$23,530
Regional Wage Adjustment Factor for Occupation	BLS and EPS	122.9%
Median Wage Estimate for the San Francisco-Oakland-Hayward MSA	BLS and EPS	\$28,920
Workers per Household	U.S. Census 2010 est.	1.58
Median Income per Household	Workers per HH Multiplied by Med. Annual Wage	\$45,805
Income Category for 3-person Family	Dept. of Housing and Community Development (HCD)	Very Low Income - (VLI 0%-50%)

Sources: City of Walnut Creek, BLS, American Community Survey, HCD, and EPS.

**Table 7**  
**Income Distribution of Worker Households by Employment Category [1]**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Employment Category	Income Category			
	Very Low Income	Low Income - 80	Moderate - 110	Above Mod
Lodging	0.0%	85.3%	8.6%	6.1%
Hospitals	8.4%	24.6%	21.5%	45.5%
Retail	3.1%	84.8%	5.4%	6.7%
Eating and Drinking	95.3%	2.3%	0.0%	2.4%
Office	0.6%	18.8%	31.1%	49.5%
Light Industrial/Service Commercial	0.1%	39.1%	32.2%	28.6%
Recreation and Entertainment	15.0%	62.4%	14.7%	7.9%
Auto Dealers	0.0%	14.9%	76.9%	8.2%

[1] Designation of household income is based on a 3-person household and 1.58 workers per household, based on American Community Survey and Census data.

Source: BLS, HCD, EPS, Census 2010, and American Community Survey 2014.

Based on its prior nexus assumptions, input from City staff, and experience with other comparable cities, EPS estimated the employment density for each of the employment categories as shown in **Table 8** with more detail in **Appendix Table A-1**. Using those employment density assumptions, EPS estimated the number of employees that would occupy a 100,000-square foot building for each employment category.

## Household Formation

EPS then estimated the number of households those employees would represent. First, EPS adjusted for the fact that younger workers may not be at the age to form their own households. Data from the Bureau of Labor Statistics indicate that young workers age 16 to 19 represent only about 1.9 percent of the overall workforce. However, the majority of these young workers are in the retail/restaurant industries, where they represent 12.5 percent of the overall industry employment. EPS has assumed that these young workers age 16 to 19 would not form their own households. Second, EPS has assumed that, on average, new households formed in response to growing employment opportunities would have 1.58 wage-earning workers. This assumption is based on the Census Bureau's American Community Survey 2009-2013 data regarding the number of Walnut Creek residents who are "workers" in households that have workers. The combination of these adjustments results in the assumption that approximately six households are formed for every ten new employees.

This analysis assumes that the fees on nonresidential development will fund required affordable housing for all new workers generated. In practice, only a portion of Walnut Creek's workers resides in the City as many workers in-commute from other areas for a variety of reasons, one of which is the relative cost of housing among different communities. However, if every jurisdiction were to adopt a policy that it would only fund housing for the fraction of its locally generated workers that chooses to live within the City, in aggregate the region's affordable housing demand would be grossly underrepresented and underfunded.

## Housing Development Costs and Affordability Gap

EPS has assumed that the average type of housing for Walnut Creek's lower-income workers would be a 2-bedroom apartment unit in a four to five-story stacked flats building. This prototype was selected for several reasons. First, the average size of a Walnut Creek household with workers is 2.52 while an average size of a family is 2.87 (rounding to three), and households of this size are appropriately housed in 2-bedroom units, according to State law (California Health and Safety Code Section 50025.5). Second, this level of density is widely accepted in the local market with multiple recently completed and ongoing residential projects in Walnut Creek. Third, this building prototype is also generally cost-effective to construct, as it makes efficient use of land and does not involve overly expensive construction materials or techniques. Finally, EPS assumed the units would be rented because the financing gap for rental units is lower than for for-sale units.<sup>2</sup>

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<sup>2</sup> The funding gap difference between for-sale and rental units is further described in the Nexus-Based Affordable Housing Fee Analysis for For-Sale Housing and Units and Nexus-Based Affordable Housing Fee Analysis for Rental Housing; these reports are being simultaneously prepared by EPS.



**Table 8**  
**Household Generation Rates by Employment Category**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Employment Category	Sq.Ft. per Worker [1]	Total Workers per 100k Sq.Ft.	% of Workers Forming Households [2]	Total Households per 100k Sq.Ft. [3] [4]	Households by Income Level [4]			
					Low Income	Moderate Income	Above Moderate	Mod
Lodging	500	200	98.1%	124	0	106	11	8
Hospitals	315	318	98.1%	197	17	48	42	90
Retail	400	250	87.5%	138	4	117	7	9
Eating and Drinking	250	400	87.5%	221	211	5	0	5
Office	220	455	98.1%	282	2	53	88	139
Light Industrial/Service Commercial	400	250	98.1%	155	0	61	50	44
Recreation and Entertainment	1,000	100	98.1%	62	9	39	9	5
Auto Dealers	500	200	98.1%	124	0	18	95	10

[1] See **Appendix Table A-1** for sources on employment densities in different land uses.

[2] 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 workers of age 16-19 do not form their own households.

[3] Assumes 1.58 employees per household based on the Census data; rounded.

[4] Figures are rounded to nearest whole number.

Sources: BLS, US Census, On The Map 2011, and EPS.

## Development Cost Assumptions

Affordable housing development costs include land costs, direct costs (e.g., labor and materials), and indirect or “soft” costs (e.g., architecture, entitlement, marketing, etc.). For rental projects, operating costs also must be incorporated into the analysis. Data from recent Walnut Creek developments and land transactions have been combined with EPS’s information from various market-rate and affordable housing developers to estimate appropriate development cost assumptions. These assumptions are shown on **Table 9**.

## Revenue Assumptions

To calculate the values of the affordable units, assumptions must be made regarding the applicable income level (moderate, low, and very 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, 80, and 110 percent of Area Median Income for a three-person household<sup>3</sup>. In 2015, AMI in Contra Costa County for these households was \$84,150, 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 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.
- *Operating Costs for Rental Units*—The analysis assumes that apartment operators incur annual operating costs of \$6,000 per unit, which include the cost of utilities, for units affordable at 80 percent of AMI or below. EPS has assumed the units for moderate income households would have similar operating costs but would be built by for-profit builders and thus also subject to property taxes, increasing their annual operating cost to \$10,000 per unit.

## Affordability Gap Results

**Table 9** shows the subsidies for construction of for-rent apartments for households at various income levels. Across all categories, the cost of constructing the unit is higher than the value of the unit. This is considered the “affordability gap,” and serves as the basis for calculating the subsidies required to provide housing for the employees who will be working in new nonresidential development in Walnut Creek. In other words, this analysis suggests that rents affordable to moderate income households and below cannot support the costs of new construction without subsidy.

It is worth noting that the affordability gaps estimated in this analysis are not as large as they might be using other also-valid assumptions. For example, the funding gaps for low income

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<sup>3</sup> Although the moderate income category covers affordability between 80 and 120 percent of AMI, this analysis uses prices at 110 percent of AMI based on input from City staff.

units assume that prices are set at 80 percent of median income, while State law suggest low-income unit prices may be set at 70 percent of median income. This methodology used by EPS yields higher unit values and thus results in lower maximum fees than the City's current practices would yield, and has been used by EPS to preempt objections that the assumptions and calculations overstate the actual funding gap for affordable units.

**Table 9**  
**Affordability Gap Analysis -- Rental Product Type**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	4 - 5 Stories Multifamily Building With Podium Parking		
	Very Low Income (50% AMI)	Low Income (80% AMI)	Moderate Income (110% AMI)
<b>Development Program Assumptions</b>			
Density/Acre	100	100	100
Gross Unit Size	1,100	1,100	1,100
Net Unit Size	950	950	950
Number of Bedrooms	2	2	2
Number of Persons per 2-bedroom Unit [1]	3	3	3
Parking Spaces/Unit (podium)	1.25	1.25	1.25
<b>Cost Assumptions</b>			
Land/Acre [2]	\$2,670,000	\$2,670,000	\$2,670,000
Land/Unit	\$26,700	\$26,700	\$26,700
Direct Costs			
Direct Construction Costs/Net SF [3]	\$230	\$230	\$230
Direct Construction Costs/Unit	\$253,000	\$253,000	\$253,000
Parking Construction Costs/Space	\$20,000	\$20,000	\$20,000
Parking Construction Costs/Unit	\$25,000	\$25,000	\$25,000
Subtotal, Direct Costs/Unit	\$278,000	\$278,000	\$278,000
Indirect Costs as a % of Direct Costs [4]	40%	40%	40%
Indirect Costs/Unit	\$111,200	\$111,200	\$111,200
Profit Margin (% of all costs)	10%	10%	10%
Profit (rounded)	\$41,590	\$41,590	\$41,590
Total Cost/Unit (rounded)	\$457,000	\$457,000	\$457,000
<b>Maximum Supported Home Price</b>			
Household Income [5]	\$42,100	\$64,450	\$92,575
Income Available for Housing Costs/Year [6]	\$12,630	\$19,335	\$27,773
(less) Operating Expenses per Unit/Year [7]	(\$6,000)	(\$6,000)	(\$10,000)
Net Operating Income	\$6,630	\$13,335	\$17,773
Capitalization Rate [8]	5.0%	5.0%	5.0%
Total Supportable Unit Value [9]	\$132,600	\$266,700	\$355,450
<b>Affordability Gap</b>	<b>\$324,400</b>	<b>\$190,300</b>	<b>\$101,550</b>

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

[2] Based on the review of the recent land sale transactions, consistent with the feasibility analysis EPS completed in 2014 for a range of uses in WDSP and assumes that land value is based on commercial zoning; this is a conservative assumption.

[3] Includes on-site work, offsite work, vertical construction, general requirements, overhead and builder fees. The cost estimate reflects wood-frame construction above podium parking.

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

[5] Based on 2015 income limits for a three person household in Contra Costa County.

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

[7] Operating expenses are generally based on EPS 2014 feasibility analysis (assumed for moderate-income households) inclusive of utility costs; units at or below 80% of AMI are assumed to be built as non-profit and are therefore exempt from property taxes. Property taxes are assumed to comprise a share of the operating expenses for the moderate income category.

[8] The capitalization rate is used to determine the current value of a property based on estimated future operating income, and is typically a measure of estimated operating risk.

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

Sources: City of Walnut Creek; HUD; IRR Monitor Investor Survey; and Economic & Planning Systems, Inc.

## Fee Calculation

**Tables 10 through 17** provide the maximum nonresidential housing fee calculations for each of the eight employment categories. Assuming a 100,000-square foot nonresidential building prototype for each employment category, the number of new households by income category is multiplied by the per-unit affordability gap to determine the level of subsidy required to provide housing for the new worker households. The adjusted affordability gap is then divided by the size of the assumed building to determine a maximum fee per building square foot.

While the City has the option of adopting fees up to the maximum levels calculated, EPS does not recommend the City adopt the entire maximum fee. There are several factors compounding the issue of housing affordability; insufficient wages relative to development costs constitutes just one factor. Market forces, land use regulations, construction costs, and entitlement costs also affect housing affordability. In addition, revenue generated through this fee program is just one source of potential subsidy funds to help finance affordable housing projects. Finally, adoption of the maximum fees for certain employment categories would represent a very large addition to the costs of development, and could hamper the City's economic development and competitiveness objectives. As the fee is one of several mechanisms for generating resources for or reducing the cost of housing development, the fee level below the maximum calculated fee may be appropriate. Other California communities—including Sacramento, Rohnert Park, and the County of Sonoma, among others—have made reductions to the maximum allowable fee when adopting their fee program, for reasons such as those cited above. The notion of the appropriate fee level will be further explored by EPS in subsequent analyses.

**Table 10**  
**Fee Calculation - Lodging**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	0	\$324,400	\$0
LI - 80	106	\$190,300	\$20,171,800
Moderate	11	\$101,550	\$1,117,050
Above Moderate	<u>8</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>125</b>	<b>n/a</b>	<b>\$21,288,850</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$21,288,850
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<i>c = a / b</i>	<b>\$212.89</b>
<hr/>			

**Table 11**  
**Fee Calculation - Hospitals**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	17	\$324,400	\$5,514,800
LI - 80	48	\$190,300	\$9,134,400
Moderate	42	\$101,550	\$4,265,100
Above Moderate	<u>90</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>197</b>	<b>n/a</b>	<b>\$18,914,300</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$18,914,300
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<i>c = a / b</i>	<b>\$189.14</b>
<hr/>			

**Table 12**  
**Fee Calculation - Retail**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	4	\$324,400	\$1,297,600
LI - 80	117	\$190,300	\$22,265,100
Moderate	7	\$101,550	\$710,850
Above Moderate	<u>9</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>137</b>	<b>n/a</b>	<b>\$24,273,550</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$24,273,550
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<i>c = a / b</i>	<b>\$242.74</b>
<hr/>			



**Table 13**  
**Fee Calculation - Eating and Drinking**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	211	\$324,400	\$68,448,400
LI - 80	5	\$190,300	\$951,500
Moderate	0	\$101,550	\$0
Above Moderate	<u>5</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>221</b>	<b>n/a</b>	<b>\$69,399,900</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$69,399,900
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<b><i>c = a / b</i></b>	<b>\$694.00</b>
<hr/>			

**Table 14**  
**Fee Calculation - Office**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	2	\$324,400	\$648,800
LI - 80	53	\$190,300	\$10,085,900
Moderate	88	\$101,550	\$8,936,400
Above Moderate	<u>139</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>282</b>	<b>n/a</b>	<b>\$19,671,100</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$19,671,100
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<b><i>c = a / b</i></b>	<b>\$196.71</b>
<hr/>			

**Table 15**  
**Fee Calculation - Light Industrial/Service Commercial**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	0	\$324,400	\$0
LI - 80	61	\$190,300	\$11,608,300
Moderate	50	\$101,550	\$5,077,500
Above Moderate	44	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>155</b>	<b>n/a</b>	<b>\$16,685,800</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$16,685,800
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<b><i>c = a / b</i></b>	<b>\$166.86</b>
<hr/>			

**Table 16**  
**Fee Calculation - Recreation and Entertainment**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	9	\$324,400	\$2,919,600
LI - 80	39	\$190,300	\$7,421,700
Moderate	9	\$101,550	\$913,950
Above Moderate	<u>5</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>62</b>	<b>n/a</b>	<b>\$11,255,250</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$11,255,250
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<b><i>c = a / b</i></b>	<b>\$112.55</b>
<hr/>			

**Table 17**  
**Fee Calculation - Auto Dealers**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Item	Worker Households per 100k sq. ft.	Affordability Gap per household	Total Gap
<i>Table references:</i>	<i>Table 8</i>	<i>Table 9</i>	
<b>Aggregate Financing Gap per 100K Sq. Ft</b>			
<b>Affordability Level</b>			
VLI	0	\$324,400	\$0
LI - 80	18	\$190,300	\$3,425,400
Moderate	95	\$101,550	\$9,647,250
Above Moderate	<u>10</u>	<u>\$0</u>	<u>\$0</u>
<b>Total</b>	<b>123</b>	<b>n/a</b>	<b>\$13,072,650</b>
<hr/>			
<b>Fee Calculation</b>		<i>formula</i>	
Total Financing Gap		<i>a</i>	\$13,072,650
Total Building Sq. Ft.		<i>b</i>	100,000
<b>Maximum Fee per Sq. Ft.</b>		<b><i>c = a / b</i></b>	<b>\$130.73</b>
<hr/>			



APPENDIX A:  
Assumptions and Sources

**Table A-1**  
**Assumptions and Sources**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

<b>Item</b>	<b>Total</b>	<b>Unit</b>	<b>Source</b>
<b>Demographic Assumptions</b>			
Workers per Household with Workers	1.58 persons		American Community Survey Estimate 2009-2013
Persons per Household with Workers	2.52 persons		American Community Survey Estimate 2009-2013
Persons per Family	2.87 persons		American Community Survey Estimate 2009-2013
<b>Employment Density Assumptions</b>			
Lodging	500 sq. ft. per employee		Keyser Marston Associates 2004 Nexus Study
Hospitals	315 sq. ft. per employee		EPS; based on John Muir Walnut Creek hospital
Retail	400 sq. ft. per employee		Keyser Marston Associates 2004 Nexus Study
Eating and Drinking	250 sq. ft. per employee		EPS; based on typical restaurant employment densities
Office	220 sq. ft. per employee		Keyser Marston Associates 2004 Nexus Study
Light Industrial/Service Commercial	400 sq. ft. per employee		EPS; based on typical industry employment densities
Recreation and Entertainment	1,000 sq. ft. per employee		EPS; based on a range of densities between movie theaters and other uses
Auto Dealers	500 sq. ft. per employee		EPS; based on a case study approach

Sources: U.S. Census, ACS Survey, City of Walnut Creek, Keyser Marston Associates 2004 Nexus Study, John Muir, Snohomish County Employment Density Study, and Economic & Planning Systems, Inc.

APPENDIX B:  
Occupation Distribution by Employment





**Table B-1**  
**Occupation and Wage Distribution - Hotels/Lodging**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

Lodging
---------

Occupation Category	Lodging [1]					Income Category
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland-Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	
Management	81,230	\$75,000	\$87,401	4.22%	\$138,434	Above Mod
Business and Financial Operations	27,890	\$52,290	\$60,537	1.45%	\$95,884	Above Mod
Computer and Mathematical Science	2,820	\$58,330	\$70,153	0.15%	\$111,115	Above Mod
Architecture and Engineering	400	\$64,870	\$78,334	0.02%	\$124,073	Above Mod
Life, Physical, and Social Science	130	\$54,650	\$67,761	0.01%	\$107,326	Above Mod
Community and Social Services	150	\$36,710	\$44,707	0.01%	\$70,810	Moderate
Legal Occupations	100	\$102,360	\$112,160	0.01%	\$177,649	Above Mod
Education, Training and Library	820	\$35,900	\$41,140	0.04%	\$65,161	Moderate
Arts, Design, Entertainment, Sports, and Media	7,960	\$48,140	\$50,780	0.41%	\$80,431	Moderate
Healthcare Practitioner and Technical	490	\$52,760	\$73,521	0.03%	\$116,450	Above Mod
Healthcare Support	8,350	\$41,030	\$55,651	0.43%	\$88,145	Moderate
Protective Services	44,340	\$29,310	\$37,694	2.30%	\$59,703	LI - 80
Food Preparation and Serving	479,760	\$26,860	\$28,436	24.94%	\$45,040	LI - 80
Buildings and Grounds Cleaning and Maintenance	549,730	\$23,530	\$28,920	28.58%	\$45,805	LI - 80
Personal Care and Service	148,690	\$26,700	\$29,201	7.73%	\$46,251	LI - 80
Sales and Related Occupations	52,700	\$36,550	\$42,109	2.74%	\$66,696	Moderate
Office and Administrative Support	356,770	\$26,240	\$32,119	18.54%	\$50,873	LI - 80
Farming, Fishing and Forestry	640	\$27,150	\$30,236	0.03%	\$47,891	LI - 80
Construction and Extraction	3,840	\$47,580	\$62,783	0.20%	\$99,442	Above Mod
Installation, Maintenance, and Repair	95,210	\$34,590	\$42,270	4.95%	\$66,951	Moderate
Production	37,610	\$25,680	\$29,595	1.95%	\$46,875	LI - 80
Transportation and Material Moving	24,180	\$25,170	\$30,582	1.26%	\$48,439	LI - 80
<b>Total or Weighted Average</b>	<b>1,923,810</b>		<b>\$33,970</b>	<b>100.00%</b>	<b>\$53,805</b>	

"dist\_t1"

[1] Includes NAICS Sector: 721000 - Accommodation.

[2] Adjusted using factors calculated in Table 5.

Source: BLS and EPS.

Table B-2

## Occupation and Wage Distribution - Hospitals

Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080

## Hospitals

Occupation Category	HOSPITALS [1]					
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland-Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	Income Category
Management	497,650	\$103,554	\$120,677	3.20%	\$191,139	Above Mod
Business and Financial Operations	234,020	\$62,006	\$71,785	1.50%	\$113,700	Above Mod
Computer and Mathematical Science	107,670	\$69,433	\$83,507	0.69%	\$132,266	Above Mod
Architecture and Engineering	5,200	\$74,103	\$89,484	0.03%	\$141,733	Above Mod
Life, Physical, and Social Science	89,380	\$76,430	\$94,766	0.57%	\$150,099	Above Mod
Community and Social Services	557,600	\$43,701	\$53,221	3.58%	\$84,296	Moderate
Legal Occupations	2,380	\$116,311	\$127,447	0.02%	\$201,862	Above Mod
Education, Training and Library	40,350	\$68,419	\$78,405	0.26%	\$124,185	Above Mod
Arts, Design, Entertainment, Sports, and Media	23,140	\$52,439	\$55,315	0.15%	\$87,614	Moderate
Healthcare Practitioner and Technical	6,100,060	\$78,727	\$109,705	39.17%	\$173,762	Above Mod
Healthcare Support	3,305,010	\$28,933	\$39,243	21.22%	\$62,156	LI - 80
Protective Services	63,860	\$33,408	\$42,964	0.41%	\$68,051	Moderate
Food Preparation and Serving	476,920	\$24,174	\$25,593	3.06%	\$40,537	VLI
Buildings and Grounds Cleaning and Maintenance	395,570	\$25,141	\$30,900	2.54%	\$48,942	LI - 80
Personal Care and Service	826,780	\$22,568	\$24,682	5.31%	\$39,094	VLI
Sales and Related Occupations	48,750	\$47,741	\$55,002	0.31%	\$87,117	Moderate
Office and Administrative Support	2,531,970	\$34,755	\$42,542	16.26%	\$67,382	Moderate
Farming, Fishing and Forestry	550	\$24,379	\$27,150	0.00%	\$43,003	LI - 80
Construction and Extraction	13,900	\$53,541	\$70,649	0.09%	\$111,900	Above Mod
Installation, Maintenance, and Repair	123,900	\$41,802	\$51,083	0.80%	\$80,910	Moderate
Production	67,820	\$31,218	\$35,977	0.44%	\$56,984	LI - 80
Transportation and Material Moving	61,510	\$30,383	\$36,917	0.39%	\$58,472	LI - 80
<b>Total or Weighted Average</b>	<b>15,573,990</b>		<b>\$70,510</b>	<b>100.00%</b>	<b>\$111,680</b>	

[1] Includes NAICS Sectors: 62 - Healthcare (excluding - 624000 Social Assistance).

[2] Adjusted using factors calculated in Table 5.

**Table B-3**  
**Occupation and Wage Distribution - Retail**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

<b>Retail</b>
---------------

Occupation Category	RETAIL [1]					
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland- Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	Income Category
Management	430,010	\$94,960	\$110,662	2.48%	\$175,276	Above Mod
Business and Financial Operations	166,490	\$61,231	\$70,888	0.96%	\$112,279	Above Mod
Computer and Mathematical Science	50,670	\$66,504	\$79,984	0.29%	\$126,686	Above Mod
Architecture and Engineering	3,870	\$67,655	\$81,697	0.02%	\$129,400	Above Mod
Life, Physical, and Social Science	440	\$55,330	\$68,604	0.00%	\$108,661	Above Mod
Community and Social Services	2,220	\$39,082	\$47,596	0.01%	\$75,386	Moderate
Legal Occupations	1,530	\$81,820	\$89,653	0.01%	\$142,000	Above Mod
Education, Training and Library	10,620	\$31,952	\$36,616	0.06%	\$57,995	LI - 80
Arts, Design, Entertainment, Sports, and Media	127,170	\$34,883	\$36,796	0.73%	\$58,281	LI - 80
Healthcare Practitioner and Technical	514,250	\$63,760	\$88,849	2.96%	\$140,727	Above Mod
Healthcare Support	83,720	\$31,910	\$43,281	0.48%	\$68,552	Moderate
Protective Services	61,750	\$30,128	\$38,746	0.36%	\$61,369	LI - 80
Food Preparation and Serving	531,020	\$22,847	\$24,188	3.06%	\$38,311	VLI
Buildings and Grounds Cleaning and Maintenance	164,180	\$23,965	\$29,454	0.95%	\$46,651	LI - 80
Personal Care and Service	716,440	\$27,468	\$30,041	4.13%	\$47,582	LI - 80
Sales and Related Occupations	8,906,370	\$26,962	\$31,062	51.28%	\$49,199	LI - 80
Office and Administrative Support	2,837,990	\$27,287	\$33,400	16.34%	\$52,903	LI - 80
Farming, Fishing and Forestry	19,380	\$24,240	\$26,995	0.11%	\$42,758	LI - 80
Construction and Extraction	42,470	\$41,119	\$54,258	0.24%	\$85,939	Moderate
Installation, Maintenance, and Repair	816,460	\$39,219	\$47,926	4.70%	\$75,910	Moderate
Production	589,480	\$27,806	\$32,044	3.39%	\$50,755	LI - 80
Transportation and Material Moving	1,290,600	\$25,577	\$31,076	7.43%	\$49,222	LI - 80
<b>Total or Weighted Average</b>	<b>17,367,130</b>		<b>\$36,414</b>	<b>100.00%</b>	<b>\$57,676</b>	

[1] Includes NAICS Sectors: 44 and 45 - Retail Trade; 532000 - Rental and Leasing Services; and 812000 - Personal and Laundry Services.

[2] Adjusted using factors calculated in Table 5.

Source: BLS and EPS.

**Table B-4**  
**Occupation and Wage Distribution - Eating and Drinking**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

<b>Eating and Drinking</b>
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Occupation Category	EATING AND DRINKING [1]					
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland- Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	Income Category
Management	235,500	\$60,140	\$70,084	2.22%	\$111,006	Above Mod
Business and Financial Operations	18,730	\$51,260	\$59,344	0.18%	\$93,995	Above Mod
Computer and Mathematical Science	620	\$58,540	\$70,406	0.01%	\$111,515	Above Mod
Architecture and Engineering	0	\$0	\$0	0.00%	\$0	Median
Life, Physical, and Social Science	0	\$0	\$0	0.00%	\$0	Median
Community and Social Services	0	\$0	\$0	0.00%	\$0	Median
Legal Occupations	0	\$0	\$0	0.00%	\$0	Median
Education, Training and Library	0	\$0	\$0	0.00%	\$0	Median
Arts, Design, Entertainment, Sports, and Media	9,350	\$36,600	\$38,607	0.09%	\$61,150	LI - 80
Healthcare Practitioner and Technical	3,890	\$52,050	\$72,532	0.04%	\$114,882	Above Mod
Healthcare Support	50	\$24,970	\$33,868	0.00%	\$53,643	LI - 80
Protective Services	31,420	\$26,150	\$33,630	0.30%	\$53,266	LI - 80
Food Preparation and Serving	9,580,710	\$21,340	\$22,592	90.18%	\$35,784	VLI
Buildings and Grounds Cleaning and Maintenance	55,520	\$22,810	\$28,035	0.52%	\$44,404	LI - 80
Personal Care and Service	6,970	\$21,660	\$23,689	0.07%	\$37,521	VLI
Sales and Related Occupations	334,410	\$20,190	\$23,261	3.15%	\$36,843	VLI
Office and Administrative Support	85,960	\$31,090	\$38,055	0.81%	\$60,275	LI - 80
Farming, Fishing and Forestry	280	\$19,640	\$21,873	0.00%	\$34,644	VLI
Construction and Extraction	60	\$66,240	\$87,406	0.00%	\$138,441	Above Mod
Installation, Maintenance, and Repair	13,860	\$32,520	\$39,740	0.13%	\$62,944	LI - 80
Production	46,130	\$25,060	\$28,880	0.43%	\$45,743	LI - 80
Transportation and Material Moving	201,080	\$21,060	\$25,589	1.89%	\$40,530	VLI
<b>Total or Weighted Average</b>	<b>10,624,540</b>		<b>\$24,060</b>	<b>100.00%</b>	<b>\$38,108</b>	

[1] Includes NAICS Sectors: 722000 - Food Services and Drinking Places.

[2] Adjusted using factors calculated in Table 5.

Source: BLS and EPS.

**Table B-5**  
**Occupation and Wage Distribution - Office**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

<b>Office</b>
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Occupation Category	Office [1]					
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland- Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	Income Category
Management	2,106,820	\$132,532	\$154,445	7.55%	\$244,625	Above Mod
Business and Financial Operations	3,598,690	\$77,164	\$89,334	12.90%	\$141,496	Above Mod
Computer and Mathematical Science	2,565,200	\$86,467	\$103,993	9.20%	\$164,714	Above Mod
Architecture and Engineering	953,810	\$79,345	\$95,813	3.42%	\$151,757	Above Mod
Life, Physical, and Social Science	208,090	\$67,147	\$83,255	0.75%	\$131,868	Above Mod
Community and Social Services	42,650	\$45,477	\$55,383	0.15%	\$87,721	Moderate
Legal Occupations	749,580	\$104,848	\$114,886	2.69%	\$181,966	Above Mod
Education, Training and Library	96,350	\$40,591	\$46,515	0.35%	\$73,675	Moderate
Arts, Design, Entertainment, Sports, and Media	859,430	\$63,267	\$66,737	3.08%	\$105,705	Above Mod
Healthcare Practitioner and Technical	386,690	\$63,699	\$88,765	1.39%	\$140,594	Above Mod
Healthcare Support	171,180	\$27,715	\$37,592	0.61%	\$59,541	LI - 80
Protective Services	830,230	\$28,490	\$36,639	2.98%	\$58,032	LI - 80
Food Preparation and Serving	160,790	\$23,273	\$24,639	0.58%	\$39,025	VLI
Buildings and Grounds Cleaning and Maintenance	2,006,920	\$25,876	\$31,803	7.19%	\$50,372	LI - 80
Personal Care and Service	204,030	\$25,431	\$27,814	0.73%	\$44,054	LI - 80
Sales and Related Occupations	2,387,670	\$62,078	\$71,520	8.56%	\$113,280	Above Mod
Office and Administrative Support	7,423,590	\$36,628	\$44,834	26.61%	\$71,013	Moderate
Farming, Fishing and Forestry	14,720	\$28,776	\$32,047	0.05%	\$50,759	LI - 80
Construction and Extraction	240,020	\$44,276	\$58,423	0.86%	\$92,536	Moderate
Installation, Maintenance, and Repair	869,290	\$45,556	\$55,671	3.12%	\$88,176	Moderate
Production	972,790	\$28,947	\$33,359	3.49%	\$52,837	LI - 80
Transportation and Material Moving	1,044,720	\$26,574	\$32,288	3.75%	\$51,141	LI - 80
<b>Total or Weighted Average</b>	<b>27,893,260</b>		<b>\$69,908</b>	<b>100.00%</b>	<b>\$110,727</b>	

[1] Includes NAICS Sectors: 51 - Information; 52 - Finance and Insurance; 53 - Real Estate and Rental and Leasing (excluding 532000 - Rental and Leasing Services); 54 - Professional, Scientific, and Technical Services (excluding 541700 - Scientific Research and Development Services); 55 - Management of Companies and Enterprises; and 561000 - Admin. and Support Services.

[2] Adjusted using factors calculated in Table 5.

Source: BLS and EPS.

**Table B-6**  
**Occupation and Wage Distribution - Light Industrial/Service Commercial**  
**Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080**

**Light Industrial/Service Comm'I**

Occupation Category	Light Industrial/Service Commercial [1]					Income Category
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland-Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	
Management	926,750	\$120,517	\$140,444	6.48%	\$222,448	Above Mod
Business and Financial Operations	606,980	\$69,809	\$80,819	4.25%	\$128,008	Above Mod
Computer and Mathematical Science	283,740	\$85,044	\$102,281	1.99%	\$162,003	Above Mod
Architecture and Engineering	290,290	\$84,842	\$102,451	2.03%	\$162,272	Above Mod
Life, Physical, and Social Science	198,020	\$80,439	\$99,736	1.39%	\$157,971	Above Mod
Community and Social Services	4,090	\$52,509	\$63,947	0.03%	\$101,285	Above Mod
Legal Occupations	8,660	\$137,775	\$150,965	0.06%	\$239,113	Above Mod
Education, Training and Library	5,940	\$66,381	\$76,069	0.04%	\$120,485	Above Mod
Arts, Design, Entertainment, Sports, and Media	89,210	\$50,996	\$53,793	0.62%	\$85,203	Moderate
Healthcare Practitioner and Technical	49,520	\$66,728	\$92,985	0.35%	\$147,278	Above Mod
Healthcare Support	5,660	\$33,808	\$45,856	0.04%	\$72,631	Moderate
Protective Services	17,350	\$42,101	\$54,143	0.12%	\$85,757	Moderate
Food Preparation and Serving	7,310	\$24,086	\$25,499	0.05%	\$40,388	VLI
Buildings and Grounds Cleaning and Maintenance	74,240	\$27,824	\$34,197	0.52%	\$54,165	LI - 80
Personal Care and Service	2,960	\$27,487	\$30,062	0.02%	\$47,615	LI - 80
Sales and Related Occupations	1,722,110	\$64,808	\$74,665	12.05%	\$118,262	Above Mod
Office and Administrative Support	2,237,780	\$36,611	\$44,813	15.66%	\$70,979	Moderate
Farming, Fishing and Forestry	44,150	\$26,753	\$29,794	0.31%	\$47,191	LI - 80
Construction and Extraction	3,870,410	\$27,305	\$36,029	27.08%	\$57,066	LI - 80
Installation, Maintenance, and Repair	1,656,550	\$45,934	\$56,132	11.59%	\$88,907	Moderate
Production	596,030	\$42,007	\$48,411	4.17%	\$76,677	Moderate
Transportation and Material Moving	1,593,560	\$32,947	\$40,031	11.15%	\$63,405	LI - 80
<b>Total or Weighted Average</b>	<b>14,291,310</b>		<b>\$57,967</b>	<b>100.00%</b>	<b>\$91,813</b>	

[1] Includes NAICS Sectors: 22 - Construction; 23 - Utilities; 42 - Wholesale Trade; 541700 - Scientific R&D Services; and 811000 - Repair and Maintenance.

[2] Adjusted using factors calculated in Table 5.

Table B-7

Occupation and Wage Distribution - Recreation and Entertainment  
Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080

## Recreation and Entertainment

Occupation Category	Recreation and Entertainment [1]					
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland- Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	Income Category
Management	84,700	\$95,170	\$110,906	3.87%	\$175,663	Above Mod
Business and Financial Operations	61,940	\$62,910	\$72,832	2.83%	\$115,358	Above Mod
Computer and Mathematical Science	8,690	\$66,860	\$80,412	0.40%	\$127,364	Above Mod
Architecture and Engineering	2,170	\$80,910	\$97,703	0.10%	\$154,752	Above Mod
Life, Physical, and Social Science	2,470	\$52,990	\$65,702	0.11%	\$104,066	Above Mod
Community and Social Services	1,140	\$46,620	\$56,775	0.05%	\$89,926	Moderate
Legal Occupations	670	\$144,280	\$158,093	0.03%	\$250,402	Above Mod
Education, Training and Library	40,960	\$43,020	\$49,299	1.87%	\$78,084	Moderate
Arts, Design, Entertainment, Sports, and Media	194,410	\$55,060	\$58,080	8.88%	\$91,992	Moderate
Healthcare Practitioner and Technical	7,710	\$46,540	\$64,854	0.35%	\$102,721	Above Mod
Healthcare Support	4,710	\$38,730	\$52,531	0.22%	\$83,204	Moderate
Protective Services	111,770	\$26,490	\$34,067	5.10%	\$53,959	LI - 80
Food Preparation and Serving	329,270	\$23,270	\$24,636	15.03%	\$39,020	VLI
Buildings and Grounds Cleaning and Maintenance	186,490	\$25,960	\$31,906	8.51%	\$50,536	LI - 80
Personal Care and Service	638,510	\$27,930	\$30,546	29.15%	\$48,382	LI - 80
Sales and Related Occupations	173,710	\$27,230	\$31,372	7.93%	\$49,689	LI - 80
Office and Administrative Support	202,760	\$31,030	\$37,982	9.26%	\$60,159	LI - 80
Farming, Fishing and Forestry	2,210	\$27,310	\$30,414	0.10%	\$48,173	LI - 80
Construction and Extraction	2,210	\$55,170	\$72,798	0.10%	\$115,305	Above Mod
Installation, Maintenance, and Repair	74,790	\$38,020	\$46,461	3.41%	\$73,590	Moderate
Production	6,920	\$36,370	\$41,914	0.32%	\$66,387	Moderate
Transportation and Material Moving	52,050	\$30,810	\$37,435	2.38%	\$59,293	LI - 80
<b>Total or Weighted Average</b>	<b>2,190,260</b>		<b>\$39,115</b>	<b>100.00%</b>	<b>\$61,954</b>	

[1] Includes NAICS Sector: 71 - Arts, Entertainment, and Recreation.

[2] Adjusted using factors calculated in Table 5.

Table B-8

Occupation and Wage Distribution - Auto Dealership  
Walnut Creek Housing Mitigation Nexus and Fee Study; EPS #151080

<b>Auto Dealership</b>
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Occupation Category	Auto Dealership [1]					
	US Total Jobs by Occ. in Industry	US Avg. Wage by Occ. in Industry	San Francisco-Oakland-Hayward MSA Wage Est. [2]	% of Industry Jobs in Occ. Category	HH Income at 1.58 workers/HH	Income Category
Management	64,070	\$128,810	\$150,108	5.48%	\$237,756	Above Mod
Business and Financial Operations	30,110	\$78,750	\$91,170	2.58%	\$144,403	Above Mod
Computer and Mathematical Science	1,910	\$58,010	\$69,768	0.16%	\$110,505	Above Mod
Architecture and Engineering	0	\$0	\$0	0.00%	\$0	Median
Life, Physical, and Social Science	0	\$0	\$0	0.00%	\$0	Median
Community and Social Services	0	\$0	\$0	0.00%	\$0	Median
Legal Occupations	570	\$41,930	\$45,944	0.05%	\$72,771	Moderate
Education, Training and Library	0	\$0	\$0	0.00%	\$0	Median
Arts, Design, Entertainment, Sports, and Media	680	\$43,990	\$46,403	0.06%	\$73,497	Moderate
Healthcare Practitioner and Technical	0	\$0	\$0	0.00%	\$0	Median
Healthcare Support	0	\$0	\$0	0.00%	\$0	Median
Protective Services	1,100	\$28,470	\$36,614	0.09%	\$57,992	LI - 80
Food Preparation and Serving	340	\$19,850	\$21,015	0.03%	\$33,285	VLI
Buildings and Grounds Cleaning and Maintenance	9,660	\$24,650	\$30,296	0.83%	\$47,986	LI - 80
Personal Care and Service	210	\$22,960	\$25,111	0.02%	\$39,773	VLI
Sales and Related Occupations	415,760	\$46,550	\$53,630	35.58%	\$84,944	Moderate
Office and Administrative Support	175,150	\$33,330	\$40,797	14.99%	\$64,618	Moderate
Farming, Fishing and Forestry	0	\$0	\$0	0.00%	\$0	Median
Construction and Extraction	0	\$52,030	\$68,655	0.00%	\$108,742	Above Mod
Installation, Maintenance, and Repair	300,200	\$45,650	\$55,785	25.69%	\$88,358	Moderate
Production	5,870	\$46,650	\$53,761	0.50%	\$85,152	Moderate
Transportation and Material Moving	163,040	\$23,940	\$29,088	13.95%	\$46,072	LI - 80
<b>Total or Weighted Average</b>	<b>1,168,670</b>		<b>\$54,889</b>	<b>100.00%</b>	<b>\$86,938</b>	

[1] Includes NAICS Sector: 441100 - Auto Dealers.

[2] Adjusted using factors calculated in Table 5.