# Jobs Housing Nexus Study

***Prepared for:***
***City of Mountain View***

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## EXECUTIVE SUMMARY

Keyser Marston Associates (KMA) has prepared this nexus analysis and report for the City of Mountain View to provide updated nexus support to the City's Housing Impact Fee. The Housing Impact Fee is assessed on non-residential development in the City of Mountain View as mitigation to address affordable housing needs of workers. This analysis is a first step in the update process for the Housing Impact Fee initiated at the request of the City Council.

### Existing Fees

The City of Mountain View adopted a Housing Impact Fee for retail, hotel, entertainment, office, high tech and industrial development in January 2002. Existing fees for office, high tech, and industrial development are $3.71 per square foot for the first 10,000 square feet and $7.43 per square foot above 10,000 square feet. Existing fees for hotel, retail, and entertainment, are $1.24 per square foot for the first 25,000 square feet and $2.47 above 25,000 square feet. The fees only apply to new development and are implemented based upon the net additional square footage added.

### Nexus Analysis Concept

The nexus analysis quantifies and documents the linkages among construction of new work place buildings (office, retail, etc.), the employees that work in them, and the demand for affordable housing. Since jobs in all buildings cover a range in compensation levels, and the households of the workers range in size, there are needs at all affordability levels. This analysis quantifies the need at the lower affordability levels (Extremely Low, Very Low, and Low) associated with each type of workplace building. The needs are quantified both in terms of number of units and the amount of subsidy assistance needed to make the units affordable. The conclusions represent the cost on a per square foot basis to mitigate affordable housing demand created by a project.

### Nexus Analysis Conclusions

The conclusions of the analysis summarized in the table below represent the maximum total nexus or affordable housing mitigation costs per square foot of building area for each of the building types.

**Analysis Conclusions:**
**Nexus Cost Per Square Foot of Building Area**

| *Income Category* | *Office/ High Tech* | *Commercial / Retail / Entertainment* | *Hotel* |
|---|---|---|---|
| Extremely Low (<30% AMI) | $11.31 | $96.93 | $17.25 |
| Very Low (30% - 50% AMI) | $27.85 | $108.13 | $19.66 |
| Low (50% - 80% AMI) | $20.15 | $38.55 | $7.78 |
| Total Housing Nexus Cost | **$59.31** | **$243.61** | **$44.69** |

*Note: These are technical nexus conclusions, not recommended fees.*
*AMI = Area Median Income*

The results of the analysis are technical conclusions on the amount of fees that could be supported and are not recommended fee levels. The nexus analysis conclusions are fully supportive of existing fee requirements and provide the flexibility to consider an increase to the fee, if desired.

These total nexus or mitigation costs are high in Santa Clara County due to the low compensation levels of many jobs, coupled with the high cost of developing residential units. The comparatively high median income for Santa Clara County is also a factor because more households fall into one of the affordability tiers given the comparatively high income thresholds to qualify. These factors are especially pronounced with the Commercial / Retail / Entertainment category yielding a very high nexus cost. California Employment Development Department data for 2012 indicates compensation for Commercial / Retail / Entertainment workers in Santa Clara County averages approximately $31,000 annually. This means many worker households qualify as Extremely Low Income (four-person households earning $31,500 and below[1]) and 84% are estimated to qualify for one of the three lower income categories: Extremely Low Income, Very Low Income and Low Income. Households qualifying as Extremely Low Income are primarily those with only one income. In Santa Clara County, approximately half of all working households rely on one income. Hotel workers have similar compensation levels (averaging $33,000 annually); however, since there are fewer employees per square feet of building area, the resulting mitigation costs are much lower on a per square foot basis.

For Office / High Tech, workers average approximately $91,000 annually, which is about three times the average compensation for Commercial / Retail / Entertainment and Hotel workers. Only about one in five employee households falls into one of the lower income tiers. The higher compensation levels result in a far lower affordable housing nexus cost for Office / High Tech as compared to Commercial / Retail / Entertainment.

[1] Income criteria vary by household size.

**Next Steps**

The nexus analysis establishes maximum fee levels to mitigate the impact of new non-residential development on the demand for affordable housing. Recognizing a variety of City objectives and priorities, policy makers may set the fees at any level below the maximum. If the City decides to update the current Housing Impact Fees, KMA's work scope includes a subsequent phase to supplement the nexus analysis with additional context information for the housing impact fees. The context information is expected to include information on development economics / financial feasibility to supplement the information on fees in other jurisdictions provided in Section IV. The purpose of the context information will be to provide guidance to policy makers in setting fee levels. A particular focus will be devoted to facilitating an understanding of whether the existing housing impact fees or any proposed modified fee levels are likely to alter development decisions, or drive activity to other jurisdictions.

## INTRODUCTION

The following report summarizes an analysis of the linkages connecting non-residential development in Mountain View and the need for additional affordable housing. The analysis, which demonstrates support for the Housing Impact Fee, has been prepared by Keyser Marston Associates for the City of Mountain View pursuant to a contractual agreement.

### Background

The City of Mountain View adopted a Housing Impact Fee for retail, hotel, entertainment, office, high tech and industrial development in January 2002. Keyser Marston Associates prepared the nexus study for the 2002 Housing Impact Fee. The Housing Impact Fee was adopted several years after the City adopted a Below Market Rate (BMR) Housing Program which required all market rate residential development to contribute to affordable housing. The Housing Impact Fee was adopted to address the affordable housing impacts of non-residential development.

The fees adopted in 2002 have been adjusted annually based on the Consumer Price Index. The current fee levels are as follows:

**Housing Impact Fees (FY 2012-13)**

| | *Housing Impact Fee Per Square Foot of Building Area* |
|---|---|
| **Office / High-Tech / Industrial** | |
| First 10,000 square feet | $3.71 |
| 10,000+ square feet | $7.43 |
| | |
| **Hotel / Retail / Entertainment** | |
| First 25,000 square feet | $1.24 |
| 25,000+ square feet | $2.47 |

The City of Mountain View is committed to creating new opportunities for affordable housing as well as preserving the existing affordable housing stock. This is evidenced by policies in the City's 2010 – 2015 Consolidated Plan and the 2007 – 2014 Housing Element. The City's Below Market Rate (BMR) Housing Program and the Housing Impact Fees implement the City's housing policies to assist low income households and increase the supply of affordable housing.

### Purpose

The purpose of a nexus analysis is to quantify and document the linkages among construction of new work place buildings (office, retail, etc.), the employees that work in them, and the demand for affordable housing. Since jobs in all buildings cover a range in compensation levels, and the households of the workers range in size, there are needs at all affordability levels. This

analysis quantifies the need at the lower affordability levels (Extremely Low, Very Low, and Low) associated with each type of workplace building.

This analysis is conducted to meet the requirements of several U. S. Supreme Court decisions and California Code Section 66000 (which is sometimes referred to as "the Mitigation Fee Act"). Such analyses are called linkage or nexus analyses.

**Analysis Scope and Organization**

The workplace buildings that are the subject of this analysis are effectively the same as those analyzed for the original Housing Impact Fee as the City has determined that the range of buildings covered by the program has been satisfactory. The building types are:

- Office / High-Tech
- Commercial / Retail / Entertainment
- Hotel

The household income categories addressed in the analysis have been modified somewhat from the 2001 nexus analysis. The Extremely Low category is now separately analyzed. The moderate category has been eliminated since the recent residential nexus analysis indicated that no subsidy is required to produce rental units affordable to moderate income households. These categories are also consistent with the BMR program:

| ***Income Category*** | ***Percent of Area Median Income***[2] | ***Income Range*** (Four Person Household) |
|---|---|---|
| Extremely Low Income | under 30% of Median | $0 to $31,500 |
| Very Low Income | 31% to 50% of Median | $31,501 to $52,500 |
| Low Income | 51% to 80% of Median | $52,501 to $75,700 |

Source: California Department of Housing and Community Development.

For reference, the Area Median Income in 2012 for Santa Clara County is now $105,000 for a family of four persons.

The affordability gap, or the net cost to produce a new affordable housing unit, is an important analysis component that translates units of housing at various affordability levels to mitigation costs. The affordability gaps used in this analysis are from the nexus analysis for the residential program, prepared by Economic and Planning Systems (EPS), making the two analyses consistent.

[2] Percentage range for Very Low Income Households presented as 31% to 50% but technically all households earning from just above 30% through 50% of Area Median Income are included. Percentage range for Low Income households presented as 51% to 80% but technically all households earning from just above 50% through 80% of Area Median Income are included.

## Data Sources and Qualifications

The analyses in this report have been prepared using the best and most recent data available. Local and current data was used whenever possible. Other sources such as the American Community Survey of the U.S. Census, the 2010 Census, and California Employment Department data were used extensively. Other sources and analyses when used are noted in the text and footnotes. While we believe all sources utilized are sufficiently accurate for the purposes of the analyses, we cannot guarantee their accuracy. Keyser Marston Associates, Inc. assumes no liability for information from these and other sources.

## SECTION I: THE NEXUS CONCEPT

### Introduction

This section outlines the nexus concept and some of the key issues surrounding the linking of new non-residential development to the demand for affordable residential units in the City of Mountain View. The nexus analysis and discussion focus on the relationships among development, growth, employment, income of workers and demand for affordable housing. The analysis yields a connection between new construction of the types of buildings in which there are workers and the need for additional affordable housing, a connection that is quantified both in terms of number of units and the amount of subsidy assistance needed to make the units affordable.

### The Legal Basis and Context

The first jobs-housing linkage programs were adopted in the cities of San Francisco and Boston in the mid-1980s. To support the linkage, the City of San Francisco commissioned an analysis to show the relationships, or what might now be characterized as an early version of a nexus analysis. Since that time there have been several court cases and California statutes that affect what local jurisdictions must demonstrate when imposing impact fees on development projects. The most important U.S. Supreme Court cases are *Nollan v. California Coastal Commission* and *Dolan v. City of Tigard* (Oregon). The rulings on these cases, and others, help clarify what governments must find in the way of the nature of the relationship between the problem to be mitigated and the action contributing to the problem. Here, the problem is the lack of affordable housing and the action contributing to the problem is building workspaces that mean more jobs and worker households needing more affordable housing.

Following the Nollan decision in 1987, the California legislature enacted AB 1600 which requires local agencies proposing an impact fee on a development project to identify the purpose of the fee, the use of the fee, and to determine that there is a reasonable relationship between the fee's use and the development project on which the fee is imposed. The local agency must also demonstrate that there is a reasonable relationship between the fee amount and the cost of mitigating the problem that the fee addresses. Studies by local governments designed to fulfill the requirements of AB 1600 are often referred to as AB 1600 or "nexus" studies.

One court case that involved housing linkage fees was *Commercial Builders of Northern California v. City of Sacramento*. The commercial builders of Sacramento sued the City following the City's adoption of a housing linkage fee. Both the U.S. District Court and the Ninth Circuit Court of Appeals upheld the City of Sacramento and rejected the builders' petition. The U.S. Supreme Court denied a petition to hear the case, letting stand the lower court's opinion.

Since the Sacramento case in 1991 there have been several additional court rulings reaffirming and clarifying the ability of California cities to adopt impact fees. A notable case was *the San Remo Hotel v. the City and County of San Francisco*, which upheld the impact fee levied by the City and County on the conversion of residence hotels to tourist hotels and other uses. The court found that a suitable nexus, or deleterious impact had been demonstrated. In 2009, in the *Building Industry Association of Central California v. the City of Patterson*, the Court invalidated the City's fee because a valid nexus, linking the impact of the proposed project to the fee, had not been demonstrated. In 2010 a court ruling upheld most of the impact fees levied by the City of Lemoore in Southern California.

In summary, the case law at this time appears to be fully supportive of jobs housing impact fees such as the impact fee that has been in place in the City of Mountain View since 2002 and is the subject of this update analysis.

**The Nexus Methodology**

An overview of the basic nexus concept and methodology is helpful to understand the discussion and concepts presented in this section. This overview consists of a quick "walk through" of the major steps of the analysis. The nexus analysis links new commercial buildings with new workers in the City; these workers demand additional housing in proximity to the jobs, a portion of which needs to be affordable to the workers in lower income households.

The methodology utilized in this analysis is "micro" analysis that examines individual buildings. The micro nexus analysis readily lends itself to quantification that serves as a basis for the nexus cost, or maximum fee amount for each building type.

To illustrate the micro nexus analysis, very simply, we can walk through the major calculations of the analysis. We begin by assuming a prototypical building of some specific size and then make calculations as follows:

- We estimate the total number of employees working in the building based on average employment density data.
- We use occupation and income information for typical job types in the building to calculate how many of those jobs pay compensation at the levels addressed in the analysis. Compensation data is from the California Employment Development Department (EDD) and is specific to Santa Clara County as of 2012. Worker occupations by building type are derived from the 2011 Occupational Employment Survey by the U.S. Bureau of Labor Statistics.
- We know from the Census that many workers are members of households where more than one person is employed and there is also a range of household sizes; we use factors derived from the Census to translate number of workers into households of various size represented in each income category.

- Then, we calculate how many of the Extremely Low-, Very Low- and Low-Income households are associated with the building and divide by the building size to arrive at coefficients of housing units per square foot of building area.
- In the last step, we multiply the number of lower income households per square foot by the costs of delivering housing units affordable to these income groups.

**The Relationship Between Job Growth and Population Growth**

A major social issue driving this analysis is growth in lower income households. Over the long term, population growth in most U.S. regions is linked to job growth. People born in the local area will not stay without jobs. People would not move to the region if they could not expect to find a job. This is the long-term pattern. In the short-term, economic cycles and other factors can result in population growth without jobs to support the growth. If an economic region in the U.S. does not maintain job growth, there is an out-migration to regions where job growth is occurring. Many cities in the Midwest during the 70's and 80's are examples of this outmigration, and some U.S. cities continued to lose population in more recent decades.

Not all population growth in the Bay Area is the result of new jobs in the region. Retirees, students, and others who are not part of the workforce all generate demand for housing. However non-working households are not included in the analysis since the purpose is to demonstrate the linkage between new buildings, new workers, and demand for affordable housing. Since only working households are part of this equation, the demand for housing generated by non-working households is excluded.

**The Relationship Between Construction and Job Growth**

Employment growth does not have one cause. Many factors underlie the reasons for growth in employment in a given region; these factors are complex, interrelated, and often associated with forces at the national and international levels. One of the factors is the delivery of new workspace buildings. The nexus argument does not make the case that the construction of new buildings is solely responsible for growth. However, new construction is uniquely important, first, as one of a number of parallel factors contributing to growth, and second, as a unique and essential condition precedent to growth.

As to the first, construction itself encourages growth. When the state economy is growing, the most rapidly growing areas in the state are those where new construction is vigorous as a vital industry. In regions such as the Bay Area where multiple forces of growth exist, the development industry frequently serves as a proactive force inducing growth to occur or be attracted to specific geographic areas or locations by providing new work spaces, particularly those of a speculative nature.

Second, workplace buildings bear a special relationship to growth, different from other parallel causes, in that buildings are a *condition precedent* to growth. Job growth does not occur in modern service economies without buildings to house new workers. Unlike other factors that are responsible for growth, buildings play the additional unique role that growth cannot occur without them for a sustained period of time. Conversely, it is well established that the inability to construct new workplace buildings will constrain or even halt job growth.

**Discount for Changing Industries**

Long-term declines in employment within specific sectors of the local economy warrant an adjustment for purposes of the nexus analysis. It is general practice to examine major industry sectors and determine if there are long term trends in employment suggesting either decline or restructuring. In the case of long-term decline of one or more industries or sectors, it is appropriate to recognize that all new jobs may not be net new jobs. On the other hand, short term temporary declines in employment do not warrant an adjustment (see Appendix A discussion of Economic Cycles). In San Francisco, by way of example, there was major long-term economic decline in the industrial land use activity sectors, as evidenced by the decline of the Port and its related activities. During the 1980's in that city, for every job gained in an office building, there was more than half a job lost in the industrial sector. Short-term upheavals such as the closing of a military base or single large manufacturing plant may also warrant an adjustment in the analysis.

The Silicon Valley economy, like that of the U.S. as a whole, is constantly evolving. In Silicon Valley, manufacturing employment has declined over the years as costs drive manufacturing to lower cost areas, often overseas. These jobs have been replaced by job growth in other industry sectors. The loss in manufacturing jobs is expected to be permanent and representative of a long-term structural change in the economy. Workers displaced from a declining manufacturing sector will presumably find new work locally in growing sectors of the economy. Thus, some of the jobs in new buildings are assumed to be filled by workers who would not be new to the City or County and who already have housing locally.

For purposes of the analysis, a 25% downward adjustment to the findings has been made to account for declining industries. Approximately 90,000 manufacturing jobs in Santa Clara County were lost from 1990 to 2007 (years selected based on having similar unemployment levels) representing 11% of the County's 1990 employment. Extending the 11% loss over 17 years out over an assumed 40 year average useful life of a building translates into a 25% adjustment factor. The 25% adjustment factor is the equivalent of saying that over the useful life of a building, about one of every four jobs in that building is filled by a worker down-sized from a declining industry and who already lives locally.

See the table below for additional information on the derivation of the 25% adjustment factor for declining industries:

**Adjustment for Declining Industries**

| | |
|---|---|
| Santa Clara County Jobs: 1990 | 820,900 |
| Decline in Manufacturing Jobs (1990 – 2007) | (92,000) |
| Percent 1990 Employment Lost / Declining Industry Sectors | (11%) |
| Number of Years (1990 - 2007) | 17 |
| Assumed average useful life of buildings | 40 |
| Percentage factor extended over useful life of building | 26% |
| **Adjustment for Declining Industries (Rounded)** | **25%** |

Source: California Employment Development Department (EDD)
Note: 1990 and 2007 selected as years with similar unemployment rate at 4-5%. While many buildings may have longer useful lives than 40 years, the analysis could readily have used the midpoint in the life a building instead for purposes of making the adjustment; therefore use of a 40 year life is conservative especially for Silicon Valley.

Despite the decline in the manufacturing sector, overall, there was a net increase in employment in Santa Clara County of approximately 80,000 jobs over the period from 1990 to 2007, according to EDD. Sectors of the economy adding jobs over this period included professional services (69,000 jobs), health care (21,000 jobs), information (18,000 jobs), leisure / hospitality (18,000 jobs), and construction (17,000 jobs).

### Other Factors and Assumptions

Appendix A provides a discussion of other specific factors in relation to the nexus concept including housing needs of the existing population, multiplier effects, non-duplication between the existing housing impact fee and the proposed rental housing impact fee, changes in labor force participation, commuting, and economic cycles.

## SECTION II: JOBS HOUSING NEXUS ANALYSIS

This section presents a summary of the analysis of the linkage between three types of workplace buildings and the estimated number of worker households in the income categories that will, on average, be employed within those buildings. This section should not be read or reproduced without the narrative presented in the previous sections.

### Analysis Approach and Framework

The analysis establishes the jobs housing linkages for individual building types or land use activities, quantifying the connection between employment growth in Mountain View and affordable housing demand.

The analysis approach is to examine the employment associated with the development of 100,000 square foot building modules. The building size is used solely to facilitate understanding of the analysis by being able to avoid cumbersome fractions. Then, through a series of linkage steps, the number of employees is converted to households and housing units by affordability level. The findings are expressed in terms of numbers of households related to building area. In the final step, we convert the numbers of households for 100,000 square foot buildings back to the per square foot level.

The building types or land use activities addressed in the analysis are:

- Office / High Tech
- Commercial / Retail / Entertainment
- Hotel (includes motels and other lodging)

These three categories encompass most new buildings constructed by the private sector. The Office / High Tech category includes research and development and industrial buildings, which in Mountain View are often connected with the technology sector and are capable of being converted to a more office type use. In addition, the Office / High Tech category also includes medical offices. Commercial / Retail / Entertainment encompasses the full range of retail categories, restaurants, movie theaters, as well as auto repair and other non-retail commercial uses not falling into the Office/High Tech category.

### Household Income Limits

The analysis estimates demand for affordable housing focusing on three household income categories: Extremely Low, Very Low, and Low Income. Household income criteria for these affordability categories are published by the California Department of Housing and Community Development (HCD). For a four-person household, the maximum qualifying income levels for 2012 in Santa Clara County are:

**Household Income Definitions (Santa Clara County, 2012)**

| *Income Category* | *Percent of Median*[3] | *Income Range* (Four Person Household) |
|---|---|---|
| Extremely Low Income | under 30% of Median | $0 to $31,500 |
| Very Low Income | 31% to 50% of Median | $31,501 to $52,500 |
| Low Income | 51% to 80% of Median | $52,501 to $75,700 |

Source: California Department of Housing and Community Development.

The above income categories are set and utilized by HUD and HCD for most housing programs. Income definitions for other household sizes are presented in Appendix B Table 1.

When workers form households, their income, either alone or in combination with other workers, produce the household income. In addition, of course, there may be children and/or other household members who are not employed. According to HUD, as published by HCD, the annual median income of a four-person household in Santa Clara County for 2012 is $105,000.

## Analysis Steps

The analysis is conducted using a model that KMA has developed for application in many jurisdictions for which the firm has conducted similar analyses. The model inputs are all local data to the extent possible, and are fully documented.

Tables II-1 through II-4 (pages 20 to 25) at the end of this section summarize the nexus analysis steps for the three building types. Following is a description of each step of the analysis:

### *Step 1 – Estimate of Total New Employees*

The first step in Table II-1 (page 20) identifies the total number of direct employees who will work at or in the building type being analyzed. Average employment density factors are used to make the conversion. The employment density estimates used in this analysis were provided by the City of Mountain View and are based upon data assembled on existing average employment densities in the City. Averages are computed based on gross building area taking into account the lobby, corridors, restrooms, etc. Vacancy is also built into the employment density factors:

- *Office / High Tech* – 3.2 employees per 1,000 square feet of building area. This figure represents a blend between the North Bayshore Area and the Downtown. The North Bayshore Area is heavily oriented to the technology sector and has an employment density of approximately 3.08 per 1,000 square feet. The Downtown Area is more

[3] Percentage range for Very Low Income Households presented as 31% to 50% but technically all households earning from just above 30% through 50% of Area Median Income are included. Percentage range for Low Income households presented as 51% to 80% but technically all households earning from just above 50% through 80% of Area Median Income are included.

oriented to professional offices with an existing employment density estimated at 4.2 per 1,000. The weighted average between the two areas of 3.2 per 1,000 square feet has been reflected in the analysis.

- *Commercial / Retail / Entertainment* – 2.6 employees per 1,000 square feet of building area. This category covers a broad range of experience from restaurants where densities are far greater than this average to large format retailers where densities are below this average. The estimate represents a blended average density developed for purposes of the City's General Plan projections.

- *Hotel* – 0.5 employees per 1,000 square feet or one employee for approximately every four rooms. This rate is derived from business licenses information for existing hotels and other lodging in the City of Mountain View. It is reflective of limited service establishments with little or no conference space. Full service hotels with meeting space and conference facilities tend to have significantly higher employment densities than assumed for purposes of the analysis.

All density factors are averages and individual uses can be expected to be fairly divergent from the average from time to time. (The City's ordinance includes a waiver provision for buildings with very low employment density. If the City decides to update the Housing Impact Fee, ordinance waiver provisions could be added that addresses the possibility of a building that is so divergent from the average that it requires alternate impact fees.)

For ease of understanding, KMA conducted the analysis on prototype buildings at 100,000 square feet. We have used this size building in order to count jobs and housing units in whole numbers that can be readily communicated and understood. At the conclusion of the analysis, the findings are divided by building size to express the linkages per square foot, which are very small fractions of housing units.

Based on the density factors outlined above, the numbers of employees in our hypothetical 100,000 square foot buildings are as follows:

- Office / High Tech, 320 employees;
- Commercial / Retail / Entertainment, 260 employees; and
- Hotel, 50 employees.

***Step 2 – Adjustment for Changing Industries***

This step is an adjustment to take into account any declines, changes and shifts within all sectors of the economy and to recognize that new space is not always 100% equivalent to net new employees. As discussed in Section I a 25% adjustment is utilized to recognize the long-term shifts in employment occurring in Santa Clara County and the likelihood of continuing changes to the local economy.

For demolition of existing structures, the City's existing ordinance provides a credit or offset to the fee when demolition of existing structures occurs as part of a project. The fee is only charged against net new space added by a project.

***Step 3 – Adjustment from Employees to Employee Households***

This step (Table II-1, page 20) converts the number of employees to the number of employee households that will work at or in the building type being analyzed. This step recognizes that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers must be reduced.

The workers per household characteristic provides the link between the number of employees and the number of households associated with the employees. Worker households are defined as those households with one or more persons with work related income, including the self-employed, as reported in the 2008-2010 American Community Survey (ACS). In other words, worker households are distinguished from total households in that the universe of worker households does not include elderly or other households in which members are retired or do not work for other reasons. Student households and unemployed households on public assistance are also excluded from worker households.

The number of workers per household in a given geographic area is a function of household size, labor force participation rate and employment availability, as well as other factors. According to the 2008-2010 ACS, the number of workers per worker household in Santa Clara County was 1.69. Since workers in the City of Mountain View live all over Santa Clara County and beyond, the County average is used in the analysis. In fact, only about 15% of those working in Mountain View also live there.

***Step 4 – Occupational Distribution of Employees***

The occupational breakdown of employees is the first step to arriving at income levels. Using the 2011 National Industry-Specific Occupational Estimates, a cross matrix of "industries" and occupations, produced by the Bureau of Labor Statistics (BLS), we are able to estimate the occupational composition of employees in the three types of buildings. The occupations that reflect the expected mix of activities in the new buildings are presented in Appendix B Tables 3, 6, and 8.

- Office / High Tech buildings' "industry" mix has been tailored to reflect the technology oriented industry base of Santa Clara County / Silicon Valley. The industry mix has been customized based on employment by industry sector in Santa Clara County using California Employment Development Department data. Employment is concentrated in computer systems, software, information technology, research and development. Medical offices and professional services are also represented. A minor amount of

employment in food service, janitorial and maintenance is included given on-site staff is common especially with larger campus environments. Appendix B Table 2 provides further details on industry mix assumptions. Occupation categories applicable to the Office / High Tech industry mix in Santa Clara County encompasses a range of management, business and financial, computer and mathematical, architecture and engineering occupations, among others. Administrative support occupations comprise 19% of all Office / High Tech related employment.

- Commercial / Retail / Entertainment employment is dominated by three main occupation groups: food preparation and serving (38%), sales (27%), and office and administrative support (10%). These three occupations together account for 79% of workers. The remaining 21% of retail workers are in occupations that include management, personal care and service, repair and maintenance, transportation, and production. Occupation categories are based upon a mix of Commercial / Retail / Entertainment uses tailored to Santa Clara County based on current employment levels reported by EDD (see Appendix B Table 5 for additional details).

- Hotels employ workers primarily from three main occupation categories: building and grounds cleaning and maintenance (maid service, etc.), food preparation and serving related, and office and administrative support, which together make up 77% of Hotel workers. Other Hotel occupations include personal care, management, sales, production and maintenance and repair.

The numbers in Step #4 (Table II-1, page 20) indicate both the percentage of total employee households and the number of employee households in our hypothetical 100,000 square foot buildings.

***Step 5 – Estimated Employee Household Income***

In this step, occupation is translated to income based on recent Santa Clara County wage and salary information for the occupations associated with each building type. This step in the analysis calculates the number of employee households that fall into each income category for each size household.

The following is a summary of the worker compensation levels for the three top occupation groups by building type. The percentages refer to the share of employment within the building in the occupation group. Appendix B, Tables 4, 7, and 9 (pages 42, 48 and 52) show the more detailed wage and salary information that were used as the income inputs to the model. Worker compensations used in the analysis assume full time employment (40 hours per week) due to the EDD convention of reporting the data that way.

**Santa Clara County Worker Compensations by Building Type (2012)**

| Building Type | Major Occupation Group | % of Employment in Building | Average Annual Worker Compensation (based on full time) |
|---|---|---|---|
| Office / High Tech | Computer and Mathematical | 21% | $109,000 |
| | Office and administrative support | 19% | $47,000 |
| | Management Occupations | 11% | $159,000 |
| Commercial / Retail / Entertainment | Food preparation and serving | 38% | $23,000 |
| | Sales and related occupations | 31% | $29,000 |
| | Office and administrative support | 10% | $37,000 |
| Hotel | Building and grounds cleaning and maintenance | 32% | $22,800 |
| | Food preparation and serving | 26% | $22,400 |
| | Office and administrative support | 19% | $29,300 |

Source: California Employment Development Department, 2011 Occupational Employment Statistics Survey, Wages 1st Quarter 2012.

The occupations with the lowest compensation levels are in Commercial / Retail / Entertainment and Hotel buildings.

Individual *employee* income data was used to calculate the number of *household*s that fall into these income categories by assuming that multiple earner households are, on average, formed of individuals with similar incomes. The model recognizes some households have multiple incomes while others do not.

The propensity for households to have multiple incomes varies depending on household size and income. A special tabulation of the 2006 – 2008 American Community Survey is used to reflect the pattern specific to Santa Clara County. The data, summarized below, indicates lower paid workers in Santa Clara County are more likely to be members of households that have multiple incomes. Conversely higher paid workers are more frequently the only income for their households. Lower paid workers have a practical need to combine multiple incomes in a household to make ends meet, either by living with roommates, or for family households, to have multiple family members that work. Higher income singles are more readily able to afford their own apartment and higher paid workers in family households have a greater ability to manage on one income. The analysis reflects the pattern specific to Santa Clara County.

**Number of Workers in Household by Income – Santa Clara County**

| | | *Average Annual Income Per Worker in Household* | | | | |
|---|---|---|---|---|---|---|
| | All Working Households* | $15k* to $25k | $25k to $35k | $35k to $50k | $50k to $75k | $75k or more |
| Households with | | | | | | |
| one worker | 50% | 37% | 37% | 43% | 41% | 63% |
| two or more workers | 50% | 63% | 63% | 57% | 59% | 37% |
| | 100% | 100% | 100% | 100% | 100% | 100% |

*Households earning less than $15k per year not reflected consistent with nexus analysis modeling assumptions that all workers are full time and earn at least minimum wage.

### *Step 6 – Estimate of Household Size Distribution*

In this step, household size distribution is input into the model in order to estimate the income and household size combinations that meet the income definitions established by HUD and the State, as used by the City. The household size distribution utilized in the analysis is that of Santa Clara County since the City draws workers from throughout the County.

### *Step 7 – Estimate of Households that meet HUD Size and Income Criteria*

For this step the KMA model incorporates a matrix of household size and income to establish probability factors for the two criteria in combination. For each occupational group a probability factor was calculated for each household income and size level. This step is performed for each occupational category and multiplied by the number of households.

Tables II-2A through II-2C (pages 21 to 23) show the results after completing Steps #5, #6, and #7. The calculated numbers of households that meet size and income criteria are shown in Tables II-2A for the Extremely Low Income category, Table II-2B for Very Low Income, and Table II-2C for the Low Income Category. Table II-3 (page 24) provides a summary for all three of the income tiers.

### Summary by Income Level

Table II-3 (page 24) indicates the results of the analysis for income categories for the three prototypical 100,000 square foot buildings. The table presents the number of households in each affordability category, the total number up to 80% of median, and the remaining households earning over 80% of median.

Table II-3 also presents the percentage of total new worker households that fall into each income category. As indicated, over 84% of Commercial / Retail / Entertainment and Hotel worker households are below the 80% of median income level including about 23% who fall into the Extremely Low Income tier. By contrast, in Office / High Tech worker households, only about 21% of worker households fall below 80% of median.

**Summary by Square Foot Building Area**

The analysis thus far has worked with prototypical buildings of 100,000 square feet. In this step, the conclusions are translated to a per-square-foot level and expressed as coefficients. These coefficients state the portion of a household, or housing unit, by affordability level for which each square foot of building area is associated (See Table II-4, page 25).

This is the summary of the housing nexus analysis, or the linkage from buildings to employees, to housing demand by income level. We believe that it is a conservative approximation (understates at the low end) of the households by income/affordability level associated with these building types.

**TABLE II -1**
**NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION BY BUILDING TYPE**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

| Prototypical 100,000 Sq.Ft. Buildings | OFFICE / HIGH TECH | COMMERCIAL / RETAIL / ENTERTAINMENT | HOTEL |
|---|---|---|---|
| Step 1 - Estimate of Employees per 100,000 Sq.Ft. | | | |
| Employee Density Factor (employees per 1,000 SF )[1] | 3.2 | 2.6 | 0.5 |
| Number of Employees (in 100,000 SF Buildings) | 320 | 260 | 50 |
| Step 2 - Adjustment for Changing Industries (25%) | 240 | 195 | 38 |
| Step 3 - Adjustment for Number of Households (1.69) | 141.8 | 115.2 | 22.2 |
| Step 4 - Occupation Distribution[2] | | | |
| Management Occupations | 10.7% | 2.2% | 4.5% |
| Business and Financial Operations | 10.7% | 0.6% | 1.4% |
| Computer and Mathematical | 21.3% | 0.3% | 0.1% |
| Architecture and Engineering | 10.3% | 0.1% | 0.0% |
| Life, Physical, and Social Science | 2.2% | 0.0% | 0.0% |
| Community and Social Services | 0.2% | 0.0% | 0.0% |
| Legal | 1.5% | 0.0% | 0.0% |
| Education, Training, and Library | 0.8% | 0.0% | 0.0% |
| Arts, Design, Entertainment, Sports, and Media | 2.6% | 0.5% | 0.3% |
| Healthcare Practitioners and Technical | 3.2% | 0.5% | 0.0% |
| Healthcare Support | 1.8% | 0.2% | 0.4% |
| Protective Service | 0.8% | 0.3% | 1.8% |
| Food Preparation and Serving Related | 2.3% | 37.8% | 24.5% |
| Building and Grounds Cleaning and Maint. | 2.1% | 0.6% | 31.9% |
| Personal Care and Service | 0.2% | 3.0% | 3.8% |
| Sales and Related | 5.9% | 31.1% | 2.3% |
| Office and Administrative Support | 19.2% | 10.1% | 20.4% |
| Farming, Fishing, and Forestry | 0.0% | 0.0% | 0.0% |
| Construction and Extraction | 0.2% | 0.2% | 0.2% |
| Installation, Maintenance, and Repair | 2.0% | 4.1% | 5.0% |
| Production | 0.6% | 2.5% | 2.2% |
| Transportation and Material Moving | 1.2% | 5.8% | 1.2% |
| **Totals** | **100.0%** | **100.0%** | **100.0%** |
| Management Occupations | 15.2 | 2.5 | 1.0 |
| Business and Financial Operations | 15.2 | 0.7 | 0.3 |
| Computer and Mathematical | 30.2 | 0.4 | 0.0 |
| Architecture and Engineering | 14.7 | 0.1 | 0.0 |
| Life, Physical, and Social Science | 3.1 | 0.0 | 0.0 |
| Community and Social Services | 0.2 | 0.0 | 0.0 |
| Legal | 2.2 | 0.0 | 0.0 |
| Education, Training, and Library | 1.1 | 0.0 | 0.0 |
| Arts, Design, Entertainment, Sports, and Media | 3.8 | 0.6 | 0.1 |
| Healthcare Practitioners and Technical | 4.6 | 0.6 | 0.0 |
| Healthcare Support | 2.6 | 0.3 | 0.1 |
| Protective Service | 1.2 | 0.4 | 0.4 |
| Food Preparation and Serving Related | 3.2 | 43.5 | 5.4 |
| Building and Grounds Cleaning and Maint. | 3.0 | 0.6 | 7.1 |
| Personal Care and Service | 0.3 | 3.5 | 0.8 |
| Sales and Related | 8.3 | 35.9 | 0.5 |
| Office and Administrative Support | 27.2 | 11.6 | 4.5 |
| Farming, Fishing, and Forestry | 0.0 | 0.0 | 0.0 |
| Construction and Extraction | 0.4 | 0.2 | 0.0 |
| Installation, Maintenance, and Repair | 2.8 | 4.7 | 1.1 |
| Production | 0.8 | 2.9 | 0.5 |
| Transportation and Material Moving | 1.7 | 6.6 | 0.3 |
| **Totals** | **141.8** | **115.2** | **22.2** |

Notes:
(1) Representative of existing averages for Mountain View based on an analysis by the City of Mountain View.
(2) See Appendix B and report text for more information on how the percentages were derived.

**TABLE II-2A**
**ESTIMATE OF QUALIFYING HOUSEHOLDS BY INCOME LEVEL**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

**Prototypical 100,000 Sq.Ft. Buildings**
**Analysis for Households Earning up to 30% of Median**

| | OFFICE / HIGH TECH | COMMERCIAL / RETAIL / ENTERTAINMENT | HOTEL |
|---|---|---|---|
| **Step 5, 6, & 7 - Households Earning up to 30% of Median[(1)]** | | | |
| Management | 0.00 | 0.00 | 0.00 |
| Business and Financial Operations | 0.00 | 0.00 | 0.00 |
| Computer and Mathematical | 0.00 | 0.00 | 0.00 |
| Architecture and Engineering | 0.00 | 0.00 | 0.00 |
| Life, Physical and Social Science | 0.03 | 0.00 | 0.00 |
| Community and Social Services | 0.00 | 0.00 | 0.00 |
| Legal | 0.00 | 0.00 | 0.00 |
| Education Training and Library | 0.00 | 0.00 | 0.00 |
| Arts, Design, Entertainment, Sports, and Media | 0.04 | 0.00 | 0.00 |
| Healthcare Practitioners and Technical | 0.01 | 0.00 | 0.00 |
| Healthcare Support | 0.15 | 0.00 | 0.00 |
| Protective Service | 0.00 | 0.00 | 0.00 |
| Food Preparation and Serving Related | 0.93 | 13.52 | 1.62 |
| Building Grounds and Maintenance | 0.55 | 0.00 | 1.76 |
| Personal Care and Service | 0.00 | 0.89 | 0.19 |
| Sales and Related | 0.24 | 8.01 | 0.06 |
| Office and Admin | 0.97 | 1.46 | 0.69 |
| Farm, Fishing, and Forestry | 0.00 | 0.00 | 0.00 |
| Construction and Extraction | 0.00 | 0.00 | 0.00 |
| Installation Maintenance and Repair | 0.03 | 0.11 | 0.02 |
| Production | 0.00 | 0.42 | 0.11 |
| Transportation and Material Moving | 0.00 | 1.09 | 0.00 |
| HH earning up to 30% of Median - major occupations | 2.96 | 25.51 | 4.45 |
| HH earning up to 30% of Median - all other occupations | 0.12 | 0.90 | 0.25 |
| **Total Households Earning up to 30% of Median** | **3.1** | **26.4** | **4.7** |

Notes:
(1) See Appendix B Tables for additional information on Major Occupation Categories.

**TABLE II-2B**
**ESTIMATE OF QUALIFYING HOUSEHOLDS BY INCOME LEVEL**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

**Prototypical 100,000 Sq.Ft. Buildings**
**Analysis for Households Earning 31% to 50% of Median [1]**

| | OFFICE / HIGH TECH | COMMERCIAL / RETAIL / ENTERTAINMENT | HOTEL |
|---|---|---|---|
| **Step 5, 6, & 7 - Households Earning 31% to 50% of Median[1]** | | | |
| Management | 0.03 | 0.04 | 0.04 |
| Business and Financial Operations | 0.11 | 0.00 | 0.00 |
| Computer and Mathematical | 0.16 | 0.00 | 0.00 |
| Architecture and Engineering | 0.17 | 0.00 | 0.00 |
| Life, Physical and Social Science | 0.17 | 0.00 | 0.00 |
| Community and Social Services | 0.00 | 0.00 | 0.00 |
| Legal | 0.05 | 0.00 | 0.00 |
| Education Training and Library | 0.00 | 0.00 | 0.00 |
| Arts, Design, Entertainment, Sports, and Media | 0.32 | 0.00 | 0.00 |
| Healthcare Practitioners and Technical | 0.11 | 0.00 | 0.00 |
| Healthcare Support | 0.64 | 0.00 | 0.00 |
| Protective Service | 0.00 | 0.00 | 0.00 |
| Food Preparation and Serving Related | 1.30 | 17.94 | 2.20 |
| Building Grounds and Maintenance | 1.08 | 0.00 | 2.68 |
| Personal Care and Service | 0.00 | 1.35 | 0.30 |
| Sales and Related | 0.70 | 12.99 | 0.11 |
| Office and Admin | 4.97 | 3.33 | 1.33 |
| Farm, Fishing, and Forestry | 0.00 | 0.00 | 0.00 |
| Construction and Extraction | 0.00 | 0.00 | 0.00 |
| Installation Maintenance and Repair | 0.30 | 0.73 | 0.16 |
| Production | 0.00 | 0.87 | 0.18 |
| Transportation and Material Moving | 0.00 | 2.16 | 0.00 |
| HH earning 31% to 50% of Median - major occupations | 10.09 | 39.41 | 7.02 |
| HH earning 31% to 50% of Median - all other occupations | 0.42 | 1.40 | 0.40 |
| **Total Households Earning 31% to 50% of Median** | **10.5** | **40.8** | **7.4** |

Notes:

(1) See Appendix B Tables for additional information on Major Occupation Categories.

Percentage range for Very Low Income Households presented as 31% to 50% but technically all households earning from just above 30% through 50% of Area Median Income are included.

**TABLE II-2C**
**ESTIMATE OF QUALIFYING HOUSEHOLDS BY INCOME LEVEL**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

**Prototypical 100,000 Sq.Ft. Buildings**
**Analysis for Households Earning 51% to 80% of Median [1]**

| | OFFICE / HIGH TECH | COMMERCIAL / RETAIL / ENTERTAINMENT | HOTEL |
|---|---|---|---|
| **Step 5, 6, & 7 - Households Earning 51% to 80% of Median[1]** | | | |
| Management | 0.09 | 0.14 | 0.11 |
| Business and Financial Operations | 0.91 | 0.00 | 0.00 |
| Computer and Mathematical | 0.84 | 0.00 | 0.00 |
| Architecture and Engineering | 0.58 | 0.00 | 0.00 |
| Life, Physical and Social Science | 0.33 | 0.00 | 0.00 |
| Community and Social Services | 0.00 | 0.00 | 0.00 |
| Legal | 0.10 | 0.00 | 0.00 |
| Education Training and Library | 0.00 | 0.00 | 0.00 |
| Arts, Design, Entertainment, Sports, and Media | 0.51 | 0.00 | 0.00 |
| Healthcare Practitioners and Technical | 0.30 | 0.00 | 0.00 |
| Healthcare Support | 0.79 | 0.00 | 0.00 |
| Protective Service | 0.00 | 0.00 | 0.00 |
| Food Preparation and Serving Related | 0.81 | 10.58 | 1.35 |
| Building Grounds and Maintenance | 0.89 | 0.00 | 2.02 |
| Personal Care and Service | 0.00 | 0.93 | 0.23 |
| Sales and Related | 0.99 | 9.99 | 0.11 |
| Office and Admin | 7.14 | 3.10 | 1.45 |
| Farm, Fishing, and Forestry | 0.00 | 0.00 | 0.00 |
| Construction and Extraction | 0.00 | 0.00 | 0.00 |
| Installation Maintenance and Repair | 0.58 | 1.07 | 0.26 |
| Production | 0.00 | 0.83 | 0.14 |
| Transportation and Material Moving | 0.00 | 2.00 | 0.00 |
| HH earning 51% to 80% of Median - major occupations | 14.88 | 28.64 | 5.66 |
| HH earning 51% to 80% of Median - all other occupations | 0.62 | 1.01 | 0.32 |
| **Total Households Earning 51% to 80% of Median** | **15.5** | **29.7** | **6.0** |

Notes:
(1) See Appendix B Tables for additional information on Major Occupation Categories.
Percentage range for Low Income households presented as 51% to 80% but technically all households earning from just above 50% through 80% of Area Median Income are included.

**TABLE II-3**
**WORKER HOUSEHOLDS BY AFFORDABILITY LEVEL**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

**Per 100,000 sq. ft. of building area.**

| | OFFICE / HIGH TECH | COMMERCIAL / RETAIL / ENTERTAINMENT | HOTEL |
|---|---|---|---|
| **NUMBER OF HOUSEHOLDS BY INCOME TIER[(1)]** | | | |
| Up to 30% Median Income | 3.1 | 26.4 | 4.7 |
| 31% to 50% Median Income | 10.5 | 40.8 | 7.4 |
| 51% to 80% Median Income | 15.5 | 29.7 | 6.0 |
| **Subtotal to 80% AMI** | **29.1** | **96.9** | **18.1** |
| Above 80% of Median | 112.7 | 18.4 | 4.1 |
| **Total New Worker Households** | **141.8** | **115.2** | **22.2** |
| **PERCENTAGE OF HOUSEHOLDS BY INCOME TIER** | | | |
| Up to 30% Median Income | 2.2% | 22.9% | 21.2% |
| 31% to 50% Median Income | 7.4% | 35.4% | 33.5% |
| 51% to 80% Median Income | 10.9% | 25.7% | 27.0% |
| **Subtotal to 80% AMI** | **20.5%** | **84.1%** | **81.7%** |
| Above 80% of Median | 79.5% | 15.9% | 18.3% |
| **Total** | **100%** | **100%** | **100%** |

Notes

(1) See Tables II-2A through II-2C. Percentage range for Very Low Income Households presented as 31% to 50% but technically all households earning from just above 30% through 50% of Area Median Income are included. Percentage range for Low Income households presented as 51% to 80% but technically all households earning from just above 50% through 80% of Area Median Income are included.

**TABLE II-4**
**HOUSING DEMAND NEXUS FACTORS PER SQ.FT. OF BUILDING AREA**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

| | Number of Housing Units per Square Foot of Building Area[1] | | |
|---|---|---|---|
| | **OFFICE / HIGH TECH** | **COMMERCIAL / RETAIL / ENTERTAINMENT** | **HOTEL** |
| Up to 30% Median Income | 0.00003081 | 0.00026411 | 0.00004701 |
| 31% to 50% Median Income | 0.00010508 | 0.00040804 | 0.00007417 |
| 51% to 80% Median Income | 0.00015501 | 0.00029652 | 0.00005981 |
| **Total** | **0.00029090** | **0.00096867** | **0.00018100** |

Notes:

[1]Calculated by dividing number of household in Table II-3 by 100,000 to convert households per 100,000 sq. ft. building to households per 1 sq. ft. of building.

## SECTION III: TOTAL HOUSING LINKAGE COSTS

This section takes the conclusions of the previous section on the number of households in the Extremely Low, Very Low, and Low, income categories associated with each building type and identifies the total cost of assistance required to make housing affordable. This section puts a cost on the units for each income level to produce the "total nexus cost."

A key component of the analysis is the size of the gap between what households can afford and the cost of producing additional housing in Mountain View, known as the "affordability gap." The analysis utilizes the affordability gaps computed as part of the 2011 residential nexus analysis prepared by Economic and Planning Systems (EPS) for reasons of efficiency and consistency. The affordability gap analysis is based upon rental units in three to four story buildings over podium parking. The affordability gaps are calculated based upon rents affordable to households at the top of each income tier. Additional information regarding the derivation of the affordability gaps may be found in the 2011 EPS report entitled "Nexus-Based Affordable Housing Fee Analysis".

**Affordability Gaps**

| | |
|---|---|
| Extremely Low (0% - 30% AMI) | ($367,000) |
| Very Low Income (31% - 50% AMI) | ($265,000) |
| Low Income (51% - 80% AMI) | ($130,000) |

Source: Economic and Planning Systems (EPS), 2011
AMI = Area Median Income

No affordability gap was found for the Moderate Income tier (at 120% of Median), which indicates the private sector is capable of producing market rate units affordable to households in this income category. The absence of an affordability gap is a key reason the moderate income tier is not included in the nexus analysis (the resulting nexus cost would be zero for this tier), although it is acknowledged that this income group may also face challenges finding housing in Mountain View.

### Total Linkage Costs

The last step in the linkage fee analysis relates the findings on the numbers of households at each of the lower income ranges associated with the three types of buildings to the affordability gaps, or the costs of delivering housing for them in Mountain View.

Table III-1 (page 29) summarizes the analysis. The Affordability Gaps are described above. Demand for affordable units at each of the lower income ranges that is generated per square foot of building area is drawn from Table II-4 (page 25) in the previous section. At the right, the "Nexus Cost Per Square Foot" shows the results of the calculation: affordability gap times the number of units per square foot of building area.

The total nexus costs for the three building types are as follows:

**Total Nexus Cost Per Square Foot of Building Area**

| | |
|---|---|
| Office / High Tech | $59.31 |
| Commercial / Retail / Entertainment | $243.61 |
| Hotel | $44.69 |

Note: nexus findings are not recommended fee levels.
See Table III-1 for detail.

These costs express the total linkage or nexus costs per square foot for the three building types. These total nexus costs represent the ceiling for any requirement placed on new construction for affordable housing. The totals are not recommended levels for fees; they represent only the maximums established by this analysis, below which fees or other requirements may be set.

These total nexus or mitigation costs are high in Santa Clara County due to the low compensation levels of many jobs, coupled with the high cost of developing residential units. The comparatively high median income for Santa Clara County is also a factor because more households fall into one of the affordability tiers given the comparatively high income thresholds to qualify. These factors are especially pronounced with the Commercial / Retail / Entertainment category yielding a very high nexus cost. California Employment Development Department data for 2012 indicates compensation for Commercial / Retail / Entertainment workers in Santa Clara County averages approximately $31,000 annually. This means many workers qualify as Extremely Low Income (four-person households earning $31,500 and below[4]) and 84% are estimated to qualify for one of the three lower income categories: Extremely Low Income, Very Low Income and Low Income. Households qualifying as Extremely Low Income are primarily those with only one income. In Santa Clara County, approximately half of all working households rely on one income. Hotel workers have similar compensation levels (averaging $33,000 annually); however, since there are fewer employees per square feet of building area, the resulting mitigation costs are much lower on a per square foot basis.

For Office / High Tech, workers average approximately $91,000 annually, which is about three times the average compensation for Commercial / Retail / Entertainment and Hotel workers. Only about one in five employee households falls into one of the lower income tiers. The higher compensation levels result in a far lower affordable housing nexus cost for Office / High Tech as compared to Commercial / Retail / Entertainment.

[4] Income criteria vary by household size.

**Conservative Assumptions**

In establishing the total nexus cost many conservative assumptions were employed in the analysis that result in a total nexus cost that may be considerably understated. These conservative assumptions include:

- Only direct employees are counted in the analysis. Many indirect employees are also associated with each new workspace. Indirect employees in an office building, for example, include security, delivery personnel, and a whole range of others. Hotels do have many of these workers on staff, but hotels also "contract out" a number of services that are not taken into account in the analysis.

- Trends in new Office / High Tech space are for more open office floor plans which can accommodate higher employment densities. Increased densities can yield around twice as many employees in a given amount of space than the estimates applied for purposes of the analysis. Rather than incorporate an estimate more representative of recent trends, an overall average based upon existing built space in Mountain View is applied, making the analysis conservative.

- Annual incomes for workers reflect full time employment based upon the California Employment Development Department's convention for reporting the compensation information. Of course many workers work less than full time; therefore, annual compensations used in the analysis are probably overstated especially for retail which tends to have a high number of part time employees.

- Affordability gaps are based upon rents affordable to households at the top of each income range. If the mid-point of the income ranges had been used, affordability gaps would have been larger, increasing the resulting nexus costs.

- The analysis incorporates a 25% discount for jobs filled by workers "down-sized" from declining industries and who already have housing locally. The factor is based upon all "down-sizing" estimated to occur over the entire 40-year assumed average life of a building; however, the mid-point could have been used instead (i.e. 20 years). This would have resulted in a 12.5% discount factor as opposed to the steeper 25% discount that was applied.

In summary, many less conservative assumptions could be made that would result in higher linkage costs.

**TABLE III-1**
**TOTAL HOUSING NEXUS COST**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

| INCOME CATEGORY [3] | Affordability Gap[1] | Nexus Cost Per Sq.Ft. of Building Area [2] | | |
|---|---|---|---|---|
| | | OFFICE / HIGH TECH | COMMERCIAL / RETAIL / ENTERTAINMENT | HOTEL |
| Up to 30% Median Income | $367,000 | $11.31 | $96.93 | $17.25 |
| 31% to 50% Median Income | $265,000 | $27.85 | $108.13 | $19.66 |
| 51% to 80% Median Income | $130,000 | $20.15 | $38.55 | $7.78 |
| **Total** | | **$59.31** | **$243.61** | **$44.69** |

Notes:

(1) Analysis uses affordability gaps from 2011 Nexus-Based Affordable Housing Fee Analysis by Economic and Planning Systems (EPS). Affordability gaps are based upon housing worker households in multi-family rental housing. See 2011 EPS Report for details.

(2) Calculated by multiplying housing demand factors per square foot of building area from Table II-4 by the affordability gap.

(3) Percentage range for Very Low Income Households presented as 31% to 50% but technically all households earning from just above 30% through 50% of Area Median Income are included. Percentage range for Low Income households presented as 51% to 80% but technically all households earning from just above 50% through 80% of Area Median Income are included.

## SECTION IV: NEXT STEP – CONTEXT INFORMATION FOR FEE LEVEL

As indicated at the end of the previous section, the nexus analysis establishes maximum fee levels supported by the analysis. Recognizing a variety of City objectives, policy makers may set the fees at any level below the maximum. If the City decides to update the current Housing Impact Fees, KMA's work scope includes a subsequent phase to supplement the nexus analysis with additional context information. The context information is expected to include information on development economics and conceptual level pro forma analysis for the building types subject to the housing impact fee.

The purpose of the context information will be to provide guidance to policy makers in setting fee levels. A particular focus will be devoted to facilitating an understanding of whether the existing housing impact fees or any proposed modified fee levels are likely to alter development decisions, or drive activity to other jurisdictions.

### Survey of Jobs Housing Linkage Fee Programs

Housing impact fees in other jurisdictions are also helpful as context for existing fees or any modified fee levels the City might wish to consider. Table IV-1 (page 32) summarizes fees for the approximately twenty jurisdictions in the Bay Area that have jobs-housing linkage fee programs. This information on fees in other Bay Area jurisdictions is expected to be supplemented with additional information on market context and development economics, as described above, as part of a second phase.

San Francisco, the Peninsula, and Santa Clara County are grouped for purposes of Table IV-1 as the nearest and most relevant comparisons to Mountain View. Mountain View's fees are most similar to those in Sunnyvale and Cupertino. Sunnyvale has a fee of $9.08 per square foot that applies to Office and Industrial (compared to $7.43 per square foot in Mountain View). The Sunnyvale fee only applies to square footage that exceeds the FAR thresholds established in the zoning code and does not apply to retail and hotel. Cupertino has a single fee level of $5.23 per square foot for all non-residential uses except planned industrial parks. The Cupertino fee falls between Mountain View's Office /High-Tech / Industrial and Hotel / Retail / Entertainment fees. The fees in Palo Alto, Menlo Park, and San Francisco are all well in excess of Mountain View, at least double in each case.

In the East Bay, housing linkage programs are in place for the cities of Oakland, Berkeley, Walnut Creek, Alameda, Pleasanton and Livermore. Office fees range from a low of $0.58 per square foot (Livermore) to $5.00 per square foot (Walnut Creek). Fees on Hotel / Retail / Entertainment range from being exempt from the program (Oakland) to $5.00 per square foot (Walnut Creek).

The Counties of Marin, Napa, and Sonoma are grouped on the third page of the fee survey. The three counties each have a program applicable to the unincorporated areas. In addition, the

cities of Corte Madera, Napa, St. Helena, Petaluma, and Cotati have housing linkage fee programs. Marin County represents the high end of the range with a fee on office of $7.19 per square foot and $5.40 per square foot for retail and restaurants. The City of Napa has the lowest fees at $1.00 per square foot for office and $0.80 per square foot for retail.

**TABLE IV-1**

**COMPARISON OF JOBS HOUSING LINKAGE FEE PROGRAMS, BAY AREA**
**JOBS-HOUSING NEXUS STUDY**
**CITY OF MOUNTAIN VIEW, CA**

| Jurisdiction | Yr. Adopted /Updated | Current Fee Levels per SF | Thresholds & Exemptions | Build Option/ Other | Market Strength | Comments |
|---|---|---|---|---|---|---|
| **SAN FRANCISCO, PENINSULA, SANTA CLARA COUNTY** | | | | | | |
| City and County of San Francisco<br>Population: 789,000 | 1981<br>Updated fees in 2002, 07 | • Office $22.06<br>• Hotel $16.52<br>• Retail & Entertainment $20.58<br>• R&D $14.70<br>• Integrated PDR $17.34<br>• Small Enterprise Workspace $17.34 | Increase by 25,000 gsf or more of any combination of entertainment, hotel, Integrated PDR, office, research and development, retail, and/or Small Enterprise Workspace. | Yes, may contribute land for housing. | Very Substantial | Fee is adjusted annually based on the construction cost increases. |
| City of Palo Alto<br>Population: 62,000 | 1984<br>Updated in March 2002 | • Nonresidential Development $18.44 | Churches; colleges and universities; commercial recreation; hospitals, convalescent facilities; private clubs, lodges, fraternal organizations, private educational facilities, day care and nursery school, public facilities are exempt | Yes | Very Substantial | Fee is adjusted annually based on CPI. |
| City of Menlo Park<br>Population: 31,000 | 1998 | • Office & R&D $14.71<br>• All other commercial and industrial $7.98. | 10,000 gross SF threshold Churches, private clubs, lodges, fraternal orgs, public facilities and projects with few or no employees are exempt. | Yes, preferred. May provide housing on- or off-site. | Very Substantial | Fee is adjusted annually based on CPI. |
| City of Sunnyvale<br>Population: 136,000 | 1984<br>Updated in 2003. | • Industrial & Office $9.08 | Applies only to the portion of the project that is in excess of allowable FAR (typically 0.35:1). | N/A | Very Substantial | |
| City of Cupertino<br>Population: 56,000 | 1993 | • Office/Industrial/Hotel/Retail/ R&D: $5.23<br>• Planned Industrial Park Zones: $2.62 | No minimum threshold. | N/A | Very Substantial | Fee is adjusted annually based on CPI. |
| City of Mountain View<br>Population: 73,000 | 2002 | • Office/High Tech/Industrial $7.43<br>• Hotel/Retail/Entertainment $2.47 | Fee is 50% on building area under thresholds:<br>Office <10,000 SF<br>Hotel <25,000 SF<br>Retail <25,000 SF | Yes | Very Substantial | Fee is adjusted annually based on CPI. |

Note: This chart has been assembled to present an overview, and as a result, terms are simplified. The information is recent but not all data has been updated as of the date of this report. In some cases, fees are adjusted by an index (such as CPI) which may not be reflected. For use other than general comparison, please consult the code and staff of the jurisdiction.

**TABLE IV-1**

**COMPARISON OF JOBS HOUSING LINKAGE FEE PROGRAMS, BAY AREA**
**JOBS-HOUSING NEXUS STUDY**
**CITY OF MOUNTAIN VIEW, CA**

| Jurisdiction | Yr. Adopted /Updated | Current Fee Levels per SF | Thresholds & Exemptions | Build Option/ Other | Market Strength | Comments |
|---|---|---|---|---|---|---|
| **EAST BAY** | | | | | | |
| City of Walnut Creek<br>Population: 66,584 | 2005 | • Office, retail, hotel and medical $5.00 | First 500 SF no fee applied. | Yes | Very Substantial | Reviewed every five years. |
| City of Oakland<br>Population: 430,666 | 2002 | • Office/ Warehouse $4.00 | 25,000 SF exemption | Yes - Can build units equal to total eligible SF times .0004 | Moderate | Fee due in 3 installments. Fee adjusted with an annual escalator tied to residential construction cost increases. |
| City of Berkeley<br>Population: 108,119 | 1993 | • All Commercial $4.00<br>• Industrial $2.00 | 7,500 SF threshold. | Yes | Substantial | Fee has not changed since 1993; may negotiate fee downward based on hardship or reduced impact. |
| City of Alameda<br>Population: 75,000 | 1989 | • Office $3.63<br>• Retail $1.84<br>• Warehouse $0.63<br>• Hotel/Motel $931 per room | No minimum threshold | Yes. Program specifies # of units per 100,000 SF | Moderate | Fee may be adjusted by CPI. |
| City of Pleasanton<br>Population: 71,000 | | • Commercial, Office & Industrial $2.57 | No minimum threshold | N/A | Moderate | Fee adjusted annually. |
| City of Livermore<br>Population: 85,000 | 1999 | • Retail $0.90<br>• Service Retail $0.678<br>• Office $0.579<br>• Hotel $442 per room<br>• Manufacturing $0.277<br>• Warehouse $0.08<br>• Business Park $0.574<br>• Heavy Industrial $0.2<br>• Light Industrial $0.18 | No minimum threshold<br><br>Church; private or public schools. | Yes; negotiated on a case-by-case basis. | Moderate | |

Note: This chart has been assembled to present an overview, and as a result, terms are simplified. The information is recent but not all data has been updated as of the date of this report. In some cases, fees are adjusted by an index (such as CPI) which may not be reflected. For use other than general comparison, please consult the code and staff of the jurisdiction.

**TABLE IV-1**

**COMPARISON OF JOBS HOUSING LINKAGE FEE PROGRAMS, BAY AREA**
**JOBS-HOUSING NEXUS STUDY**
**CITY OF MOUNTAIN VIEW, CA**

| MARIN, NAPA, SONOMA | | | | | | |
|---|---|---|---|---|---|---|
| County of Marin<br>Population: 71,00 | 2003 | • Office/R&D $7.19<br>• Retail/Rest. $5.40<br>• Warehouse $1.94<br>• Hotel/Motel $1,745/room<br>• Manufacturing $3.74 | No minimum threshold | Yes, preferred. | Substantial | |
| Town of Corte Madera<br>Population: 9,816 | 2001 | • Office $4.79<br>• R&D lab $3.20<br>• Light Industrial $2.79<br>• Warehouse $0.40<br>• Retail $8.38<br>• Com Services $1.20<br>• Restaurant $4.39<br>• Hotel $1.20<br>• Health Club/Rec $2.00<br>• Training facility/School $2.39 | No minimum threshold | N/A | Substantial | |
| County of Napa<br>Population: 28,653 | Updated 2004 | • Office $2.00<br>• Hotel $3.00<br>• Retail $2.00<br>• Industrial $1.00<br>• Warehouse $0.80 | No minimum threshold<br><br>Non-profits are exempt | Units or land dedication; on a case by case basis. | Moderate/ Substantial | There is a companion fee of 1% of construction costs on all residential construction. |
| City of Napa<br>Population: 78,791 | 1999 | • Office $1.00<br>• Hotel $1.40<br>• Retail $0.80<br>• Industrial & Wine Pdn & small Warehouse $0.50<br>• Warehouse (30-100K) $0.30<br>• Warehouse (100K+) $0.20 | No minimum threshold<br><br>Non-profits are exempt | Units or land dedication; on a case by case basis. | Moderate/ Substantial | Fee has not changed since 1999. |
| City of St. Helena<br>Population: 6,010 | 2004 | • Office $3.61<br>• Comm./Retail $4.57<br>• Hotel $3.33<br>• Winery/Industrial $1.11 | Small childcare facilities, churches, non-profits, vineyards, and public facilities are exempt. | Yes, subject to City Council approval. | Substantial | |
| City of Petaluma<br>Population: 58,401 | 2003 | • Commercial $2.08<br>• Industrial $2.15<br>• Retail $3.59 | Fee is 50% less if located in redevelopment project area.<br><br>Schools and churches exempt | NA | Moderate/ Substantial | |
| County of Sonoma<br>Population: 155,031 | 2005 | • Office $2.08<br>• Hotel $2.08<br>• Retail $3.59<br>• Industrial $2.15<br>• R&D Ag Processing $2.15 | First 2,000 SF exempt<br><br>Non-profits, redevelopment areas exempt | Yes. Program specifies number of units per 1,000 SF. | Moderate | Fee adjusted annually by ENR construction cost index. |
| City of Cotati<br>Population: 7,476 | 2006 | • Commercial $2.08<br>• Industrial $2.15<br>• Retail $3.59 | First 2,000 SF exempt<br><br>Non-profits exempt. | Yes. Program specifies number of units per 1,000 SF | Moderate | Fee adjusted annually by ENR construction cost index. |

Note: This chart has been assembled to present an overview, and as a result, terms are simplified. The information is recent but not all data has been updated as of the date of this report. In some cases, fees are adjusted by an index (such as CPI) which may not be reflected. For use other than general comparison, please consult the code and staff of the jurisdiction.

## APPENDIX A: DISCUSSION OF VARIOUS FACTORS IN RELATION TO NEXUS CONCEPT

This appendix provides a discussion of various specific factors and assumptions in relation to the nexus concept to supplement the overview provided in Section I.

### Addressing the Housing Needs of a New Population vs. the Existing Population

The City of Mountain View in its Housing Element and its 2010 – 2015 Consolidated Plan has clearly documented that the housing needs of existing lower income households are not being met. This existing housing shortage, especially at the lowest income levels, is manifested in numerous ways such as payment of far more than 30% of income for rent as set forth in federal and state guidelines, overcrowding, and other factors that are extensively documented by the Census and other reports.

This nexus study does not address the housing needs of the existing population. Rather, the study focuses exclusively on documenting and quantifying the housing needs of new households where an employee works in a new workplace building.

Local analyses of housing conditions have found that new housing affordable to lower income households is not being added to the supply in sufficient quantity to meet the needs of new employee households. If this were not the case and significant numbers of units were being added to the supply to accommodate the Low to Moderate income groups, or if residential units in the city were experiencing significant long term vacancy levels, particularly in affordable units, then the need for new units would be questionable.

### Substitution Factor

Any given new building in the City of Mountain View may be occupied partly or even perhaps totally, by employees relocating from elsewhere in the city. Buildings are often leased entirely to firms relocating from other buildings in the same jurisdiction. However, when a firm relocates to a new building from elsewhere in the region, there is a space in an existing building that is vacated and occupied by another firm. That building in turn may be filled by some combination of newcomers to the area and existing workers. Somewhere in the chain there are jobs new to the region. The net effect is that new buildings accommodate new employees, although not necessarily inside of the new buildings themselves.

### Indirect Employment and Multiplier Effects

The multiplier effect refers to the concept that the income generated by a new job recycles through the economy and results in additional jobs. The total number of jobs generated is broken down into three categories – direct, indirect and induced. In the case of the nexus analysis, the direct jobs are those located in the new workspace buildings that would be subject to the linkage fee. Multiplier effects encompass indirect and induced employment. Indirect jobs

are generated by suppliers to the businesses located in the new workspace buildings. Finally, induced jobs are generated by local spending on goods and services by employees.

Multiplier effects vary by industry. Industries that draw heavily on a network of local suppliers tend to generate larger multiplier effects. Industries that are labor intensive also tend to have larger multiplier effects as a result of the induced effects of employee spending.

Theoretically, a jobs-housing nexus analysis could consider multiplier effects although the potential for double-counting exists. The potential for double counting exists to the extent indirect and induced jobs are added in other new buildings in jurisdictions that have jobs housing linkage fees. KMA chooses to omit the multiplier effects (the indirect and induced employment impacts) to avoid potential double-counting and make the analysis more conservative.

In addition, the nexus analysis addresses direct “inside” employment only. In the case of an office building, for example, direct employment covers the various managerial, professional and clerical people that work in the building; it does not include the security guards, the delivery services, the landscape maintenance workers, and many others that are associated with the normal functioning of an office building. In other words, any analysis that ties lower income housing to the number of workers inside buildings will continue to understate the demand. Thus, confining the analysis to the direct employees does not address all the lower income workers associated with each type of building and understates the impacts.

**Changes in Labor Force Participation**

In the 1960’s through the 1980’s there were significant increases in labor force participation, primarily among women. As a result, some of the new workers were reentering the labor force and already had local housing, thus reducing demand for housing associated with job growth. In earlier nexus analyses, KMA would adjust the analysis to account for this. However, increases in participation rates by women have stabilized and even declined slightly and labor force participation rates for men have been on a downward trajectory since 1970. As such, an adjustment for increase in labor force participation is no longer warranted in a nexus analysis.

**Commuting**

Workers in Mountain View commute from throughout the Bay Area. Nexus analyses sometimes make a downward adjustment based on commuting, as was the case with the 2001 nexus analysis prepared for Mountain View. A commute adjustment reduces the findings based on an assumed portion of housing needs satisfied by other jurisdictions. Such an adjustment is not required for nexus purposes; all housing demand generated by a project may be included in the nexus. No adjustment for commuting has been reflected in the analysis.

**Non-Duplication: Existing Housing Impact Fee and Proposed Rental Housing Impact Fee**

Mountain View is considering adoption of a Rental Housing Impact fee supported by a nexus analysis based upon a similar analytical framework as this jobs-housing nexus analysis. Under certain circumstances the two analyses could count some of the same jobs. If a rental housing impact fee is adopted, a separate analysis of potential job overlap could be added to the Housing Impact Fee study.

**Economic Cycles**

An impact analysis of this nature is intended to support a one-time impact requirement to address impacts generated over the life of a project (generally 40 years or more). Short-term conditions, such as a recession or a vigorous boom period, are not an appropriate basis for estimating impacts over the life of the building. These cycles can produce impacts that are higher or lower on a temporary basis.

Development of new workspace buildings tends to be minimal during a recession and generally remains minimal until conditions improve or there is confidence that improved conditions are imminent. When this occurs, the improved economic condition will absorb existing vacant space and underutilized capacity of existing workers, employed and unemployed. By the time new buildings become occupied, current conditions will have likely improved.

To the limited extent that new workspace buildings are built during a recession, housing impacts from these new buildings may not be fully experienced immediately, though, the impacts will be experienced at some point. New buildings delivered during a recession can sometimes sit vacant for a period after completion. Even if new buildings are immediately occupied, overall absorption of space can still be zero or negative if other buildings are vacated in the process. Jobs added may also be filled in part by unemployed or underemployed workers who are already housed locally. As the economy recovers, firms will begin to expand and hire again filling unoccupied space as unemployment is reduced. New space delivered during the recession still adds to the total supply of employment space in the region. Though the jobs are not realized immediately, as the economy recovers and vacant space is filled, this new employment space absorbs or accommodates job growth. Although there may be a delay in time, the fundamental relationship between new buildings, added jobs, and housing needs remains over the long term.

In contrast, during a vigorous economic boom period, conditions exist in which elevated impacts are experienced on a temporary basis. As an example, compression of employment densities can occur as firms add employees while making do with existing space. Compressed employment densities mean more jobs added for a given amount of building area. Boom periods also tend to go hand-in-hand with rising development costs and increasing home prices. These factors can bring market rate housing out of reach from a larger percentage of the workforce and increase the cost of delivering affordable units.

## APPENDIX B: SUPPORTING TECHNICAL TABLES

**APPENDIX B - TABLE 1**
**INCOME LIMITS**
**JOBS-HOUSING LINKAGE MODEL**
**CITY OF MOUNTAIN VIEW, CA**

| | Household Size | | | | | |
|---|---|---|---|---|---|---|
| | **1-person** | **2-person** | **3-person** | **4-person** | **5-person** | **6 + person** |
| **Household Income Limit** | | | | | | |
| Extremely Low (30% AMI) | $22,050 | $25,200 | $28,350 | $31,500 | $34,050 | $36,550 |
| Very Low (50% of AMI) | $36,750 | $42,000 | $47,250 | $52,500 | $56,700 | $60,900 |
| Low (80% of AMI) | $53,000 | $60,600 | $68,150 | $75,700 | $81,800 | $87,850 |
| Median (100% of AMI) | $73,500 | $84,000 | $94,500 | $105,000 | $113,400 | $121,800 |

AMI = Area Median Income, Santa Clara County 2012.

Source: California Department of Housing and Community Development FY 2012 Income Limits for Santa Clara County.

**APPENDIX B, TABLE 2**
**OFFICE / TECH - INDUSTRY MIX ASSUMPTION**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

**Industries Assumed to Be Representative of Office / Tech Type Uses**
**Based on Existing Industry Mix in Santa Clara County**

| 4-Digit NAICS | Industry | Percent of Employment |
|---|---|---|
| 541500 | Computer Systems Design and Related Services | 14% |
| 334400 | Semiconductor and Electronic Components | 12% |
| 334100 | Computers and Peripheral Equipment | 11% |
| 519100 | Other Information Services | 6% |
| 541700 | Scientific Research and Development | 5% |
| 334500 | Electronic Instrument Manufacturing | 4% |
| 511200 | Software Publishers | 4% |
| 541300 | Architectural and Engineering Services | 3% |
| 621100 | Offices of Physicians | 3% |
| 334200 | Communications Equipment Manufacturing | 3% |
| 551100 | Management of Companies and Enterprises | 3% |
| 541600 | Management & Technical Consulting Services | 2% |
| 722300 | Special Food Services | 2% |
| 621200 | Offices of Dentists | 2% |
| 541200 | Accounting and Bookkeeping Services | 2% |
| 541100 | Legal Services | 2% |
| 522100 | Depository Credit Intermediation | 2% |
| 561700 | Services to Buildings and Dwellings | 1% |
| 518200 | Data Processing and Related Services | 1% |
| 339100 | Medical Equipment and Supplies Mfg | 1% |
| 531100 | Lessors of Real Estate | 1% |
| 531300 | Activities Related to Real Estate | 1% |
| 561100 | Office Administrative Services | 1% |
| 621300 | Offices of Other Health Practitioners | 0.8% |
| 541900 | Other Professional & Technical Services | 0.8% |
| 524200 | Insurance Agencies, Brokerages & Support | 0.8% |
| 517100 | Wired Telecommunications Carriers | 0.8% |
| 522300 | Activities Rel to Credit Intermediation | 0.7% |
| 334600 | Magnetic Media Manufacture & Reproducing | 0.7% |
| 335900 | Other Electrical Equipment & Components | 0.7% |
| 561600 | Investigation and Security Services | 0.6% |
| 523900 | Other Financial Investment Activities | 0.6% |
| 531200 | Offices of Real Estate Agents & Brokers | 0.6% |
| 512100 | Motion Picture and Video Industries | 0.5% |
| 561400 | Business Support Services | 0.5% |
| 621500 | Medical and Diagnostic Laboratories | 0.5% |
| 517900 | Other Telecommunications | 0.5% |
| 541800 | Advertising and Related Services | 0.5% |
| 524100 | Insurance Carriers | 0.4% |
| 511100 | Newspaper, Book, & Directory Publishers | 0.4% |
| 522200 | Nondepository Credit Intermediation | 0.4% |
| 541400 | Specialized Design Services | 0.3% |
| | | 100% |

Source: California Employment Development Department Quarterly Census of Employment and Wages, 2011.
NAICS = North American Industry Classification System

**APPENDIX B, TABLE 3**
**2011 NATIONAL OFFICE / TECH WORKER DISTRIBUTION BY OCCUPATION**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

| Major Occupations (1.5% or more) | 2011 National Office / Tech Industry Occupation Distribution[1] | |
|---|---|---|
| Management Occupations | 2,654,257 | 10.7% |
| Business and Financial Operations Occupations | 2,651,577 | *10.7%* |
| Computer and Mathematical Occupations | 5,274,121 | *21.3%* |
| Architecture and Engineering Occupations | 2,559,039 | *10.3%* |
| Life, Physical, and Social Science Occupations | 537,413 | *2.2%* |
| Legal Occupations | 379,215 | *1.5%* |
| Arts, Design, Entertainment, Sports, and Media Occupations | 655,151 | *2.6%* |
| Healthcare Practitioners and Technical Occupations | 800,503 | *3.2%* |
| Healthcare Support Occupations | 450,878 | *1.8%* |
| Food Preparation and Serving Related Occupations | 564,436 | *2.3%* |
| Building and Grounds Cleaning and Maintenance Occupations | 528,501 | *2.1%* |
| Sales and Related Occupations | 1,456,399 | *5.9%* |
| Office and Administrative Support Occupations | 4,750,740 | *19.2%* |
| Installation, Maintenance, and Repair Occupations | 486,038 | *2.0%* |
| All Other Office / Tech Related Occupations | 992,211 | *4.0%* |
| **INDUSTRY TOTAL** | 24,740,478 | 100.0% |

Note

(1) National occupational employment data has been weighted using data from the California Employment Development Department to reflect the industry mix for Santa Clara County. Production occupations associated with tech industry categories were excluded as not representative of activities likely to take place in new buildings to be constructed in Mountain View.

Source: Bureau of Labor Statistics; California Employment Development Department
Prepared by: Keyser Marston Associates, Inc.
Filename:Z:\16\16045\005\Office Tech 10-10-12; Major Occupations Matrix; 10/10/2012; dd

**APPENDIX B, TABLE 4**
**AVERAGE ANNUAL COMPENSATION, 2012**
**OFFICE / TECH WORKER OCCUPATIONS**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Office / Tech Workers |
|---|---|---|---|
| ***Page 1 of 4*** | | | |
| *Management Occupations* | | | |
| Chief Executives | $227,100 | 3.6% | 0.4% |
| General and Operations Managers | $152,700 | 22.5% | 2.4% |
| Marketing Managers | $163,000 | 7.6% | 0.8% |
| Sales Managers | $159,500 | 6.0% | 0.6% |
| Administrative Services Managers | $107,100 | 2.8% | 0.3% |
| Computer and Information Systems Managers | $177,100 | 16.5% | 1.8% |
| Financial Managers | $152,800 | 8.4% | 0.9% |
| Industrial Production Managers | $126,300 | 3.4% | 0.4% |
| Architectural and Engineering Managers | $172,100 | 11.8% | 1.3% |
| Property, Real Estate, and Community Association Managers | $81,500 | 2.6% | 0.3% |
| Managers, All Other | $152,400 | 4.8% | 0.5% |
| All Other Management Occupations (Avg. All Categories) | $151,300 | 9.8% | 1.1% |
| ***Weighted Mean Annual Wage*** | ***$158,700*** | **100.0%** | **10.7%** |
| *Business and Financial Operations Occupations* | | | |
| Purchasing Agents, Except Wholesale, Retail, and Farm Products | $76,000 | 6.1% | 0.7% |
| Human Resources, Training, and Labor Relations Specialists, All Other* | $79,300 | 5.1% | 0.5% |
| Logisticians | $96,900 | 2.3% | 0.3% |
| Management Analysts | $112,100 | 12.6% | 1.4% |
| Training and Development Specialists | $88,200 | 3.6% | 0.4% |
| Market Research Analysts and Marketing Specialists* | $105,600 | 9.1% | 1.0% |
| Business Operations Specialists, All Other* | $92,800 | 14.8% | 1.6% |
| Accountants and Auditors | $86,600 | 20.9% | 2.2% |
| Financial Analysts | $113,200 | 6.6% | 0.7% |
| Loan Officers | $85,500 | 3.5% | 0.4% |
| All Other Business and Financial Operations Occupations (Avg. All Categories) | $91,300 | 15.3% | 1.6% |
| ***Weighted Mean Annual Wage*** | ***$94,200*** | **100.0%** | **10.7%** |
| *Computer and Mathematical Occupations* | | | |
| Computer Systems Analysts | $101,000 | 11.9% | 2.5% |
| Computer Programmers | $100,900 | 9.7% | 2.1% |
| Software Developers, Applications | $118,700 | 23.6% | 5.0% |
| Software Developers, Systems Software | $130,000 | 20.7% | 4.4% |
| Network and Computer Systems Administrators* | $98,000 | 6.0% | 1.3% |
| Computer Support Specialists | $74,300 | 14.1% | 3.0% |
| Information Security, Web Developers, and Computer Network Architects | $116,800 | 7.1% | 1.5% |
| Computer Occupations, All Other* | $97,300 | 2.6% | 0.5% |
| All Other Computer and Mathematical Occupations (Avg. All Categories) | $112,200 | 4.3% | 0.9% |
| ***Weighted Mean Annual Wage*** | ***$108,700*** | **100.0%** | **21.3%** |

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Office Tech 10-10-12; Compensation; 10/10/2012; dd

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Office / Tech Workers |
|---|---|---|---|
| ***Page 2 of 4*** | | | |
| *Architecture and Engineering Occupations* | | | |
| Architects, Except Landscape and Naval | $82,400 | 2.1% | 0.2% |
| Aerospace Engineers | $123,900 | 2.3% | 0.2% |
| Civil Engineers | $104,100 | 3.9% | 0.4% |
| Computer Hardware Engineers | $123,400 | 14.5% | 1.5% |
| Electrical Engineers | $113,300 | 10.0% | 1.0% |
| Electronics Engineers, Except Computer | $122,900 | 10.9% | 1.1% |
| Industrial Engineers | $105,800 | 8.9% | 0.9% |
| Mechanical Engineers | $107,200 | 7.3% | 0.8% |
| Engineers, All Other | $112,300 | 4.1% | 0.4% |
| Electrical and Electronics Engineering Technicians | $61,400 | 12.5% | 1.3% |
| Industrial Engineering Technicians | $57,500 | 3.6% | 0.4% |
| All Other Architecture and Engineering Occupations (Avg. All Categories) | $104,300 | 19.9% | 2.1% |
| ***Weighted Mean Annual Wage*** | ***$103,600*** | **100.0%** | **10.3%** |
| *Life, Physical, and Social Science Occupations* | | | |
| Biochemists and Biophysicists | $94,800 | 5.4% | 0.1% |
| Microbiologists | $95,200 | 2.3% | 0.0% |
| Medical Scientists, Except Epidemiologists | $140,300 | 17.8% | 0.4% |
| Physicists | $124,200 | 2.7% | 0.1% |
| Chemists | $86,700 | 9.4% | 0.2% |
| Environmental Scientists and Specialists, Including Health | $77,300 | 5.6% | 0.1% |
| Geoscientists, Except Hydrologists and Geographers | $79,300 | 2.1% | 0.0% |
| Physical Scientists, All Other | $145,400 | 2.9% | 0.1% |
| Social Scientists and Related Workers, All Other | $74,900 | 2.6% | 0.1% |
| Biological Technicians | $51,000 | 9.5% | 0.2% |
| Chemical Technicians | $44,000 | 5.8% | 0.1% |
| Social Science Research Assistants | $31,100 | 4.3% | 0.1% |
| Environmental Science and Protection Technicians, Including Health | $61,800 | 2.1% | 0.0% |
| Life, Physical, and Social Science Technicians, All Other | $53,800 | 5.4% | 0.1% |
| All Other Life, Physical, and Social Science Occupations (Avg. All Categories) | $92,600 | 22.0% | 0.5% |
| ***Weighted Mean Annual Wage*** | ***$89,300*** | **100.0%** | **2.2%** |
| *Legal Occupations* | | | |
| Lawyers | $189,500 | 61.1% | 0.9% |
| Paralegals and Legal Assistants* | $69,900 | 27.4% | 0.4% |
| Title Examiners, Abstractors, and Searchers | $63,000 | 5.3% | 0.1% |
| All Other Legal Occupations (Avg. All Categories) | $149,500 | 6.2% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$147,500*** | **100.0%** | **1.5%** |
| *Arts, Design, Entertainment, Sports, and Media Occupations* | | | |
| Art Directors | $106,600 | 2.6% | 0.1% |
| Multimedia Artists and Animators | $76,000 | 6.2% | 0.2% |
| Graphic Designers | $73,800 | 15.6% | 0.4% |
| Interior Designers | $62,300 | 2.9% | 0.1% |
| Producers and Directors | $87,300 | 4.8% | 0.1% |
| Reporters and Correspondents | $36,800 | 6.2% | 0.2% |
| Public Relations Specialists | $81,000 | 10.7% | 0.3% |
| Editors | $68,200 | 13.5% | 0.4% |
| Sales rep, wholesale & manufacturing, except technical & scientific | $102,600 | 11.5% | 0.3% |
| Writers and Authors | $68,600 | 3.9% | 0.1% |
| Photographers | $39,600 | 3.1% | 0.1% |
| All Other Arts, Design, Entertainment, Sports, and Media (Avg. All Categories) | $68,000 | 19.1% | 0.5% |
| ***Weighted Mean Annual Wage*** | ***$73,800*** | **100.0%** | **2.6%** |

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Office Tech 10-10-12; Compensation; 10/10/2012; dd

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Office / Tech Workers |
|---|---|---|---|
| ***Page 3 of 4*** | | | |
| *Healthcare Practitioners and Technical Occupations* | | | |
| Dentists, General | $142,900 | 7.5% | 0.2% |
| Family and General Practitioners | $192,100 | 2.9% | 0.1% |
| Physicians and Surgeons, All Other | $182,800 | 7.1% | 0.2% |
| Physician Assistants | $99,400 | 2.2% | 0.1% |
| Registered Nurses* | $119,100 | 13.5% | 0.4% |
| Physical Therapists | $90,100 | 3.0% | 0.1% |
| Veterinarians | $94,900 | 2.4% | 0.1% |
| Medical and Clinical Laboratory Technologists | $87,800 | 3.1% | 0.1% |
| Medical and Clinical Laboratory Technicians | $55,300 | 4.0% | 0.1% |
| Dental Hygienists | $95,000 | 16.1% | 0.5% |
| Radiologic Technologists and Technicians* | $81,100 | 3.6% | 0.1% |
| Veterinary Technologists and Technicians | $43,300 | 3.7% | 0.1% |
| Sales rep, wholesale & manufacturing, except technical & scientific | $57,800 | 4.3% | 0.1% |
| Medical Records and Health Information Technicians | $46,900 | 3.0% | 0.1% |
| All Other Healthcare Practitioners and Technical (Avg. All Categories) | $107,700 | 23.4% | 0.8% |
| ***Weighted Mean Annual Wage*** | ***$106,600*** | **100.0%** | **3.2%** |
| *Healthcare Support Occupations* | | | |
| Physical Therapist Assistants | $59,200 | 2.2% | 0.0% |
| Physical Therapist Aides | $31,300 | 2.1% | 0.0% |
| Dental Assistants | $37,600 | 44.3% | 0.8% |
| Medical Assistants | $37,900 | 30.3% | 0.6% |
| Medical Transcriptionists | $48,800 | 2.9% | 0.1% |
| Veterinary Assistants and Laboratory Animal Caretakers | $31,600 | 6.1% | 0.1% |
| Healthcare Support Workers, All Other* | $43,100 | 5.6% | 0.1% |
| All Other Healthcare Support Occupations (Avg. All Categories) | $34,800 | 6.4% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$38,100*** | **100.0%** | **1.8%** |
| *Food Preparation and Serving Related Occupations* | | | |
| Chefs and Head Cooks | $41,300 | 2.1% | 0.0% |
| First-Line Supervisors of Food Preparation and Serving Workers | $34,200 | 7.2% | 0.2% |
| Cooks, Institution and Cafeteria | $29,500 | 9.3% | 0.2% |
| Cooks, Restaurant | $24,700 | 2.5% | 0.1% |
| Food Preparation Workers | $21,300 | 10.0% | 0.2% |
| Bartenders | $23,200 | 2.8% | 0.1% |
| Combined Food Preparation and Serving Workers, Including Fast Food | $22,200 | 22.4% | 0.5% |
| Counter Attendants, Cafeteria, Food Concession, and Coffee Shop | $21,300 | 11.1% | 0.3% |
| Waiters and Waitresses | $22,100 | 11.1% | 0.3% |
| Food Servers, Nonrestaurant | $26,300 | 5.3% | 0.1% |
| Dining Room and Cafeteria Attendants and Bartender Helpers | $19,200 | 4.5% | 0.1% |
| Dishwashers | $20,800 | 5.9% | 0.1% |
| All Other Food Preparation and Serving Related (Avg. All Categories) | $23,200 | 5.8% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$24,100*** | **100.0%** | **2.3%** |
| *Building and Grounds Cleaning and Maintenance Occupations* | | | |
| First-Line Supervisors of Housekeeping and Janitorial Workers | $49,300 | 3.5% | 0.1% |
| First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Wor | $47,900 | 2.8% | 0.1% |
| Janitors and Cleaners, Except Maids and Housekeeping Cleaners | $28,000 | 55.6% | 1.2% |
| Maids and Housekeeping Cleaners | $24,500 | 8.9% | 0.2% |
| Pest Control Workers | $45,900 | 2.5% | 0.1% |
| Landscaping and Groundskeeping Workers | $31,600 | 23.9% | 0.5% |
| All Other Building and Grounds (Avg. All Categories) | $29,800 | 2.8% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$30,300*** | **100.0%** | **2.1%** |

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Office Tech 10-10-12; Compensation; 10/10/2012; dd

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Office / Tech Workers |
|---|---|---|---|
| ***Page 4 of 4*** | | | |
| *Sales and Related Occupations* | | | |
| First-Line Supervisors of Non-Retail Sales Workers | $112,100 | 5.0% | 0.3% |
| Cashiers | $25,500 | 3.5% | 0.2% |
| Counter and Rental Clerks | $30,400 | 3.4% | 0.2% |
| Advertising Sales Agents | $62,700 | 4.9% | 0.3% |
| Insurance Sales Agents | $84,100 | 4.5% | 0.3% |
| Securities, Commodities, and Financial Services Sales Agents | $94,500 | 3.9% | 0.2% |
| Sales Representatives, Services, All Other | $88,300 | 19.1% | 1.1% |
| Sales Representatives, Wholesale and Manufacturing, Technical and Scientific F | $113,800 | 22.4% | 1.3% |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Sc | $77,800 | 10.3% | 0.6% |
| Real Estate Sales Agents | $74,500 | 5.4% | 0.3% |
| Sales rep, wholesale & manufacturing, except technical & scientific | $135,500 | 5.9% | 0.3% |
| Telemarketers | $43,200 | 3.4% | 0.2% |
| All Other Sales and Related Occupations (Avg. All Categories) | $53,600 | 8.2% | 0.5% |
| ***Weighted Mean Annual Wage*** | ***$86,400*** | **100.0%** | **5.9%** |
| *Office and Administrative Support Occupations* | | | |
| First-Line Supervisors of Office and Administrative Support Workers | $65,700 | 6.8% | 1.3% |
| Bill and Account Collectors | $46,900 | 2.1% | 0.4% |
| Billing and Posting Clerks | $48,800 | 2.8% | 0.5% |
| Bookkeeping, Accounting, and Auditing Clerks | $46,600 | 8.9% | 1.7% |
| Tellers | $29,500 | 3.8% | 0.7% |
| Customer Service Representatives | $49,700 | 13.6% | 2.6% |
| Receptionists and Information Clerks | $33,600 | 5.5% | 1.1% |
| Production, Planning, and Expediting Clerks | $61,600 | 2.8% | 0.5% |
| Shipping, Receiving, and Traffic Clerks | $35,100 | 2.7% | 0.5% |
| Executive Secretaries and Executive Administrative Assistants | $62,900 | 6.7% | 1.3% |
| Legal Secretaries | $67,800 | 2.0% | 0.4% |
| Medical Secretaries | $41,300 | 3.0% | 0.6% |
| Sales rep, wholesale & manufacturing, except technical & scientific | $41,900 | 8.4% | 1.6% |
| Office Clerks, General | $37,600 | 11.8% | 2.3% |
| All Other Office and Administrative Support Occupations (Avg. All Categories) | $45,100 | 19.1% | 3.7% |
| ***Weighted Mean Annual Wage*** | ***$46,800*** | **100.0%** | **19.2%** |
| *Installation, Maintenance, and Repair Occupations* | | | |
| First-Line Supervisors of Mechanics, Installers, and Repairers | $77,600 | 6.7% | 0.1% |
| Computer, Automated Teller, and Office Machine Repairers | $46,500 | 9.8% | 0.2% |
| Telecommunications Equipment Installers and Repairers, Except Line Installers | $63,500 | 13.7% | 0.3% |
| Electrical and Electronics Repairers, Commercial and Industrial Equipment | $61,600 | 7.5% | 0.1% |
| Industrial Machinery Mechanics | $62,200 | 7.5% | 0.1% |
| Maintenance Workers, Machinery | $48,700 | 2.4% | 0.0% |
| Telecommunications Line Installers and Repairers | $61,600 | 7.8% | 0.2% |
| Maintenance and Repair Workers, General | $48,700 | 36.2% | 0.7% |
| Installation, Maintenance, and Repair Workers, All Other* | $55,900 | 2.3% | 0.0% |
| All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories | $54,200 | 6.1% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$55,900*** | **100.0%** | **2.0%** |
| ***Weighted Average Annual Wage - All Occupations*** | ***$91,000*** | | 96.0% |

[1] Including occupations representing 2% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2011 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2011 Occupational Employment Survey data applicable to Santa Clara County updated by the California Employment Development Department to 2012 wage levels.

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Office Tech 10-10-12; Compensation; 10/10/2012; dd

**APPENDIX B, TABLE 5**
**COMMERCIAL / RETAIL / ENTERTAINMENT - INDUSTRY MIX ASSUMPTION**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

**Industries Representative of Commercial / Retail / Entertainment Type Uses With Employment by Industry Weighted to Reflect Santa Clara County [(1)]**

| NAICS | Industry | Percent of Commercial / Retail / Entertainment Industry Employment |
|---|---|---|
| 722000 | Food Services and Drinking Places | 40% |
| 445100 | Grocery Stores | 10% |
| 452100 | Department Stores | 6% |
| 448100 | Clothing Stores | 5% |
| 452900 | Other General Merchandise Stores | 4% |
| 443100 | Electronics and Appliance Stores | 4% |
| 444100 | Building Material and Supplies Dealers | 4% |
| 811100 | Automotive Repair and Maintenance | 3% |
| 812100 | Personal Care Services | 3% |
| 451100 | Sporting Goods/Musical Instrument Stores | 2% |
| 447100 | Gasoline Stations | 1% |
| 811200 | Electronic Equipment Repair/Maintenance | 1% |
| 441300 | Auto Parts, Accessories, and Tire Stores | 1% |
| 448200 | Shoe Stores | 1% |
| 442200 | Home Furnishings Stores | 1% |
| 445200 | Specialty Food Stores | 1% |
| 453200 | Office Supply, Stationery & Gift Stores | 1% |
| 453900 | Other Miscellaneous Store Retailers | 1% |
| 812900 | Other Personal Services | 1% |
| 812300 | Drycleaning and Laundry Services | 1% |
| 442100 | Furniture Stores | 1% |
| 448300 | Jewelry, Luggage & Leather Goods Stores | 1% |
| 561500 | Travel Arrangement & Reservation Service | 1% |
| 532200 | Consumer Goods Rental | 1% |
| 532100 | Automotive Equipment Rental and Leasing | 1% |
| 451200 | Book, Periodical, and Music Stores | 1% |
| 423100 | Motor Vehicle/Part Merchant Wholesalers | 1% |
| 512130 | Motion Picture and Video Exhibition | 0.5% |
| 423700 | Hardware & Plumbing Merchant Wholesalers | 0.5% |
| 453300 | Used Merchandise Stores | 0.4% |
| 423300 | Lumber and Supply Merchant Wholesalers | 0.4% |
| 445300 | Beer, Wine, and Liquor Stores | 0.4% |
| 485400 | School and Employee Bus Transportation | 0.3% |
| 711100 | Performing Arts Companies | 0.3% |
| 812200 | Death Care Services | 0.3% |
| 444200 | Lawn & Garden Equipment/Supplies Stores | 0.3% |
| 532400 | Machinery & Equipment Rental & Leasing | 0.2% |
| 811400 | Household Goods Repair and Maintenance | 0.2% |
| 453100 | Florists | 0.1% |
| 532300 | General Rental Centers | 0.1% |
| | | 100% |

(1) Using data from the California Employment Development Department Quarterly Census of Employment and Wages, 2011 which provides employment by industry at the County level.
NAICS = North American Industry Classification System

**APPENDIX B, TABLE 6**
**2011 NATIONAL COMMERCIAL / RETAIL / ENTERTAINMENT WORKER DISTRIBUTION BY OCCUPATION**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

| Major Occupations (2% or more) | 2011 National Commercial / Retail / Entertainment Industry Occupation Distribution[1] | |
|---|---|---|
| Management Occupations | 561,867 | 2.2% |
| Food Preparation and Serving Related Occupations | 9,797,706 | *37.8%* |
| Personal Care and Service Occupations | 788,110 | *3.0%* |
| Sales and Related Occupations | 8,069,239 | *31.1%* |
| Office and Administrative Support Occupations | 2,614,891 | *10.1%* |
| Installation, Maintenance, and Repair Occupations | 1,054,720 | *4.1%* |
| Production Occupations | 656,991 | *2.5%* |
| Transportation and Material Moving Occupations | 1,495,840 | *5.8%* |
| All Other Commercial / Retail / Entertainment Occupations | 886,890 | *3.4%* |
| **INDUSTRY TOTAL** | 25,926,255 | 100.0% |

Note

(1) See Appendix Table 5 for information on industry categories selected as representative. National occupational employment data has been weighted using data from the California Employment Development Department to reflect the commercial / retail / entertainment industry mix for Santa Clara County.

Source: Bureau of Labor Statistics; California Employment Development Department
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Retail 10-10-12; Major Occupations Matrix; 10/10/2012; dd

**APPENDIX B, TABLE 7**
**AVERAGE ANNUAL COMPENSATION, 2012**
**COMMERCIAL / RETAIL / ENTERTAINMENT WORKER OCCUPATIONS**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Commercial Workers |
|---|---|---|---|
| ***Page 1 of 3*** | | | |
| *Management Occupations* | | | |
| Chief Executives | $227,100 | 2.4% | 0.1% |
| General and Operations Managers | $152,700 | 49.9% | 1.1% |
| Sales Managers | $159,500 | 10.3% | 0.2% |
| Food Service Managers | $59,800 | 27.5% | 0.6% |
| Managers, All Other | $152,400 | 2.1% | 0.0% |
| All Other Management Occupations (Avg. All Categories) | $151,300 | 7.9% | 0.2% |
| ***Weighted Mean Annual Wage*** | ***$129,500*** | **100.0%** | **2.2%** |
| *Food Preparation and Serving Related Occupations* | | | |
| First-Line Supervisors of Food Preparation and Serving Workers | $34,200 | 7.0% | 2.7% |
| Cooks, Fast Food | $19,800 | 5.4% | 2.0% |
| Cooks, Restaurant | $24,700 | 9.3% | 3.5% |
| Food Preparation Workers | $21,300 | 5.9% | 2.2% |
| Bartenders | $23,200 | 4.3% | 1.6% |
| Combined Food Preparation and Serving Workers, Including Fast Food | $22,200 | 27.6% | 10.4% |
| Counter Attendants, Cafeteria, Food Concession, and Coffee Shop | $21,300 | 3.8% | 1.4% |
| Waiters and Waitresses | $22,100 | 22.1% | 8.3% |
| Dining Room and Cafeteria Attendants and Bartender Helpers | $19,200 | 3.1% | 1.2% |
| Dishwashers | $20,800 | 4.6% | 1.7% |
| Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | $21,300 | 3.3% | 1.2% |
| All Other Food Preparation and Serving Occupations (Avg. All Categories) | $23,200 | 3.7% | 1.4% |
| ***Weighted Mean Annual Wage*** | ***$22,900*** | **100.0%** | **37.8%** |
| *Personal Care and Service Occupations* | | | |
| First-Line Supervisors of Personal Service Workers | $47,600 | 4.2% | 0.1% |
| Nonfarm Animal Caretakers | $26,600 | 10.5% | 0.3% |
| Ushers, Lobby Attendants, and Ticket Takers | $22,100 | 5.0% | 0.2% |
| Funeral Attendants | $33,400 | 2.2% | 0.1% |
| Funeral Service Managers, Directors, Morticians, and Undertakers | $76,800 | 2.0% | 0.1% |
| Hairdressers, Hairstylists, and Cosmetologists | $24,200 | 50.0% | 1.5% |
| Manicurists and Pedicurists | $21,100 | 8.0% | 0.2% |
| Skincare Specialists | $31,600 | 3.4% | 0.1% |
| Personal Care and Service Workers, All Other | $27,200 | 2.5% | 0.1% |
| All Other Personal Care and Service Occupations (Avg. All Categories) | $28,600 | 12.3% | 0.4% |
| ***Weighted Mean Annual Wage*** | ***$27,200*** | **100.0%** | **3.0%** |
| *Sales and Related Occupations* | | | |
| First-Line Supervisors of Retail Sales Workers | $42,500 | 11.8% | 3.7% |
| Cashiers | $25,500 | 31.3% | 9.8% |
| Counter and Rental Clerks | $30,400 | 2.7% | 0.8% |
| Retail Salespersons | $25,700 | 48.4% | 15.1% |
| All Other Sales and Related Occupations (Avg. All Categories) | $53,600 | 5.7% | 1.8% |
| ***Weighted Mean Annual Wage*** | ***$29,300*** | **100.0%** | **31.1%** |

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Retail 10-10-12; Compensation; 10/10/2012; dd

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Commercial Workers |
|---|---|---|---|



| | | | |
|---|---|---|---|
| *Office and Administrative Support Occupations* | | | |
| First-Line Supervisors of Office and Administrative Support Workers | $65,700 | 5.9% | 0.6% |
| Bookkeeping, Accounting, and Auditing Clerks | $46,600 | 7.7% | 0.8% |
| Customer Service Representatives | $49,700 | 11.0% | 1.1% |
| Receptionists and Information Clerks | $33,600 | 3.3% | 0.3% |
| Shipping, Receiving, and Traffic Clerks | $35,100 | 5.5% | 0.6% |
| Stock Clerks and Order Fillers | $27,000 | 45.1% | 4.5% |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | $41,900 | 3.9% | 0.4% |
| Office Clerks, General | $37,600 | 9.3% | 0.9% |
| All Other Office and Administrative Support Occupations (Avg. All Categories) | $45,100 | 8.3% | 0.8% |
| ***Weighted Mean Annual Wage*** | ***$37,000*** | **100.0%** | **10.1%** |
| *Installation, Maintenance, and Repair Occupations* | | | |
| First-Line Supervisors of Mechanics, Installers, and Repairers | $77,600 | 7.5% | 0.3% |
| Computer, Automated Teller, and Office Machine Repairers | $46,500 | 9.5% | 0.4% |
| Telecommunications Equipment Installers and Repairers, Except Line Installers | $63,500 | 2.3% | 0.1% |
| Electronic Home Entertainment Equipment Installers and Repairers | $42,400 | 3.5% | 0.1% |
| Automotive Body and Related Repairers | $47,600 | 9.8% | 0.4% |
| Automotive Service Technicians and Mechanics | $50,900 | 28.2% | 1.1% |
| Bus and Truck Mechanics and Diesel Engine Specialists | $50,800 | 4.0% | 0.2% |
| Tire Repairers and Changers | $32,500 | 5.5% | 0.2% |
| Home Appliance Repairers | $41,600 | 3.3% | 0.1% |
| Medical Equipment Repairers | $56,100 | 2.0% | 0.1% |
| Maintenance and Repair Workers, General | $48,700 | 5.2% | 0.2% |
| Helpers--Installation, Maintenance, and Repair Workers | $33,900 | 2.7% | 0.1% |
| All Other Installation, Maintenance, and Repair Occupations (Avg. All Categories) | $54,200 | 16.6% | 0.7% |
| ***Weighted Mean Annual Wage*** | ***$50,900*** | **100.0%** | **4.1%** |
| *Production Occupations* | | | |
| First-Line Supervisors of Production and Operating Workers | $68,500 | 5.6% | 0.1% |
| Team Assemblers | $35,200 | 2.0% | 0.1% |
| Assemblers and Fabricators, All Other | $40,100 | 3.1% | 0.1% |
| Bakers | $28,600 | 14.3% | 0.4% |
| Butchers and Meat Cutters | $33,200 | 18.6% | 0.5% |
| Meat, Poultry, and Fish Cutters and Trimmers | $26,700 | 4.4% | 0.1% |
| Laundry and Dry-Cleaning Workers | $24,200 | 13.6% | 0.3% |
| Pressers, Textile, Garment, and Related Materials | $22,800 | 5.7% | 0.1% |
| Tailors, Dressmakers, and Custom Sewers | $38,200 | 2.8% | 0.1% |
| Jewelers and Precious Stone and Metal Workers | $45,400 | 2.1% | 0.1% |
| Painters, Transportation Equipment | $51,400 | 3.7% | 0.1% |
| Photographic Process Workers and Processing Machine Operators | $27,500 | 4.1% | 0.1% |
| All Other Production Occupations (Avg. All Categories) | $40,100 | 19.9% | 0.5% |
| ***Weighted Mean Annual Wage*** | ***$34,900*** | **100.0%** | **2.5%** |

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Retail 10-10-12; Compensation; 10/10/2012; dd

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Commercial Workers |
|---|---|---|---|

***Page 3 of 3***

| | | | |
|---|---|---|---|
| *Transportation and Material Moving Occupations* | | | |
| First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand | $49,400 | 2.1% | 0.1% |
| Bus Drivers, School or Special Client | $36,000 | 4.4% | 0.3% |
| Driver/Sales Workers | $34,300 | 12.9% | 0.7% |
| Heavy and Tractor-Trailer Truck Drivers | $41,100 | 3.5% | 0.2% |
| Light Truck or Delivery Services Drivers | $36,000 | 12.9% | 0.7% |
| Parking Lot Attendants | $22,900 | 5.8% | 0.3% |
| Automotive and Watercraft Service Attendants | $25,800 | 4.3% | 0.2% |
| Industrial Truck and Tractor Operators | $35,500 | 3.5% | 0.2% |
| Cleaners of Vehicles and Equipment | $23,700 | 9.8% | 0.6% |
| Laborers and Freight, Stock, and Material Movers, Hand | $32,800 | 22.9% | 1.3% |
| Packers and Packagers, Hand | $22,000 | 12.6% | 0.7% |
| All Other Transportation and Material Moving Occupations (Avg. All Categories) | $35,100 | 5.6% | 0.3% |
| ***Weighted Mean Annual Wage*** | ***$31,300*** | **100.0%** | **5.8%** |
| ***Weighted Average Annual Wage - All Occupations*** | ***$31,000*** | | 96.6% |

[1] Including occupations representing 2% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2011 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2011 Occupational Employment Survey data applicable to Santa Clara County updated by the California Employment Development Department to 2012 wage levels.

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Retail 10-10-12; Compensation; 10/10/2012; dd

**APPENDIX B, TABLE 8**
**2011 NATIONAL HOTEL WORKER DISTRIBUTION BY OCCUPATION**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

| Major Occupations (2% or more) | 2011 National Hotel Occupation Distribution (1) | |
|---|---|---|
| Management Occupations | 64,990 | 4.5% |
| Food Preparation and Serving Related Occupations | 355,410 | *24.5%* |
| Building and Grounds Cleaning and Maintenance Occupations | 462,520 | *31.9%* |
| Personal Care and Service Occupations | 54,450 | *3.8%* |
| Sales and Related Occupations | 33,420 | *2.3%* |
| Office and Administrative Support Occupations | 296,020 | *20.4%* |
| Installation, Maintenance, and Repair Occupations | 71,710 | *5.0%* |
| Production Occupations | 31,230 | *2.2%* |
| All Other Hotel Related Occupations | 78,080 | *5.4%* |
| **INDUSTRY TOTAL** | 1,447,830 | 100.0% |

Notes
(1) Excludes casino hotels

Source: Bureau of Labor Statistics
Prepared by: Keyser Marston Associates, Inc.
Filename: Z:\16\16045\005\Hotel 10-10-12;Major Occupations Matrix; 10/10/2012

**APPENDIX B, TABLE 9**
**AVERAGE ANNUAL COMPENSATION, 2012**
**HOTEL WORKER OCCUPATIONS**
**JOBS HOUSING NEXUS ANALYSIS**
**CITY OF MOUNTAIN VIEW, CA**

| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Hotel Workers |
|---|---|---|---|
| ***Page 1 of 2*** | | | |
| *Management Occupations* | | | |
| General and Operations Managers | $152,700 | 19.8% | 0.9% |
| Sales Managers | $159,500 | 10.0% | 0.5% |
| Administrative Services Managers | $107,100 | 3.6% | 0.2% |
| Financial Managers | $152,800 | 4.4% | 0.2% |
| Food Service Managers | $59,800 | 11.5% | 0.5% |
| Lodging Managers | $66,200 | 40.6% | 1.8% |
| Managers, All Other | $152,400 | 2.2% | 0.1% |
| All Other Management Occupations (Avg. All Categories) | $151,300 | 7.8% | 0.3% |
| ***Weighted Mean Annual Wage*** | ***$105,700*** | **100.0%** | **4.5%** |
| *Food Preparation and Serving Related Occupations* | | | |
| Chefs and Head Cooks | $41,300 | 2.6% | 0.6% |
| First-Line Supervisors of Food Preparation and Serving Workers | $34,200 | 5.0% | 1.2% |
| Cooks, Restaurant | $24,700 | 13.4% | 3.3% |
| Food Preparation Workers | $21,300 | 3.7% | 0.9% |
| Bartenders | $23,200 | 7.8% | 1.9% |
| Combined Food Preparation and Serving Workers, Including Fast Food | $22,200 | 3.8% | 0.9% |
| Counter Attendants, Cafeteria, Food Concession, and Coffee Shop | $21,300 | 2.1% | 0.5% |
| Waiters and Waitresses | $22,100 | 29.3% | 7.2% |
| Food Servers, Nonrestaurant | $26,300 | 9.2% | 2.3% |
| Dining Room and Cafeteria Attendants and Bartender Helpers | $19,200 | 9.3% | 2.3% |
| Dishwashers | $20,800 | 6.6% | 1.6% |
| Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop | $21,300 | 3.8% | 0.9% |
| All Other Food Preparation and Serving Occupations (Avg. All Categories) | $23,200 | 3.3% | 0.8% |
| ***Weighted Mean Annual Wage*** | ***$23,600*** | **100.0%** | **24.5%** |
| *Building and Grounds Cleaning and Maintenance Occupations* | | | |
| First-Line Supervisors of Housekeeping and Janitorial Workers | $49,300 | 5.8% | 1.9% |
| Janitors and Cleaners, Except Maids and Housekeeping Cleaners | $28,000 | 6.8% | 2.2% |
| Maids and Housekeeping Cleaners | $24,500 | 84.2% | 26.9% |
| Landscaping and Groundskeeping Workers | $31,600 | 2.7% | 0.9% |
| All Other Building and Grounds Occupations (Avg. All Categories) | $29,800 | 0.5% | 0.2% |
| ***Weighted Mean Annual Wage*** | ***$26,400*** | **100.0%** | **31.9%** |
| *Personal Care and Service Occupations* | | | |
| First-Line Supervisors of Personal Service Workers | $47,600 | 4.1% | 0.2% |
| Amusement and Recreation Attendants | $20,900 | 14.7% | 0.6% |
| Locker Room, Coatroom, and Dressing Room Attendants | $22,500 | 3.4% | 0.1% |
| Skincare Specialists | $31,600 | 2.1% | 0.1% |
| Baggage Porters and Bellhops | $22,000 | 36.8% | 1.4% |
| Concierges | $36,000 | 17.5% | 0.7% |
| Fitness Trainers and Aerobics Instructors | $50,800 | 3.8% | 0.1% |
| Recreation Workers | $28,500 | 8.5% | 0.3% |
| Personal Care and Service Workers, All Other | $27,200 | 2.8% | 0.1% |
| All Other Personal Care and Service Occupations (Avg. All Categories) | $28,600 | 6.4% | 0.2% |
| ***Weighted Mean Annual Wage*** | ***$27,800*** | **100.0%** | **3.8%** |

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
Prepared by: Keyser Marston Associates, Inc.
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| Occupation [1] | 2012 Avg. Compensation [2] | % of Total Occupation Group [3] | % of Total Hotel Workers |
|---|---|---|---|
| ***Page 2 of 2*** | | | |
| *Sales and Related Occupations* | | | |
| First-Line Supervisors of Retail Sales Workers | $42,500 | 4.5% | 0.1% |
| First-Line Supervisors of Non-Retail Sales Workers | $112,100 | 3.0% | 0.1% |
| Cashiers | $25,500 | 32.5% | 0.8% |
| Retail Salespersons | $25,700 | 14.0% | 0.3% |
| Sales Representatives, Services, All Other | $88,300 | 35.0% | 0.8% |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scier | $77,800 | 2.2% | 0.1% |
| Telemarketers | $43,200 | 2.9% | 0.1% |
| Sales and Related Workers, All Other* | $53,700 | 2.5% | 0.1% |
| All Other Sales and Related Occupations (Avg. All Categories) | $53,600 | 3.4% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$54,200*** | **100.0%** | **2.3%** |
| *Office and Administrative Support Occupations* | | | |
| First-Line Supervisors of Office and Administrative Support Workers | $65,700 | 7.3% | 1.5% |
| Bookkeeping, Accounting, and Auditing Clerks | $46,600 | 5.9% | 1.2% |
| Customer Service Representatives | $49,700 | 2.0% | 0.4% |
| Hotel, Motel, and Resort Desk Clerks | $25,900 | 70.1% | 14.3% |
| Reservation and Transportation Ticket Agents and Travel Clerks | $36,700 | 2.4% | 0.5% |
| Office Clerks, General | $37,600 | 2.4% | 0.5% |
| All Other Office and Administrative Support Occupations (Avg. All Categories) | $45,100 | 9.9% | 2.0% |
| ***Weighted Mean Annual Wage*** | ***$32,900*** | **100.0%** | **20.4%** |
| *Installation, Maintenance, and Repair Occupations* | | | |
| First-Line Supervisors of Mechanics, Installers, and Repairers | $77,600 | 8.1% | 0.4% |
| Maintenance and Repair Workers, General | $48,700 | 89.0% | 4.4% |
| All Other Installation, Maint., and Repair Occupations (Avg. All Categories) | $54,200 | 2.9% | 0.1% |
| ***Weighted Mean Annual Wage*** | ***$51,200*** | **100.0%** | **5.0%** |
| *Production Occupations* | | | |
| First-Line Supervisors of Production and Operating Workers | $68,500 | 2.6% | 0.1% |
| Bakers | $28,600 | 6.5% | 0.1% |
| Laundry and Dry-Cleaning Workers | $24,200 | 86.3% | 1.9% |
| Stationary Engineers and Boiler Operators | $80,500 | 2.3% | 0.1% |
| All Other Production Occupations (Avg. All Categories) | $40,100 | 2.3% | 0.0% |
| ***Weighted Mean Annual Wage*** | ***$27,300*** | **100.0%** | **2.2%** |
| ***Weighted Average Annual Wage - All Occupations*** | ***$33,000*** | | 94.6% |

[1] Including occupations representing 2% or more of the major occupation group.

[2] The methodology utilized by the California Employment Development Department (EDD) assumes that hourly paid employees are employed full-time. Annual compensation is calculated by EDD by multiplying hourly wages by 40 hours per work week by 52 weeks.

[3] Occupation percentages are based on the 2011 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2011 Occupational Employment Survey data applicable to Santa Clara County updated by the California Employment Development Department to 2012 wage levels.

Sources: Bureau of Labor Statistics; California Employment Development Department Comepensation Data for Santa Clara County
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