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**Residential Nexus Analysis  
City and County of San Francisco**

**Prepared for:  
*City and County of San Francisco***

**Prepared by:  
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## **OVERVIEW AND SUMMARY OF FINDINGS**

Keyser Marston Associates (KMA) has prepared a residential nexus analysis for the City and County of San Francisco. The report has been prepared to support the City's Inclusionary Housing Program, including the updated requirements enacted in the summer of 2006. This residential nexus analysis addresses market rate residential projects which are subject to the inclusionary program and quantifies the linkages between new market rates units and the demand for affordable housing generated by the residents of the units.

### **Context and Purpose**

The City of San Francisco is undertaking a comprehensive program of analyses to update its programs and supporting documentation for many types of fees, including updating nexus analyses in support of impact fees. As part of this program, the City has contracted with Keyser Marston Associates to prepare a nexus analysis in support of the Inclusionary Housing Program, or an analysis of the impact of the development of market rate housing on affordable housing demand.

The City's current position is that the City's Inclusionary Housing Program including the in lieu provision which is offered as an alternative to building units within market rate projects, is not subject to the requirements of the Mitigation Fee Act, Government Code Sections 66000 and following. The City does not expect to alter its position on this matter. However, because the City agreed to sponsor a supporting nexus analysis as part of past legislative actions, and because there is interest in determining whether the Inclusionary Program can be supported by a nexus type analysis as an additional support measure, the City has contracted for the preparation of a nexus analysis at this time.

### **San Francisco Inclusionary Program**

The City of San Francisco Inclusionary program that is the subject of this analysis requires that all residential projects of five units or more provide a share of units affordable to lower income households. The San Francisco program, which was amended in the summer of 2006, is contained in Planning Code Sections 315 and following (the "Inclusionary Program"). Briefly summarized, the San Francisco program now requires 15% of units be affordable to lower income households and defines lower income as up to 120% of median income. For purposes of application, affordable units in condominium projects must average 100% of median and affordable units in rental projects must be provided at 60% of median or less. The Inclusionary Program also has off-site and in-lieu fee alternatives. The Inclusionary Program contains many particulars regarding application, definitions, entitlement process, and administration of the program.

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## **Use of This Study**

An impact analysis of this nature has been prepared for the limited purpose of demonstrating nexus support to the San Francisco Inclusionary Program. It has not been prepared as a document to guide policy design in the broader context. We caution against the use of this study, or any impact study for that matter, for purposes beyond the intended use. All impact studies are limited and imperfect, but can be helpful for addressing narrow concerns.

To cite a parallel example, a study could be prepared on the relative fiscal impacts of developing various price (or value) residential units in San Francisco. Fiscal impact analysis, unlike this nexus analysis, is a widely prepared type of analysis in which revenues to a governmental entity are quantified and compared to the costs of services provided by the entity. For residential development, revenues include property tax, sales tax from expenditures of residents, intergovernmental transfers and subventions (such as vehicle license tax) and a number of other revenues to the General Fund. Cost of services cover police, fire, health care, general administration and all else that the City/County expends from its General Fund to serve its residents. If such an analysis were prepared for various price residential units in San Francisco, it can be predicted with assurance that higher price units would yield more revenues to the City than lower price units and a more favorable fiscal balance. If fiscal impact analysis alone were to guide policy, then San Francisco would never pursue the development of another unit of affordable housing. Needless to say, governments must develop housing policy based on a range of competing goals and objectives.

## **Impact Methodology and Models Used**

The methodology or analysis procedure for this nexus analysis starts with the sales price (or rental rate) of a market rate residential unit, and moves through a series of linkages to the income of the household that purchased or rented the unit, the disposable income of the household, the annual expenditures on goods and services, the jobs associated with the purchases and delivery of services, the income of the workers doing those jobs, the household income and, ultimately, the affordability level of the housing needed by the worker households. The steps of the analysis from disposable income to jobs generated was performed using the IMPLAN model, a model widely used for the past 25 years to quantify employment impacts from personal income. From jobs generation by industry, KMA used its own nexus model to quantify the income of worker households by affordability level.

To illustrate the linkages by looking at a simplified example, we can take an average household that buys a condominium at a certain price. From that price, we can determine the gross income of the household (from mortgage rates and lending practices) and the disposable income of the household. The disposable income, on average, will be used to “purchase” or consume a range of goods and services, such as purchases at the supermarket or services at the bank. Purchases in the local economy in turn generate employment. The jobs generated are at different compensation levels. Some of the jobs are low paying and as a result, even when there

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is more than one worker in the household, there are some lower and middle-income households who cannot afford market rate housing in San Francisco.

The IMPLAN model quantifies direct, indirect and induced employment impacts. Direct jobs are generated at establishments that serve new residents directly (i.e. supermarket, bank or school); indirect jobs are generated by increased demand at firms which service or supply these establishments (wholesaler, janitorial contractor, accounting firm, or any jobs down the service/supply chain from direct jobs); induced jobs are generated when direct and indirect employees spend their wages in the local economy and generate additional jobs. The analysis is presented in a manner that indicates direct impacts alone and all impacts - direct, indirect and induced impacts. Consistent with other nexus analyses that have used the IMPLAN model and adopted programs supported by the analyses, KMA used all impacts, inclusive of indirect and induced impacts for nexus purposes.

### **Analysis Starting Point**

An important starting point of the analysis is the sales price or rent level of market rate units. For this KMA was able to utilize material prepared in the spring of 2006 to analyze the inclusionary program and proposed changes to the program. KMA, under contract to the City, worked under the direction of the Planning Department and Major's Office of Housing (MOH), and was guided by a Technical Advisory Committee (TAC) comprised of residential developers, affordable housing advocates, non-profit developers, and others concerned with the policy issues. A major body of work was devoted to the identification of prototypical projects and full schedules of costs and revenues to establish pro forma feasible projects. A summary of the prototypes and the analysis of inclusionary impacts on them is contained in a report entitled *Keyser Marston Associates, Summary Report, Inclusionary Housing Program, San Francisco, Sensitivity Analysis, July 2006*. This report was released as a public document as part of the package for the July 12, 2006 meeting of the Land Use Committee of the Board of Supervisors.

The lowest cost and sales price (or rent level) of the four prototypes developed as part of the *Sensitivity Analysis* work program is utilized as the starting point of the nexus analysis. The analysis could have been conducted using an average price of a new unit, but the more conservative selection of least expensive prototype was used for the analysis.

### **Net New Underlying Assumption**

An underlying assumption of the analysis is that households that rent or purchase new units represent net new households in the City of San Francisco. If purchasers or renters have relocated from elsewhere in the City, a vacancy has been created that will be filled. An adjustment to new construction of units would be warranted if the City were experiencing demolitions or loss of existing housing inventory. However, the rate of housing unit removal is so low as to not warrant an adjustment or offset.

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Since the analysis addresses net new households in the City and the impacts generated by their consumption expenditures, the analysis quantifies net new demands for affordable units to accommodate new worker households. As such, the impact results do not address nor in any way include existing deficiencies in the supply of affordable housing.

## **Nexus Findings**

Nexus analyses were conducted separately for condominium units (or other for-sale product) and for rental units since the occupants have different income levels which result in differentiated impacts. For summary overview purposes the results are presented together in the following synopsis of major steps and findings.

### ***Income of Purchaser/Renter of New Units***

The income of residents of new market rate buildings is estimated based upon the income required to purchase or rent a unit in a prototypical new low-rise wood frame building.

The prototype condominium unit, drawn from the *Sensitivity Analysis*, is 800 square feet and sells for \$580,000 or \$725 per square foot. The household income required to purchase a unit at this price is estimated based upon standard long term mortgage lending practices. Key assumptions are a 20% down payment, and a mortgage at 7% interest, a longer term rate that is a little higher than would be achievable today, homeowner's association (HOA) dues and property taxes. All housing expenditures are assumed at 35% of gross income. This produces a gross household income of \$138,400 for the purchaser of the \$580,000 unit.

The prototype rental unit, also drawn from the *Sensitivity Analysis* work program is also 800 square feet and rents for \$2,500 per month or a little under \$3.20 per square foot per month. New rental units are not feasible in today's market; however, the inclusionary program will be in place beyond the current market cycle and must anticipate development of rental units in the future. The assumed rental rate is higher than is achievable in the current market except under extraordinary circumstances (luxury projects in premier locations, etc.). The rental rate has been estimated as the required minimum level for a project to be feasible, given total development costs, conventional financing terms, and typical operating expenses. The household living in this unit is likely to be paying approximately 30% of income on rent (not including utilities). This translates to a household with a gross income of \$102,000 per year.

	<b>Condo Units</b>	<b>Rental Units</b>
Sales Price or Rent	\$580,000	\$2,544 / Mo
Annual Housing Cost	\$48,400 (mortgage, property taxes, HOA)	\$30,500 (rent)
Percent of Income Spent on Housing	35%	30%
Gross Household Income	\$138,400	\$102,000

### ***Disposable Income***

A second step is to determine Disposable Household Income, the income that the IMPLAN model uses as a starting place. Disposable Income, as defined for purposes of the IMPLAN model, is income after state and federal income taxes, Social Security and Medicare deductions, and personal savings. Housing expenses are not deducted from disposable income; rather they are handled internally within the IMPLAN model. Disposable Income as a share of gross income is estimated at 69% for purchasers of condominium units. This percentage is based on consultation with a number of governmental and institutional sources as noted in the main body of the report. The household that purchases our prototypical condominium unit has a Disposable Income of \$95,500.

The renter household has a higher proportion of gross income that is disposable because the renter household is in a lower tax bracket. The renter household of the prototypical unit has a Disposable Income of a little over \$74,000 per year.

	<b>Condo Units</b>	<b>Rental Units</b>
Gross Household Income	\$138,400	\$102,000
Percent Disposable	69%	73%
Disposable Income	\$95,500	\$74,000

### ***IMPLAN Job Generation***

The IMPLAN model input is the Disposable Income of 100 condominium purchasers and 100 apartment renters. The output is numbers of jobs generated by the expenditures of the households for goods and services in San Francisco. The employment impacts associated with these 100 units are:

	<b>100 Condo Units</b>	<b>100 Rental Units</b>
<b>Disposable Income</b>	\$9.6 M	\$7.4 M
<b>Job Generation</b>		
Direct Jobs	49	38
Indirect & Induced Jobs	<u>40</u>	<u>31</u>
Total Jobs	89	69

The IMPLAN output provides the jobs by industry, for the most part a wide dispersion among over 30 industries with little concentration in any one. The highest single concentration is in Food Service and Drinking Places, representing 15% of direct jobs and 11% of total jobs.

### ***Lower Income Worker Households***

The jobs by industry, per the IMPLAN analysis, have been input into the KMA jobs housing nexus analysis model to quantify the income of the worker households. The first step is a conversion of jobs to worker households, recognizing that there is more than one worker in each household today.

The KMA nexus model converts jobs by industry per the IMPLAN output to a distribution of jobs by occupation. State of California data on compensation level in San Francisco is applied to each occupation. Workers are allocated into households of sizes ranging from one to six persons taking into account the fact that households with two or more persons may have multiple earners. The output of the model is the number of households by income level.

The nexus model was configured for this San Francisco application to produce findings for “lower income households” defined as households with incomes from zero through 120% of median. Income definitions are keyed to the San Francisco City and County Median (SF Median) for 2006 as revised in the Inclusionary Program amendments enacted in the summer of 2006. The income range is consistent with the range of incomes covered in the Inclusionary Housing Program in San Francisco and the range of incomes assisted by the City’s housing programs overall.

### ***Output of Households by Affordability Level***

The findings of the analysis are as follows for 100 market rate units in low-rise wood-frame buildings in San Francisco:

<b>Affordable Unit Demand Associated with 100 Market Rate Units</b>	<b>Direct Impacts Only</b>	<b>Direct, Indirect &amp; Induced Impacts</b>
Condominium Units - Number of New Lower Income Households	25.00	43.31
Rental Units - Number of New Lower Income Households	19.44	33.68

In summary, for every 100 market rate condominium units there are 25.0 lower income households generated through the direct impact of the consumption of the condominium buyers and a total of 43.31 households if total direct, indirect, and induced impacts are counted in the analysis.

For every 100 market rate rental units there are 19.44 lower income households generated through the direct impact of the consumption of the renters and a total of 33.68 households if total direct, indirect, and induced impacts are counted in the analysis.

The table below adjusts these figures to percentages for purposes of supporting “inclusionary” type requirements of total units. The percentages are calculated including both market rate and affordable units (for example to convert 25.0 affordable units per 100 market rate units into a percentage, 25.0 is divided by 125.0, which equals 20%).

<b>Supported Inclusionary Requirement</b>	<b>Direct Impacts Only</b>	<b>Direct, Indirect &amp; Induced Impacts</b>
Condos	20.0%	30.2%
Rentals	16.3%	25.2%

### ***Location of Jobs and Housing/Commute Issues***

The findings of the nexus analysis count only the jobs located in San Francisco. The analysis results could have included jobs and worker households located elsewhere in the Bay Area and beyond the Bay Area as well. If the five county Bay Region (San Francisco, San Mateo, Marin, Alameda and Contra Costa) were included, results would be a third higher inclusive of Direct, Indirect and Induced Impacts. In summary, the analysis does not count total job impacts, only San Francisco located job impacts.

An inevitable question arises as to whether worker households are assumed to live in the same jurisdiction as the jobs. For purposes of this analysis, the interest was in determining job impacts in San Francisco. Whether all the new worker households associated with the San Francisco located jobs should also be assumed to live in San Francisco or commute from another county is a matter of policy.

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### ***Overlap / Duplication of Commercial Nexus Fee***

San Francisco has a jobs-housing linkage fee designed to mitigate the need for affordable housing associated with jobs in new commercial buildings. The jobs housing analysis is based on a similar analytical framework as the residential nexus analysis and under certain circumstances counts some of the same jobs. A separate analysis has been prepared which demonstrates that in the rare situations where there is a high degree of overlap in jobs counted between the two analyses, the City's Inclusionary program and jobs-housing program combined remain within the nexus.

### ***Conclusion***

The residential nexus analysis has determined that 100 market rate condominium units generate direct impacts that result in the demand for 25.0 affordable units in San Francisco and 43.31 units if all indirect and induced impacts are taken into account. As percentages, these results translate to direct impacts supporting 20% of units affordable, or inclusive of indirect and induced impacts 30% of units affordable. Findings for rental units are roughly a third lower. Since the San Francisco Inclusionary Program requires that 15% of units be affordable, the San Francisco program is well supported by this nexus analysis.

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## SECTION I - MARKET RATE UNITS AND DISPOSABLE INCOME

Section I describes the prototypical market rate units that are subject to the inclusionary program, the income of the purchaser and renter households and the disposable income of the households. Disposable Income is the input to the IMPLAN model described in Section II of this report. These are the initial starting points of the chain of linkages that connect new market rate units to incremental demand for affordable residential units.

### Introduction

The San Francisco inclusionary program is applicable to all residential projects of five units or more. Construction activity in the City for projects of five or more units includes a range of products including apartments and condominiums (or other forms of ownership units) in building types from low-rise wood-frame construction to steel high-rise buildings. The least expensive construction type, the low-rise wood-frame unit, has been selected as the prototype for the analysis. The selected prototype units are intended to represent the low-end of cost and value range for both the for-sale and the rental market in San Francisco. The objective is to establish the nexus for the least expensive product, on average, to be conservative. Mid- and high-rise buildings are more expensive to construct and must generally achieve greater sales prices or rents in order to be feasible; likewise, the disposable income of occupant households and consumer expenditures will, on average, be greater than in low-rise units. Use of an average price unit, such as in a mid-rise building, might well have been used in the analysis since use of averages is generally considered acceptable for establishing regulations and public policy.

The prototypes used in the analysis are drawn from the prior work program on proposed changes to the San Francisco inclusionary program. KMA, under contract to the City, worked under the direction of the Planning Department and Major's Office of Housing (MOH), and was guided by a Technical Advisory Committee (TAC) comprised of residential developers, affordable housing advocates, non profit developers, and other concerned with the policy issues. A major body of work was devoted to the identification of prototypical projects and full schedules of costs and revenues to establish pro forma feasible projects. A summary of the prototypes and the analysis of inclusionary impacts on them was assembled in a report entitled *Keyser Marston Associates, Summary Report, Inclusionary Housing Program, San Francisco, Sensitivity Analysis, July 2006*. This report was released as a public document as part of the package for the July 12, 2006 meeting of the Land Use Committee of the Board of Supervisors.

The major assumptions with respect to price or value of units and income of purchasers or renters are presented first for for-sale or condominium units, followed by rental units.

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## Prototypical Condominium Unit

For the purposes of the analysis, the low-rise wood-frame construction Prototype 1 articulated in the *Sensitivity Analysis* was selected as an average new unit to represent the lower-end of the for-sale market in San Francisco. As indicated above, prototypes in the *Sensitivity Analysis*, were fully analyzed for cost of development and sales prices. In addition, market surveys were conducted for establishing the sales prices of units and also sales per square foot basis.

A profile of the Prototype 1 size and sales price is:

	<b>Prototypical Unit</b>
Size	800 sq.ft.
Sales Price per Sq.Ft.	\$725
Sales Price Total	\$580,000

Most of the new condominium units constructed in San Francisco will sell for over this amount. Smaller one-bedrooms and studios may have lower sales prices, but will likely equal or exceed the prototype unit on a price per square foot basis. It is unlikely that significant sales activity will occur at lower prices, except for occasional projects or units. The vast majority of units will sell at a higher price per square foot than the Prototype 1 unit.

## Income of Condominium Purchasers

The next step in the analysis is to determine the income of the purchasing household of the prototypical condominium. To make the determination, typical terms for the purchase of units in San Francisco are used — 20% down payment, 30 year fixed rate mortgage, property taxes, and homeowners or condominium association dues. The mortgage rate assumption was selected to cover a future average rate, 7% interest, recognizing that at the current time mortgages are available at lower rates. Also lesser down payments are currently achievable. However these terms are not likely to be available over the longer term.

A key assumption is that housing costs will, on average run about 35% of gross income. In recent years lending institutions have been more willing to accept higher than 35% for all debt as a share of income, but most households do have other forms of debt, such as auto loans, student loans, and credit card debt. Looking ahead, most analysts see a return to more conservative lending practices than those of the last few years. Housing costs are defined as mortgage payments and Homeowners Association dues and property taxes.

Table I-1 at the end of this section summarizes the analysis for the prototypical condo unit. The conclusion is that the purchaser of the \$580,000 prototypical unit must have an income of 138,400 per year. The ratio of sales price to income of the purchasing household is 4.2:1, which is to say that a condominium selling for \$420,000 would require a household income of \$100,000, using the assumptions of the analysis.

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## Rental Market Conditions

Development of new market rate apartments (with conventional financing) is generally not feasible in San Francisco and in most cities in the U.S. in the current cycle of the real estate development market due to a combination of factors. Over the past several years, historically low mortgage rates have propelled the homebuyer market, driving strong value escalations affecting all home ownership products from condominiums to single family detached homes, to vacation homes, etc. In addition, low mortgage rates have enabled renters to enter homeownership at unprecedented rates, leaving the rental housing stock with vacancies that have not been rapidly refilled due to weak job growth.

Over the past year, the number of home sales has decreased significantly and prices have leveled off or declined slightly in some markets (although there is little evidence of decline in San Francisco). Rents have trended upwards in the San Francisco in response to job growth, and would be first-time homebuyers are taking a “wait and see” approach to entry into the ownership market. If these trends continue or other conditions change, new rental buildings could become feasible again. In any case, the analysis must anticipate that at some point in the future, the market will produce new market rate rental projects subject to the inclusionary program.

## Prototypical Rental Units

For the purposes of the analysis, Prototype 5, which was identified and analyzed in the *Sensitivity Analysis* work program, was used as the prototypical rental unit for purposes of this analysis. (Information on Prototype 5 was presented to the Technical Advisory Committee, but was not, however, contained in the aforementioned *Summary Report*) KMA with assistance from MOH, San Francisco Redevelopment Agency, and developers active in the market, prepared an analysis to determine total development costs and the rent level required for project feasibility. With no recently constructed market rate rentals, rental survey information was of limited value. Required rents for new units are higher than current prevailing rents.

The prototypical apartment unit is similar to the condominium at 800 square feet but assumed to be constructed to lesser standards than the condominium in terms of finishes, appliances, and amenities. The cost to develop the unit was estimated at \$330,000 (including land and all indirect costs but excluding developer profit) requiring a rent of approximately \$2,544 per month, or just under \$3.20 per square foot per month. This rent level is higher than the average rent achieved at this time in projects in the greater eastern half of the City, south of Market Street, where most new development is expected to occur.

It is noted that tax exempt bond money has been used to develop rental projects that contain the 20% low income units required to qualify for the bonds. Units in these projects may rent for less (for the project to be feasible) due to the lower interest rates afforded by the tax exempt bonds.

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## Income of Apartment Renter

The assumption for relating annual rent to household income is 30%. For affordable units, utilities are included in the 30%; for market rate units, the 30% does not include utilities. While leasing agents and landlords may permit rental payments to represent a slightly higher share of total income, 30% represents an average, given that renters are likely to have other debt; also many renters do not choose to spend more than 30% of their income on rent, since, unlike ownership of a condominium, the unit is not viewed as an investment with value enhancement potential. The resulting relationship is that annual household income is 3.3 times annual rent. See Table I-2.

The conclusion with respect to the Prototype 5 apartment renter household in a newly constructed building is an income of slightly over \$100,000 per year.

## Disposable Income

The IMPLAN model used in this analysis uses disposable household income as the primary upfront input. To arrive at disposable income, gross income for residents of prototypical units must be adjusted downward to account for taxes and savings. Per KMA correspondence with the producers of the IMPLAN model (Minnesota IMPLAN Group), gross income is adjusted to disposable income for purposes of the model by deducting Federal and State Income taxes, Social Security and Medicare (FICA) taxes, and personal savings. Other taxes including sales tax, gas tax, and property tax are handled internally within the model.

Disposable income is estimated at approximately 69% of gross income in the case of the condominium owner. The assumption is based on a review of data from the Tax Policy Center (a joint venture of the Brookings Institution and the Urban Institute) and California Franchise Tax Board tax tables. Per the Tax Policy Center, households earning between \$100,000 and \$200,000 per year, or the residents of our prototypical condominium units, will pay an average of 15% of gross income for federal taxes. State taxes are estimated at 7% of gross income based on tax rates per the California Franchise Tax Board. The employee share of the FICA payroll taxes is 7.65% of gross income (conservatively assumes all earners in the household are within the \$94,200 ceiling on income subject to social security taxes).

Savings represent another adjustment from gross income to disposable income. Savings including various IRA and 401 K type programs are estimated at 1.3% of gross income based on the projected average for U.S. households per the 2006 RREEF report (a local real estate investment trust) "*Prospects for the U.S. Economy and Sectors*" and sourced to Global Insight a company that produces forecasts of market and economic data. This savings rate was also confirmed by a Federal Reserve Bank paper, sourced in the footnote of Table 1-3.

After deducting income taxes and savings, the disposable income factor for a condominium purchaser used in this analysis is 69%, for purposes of the IMPLAN model. This factor also works with higher incomes than the purchase income used in the analysis, because while the

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average federal and state tax burden goes up with income, FICA taxes go down since Social Security taxes apply only to income below \$94,200. As indicated above, other forms of taxation (including property tax) are handled internally within the model.

The disposable income for the prototypical renter household is based on the same evaluation, but for a lower income tax bracket. The renter household would be in a lower tax bracket, with the result that the renter would have a disposable income factor of 73%. The savings rate for the renter and owner were assumed to be the same.

In summary the gross income and disposable income of the households in the new market rate units presented in detail in Table I-4 with the results indicated below:

	New Condo Units	New Apartment Units
Average Gross Household Income of Buyers / Renters	\$138,400/year	\$102,000/year
Disposable Income	69%	73%
Average Disposable Household Income	\$95,500/year	\$74,000/year

### **“Pied a Terre” Units**

Before moving on to the next step of the analysis, it is important to acknowledge that there is some activity in the current market in sales of units as second homes or city “pied a terre” units. Based on a limited survey, it appears that the vast majority of such activity is occurring in the luxury price ranges, particularly in several new high rise towers now in marketing phases. Some of the towers report figures such as 10% to 20% of units being sold to buyers not for a primary place of residence. As a share of overall units built in the City 10% to 20% in a few individual projects represents a share closer to 2% to 4% of the total market.

In addition to second home sales representing a small share of the market overall, the prototype unit used in this analysis is at a far lower price unit than most of the units selling as second homes, which tend to be located in the luxury towers. The income of second home purchasers and all impacts attributable to the higher priced units would be substantially higher than the impacts attributable to the more modest priced unit used in the analysis. The net effect of second home purchasers (who do spend some income while in San Francisco) on the nexus being established in this analysis is negligible, in our opinion.

### **Summary**

Table I-4 summarizes the key assumptions and steps from the market rate residential price or rent level, to the annual income of the purchaser or renter household, to the disposable income of the household. The disposable income, used to consume goods and services, is the generator of jobs and ultimately the demand for more affordable housing for worker households.

**TABLE I-1  
 CONDOMINIUM UNITS  
 CONDO SALES PRICE TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

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			<u>Prototype Condo Unit</u>
Sales Price	\$725 /SF	800 SF	\$580,000
Mortgage Payment			
Downpayment @ 20%		20%	\$116,000
Loan Amount			\$464,000
Interest Rate			7.0%
Term of Mortgage			30 years
Annual Mortgage Payment			\$37,044
Other Costs			
HOA Dues	\$400 per month		\$4,800
Property Taxes	1.14% of sales price		\$6,600
Total Annual Housing Cost			<u>\$48,444</u>
% of Income Spent on Hsg			35%
Annual Income Required			\$138,412
Sales Price to Income Ratio			4.2

Source: KMA 2006 sensitivity analysis, prototype 1.

**TABLE I-2  
 RENTAL UNITS  
 ANNUAL RENT TO INCOME RATIO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

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			<u>Prototype Rental Unit</u>
Market Rent			
Monthly	\$3.18 /SF	800 SF	\$2,544
Annual			\$30,528
% of Income Spent on Rent (excludes utilities)			30%
Annual Household Income Required			\$101,760
Annual Rent to Income Ratio			3.3

Source: KMA 2006 sensitivity analysis, prototype 5.

**TABLE I-3  
DISPOSABLE INCOME<sup>1</sup>  
RESIDENTIAL NEXUS ANALYSIS  
ECONOMIC NEXUS ANALYSIS**

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	<b>Residents of Prototypical Condo Units</b>	<b>Residents of Prototypical Rental Units</b>
Gross Income	100%	100%
(Less) Average Federal Income Tax Rate <sup>2</sup>	15.3% (for AGI of 100k-200k)	11.6% (for AGI of 75k-100k)
(Less) FICA Tax Rate <sup>3</sup>	7.7%	7.7%
(Less) Average State Income Tax Rate <sup>4</sup>	7.0%	6.0%
(Less) Savings <sup>5</sup>	1.3%	1.3%
<b>Disposable Income (Input to IMPLAN model)</b>	<b>69%</b>	<b>73%</b>

Notes:

<sup>1</sup> As defined within the IMPLAN model. Includes all income except income taxes and savings

<sup>2</sup> Per the Urban-Brookings Tax Policy Center (joint venture between the Brookings Institution and the Urban Institute)

<sup>3</sup> Conservatively assumes all households will be below the ceiling applicable to social security taxes, currently \$94,200.

<sup>4</sup> Estimated by KMA based on marginal rates per the California Franchise Tax Board.

<sup>5</sup> Projected based on the forecast of average U.S. household savings rate included in the RREEF publication: *Prospects for the US Economy and Property Sectors*. Page 7. November 8, 2006. Savings rate is consistent with the average U.S. household savings rate in 2000 per Maki, Dean M. and Palumbo, Michael G. Federal Reserve System Working Paper No. 2001-21. *Disentangling the Wealth Effect: A Cohort Analysis of Household Savings in the 1990s*. April 2001.

**TABLE I-4  
RESIDENTIAL HOUSEHOLD SUMMARY  
RESIDENTIAL NEXUS ANALYSIS  
ECONOMIC NEXUS ANALYSIS**

		<u>Per Unit</u>	<u>Per Sq.Ft.</u>	<u>100 Unit Building Module</u>
<b>Low-Rise Market Condominium Prototype</b>				
Units				<b>100 Units</b>
Building Sq.Ft. (net rentable or salable area)		800	1	80,000
Sales Price		\$580,000	\$725	\$58,000,000
Sales Price to Income Ratio <sup>1</sup>		4.2		4.2
Gross Household Income		\$138,412	\$173.01	\$13,841,000
Disposable Household Income <sup>2</sup>	69% of gross	\$95,500	\$119.38	\$9,550,000
<b>Low-Rise Market Apartment Prototype</b>				
Units				<b>100 Units</b>
Building Sq.Ft. (net rentable or salable area)		800	1	80,000
Rent				
Monthly		\$2,544	\$3.18	\$254,400
Annual		\$30,528	\$38.16	\$3,052,800
Gross Household Income	30% allocated to rent	\$101,760	\$127.20	\$10,176,000
Disposable Household Income <sup>2</sup>	73% of gross	\$74,285	\$92.85	\$7,428,000

Notes:

<sup>1</sup> See Table I-1

<sup>2</sup> Estimated income available after deduction of federal income, state income, payroll taxes and savings. (Per discussions with the Minnesota IMPLAN group, sales tax and property tax are not deducted from disposable household income). See Table I-3.

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## SECTION II – THE IMPLAN MODEL

Consumer spending by residents of new residential buildings will create jobs, particularly in sectors such as restaurants, health care, and retail that are driven by the expenditures of residents. The widely used economic analysis tool, IMPLAN (IMPact Analysis for PLANning), was used to quantify these new jobs by industry sector.

### IMPLAN Model Description

The IMPLAN model is an economic analysis software package now commercially available through the Minnesota IMPLAN Group. IMPLAN was originally developed by the U.S. Forest Service, the Federal Emergency Management Agency, and the U.S. Department of the Interior Bureau of Land Management and has been in use since 1979 and refined over time. It has become a widely used tool for analyzing economic impacts from a broad range of applications from major construction projects to natural resource programs.

IMPLAN is based on an input-output accounting of commodity flows within an economy from producers to intermediate and final consumers. The model establishes a matrix of supply chain relationships between industries and also between households and the producers of household goods and services. Assumptions about the portion of inputs or supplies for a given industry likely to be met by local suppliers, and the portion supplied from outside the region or study area are derived internally within the model using data on the industrial structure of the region.

The output or result of the model is driven by tracking how changes in purchases for final use (final demand) filter through the supply chain. Industries that produce goods and services for final demand or consumption must purchase inputs from other producers, which in turn, purchase goods and services. The model tracks these relationships through the economy to the point where leakages from the region stop the cycle. This allows the user to identify how a change in demand for one industry will affect a list of over 500 other industry sectors. The projected response of an economy to a change in final demand can be viewed in terms of economic output, employment, or income.

Data sets are available for each county and state, so the model can be tailored to the specific economic conditions of the region being analyzed. This analysis utilizes the data set for San Francisco City and County. The City is, of course, part of a larger regional economy and impacts will likewise extend throughout the region. However, consistent with the conservative approach taken in quantifying the nexus, only employment impacts occurring within the City of San Francisco have been included.

Economic impacts estimated using the IMPLAN model are divided into three categories:

- *Direct Impacts* – are associated with the direct final demand changes. A relevant example is restaurant employment created when households in new residential buildings

spend money dining out. Employment at the restaurant would be considered a direct impact.

- *Indirect Impacts* – are those associated with industries down the supply chain from the industry experiencing the direct impact. With the restaurant example, indirect impacts would include employment at food wholesalers, kitchen suppliers, and producers of agricultural products. Since the analysis has been run for San Francisco, only jobs located in San Francisco are counted.
- *Induced Impacts* – are generated by the household spending induced by direct and indirect employment. Again using the restaurant example, induced impacts would include employment generated when restaurant, food wholesaler and kitchen suppliers spend their earnings in the local economy.

We have summarized the results of the analysis separately for direct impacts alone and including all direct, indirect and induced impacts.

### Application of the IMPLAN Model to Estimate Job Growth

IMPLAN has been applied to link household consumption expenditures to job growth occurring in San Francisco. Employment generated by the consumer spending of residents has been analyzed in our prototypical 100-unit buildings. The IMPLAN model distributes spending among various types of goods and services (industry sectors) based on data from the Consumer Expenditure Survey and the Bureau of Economic Analysis Benchmark input-output study to estimate direct, indirect, and induced employment generated. Job creation, driven by increased demand for products and services, is projected for each of the industries which serve the new households. The employment generated by this new household spending is summarized below.

### Estimated Employment Growth Per IMPLAN

	Per 100 Market Rate Units	
	Condos	Rental
<b>Disposable Household Income</b>	\$9,550,000	\$7,428,000
<b>Employment Generated Per IMPLAN (jobs)</b>		
Direct	49.4	38.4
Indirect & Induced	<u>39.3</u>	<u>30.6</u>
Total	88.7	69.0

Table II-1 provides a detailed summary of direct employment by industry. The table shows industries sorted by projected employment. Estimated employment is shown for each IMPLAN industry sector representing 1% or more of employment.

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As discussed previously, the analysis separately analyzes the nexus considering only direct impacts and with including total direct, indirect, and induced impacts. Considering total impacts yields approximately 80% more employees than considering direct impact alone.

Only employment growth occurring within San Francisco City and County has been included. Residents of new market-rate condo and apartment buildings will generate jobs that produce demand for units for worker households employed throughout San Francisco Bay Area and beyond. However, as discussed above, the analysis conservatively limits the nexus to the City and County of San Francisco.

**TABLE II-1  
 IMPLAN MODEL OUTPUT  
 EMPLOYMENT GENERATED  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

	Per 100 Market Rate Units					
	Direct Impacts Only			Direct, Indirect & Induced Impacts		
	Condos	Rentals	% of Jobs <sup>3</sup>	Condos	Rentals	% of Jobs <sup>3</sup>
<b>Disposable Income of New Residents</b> (after taxes & savings <sup>1</sup> )	\$9,550,000	\$7,428,000		\$9,550,000	\$7,428,000	
<b>Employment Generated by Industry<sup>2</sup></b>						
Food services and drinking place:	7.4	5.7	15%	10.0	7.8	11%
Offices of physicians- dentists- and other health	3.1	2.4	6%	3.9	3.1	4%
Hospitals	3.0	2.3	6%	3.7	2.9	4%
Private household:	2.3	1.8	5%	2.8	2.2	3%
Social assistance- except child day care service	2.2	1.7	4%	2.7	2.1	3%
Wholesale trade	1.8	1.4	4%	3.0	2.4	3%
Nursing and residential care facilities:	1.8	1.4	4%	2.2	1.7	2%
Automotive repair and maintenance- except car wa:	1.8	1.4	4%	2.3	1.8	3%
Food and beverage store:	1.8	1.4	4%	2.4	1.8	3%
Hotels and motels:	1.7	1.3	3%	2.2	1.7	2%
Religious organization:	1.5	1.2	3%	1.9	1.5	2%
General merchandise store:	1.2	0.9	2%	1.5	1.2	2%
Miscellaneous store retailer:	1.0	0.8	2%	1.4	1.1	2%
Elementary and secondary school	1.0	0.8	2%	1.2	0.9	1%
Clothing and clothing accessories store:	1.0	0.7	2%	1.3	1.0	1%
Child day care service:	0.9	0.7	2%	1.1	0.8	1%
Insurance carriers	0.8	0.6	2%	1.3	1.0	1%
Other ambulatory health care service	0.8	0.6	2%	1.0	0.8	1%
Health and personal care store:	0.7	0.6	2%	1.0	0.8	1%
Other educational service:	0.6	0.5	1%	0.0	0.0	0%
Sporting goods- hobby- book and music store	0.6	0.5	1%	0.0	0.0	0%
Nonstore retailers:	0.6	0.4	1%	0.0	0.0	0%
Other amusement- gambling- and recreatio	0.5	0.4	1%	0.0	0.0	0%
Legal services:	0.5	0.4	1%	1.2	0.9	1%
Building material and garden supply store	0.5	0.4	1%	0.0	0.0	0%
State & Local Educator	0.0	0.0	0%	4.3	3.4	5%
State & Local Non-Educator	0.0	0.0	0%	2.2	1.7	3%
Fitness and recreational sports center:	0.0	0.0	0%	1.6	1.3	2%
Custom computer programming service:	0.0	0.0	0%	1.4	1.1	2%
Employment service:	0.0	0.0	0%	1.0	0.8	1%
Services to buildings and dwelling:	0.0	0.0	0%	1.0	0.8	1%
Other Industries	10.5	8.2	21%	29.1	22.6	33%
	49.4	38.4	100%	88.7	69.0	100%

<sup>1</sup> The IMPLAN model tracks how increases in consumer spending creates jobs in the local economy. See Tables I-4 for estimates of the disposable income available to residents of the prototypical 100 unit buildings.

<sup>2</sup> For Industries representing more than 1% of total employment.

<sup>3</sup> Applies to both rental and condominium units.

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## SECTION III – THE NEXUS MODEL

This section presents a summary of the analysis linking the employment growth associated with residential development or the output of the IMPLAN model (see Section II) to the estimated number of lower income housing units required.

### Analysis Approach and Framework

The analysis approach is to examine the employment growth for industries related to consumer spending by residents of the 100-unit residential building modules. Then, through a series of linkage steps, the number of employees is converted to the number of lower income households or housing units. The findings are expressed in terms of numbers of lower income households related to the 100-unit building module.

The analysis addresses affordable unit demand associated with both condominium and rental units in San Francisco. The table below shows the income limits for “lower income households,” defined as households from zero through 120% of median income. The median income definition is for San Francisco, not for a multi county region, per the amendments to the San Francisco Inclusionary Program enacted in the summer of 2006. The median income definition for San Francisco, described in the *Sensitivity Analysis* report, is at approximately 92% of the three county region (Primary Metropolitan Statistical Area defined as San Francisco, San Mateo and Marin) median income published annually by the U.S. Department Housing and Urban Development, adjusted based on information in the U.S. Census 2000. MOH will annually establish and publish the median income for San Francisco for a range of household sizes.

The nexus model was configured for this San Francisco application to produce findings for households with incomes from zero through 120% of median. The income range is consistent with the range of incomes covered in the Inclusionary Program in San Francisco and the range of incomes assisted by the City’s housing programs overall.

The current 2006 income definitions used in this analysis are:

	Household Size					
	1	2	3	4	5	6 +
<b>SF Income Limits</b>						
120% of SF Median	\$73,350	\$83,800	\$94,300	\$104,750	\$113,150	\$121,500

The analysis is conducted using a model that KMA has developed for application in many other jurisdictions for which the firm has conducted similar analyses of jobs and housing demand analyses. This same model was utilized by KMA in 1996 in preparing the analysis in support of the Jobs Housing Linkage Program, contained in Section 313 of the San Francisco Code. (Jobs Housing Nexus Analysis, prepared for City and County of San Francisco, Keyser Marston Associates, Inc., Gabriel Roche, Inc., 1997.)

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The model inputs are all local data to the extent possible, and are fully documented in the following description.

## **Analysis Steps**

Tables III-1 through III-5 at the end of this section present a summary of the nexus analysis steps for the condominium and rental prototype units. Following is a description of each step of the analysis:

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

The first step in Table III-1 commences with the total number of employees associated with the new market rate unit. The employment figures applied here are estimated based on household expenditures of new residents using the IMPLAN model. The 100-unit condo building is associated with 49 new direct jobs and 89 total direct, indirect, and induced jobs. The prototype rental building is associated with 38 new direct jobs and 69 total direct, indirect, and induced jobs.

### ***Step 2 – Adjustment from Employees to Employee Households***

This step (Table III-1) converts the number of employees to the number of employee households. 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 worker household ratio eliminates from the equation all non-working households, such as retired persons, students, and those on public assistance. The San Francisco average of 1.63 workers per worker households (from the U. S. Census 2000) is used in the analysis. The number of jobs is divided by 1.63 to determine the number of worker households. (By comparison, average household size is a lower ratio because all households are counted in the denominator, not just worker households; using average household size produces greater demand for housing units.)

### ***Step 3 – Occupational Distribution of Employees***

The occupational breakdown of employees is the first step to arrive at income level. The output from the IMPLAN model provides the number of employees by industry sector. The IMPLAN output is paired with data from the Department of Labor, Bureau of Labor Statistics 2005 Occupational Employment Survey (OES) to estimate the occupational composition of employees for each industry sector.

Pairing of OES and IMPLAN data was accomplished by matching IMPLAN industry sector codes with the four-digit NAICS industry codes used in the OES. Each IMPLAN industry sector is associated with one or more North American Industry Classification System Codes (NAICS), with matching NAICS codes ranging from two to five digits. Employment for IMPLAN sectors with multiple matching NAICS codes were distributed among the matching codes based on the distribution of employment among those industries at the national level. Employment for

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IMPLAN sectors where matching NAICS codes were only at the two or three-digit level of detail was distributed using a similar approach among all of the corresponding four-digit NAICS codes falling under the broader two or three-digit categories.

National-level employment totals for each industry within the Occupational Employment Survey were pro-rated to match the employment distribution projected using the IMPLAN model. Occupational composition within each industry was held constant. The result is the estimated occupational mix of employees.

As shown on Table III-1, new jobs will be distributed across a variety of occupational categories. The three largest occupational categories are food preparation and serving (16%), office and administrative support (14%), and sales (13%).

The numbers in Step #3 (Table III-1) indicate both the percentage of total employee households and the number of employee households by occupation associated with our hypothetical 100-unit market rate residential buildings.

#### ***Step 4 - Estimates of Employee Households Meeting the Lower Income Definitions***

In this step, occupation is translated to income based on recent San Francisco PMSA wage and salary information (defined as San Francisco, Marin, and San Mateo Counties) from the California Employment Development Department (EDD). The wage and salary information indicated in Appendix Tables 2 and 4 provide the income inputs to the model. This step in the analysis calculates the number of lower income households for each size household.

Individual *employee* income data was used to calculate the number of lower income *households* by assuming that multiple earner households are, on average, formed of individuals with similar incomes. Employee households not falling into one of the major occupation categories per Appendix Tables 1 and 3 were assumed to have the same income distribution as the major occupation categories.

#### ***Step 5 - 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 the City. The household size distribution utilized in the analysis is that of worker households in San Francisco City and County derived using a combination of Census sources.

#### ***Step 6 - Estimate of Households that meet Size and Income Criteria***

For this step KMA built a cross-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 size level applicable to San Francisco's income limits. This step is performed for each occupational category and multiplied by the number of households. Table III-2 shows the

result after completing Steps #4, #5, and #6. The calculated numbers of lower income households shown in Table III-2 are for rental projects. The methodology is repeated for condo projects (See Table III-3). At the end of these steps we have counted the worker households generated by our 100-unit prototypical residential buildings.

## Summary Findings

Table III-4 indicates the results of the analysis for the two-prototypical 100-unit buildings. The summary indicates the number of new lower income households per 100 market rate units.

Based on the results in Tables III-2, 3, and 4, approximately 80% of households are “lower income.” The finding that the jobs associated with consumer spending tend to be low paying jobs where the workers will require housing affordable at lower than market rate is not surprising. As noted above, employment is concentrated in lower paid occupations including food preparation, administrative, and retail sales occupations as well as jobs in the service sectors.

Many of the higher paying occupations in San Francisco are not directly tied to consumer spending by San Francisco residents and therefore have miniscule representation in the analysis. Financial and professional services firms, for example, largely export their products and services outside of the City, mostly to the Northern California region, but also beyond.

In summary, for every 100 market rate condominium units, there are 25.0 lower income households generated through the direct impact of the consumption of the condominium buyers. If indirect and induced impacts are included, as many as 43.31 households result. For rental projects, demand for 19.44 housing units is generated or 33.68 units including indirect and induced employees.

## Comparison of Analysis Results to Inclusionary Program

The analysis findings identify how many lower income households are generated for every 100 market rate units.

The table below adjusts these figures to percentages for purposes of comparison to “inclusionary” type requirements of total units. The percentages are calculated including both market rate and affordable units (for example, to convert 25.0 affordable units per 100 market rate units into a percentage, 25.0 is divided into 125, which equals 20%.)

<b>Supported Inclusionary Requirement</b>	<b>Direct Impacts Only</b>	<b>Direct, Indirect &amp; Induced Impacts</b>
Condos – Supported Inclusionary Requirement	20%	30.2%
Rentals – Supported Inclusionary Requirement	16.3%	25.2%

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In other words, San Francisco's 15% base inclusionary required is supported by direct impacts for both condominium and rental units.

### **Calculation of Supported In-Lieu Fee**

The San Francisco inclusionary ordinance includes an option to provide affordable housing off-site, or to pay an in-lieu fee. The off-site and in-lieu fee percent of units required increases from the base requirement of 15% to 20%. The increased percentage for off-site and in-lieu is grounded in the City policy objective to have dispersed affordable units within buildings and throughout the City. Since off-site compliance or payment of an in-lieu fee does not meet the policy objective, the City has elected to require a higher percentage to offset the less desirable compliance.

The maximum in-lieu fee supported by the nexus analysis may be calculated by multiplying the number of affordable units supported by the nexus by the current affordability gap. The affordability gap is the cost to provide the affordable housing and is equal to the difference between the value of an affordable unit based on allowable sales price or rent and the cost to develop the unit. MOH annually publishes affordability gap fees for condominium units. The affordability gap will vary based on the number of bedrooms in the units and whether the affordable units are ownership or rental.

### **Effect of Unit Size on Nexus Findings**

The nexus findings are based on 800 square foot prototype units. Smaller or larger prototypes would have produced findings indicating a smaller or larger impact on the number of households within affordable income limits respectively. This is because households that purchase or rent smaller units on average have lower incomes than those that purchase or rent larger units. The structure of the inclusionary ordinance addresses this issue by varying the mitigation requirements based on unit size. Inclusionary units are required to have the same number of bedrooms as the market rate units. Larger market rate units therefore require larger affordable units and smaller market rate units require smaller affordable units.

**TABLE III-1  
NET NEW HOUSEHOLDS AND OCCUPATION DISTRIBUTION  
EMPLOYEE HOUSEHOLDS GENERATED  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO**

**PER 100 UNITS OF RESIDENTIAL HOUSING**

	Per 100 Market Rate Units			
	Direct Impacts Only		Direct, Indirect & Induced Impacts	
	Condo Units	Rental Units	Condo Units	Rental Units
Step 1 - Employees <sup>1</sup>	49	38	89	69
Step 2 - Adjustment for Number of Households (1.63)	30	24	54	42
Step 3 - Occupation Distribution <sup>2</sup>				
Management Occupations	3%	3%	4%	4%
Business and Financial Operations	2%	2%	4%	4%
Computer and Mathematical	1%	1%	2%	2%
Architecture and Engineering	0%	0%	1%	1%
Life, Physical, and Social Science	0%	0%	1%	1%
Community and Social Services	3%	3%	2%	2%
Legal	1%	1%	1%	1%
Education, Training, and Library	6%	6%	7%	7%
Arts, Design, Entertainment, Sports, and Media	1%	1%	1%	1%
Healthcare Practitioners and Technicians	8%	8%	6%	6%
Healthcare Support	4%	4%	3%	3%
Protective Service	1%	1%	2%	2%
Food Preparation and Serving Related	16%	16%	12%	12%
Building and Grounds Cleaning and Maintenance	3%	3%	3%	3%
Personal Care and Service	5%	5%	4%	4%
Sales and Related	13%	13%	11%	11%
Office and Administrative Support	14%	14%	16%	16%
Farming, Fishing, and Forestry	0%	0%	0%	0%
Construction and Extraction	0%	0%	2%	2%
Installation, Maintenance, and Repair	4%	4%	4%	4%
Production	3%	3%	2%	2%
Transportation and Material Moving	5%	5%	5%	5%
Other / Not Identified	<u>7%</u>	<u>7%</u>	<u>7%</u>	<u>7%</u>
<b>Totals</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Management Occupations	1.0	0.8	2.2	1.7
Business and Financial Operations	0.6	0.5	1.9	1.5
Computer and Mathematical	0.2	0.2	1.2	0.9
Architecture and Engineering	0.0	0.0	0.5	0.4
Life, Physical, and Social Science	0.1	0.1	0.4	0.3
Community and Social Services	0.9	0.7	1.3	1.0
Legal	0.2	0.1	0.5	0.4
Education, Training, and Library	1.8	1.4	3.8	3.0
Arts, Design, Entertainment, Sports, and Media	0.4	0.3	0.8	0.6
Healthcare Practitioners and Technicians	2.4	1.8	3.2	2.5
Healthcare Support	1.2	0.9	1.6	1.2
Protective Service	0.2	0.2	0.9	0.7
Food Preparation and Serving Related	4.8	3.8	6.7	5.2
Building and Grounds Cleaning and Maintenance	0.8	0.6	1.7	1.4
Personal Care and Service	1.6	1.2	2.1	1.7
Sales and Related	4.0	3.1	6.1	4.8
Office and Administrative Support	4.4	3.4	8.5	6.6
Farming, Fishing, and Forestry	0.0	0.0	0.1	0.0
Construction and Extraction	0.1	0.1	0.9	0.7
Installation, Maintenance, and Repair	1.2	0.9	2.0	1.6
Production	0.8	0.6	1.3	1.0
Transportation and Material Moving	1.6	1.3	2.8	2.2
Other / Not Identified	<u>2.1</u>	<u>1.6</u>	<u>3.8</u>	<u>3.0</u>
<b>Totals</b>	<b>30.3</b>	<b>23.6</b>	<b>54.4</b>	<b>42.3</b>

**Notes:**

<sup>1</sup> Estimated employment generated by household expenditures within the prototypical 100 unit market rate buildings. Employment estimates are based on the IMPLAN Group's economic model, IMPLAN, for San Francisco City and County. See Table II-1.

<sup>2</sup> See Appendix Tables 1, 2, 3, and 4 for additional information from which the percentage distributions were derived.

**TABLE III-2  
 LOWER INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED - CONDOS  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

**PER 100 MARKET RATE CONDO UNITS**

	<u>Direct Impacts Only</u>	<u>Direct, Indirect &amp; Induced Impacts</u>
<b>Step 4, 5, &amp; 6 - Lower Income Households<sup>1</sup> within Major Occupation Categories<sup>2</sup></b>		
Management	0.13	0.23
Business and Financial Operations	0.25	0.67
Computer and Mathematical	-	0.18
Architecture and Engineering	-	-
Life, Physical and Social Science	-	-
Community and Social Services	0.66	0.98
Legal	-	-
Education Training and Library	1.36	2.80
Arts, Design, Entertainment, Sports, & Media	-	0.54
Healthcare Practitioners and Technical	0.52	0.71
Healthcare Support	1.18	1.55
Protective Service	-	0.73
Food Preparation and Serving Related	4.82	6.71
Building Grounds and Maintenance	0.77	1.73
Personal Care and Service	1.56	2.11
Sales and Related	3.84	5.86
Office and Admin	4.05	7.96
Farm, Fishing, and Forestry	-	-
Construction and Extraction	-	0.50
Installation Maintenance and Repair	0.75	1.27
Production	0.74	1.22
Transportation and Material Moving	1.60	2.78
Total Lower Income Households - Major Occupations	<u>22.25</u>	<u>38.54</u>
Lower Income Households <sup>1</sup> - "all other" occupations	2.75	4.77
<b>Total Lower Income Households<sup>1</sup></b>	<b><u>25.00</u></b>	<b><u>43.31</u></b>

<sup>1</sup> Includes households earning from zero through 120% of San Francisco Median Income.

<sup>2</sup> See Appendix Tables 1 and 3 for additional information on Major Occupation Categories.

**TABLE III-3  
 LOWER INCOME EMPLOYEE HOUSEHOLDS<sup>1</sup> GENERATED - RENTAL  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

**PER 100 MARKET RATE RENTAL UNITS**

	<u>Direct Impacts Only</u>	<u>Direct, Indirect &amp; Induced Impacts</u>
<b>Step 4, 5, &amp; 6 - Lower Income Households<sup>1</sup> within Major Occupation Categories<sup>2</sup></b>		
Management	0.10	0.18
Business and Financial Operations	0.20	0.52
Computer and Mathematical	-	0.14
Architecture and Engineering	-	-
Life, Physical and Social Science	-	-
Community and Social Services	0.52	0.76
Legal	-	-
Education Training and Library	1.06	2.17
Arts, Design, Entertainment, Sports, & Media	-	0.42
Healthcare Practitioners and Technical	0.41	0.55
Healthcare Support	0.91	1.21
Protective Service	-	0.57
Food Preparation and Serving Related	3.75	5.22
Building Grounds and Maintenance	0.60	1.34
Personal Care and Service	1.21	1.64
Sales and Related	2.99	4.56
Office and Admin	3.15	6.19
Farm, Fishing, and Forestry	-	-
Construction and Extraction	-	0.39
Installation Maintenance and Repair	0.58	0.99
Production	0.57	0.95
Transportation and Material Moving	1.25	2.16
Total Lower Income Households - Major Occupations	<u>17.30</u>	<u>29.98</u>
Lower Income Households <sup>1</sup> - "all other" occupations	2.14	3.71
<b>Total Lower Income Households<sup>1</sup></b>	<b><u>19.44</u></b>	<b><u>33.68</u></b>

<sup>1</sup> Includes households earning from zero through 120% of San Francisco Median Income.

<sup>2</sup> See Appendix Tables 1 and 3 for additional information on Major Occupation Categories.

**TABLE III-4  
 IMPACT ANALYSIS SUMMARY  
 EMPLOYEE HOUSEHOLDS GENERATED  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

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**RESIDENTIAL UNIT DEMAND IMPACTS  
 PER 100 MARKET RATE UNITS**

	<u>Direct Impacts Only</u>	<u>Direct, Indirect &amp; Induced Impacts</u>
<b>Number of New Lower Income Households<sup>1</sup></b>		
Per 100 Market Rate Condo Units	25.00	43.31
Per 100 Market Rate Rental Units	19.44	33.68

Notes:

<sup>1</sup> Includes households earning from zero through 120% of San Francisco Median Income.

**TABLE III-5  
 INCLUSIONARY REQUIREMENT SUPPORTED  
 EMPLOYEE HOUSEHOLDS GENERATED  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

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**SUPPORTED INCLUSIONARY PERCENTAGES<sup>1</sup>**

	<u>Direct Impacts Only</u>	<u>Direct, Indirect &amp; Induced Impacts</u>
<b>Percent Lower Income Households<sup>2</sup></b>		
Condos	20.0%	30.2%
Rentals	16.3%	25.2%

Notes:

<sup>1</sup> Calculated by dividing affordable unit demand impacts shown on Table III-4 by the total number of units including both the affordable units and the 100 market rate units in the prototypical buildings which creates demand for the affordable units.

<sup>2</sup> Includes households earning from zero through 120% of San Francisco Median Income.

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## SECTION IV – NON-DUPLICATION OF JOBS HOUSING LINKAGE FEE

Since the mid 1980's San Francisco has had a jobs-housing linkage fee adopted to help mitigate the impacts of new jobs associated with the development of new office buildings on the demand for affordable housing in San Francisco. The program, originally called the OAHPP (or Office Affordable Housing and Production Program) was expanded in the late 1990's to also include retail and hotel buildings. The nexus analysis which supports the updated program was prepared by KMA and is summarized in a 1997 report. That analysis was based on similar logic to this analysis: new workplace buildings are associated with new jobs some of which do not pay well enough for the new worker households to afford housing in San Francisco. This section addresses the issue of possible over-lap or double counting of impacts between this residential nexus and the jobs-housing linkage fee.

To briefly summarize the Jobs Housing Nexus Analysis, the logic begins with jobs located in new workplace buildings such as office buildings, retail spaces and hotels. The nexus analysis then identifies the compensation structure of the new jobs depending on the building type, the income of the new worker households, and the housing affordability level of the new worker households, concluding with the number of new worker households in the lower income affordability levels. In this analysis, there are no indirect or induced impacts, and no multipliers; only the jobs within the workplace buildings themselves are counted.

Some of the jobs which are counted in the Jobs Housing Nexus Analysis are also counted in the Residential Nexus Analysis. The overlap potential exists in jobs generated by direct expenditures of San Francisco residents, such as expenditures for food, personal services, restaurant meals and entertainment. Many jobs counted in the residential nexus are not addressed in the jobs housing analysis at all. For example, school and government employees are counted in the residential nexus analysis but are not counted in the jobs housing analysis which is limited to private sector office buildings, retail and hotel projects.

There is theoretically a set of conditions in which 100% of the jobs counted for purposes of the jobs-housing linkage fee are also counted for purposes of the residential nexus analysis. For example, a small retail store or restaurant might be located on the ground floor of a new condominium building and entirely dependant upon customers from the condominiums in the floors above. The commercial space on the ground floor pays the housing impact fee and the condominiums are subject to the Inclusionary Program. In this special case, the two programs mitigate the affordable housing demand of the very same workers. The combined requirements of the two programs to provide inclusionary units and fund construction of affordable units must not exceed 100% of nexus or the total demand for affordable units of employees in the new commercial space.

Complete overlap between jobs counted in the Jobs Housing Nexus Analysis and jobs counted in the Residential Nexus Analysis could occur only in a very narrow set of circumstances. The following analysis demonstrates that the combined mitigation requirements do not exceed nexus

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even if every job counted in the Residential Nexus Analysis is also counted in the Jobs Housing Nexus Analysis.

### **Jobs-Housing Fee Requirement as a Percent of Nexus**

The San Francisco Jobs Housing Nexus Analysis report was prepared by KMA during 1995 and 1996 (the final report date is 1997). To evaluate the combined programs today an update of the affordability gap figures was deemed appropriate since costs of residential development have increased so substantially since the analysis was prepared in the mid 1990's. The profile of job generation by affordability level, on the other hand, does not change much over time since both compensation levels and median income tend to rise more or less together. Tables IV-3 through IV-5 present the updated affordability gap estimates, drawn from the Sensitivity Analysis work for the Inclusionary Program by KMA spring 2006.

The conclusions of the Jobs Housing Nexus Analysis expressed as the number of new worker households by affordability level is summarized in Table IV -1. It is important to note that the number of worker households shown on the table is after an adjustment factor of 55%. The Jobs Housing Nexus Analysis starts with all the jobs in new workplace buildings. Recognizing that many jobs, especially those in the downtown area, are not held by city residents, an adjustment was made per the existing relationship of 45% commuters/55% city residents. Since it is a matter of policy, for nexus purposes, as to how many of its workers a city sets the goal of accommodating within its borders, the 45%/55% relationship could have readily been different.

The following table summarizes the total nexus cost per square foot using current affordability gap levels, drawn from Table IV-1. The total nexus cost is the maximum mitigation amount, or maximum fee that could be charged, supported by the analysis (after the 55% adjustment) The current fee charged by the City of San Francisco is indicated below and shown as a percent of the nexus cost.

	<b>Office</b>	<b>Retail</b>	<b>Hotel</b>
Updated Nexus Cost (Per Sq.Ft.)	\$130.48	\$113.09	\$88.27
Current Fee (Per Sq.Ft.)	\$14.96	\$13.95	\$11.21
Percent of Nexus Cost	11%	12%	13%

The conclusion is that the current fee levels represent 11% to 13% of the updated nexus cost, using current affordability gap figures. So, the jobs-housing fee mitigates approximately 11% to 13% of the demand for affordable units generated by the new commercial space.

### **Inclusionary Requirement Mitigation as a Percent of Nexus**

The Inclusionary Housing Program requires that 15% of all units be affordable to lower income households. For comparing the Inclusionary Program and the findings of the residential nexus

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analysis, a common denominator is required. Table IV-2 shows the Inclusionary Program requirement of 15% expressed in two different ways – per 100 market rate units and per 85 market rate units.

If there were 100 market rates units then 17.65 units are required to be affordable (17.65 is 15% of 117.65 units) to meet the 15% on-site requirement. The Residential Nexus Analysis conclusions support 43.31 affordable condominiums or (33.68 rental units) for every 100 market rate units, or well over the 17.65 level.

The more familiar way of looking at the 15% Inclusionary Program requirement is for every 85 market rate units, 15 affordable units are required, totaling 100 units. If the Residential Nexus Analysis conclusions are adjusted for 85 market rate units, the same relationship exists.

The conclusion is that the Inclusionary Program is charging 41% to 52% of the maximum supported by the analysis.

### **Combined Requirements within Nexus**

The Jobs Housing Impact fee is at 11% to 13% of the supported nexus amount and the Inclusionary Housing Program requirement is at 41% to 52% of the supported nexus amount; therefore, the combined affordable housing mitigations would not exceed nexus even if there were 100% overlap in the jobs counted in the two nexus analyses.

To return to the example of a restaurant on the ground floor of a new condominium building, say there are a total of 30 new restaurant employees of which 20 are in lower income households. The 20 employees in lower income households are counted (or double counted) in both the Jobs Housing and Residential Nexus analyses. If the jobs housing impact fee mitigates the affordable housing demand of three of the employees (15% x 20) and the Inclusionary Program mitigates the housing demand for another ten employees (50% x 20), then together the two programs mitigate the housing demand of 13 out of 20 lower income employees. The combined requirements of the two programs satisfy the nexus test by not mitigating more than 100% of the housing demand. Extending this logic, the affordable housing demand mitigated by the Inclusionary Program and the housing impact fee as a percent of their respective nexus analyses can be added together to test whether the combined requirements would exceed 100% of nexus if the two analyses counted (or double counted) all the same demand for affordable housing.

**TABLE IV-1  
 JOBS HOUSING LINKAGE FEE AS A PERCENT OF NEXUS  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO**

**1997 JOBS HOUSING NEXUS ANALYSIS WITH UPDATED AFFORDABILITY GAPS**

	Employee Households Per 100,000 SF of Building Area			Updated Affordability Gap Per Unit	Nexus Cost Per Square Foot of Building Area			
	Office	Retail	Hotel		Office	Retail	Hotel	
Very Low (<50% Median)	11	10	8	\$341,000 <sup>1</sup>	\$37.51	\$34.10	\$27.28	
Low (50% - 80% Median)	16	16	12	\$217,000 <sup>2</sup>	\$34.72	\$34.72	\$26.04	
Moderate (80% - 120% Median)	<u>25</u>	<u>19</u>	<u>15</u>	\$233,000 <sup>3</sup>	<u>\$58.25</u>	<u>\$44.27</u>	<u>\$34.95</u>	
<b>Total through 120% of AMI</b>	<b>52</b>	<b>45</b>	<b>35</b>		<b>\$130.48</b>	<b>\$113.09</b>	<b>\$88.27</b>	
					<b>Current Jobs-Housing Linkage Fee</b>	\$14.96	\$13.95	\$11.21
					<b>Current Fee as Percent of Nexus</b>	<b>11%</b>	<b>12%</b>	<b>13%</b>

**Notes:**

- <sup>1</sup> Assumes rental housing (apartment unit). Gap based on 35% SF Median. See Table IV.
- <sup>2</sup> Assumes rental housing (apartment unit). Gap based on 70% SF Median. See Table IV.
- <sup>3</sup> Assumes ownership housing (condominium unit). Gap based on 100% SF Median. See Table IV-3.

Source: Keyser Martson Associates and Gabriel Roche, Inc. 1997 *Jobs Housing Nexus Analysis, City of San Francisco*. Prepared for the Office of Affordable Housing Production Program (OAHPP) City and County of San Francisco.

**TABLE IV-2  
RESIDENTIAL MITIGATION AS A PERCENT OF NEXUS  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO**

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**RESIDENTIAL NEXUS  
AFFORDABLE UNITS**

	<b>100 Market Rate Units</b>		<b>85 Market Rate Units</b>	
	<b><u>Condos</u></b>	<b><u>Rental</u></b>	<b><u>Condos</u></b>	<b><u>Rental</u></b>
Mitigation: Required Affordable Units (15%) <sup>1</sup>	17.65	17.65	15.00	15.00
Nexus Supported: Number of Lower Income Households <sup>2</sup>	43.31	33.68	36.81	28.63
<b>Mitigation as Percent of Nexus</b>	<b>41%</b>	<b>52%</b>	<b>41%</b>	<b>52%</b>

Notes:

<sup>1</sup> A 15% Inclusionary requirement equates to 17.65 affordable units for every 100 market rate units (17.65 / 117.65 = 15%).

<sup>2</sup> See Table III-4, based on direct, indirect and induced.

**TABLE IV-3  
AFFORDABILITY GAPS  
UPDATED AFFORDABILITY GAPS FOR JOBS-HOUSING NEXUS  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO**

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	Prototype 1 <sup>1</sup> <u>Low Rise Condos</u>	Prototype 2 <sup>1</sup> <u>Mid Rise Condos</u>	Blended Condo <u>50% Low, 50% Mid</u>	Prototype 5 <sup>1</sup> <u>Low Rise Rental</u>
<b>Development Cost</b>				
Average Unit Size <sup>2</sup>	800 SF	800 SF	800 SF	800 SF
Development Cost per Net Sq. Ft.	\$550 /SF	\$589 /SF	\$570 /SF	\$412 /SF
Development Cost per Unit	\$440,000	\$471,000	\$455,500	\$330,000

**Affordability Gaps**

***Low Income (35% SF Median)***

Affordable Unit Value <sup>3</sup>				(\$10,685)
<b>Gap</b>				<b>\$340,685</b>

***70% SF Median***

Affordable Unit Value / Sales Price <sup>3</sup>				\$113,120
<b>Gap</b>				<b>\$216,880</b>

***Median Income (100% SF Median)***

Affordable Sales Price <sup>3</sup>			\$222,645	
<b>Gap</b>			<b>\$232,855</b>	

Notes:

<sup>1</sup> Based on KMA sensitivity analysis prototypes 1, 2, and 5 with costs adjusted to reflect affordable units.

<sup>2</sup> KMA sensitivity analysis prototype 2 modified to reflect the same square footage as the low-rise unit.

<sup>3</sup> See Tables IV-4 and IV-5.

**TABLE IV-4  
VALUE OF AFFORDABLE RENTAL UNITS  
UPDATED AFFORDABILITY GAPS FOR JOBS-HOUSING NEXUS  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO**

Unit Mix	<u>Studio</u> 15%	<u>1 Bedroom</u> 60%	<u>2 Bedroom</u> 25%	<u>Average Rental</u> 100%
<b>Low Income (35% SF Median)</b>				
Annual Income Limit <sup>1</sup>	21,400	24,450	27,500	\$24,755
30% of Household Income	\$6,420	\$7,335	\$8,250	\$7,427
Per Month	\$535	\$611	\$688	\$619
<Less> <u>Utility Allowance</u> <sup>2</sup>	<u>(\$62)</u>	<u>(\$71)</u>	<u>(\$81)</u>	<u>(\$72)</u>
Affordable Rent	\$473	\$540	\$607	\$547
Affordable Rent, Annual	\$5,676	\$6,483	\$7,278	\$6,561
<Less> <u>Operating Expenses</u>	<u>(\$7,200)</u>	<u>(\$7,200)</u>	<u>(\$7,200)</u>	<u>(\$7,200)</u>
Net Revenue per Unit	(\$1,524)	(\$717)	\$78	(\$639)
Capitalized Value (@ 6.0%)	(\$25,400)	(\$12,000)	\$1,300	<b>\$10,685</b>
<b>70% SF Median</b>				
Annual Income Limit <sup>1</sup>	42,800	48,900	55,000	\$49,510
30% of Household Income	\$12,840	\$14,670	\$16,500	\$14,853
Per Month	\$1,070	\$1,223	\$1,375	\$1,238
<Less> <u>Utility Allowance</u> <sup>2</sup>	<u>(\$62)</u>	<u>(\$71)</u>	<u>(\$81)</u>	<u>(\$72)</u>
Affordable Rent	\$1,008	\$1,152	\$1,294	\$1,166
Affordable Rent, Annual	\$12,096	\$13,818	\$15,528	\$13,987
<Less> <u>Operating Expenses</u>	<u>(\$7,200)</u>	<u>(\$7,200)</u>	<u>(\$7,200)</u>	<u>(\$7,200)</u>
Net Revenue per Unit	\$4,896	\$6,618	\$8,328	\$6,787
Capitalized Value (@ 6.0%)	\$81,600	\$110,300	\$138,800	<b>\$113,120</b>

**Notes:**

<sup>1</sup> Household size based on number of bedrooms plus one.

<sup>2</sup> Utility allowance assumes tenant pays for heat, water, hot water, cooking, range, and electricity.

Source: KMA Sensitivity Analysis, City of San Francisco Mayor's Office of Housing

**TABLE IV-5  
AFFORDABLE SALES PRICE  
UPDATED AFFORDABILITY GAPS FOR JOBS-HOUSING NEXUS  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO**

		<u>Studio</u>	<u>1 Bedroom</u>	<u>2 Bedroom</u>	<u>Average Condo</u>
<b>100% SF Median</b>					
Unit Mix		20%	35%	45%	100%
Annual Income Limit <sup>1</sup>		61,110	69,840	78,570	\$72,023
33% of Household Income		\$20,166	\$23,047	\$25,928	\$23,767
Annual Condo Association Fee	\$450	\$5,400	\$5,400	\$5,400	\$5,400
Property Taxes	1.144%	\$2,048	\$2,447	\$2,847	\$2,547
Available for P+I		\$12,719	\$15,200	\$17,681	\$15,820
Supportable Mortgage (10 yr avg rate <sup>2</sup> )	6.89%	\$161,094	\$192,523	\$223,952	\$200,380
Down Payment	10%	\$17,899	\$21,391	\$24,884	\$22,264
<b>Affordable Sales Price</b>		<b>\$178,993</b>	<b>\$213,914</b>	<b>\$248,836</b>	<b>\$222,645</b>

Notes:

<sup>1</sup> Household size based on number of bedrooms plus one.

<sup>2</sup> Per the City of San Francisco Mayor's Office of Housing

Source: KMA, City of San Francisco Mayor's Office of Housing

## **APPENDIX**

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**APPENDIX TABLE 1  
 2005 NATIONAL RESIDENT SERVICES WORKER DISTRIBUTION BY OCCUPATION  
 DIRECT EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO, CA**

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Major Occupations (2% or more)	2005 National Resident Services Occupation Distribution <sup>1</sup>
Management occupations	3.3%
Business and financial operations occupations	2.1%
Community and social services occupations	2.9%
Education, training, and library occupations	5.9%
Healthcare practitioners and technical occupations	7.8%
Healthcare support occupations	3.9%
Food preparation and serving related occupations	15.9%
Building and grounds cleaning and maintenance occupations	2.6%
Personal care and service occupations	5.2%
Sales and related occupations	13.2%
Office and administrative support occupations	14.4%
Installation, maintenance, and repair occupations	4.0%
Production occupations	2.5%
Transportation and material moving occupations	5.4%
All Other Resident Services Related Occupations	<u>11.0%</u>
<b>INDUSTRY TOTAL</b>	100.0%

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

**APPENDIX TABLE 2  
 AVERAGE ANNUAL COMPENSATION, 2006  
 RESIDENT SERVICES WORKER OCCUPATIONS  
 DIRECT EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO, CA**

<b>Occupation <sup>3</sup></b>	<b>2006 Avg. Compensation <sup>1</sup></b>	<b>% of Total Occupation Group <sup>2</sup></b>	<b>% of Total Resident Services Workers</b>
<b>Page 1 of 4</b>			
<i>Management occupations</i>			
Chief executives	\$172,200	4.7%	0.2%
General and operations managers	\$120,400	31.5%	1.0%
Sales managers	\$119,400	4.7%	0.2%
Administrative services managers	\$91,500	4.4%	0.1%
Financial managers	\$122,600	5.6%	0.2%
Food service managers	\$49,300	8.4%	0.3%
Medical and health services managers	\$108,800	8.1%	0.3%
Social and community service managers	\$61,000	6.3%	0.2%
All other Management Occupations	<u>\$110,000</u>	<u>26.4%</u>	<u>0.9%</u>
	<b>Weighted Mean Annual Wage</b>	<b>\$108,300</b>	<b>100.0%</b>
<i>Business and financial operations occupations</i>			
Wholesale and retail buyers, except farm products	\$52,600	4.8%	0.1%
Claims adjusters, examiners, and investigators	\$58,000	10.2%	0.2%
Training and development specialists	\$62,000	4.7%	0.1%
Management analysts	\$90,300	4.3%	0.1%
Business operations specialists, all other	\$65,100	16.5%	0.3%
Accountants and auditors	\$67,800	16.9%	0.4%
Financial analysts	\$98,900	5.0%	0.1%
Insurance underwriters	\$62,800	4.4%	0.1%
All Other Business and financial operations occupations (Avg. All Categories)	<u>\$67,600</u>	<u>33.3%</u>	<u>0.7%</u>
	<b>Weighted Mean Annual Wage</b>	<b>\$67,600</b>	<b>100.0%</b>
<i>Community and social services occupations</i>			
Substance abuse and behavioral disorder counselors	\$37,100	4.4%	0.1%
Educational, vocational, and school counselors	\$52,000	4.9%	0.1%
Mental health counselors	\$52,100	5.5%	0.2%
Rehabilitation counselors	\$43,900	4.8%	0.1%
Child, family, and school social workers	\$46,300	12.0%	0.3%
Medical and public health social workers	\$55,600	5.5%	0.2%
Mental health and substance abuse social workers	\$38,800	7.4%	0.2%
Social and human service assistants	\$32,900	16.6%	0.5%
Community and social service specialists, all other	\$39,700	4.7%	0.1%
Clergy	\$53,700	14.7%	0.4%
Directors, religious activities and education	\$43,600	8.1%	0.2%
All Other Community and social services occupations (Avg. All Categories)	<u>\$44,500</u>	<u>11.3%</u>	<u>0.3%</u>
	<b>Weighted Mean Annual Wage</b>	<b>\$44,500</b>	<b>100.0%</b>

APPENDIX TABLE 2  
 AVERAGE ANNUAL COMPENSATION, 2006  
 RESIDENT SERVICES WORKER OCCUPATIONS  
 DIRECT EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO, CA

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<i>Page 2 of 4</i>			
<i>Education, training, and library occupations</i>			
Preschool teachers, except special education	\$30,700	14.0%	0.8%
Elementary school teachers, except special education	\$55,700	15.6%	0.9%
Middle school teachers, except special and vocational education	\$60,800	6.1%	0.4%
Secondary school teachers, except special and vocational education	\$61,600	9.7%	0.6%
Self-enrichment education teachers	\$46,700	4.5%	0.3%
Teachers and instructors, all other	\$50,000	5.5%	0.3%
Teacher assistants	\$31,800	17.9%	1.1%
All Other Education, training, and library occupations (Avg. All Categories)	<u>\$45,300</u>	<u>26.7%</u>	<u>1.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$45,300</b>	<b>100.0%</b>	<b>5.9%</b>
<i>Healthcare practitioners and technical occupations</i>			
Physicians and surgeons, all other	\$114,200	4.2%	0.3%
Registered nurses	\$82,100	35.9%	2.8%
Pharmacy technicians	\$40,500	4.6%	0.4%
Licensed practical and licensed vocational nurses	\$53,200	11.0%	0.9%
All Other Healthcare practitioners and technical occupations (Avg. All Categories)	<u>\$75,300</u>	<u>44.3%</u>	<u>3.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$75,300</b>	<b>100.0%</b>	<b>7.8%</b>
<i>Healthcare support occupations</i>			
Home health aides	\$22,600	22.6%	0.9%
Nursing aides, orderlies, and attendants	\$32,700	37.5%	1.5%
Medical assistants	\$36,300	21.1%	0.8%
Healthcare support workers, all other	\$40,200	4.3%	0.2%
All Other Healthcare support occupations (Avg. All Categories)	<u>\$31,300</u>	<u>14.5%</u>	<u>0.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$31,300</b>	<b>100.0%</b>	<b>3.9%</b>
<i>Food preparation and serving related occupations</i>			
First-line supervisors/managers of food preparation and serving workers	\$29,700	6.9%	1.1%
Cooks, fast food	\$20,200	6.4%	1.0%
Cooks, restaurant	\$25,600	7.6%	1.2%
Food preparation workers	\$21,500	7.4%	1.2%
Bartenders	\$21,100	4.6%	0.7%
Combined food preparation and serving workers, including fast food	\$20,600	22.0%	3.5%
Counter attendants, cafeteria, food concession, and coffee shop	\$20,000	4.3%	0.7%
Waiters and waitresses	\$19,100	21.6%	3.4%
Dishwashers	\$19,400	4.7%	0.7%
All Other Food preparation and serving related occupations (Avg. All Categories)	<u>\$21,400</u>	<u>14.5%</u>	<u>2.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$21,400</b>	<b>100.0%</b>	<b>15.9%</b>

APPENDIX TABLE 2  
AVERAGE ANNUAL COMPENSATION, 2006  
RESIDENT SERVICES WORKER OCCUPATIONS  
DIRECT EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO, CA

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<i>Page 3 of 4</i>			
<i>Building and grounds cleaning and maintenance occupations</i>			
First-line supervisors/managers of housekeeping and janitorial workers	\$43,600	4.7%	0.1%
Janitors and cleaners, except maids and housekeeping cleaners	\$25,300	48.0%	1.2%
Maids and housekeeping cleaners	\$26,500	30.0%	0.8%
Landscaping and groundskeeping workers	\$32,800	14.0%	0.4%
All Other Building and grounds cleaning and maintenance occupations (Avg. All Cat)	<u>\$27,600</u>	<u>3.3%</u>	<u>0.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$27,600</b>	<b>100.0%</b>	<b>2.6%</b>
<i>Personal care and service occupations</i>			
Amusement and recreation attendants	\$19,800	7.9%	0.4%
Hairdressers, hairstylists, and cosmetologists	\$34,000	15.9%	0.8%
Child care workers	\$26,200	19.8%	1.0%
Personal and home care aides	\$22,000	22.2%	1.2%
Recreation workers	\$29,700	5.7%	0.3%
All Other Personal care and service occupations (Avg. All Categories)	<u>\$26,200</u>	<u>28.6%</u>	<u>1.5%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$26,200</b>	<b>100.0%</b>	<b>5.2%</b>
<i>Sales and related occupations</i>			
First-line supervisors/managers of retail sales workers	\$41,800	9.5%	1.3%
Cashiers	\$23,400	30.9%	4.1%
Counter and rental clerks	\$28,100	5.1%	0.7%
Retail salespersons	\$27,100	39.4%	5.2%
Sales representatives, wholesale and manufacturing, except technical and scientific	\$68,800	5.5%	0.7%
All Other Sales and related occupations (Avg. All Categories)	<u>\$30,000</u>	<u>9.7%</u>	<u>1.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$30,000</b>	<b>100.0%</b>	<b>13.2%</b>
<i>Office and administrative support occupations</i>			
First-line supervisors/managers of office and administrative support workers	\$56,000	5.6%	0.8%
Bookkeeping, accounting, and auditing clerks	\$40,200	8.3%	1.2%
Customer service representatives	\$37,600	7.4%	1.1%
Receptionists and information clerks	\$30,200	8.2%	1.2%
Stock clerks and order fillers	\$28,200	10.1%	1.5%
Executive secretaries and administrative assistants	\$47,200	5.7%	0.8%
Medical secretaries	\$39,700	4.5%	0.6%
Secretaries, except legal, medical, and executive	\$39,100	9.0%	1.3%
Office clerks, general	\$29,900	13.5%	1.9%
All Other Office and administrative support occupations (Avg. All Categories)	<u>\$36,800</u>	<u>27.6%</u>	<u>4.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$36,800</b>	<b>100.0%</b>	<b>14.4%</b>

**APPENDIX TABLE 2  
 AVERAGE ANNUAL COMPENSATION, 2006  
 RESIDENT SERVICES WORKER OCCUPATIONS  
 DIRECT EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO, CA**

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<i>Page 4 of 4</i>			
<i>Installation, maintenance, and repair occupations</i>			
First-line supervisors/managers of mechanics, installers, and repairers	\$71,200	8.5%	0.3%
Automotive body and related repairers	\$50,300	12.2%	0.5%
Automotive service technicians and mechanics	\$51,500	30.5%	1.2%
Bus and truck mechanics and diesel engine specialists	\$46,800	5.1%	0.2%
Maintenance and repair workers, general	\$44,400	16.6%	0.7%
All Other Installation, maintenance, and repair occupations (Avg. All Categories)	<u>\$51,700</u>	<u>27.1%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$51,700</b>	<b>100.0%</b>	<b>4.0%</b>
<i>Production occupations</i>			
First-line supervisors/managers of production and operating workers	\$57,800	6.0%	0.2%
Bakers	\$25,800	6.3%	0.2%
Butchers and meat cutters	\$34,600	5.4%	0.1%
Laundry and dry-cleaning workers	\$24,500	13.7%	0.3%
Pressers, textile, garment, and related materials	\$22,100	6.0%	0.2%
Sewing machine operators	\$19,100	12.1%	0.3%
Painters, transportation equipment	\$48,700	4.2%	0.1%
All Other Production occupations (Avg. All Categories)	<u>\$29,800</u>	<u>46.3%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$29,800</b>	<b>100.0%</b>	<b>2.5%</b>
<i>Transportation and material moving occupations</i>			
Bus drivers, school	\$28,200	9.9%	0.5%
Driver/sales workers	\$30,500	8.5%	0.5%
Truck drivers, heavy and tractor-trailer	\$41,900	8.3%	0.4%
Truck drivers, light or delivery services	\$31,800	10.2%	0.5%
Taxi drivers and chauffeurs	\$25,500	4.1%	0.2%
Parking lot attendants	\$26,200	5.5%	0.3%
Cleaners of vehicles and equipment	\$24,500	12.6%	0.7%
Laborers and freight, stock, and material movers, hand	\$27,800	15.0%	0.8%
Packers and packagers, hand	\$19,100	7.4%	0.4%
All Other Transportation and material moving occupations (Avg. All Categories)	<u>\$28,500</u>	<u>18.5%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$28,500</b>	<b>100.0%</b>	<b>5.4%</b>
			89.0%

<sup>1</sup> 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.

<sup>2</sup> Occupation percentages are based on the 2005 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2005 Occupational Employment Survey data for San Francisco-San Mateo-Redwood City MD, California (San Francisco, San Mateo, and Marin Counties) updated by the California Employment Development Department to 2006 wage levels.

<sup>3</sup> Including occupations representing 4% or more of the major occupation group

**APPENDIX TABLE 3  
 2005 NATIONAL RESIDENT SERVICES WORKER DISTRIBUTION BY OCCUPATION  
 DIRECT, INDIRECT & INDUCED EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
 RESIDENTIAL NEXUS ANALYSIS  
 CITY OF SAN FRANCISCO, CA**

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Major Occupations (1% or more)	<b>2005 National Resident Services Occupation Distribution <sup>1</sup></b>
Management occupations	4.0%
Business and financial operations occupations	3.5%
Computer and mathematical occupations	2.2%
Community and social services occupations	2.4%
Education, training, and library occupations	7.1%
Arts, design, entertainment, sports, and media occupations	1.4%
Healthcare practitioners and technical occupations	5.9%
Healthcare support occupations	2.9%
Protective service occupations	1.7%
Food preparation and serving related occupations	12.4%
Building and grounds cleaning and maintenance occupations	3.2%
Personal care and service occupations	3.9%
Sales and related occupations	11.2%
Office and administrative support occupations	15.7%
Construction and extraction occupations	1.7%
Installation, maintenance, and repair occupations	3.7%
Production occupations	2.3%
Transportation and material moving occupations	5.2%
All Other Resident Services Related Occupations	<u>9.7%</u>
<b>INDUSTRY TOTAL</b>	100.0%

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<sup>1</sup> Distribution of employment by industry is per the IMPLAN model and the distribution of occupational employment within those industries is based on the Bureau of Labor Statistics Occupational Employment Survey.

APPENDIX TABLE 4  
AVERAGE ANNUAL COMPENSATION, 2006  
RESIDENT SERVICES WORKER OCCUPATIONS  
DIRECT, INDIRECT & INDUCED EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO, CA

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<b>Page 1 of 5</b>			
<i>Management occupations</i>			
Chief executives	\$172,200	4.8%	0.2%
General and operations managers	\$120,400	27.8%	1.1%
Sales managers	\$119,400	4.3%	0.2%
Administrative services managers	\$91,500	4.4%	0.2%
Computer and information systems managers	\$133,300	4.4%	0.2%
Financial managers	\$122,600	6.7%	0.3%
Education administrators, elementary and secondary school	\$101,700	4.4%	0.2%
Food service managers	\$49,300	5.4%	0.2%
Medical and health services managers	\$108,800	5.4%	0.2%
Property, real estate, and community association managers	\$56,500	4.1%	0.2%
Managers, all other	\$110,000	5.4%	0.2%
All Other Management occupations (Avg. All Categories)	<u>\$111,800</u>	<u>23.0%</u>	<u>0.9%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>4.0%</b>
<i>Business and financial operations occupations</i>			
Claims adjusters, examiners, and investigators	\$58,000	6.5%	0.2%
Management analysts	\$90,300	7.9%	0.3%
Business operations specialists, all other	\$65,100	17.4%	0.6%
Accountants and auditors	\$67,800	19.6%	0.7%
Financial analysts	\$98,900	4.3%	0.2%
All Other Business and financial operations occupations (Avg. All Categories)	<u>\$71,400</u>	<u>44.2%</u>	<u>1.6%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>3.5%</b>
<i>Computer and mathematical occupations</i>			
Computer programmers	\$88,500	14.6%	0.3%
Computer software engineers, applications	\$99,400	15.9%	0.3%
Computer software engineers, systems software	\$98,600	9.5%	0.2%
Computer support specialists	\$61,600	17.0%	0.4%
Computer systems analysts	\$83,600	17.7%	0.4%
Network and computer systems administrators	\$81,100	8.5%	0.2%
Network systems and data communications analysts	\$79,900	6.0%	0.1%
All Other Computer and mathematical occupations (Avg. All Categories)	<u>\$84,100</u>	<u>10.7%</u>	<u>0.2%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>2.2%</b>

APPENDIX TABLE 4  
AVERAGE ANNUAL COMPENSATION, 2006  
RESIDENT SERVICES WORKER OCCUPATIONS  
DIRECT, INDIRECT & INDUCED EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
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CITY OF SAN FRANCISCO, CA

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<b>Page 2 of 5</b>			
<i>Community and social services occupations</i>			
Educational, vocational, and school counselors	\$52,000	7.4%	0.2%
Mental health counselors	\$52,100	4.8%	0.1%
Rehabilitation counselors	\$43,900	4.8%	0.1%
Child, family, and school social workers	\$46,300	13.5%	0.3%
Medical and public health social workers	\$55,600	5.0%	0.1%
Mental health and substance abuse social workers	\$38,800	6.7%	0.2%
Social and human service assistants	\$32,900	16.5%	0.4%
Community and social service specialists, all other	\$39,700	4.9%	0.1%
Clergy	\$53,700	12.2%	0.3%
Directors, religious activities and education	\$43,600	6.7%	0.2%
All Other Community and social services occupations (Avg. All Categories)	<u>\$44,800</u>	<u>17.4%</u>	<u>0.4%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$44,800</b>	<b>100.0%</b>	<b>2.4%</b>
<i>Education, training, and library occupations</i>			
Preschool teachers, except special education	\$30,700	8.4%	0.6%
Elementary school teachers, except special education	\$55,700	17.5%	1.2%
Middle school teachers, except special and vocational education	\$60,800	7.2%	0.5%
Secondary school teachers, except special and vocational education	\$61,600	11.4%	0.8%
Teachers and instructors, all other	\$50,000	6.2%	0.4%
Teacher assistants	\$31,800	16.5%	1.2%
All Other Education, training, and library occupations (Avg. All Categories)	<u>\$47,700</u>	<u>32.9%</u>	<u>2.3%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$47,700</b>	<b>100.0%</b>	<b>7.1%</b>
<i>Arts, design, entertainment, sports, and media occupations</i>			
Floral designers	\$39,500	6.4%	0.1%
Graphic designers	\$60,700	5.2%	0.1%
Coaches and scouts	\$34,600	9.1%	0.1%
Public relations specialists	\$61,500	12.1%	0.2%
All Other Arts, design, entertainment, sports, & media (Avg. All Categories) <sup>4</sup>	<u>\$49,600</u>	<u>67.3%</u>	<u>1.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$49,600</b>	<b>100.0%</b>	<b>1.4%</b>
<i>Healthcare practitioners and technical occupations</i>			
Physicians and surgeons, all other	\$114,200	4.3%	0.3%
Registered nurses	\$82,100	36.1%	2.1%
Pharmacy technicians	\$40,500	4.6%	0.3%
Licensed practical and licensed vocational nurses	\$53,200	11.1%	0.7%
All Other Healthcare practitioners and technical occupations (Avg. All Categories)	<u>\$75,400</u>	<u>43.9%</u>	<u>2.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$75,400</b>	<b>100.0%</b>	<b>5.9%</b>

APPENDIX TABLE 4  
AVERAGE ANNUAL COMPENSATION, 2006  
RESIDENT SERVICES WORKER OCCUPATIONS  
DIRECT, INDIRECT & INDUCED EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
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CITY OF SAN FRANCISCO, CA

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<b>Page 3 of 5</b>			
<i>Healthcare support occupations</i>			
Home health aides	\$22,600	22.2%	0.6%
Nursing aides, orderlies, and attendants	\$32,700	37.8%	1.1%
Medical assistants	\$36,300	20.5%	0.6%
Healthcare support workers, all other	\$40,200	4.7%	0.1%
All Other Healthcare support occupations (Avg. All Categories)	<u>\$31,300</u>	<u>14.9%</u>	<u>0.4%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>2.9%</b>
<i>Protective service occupations</i>			
Correctional officers and jailers	\$59,300	17.6%	0.3%
Police and sheriff's patrol officers	\$61,200	8.8%	0.1%
Security guards	\$26,400	47.9%	0.8%
Lifeguards, ski patrol, and other recreational protective service workers	\$24,800	4.3%	0.1%
Protective service workers, all other	\$55,600	5.3%	0.1%
All Other Protective service occupations (Avg. All Categories)	<u>\$38,700</u>	<u>16.1%</u>	<u>0.3%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>1.7%</b>
<i>Food preparation and serving related occupations</i>			
First-line supervisors/managers of food preparation and serving workers	\$29,700	6.9%	0.9%
Cooks, fast food	\$20,200	6.3%	0.8%
Cooks, restaurant	\$25,600	7.5%	0.9%
Food preparation workers	\$21,500	7.5%	0.9%
Bartenders	\$21,100	4.7%	0.6%
Combined food preparation and serving workers, including fast food	\$20,600	21.9%	2.7%
Counter attendants, cafeteria, food concession, and coffee shop	\$20,000	4.4%	0.5%
Waiters and waitresses	\$19,100	21.4%	2.6%
Dishwashers	\$19,400	4.6%	0.6%
All Other Food preparation and serving related occupations (Avg. All Categories)	<u>\$21,400</u>	<u>14.8%</u>	<u>1.8%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>12.4%</b>
<i>Building and grounds cleaning and maintenance occupations</i>			
First-line supervisors/managers of housekeeping and janitorial workers	\$43,600	4.4%	0.1%
Janitors and cleaners, except maids and housekeeping cleaners	\$25,300	51.1%	1.6%
Maids and housekeeping cleaners	\$26,500	20.8%	0.7%
Landscaping and groundskeeping workers	\$32,800	18.1%	0.6%
All Other Building and grounds cleaning and maintenance occupations (Avg. All Categories)	<u>\$27,900</u>	<u>5.5%</u>	<u>0.2%</u>
	<b>Weighted Mean Annual Wage</b>	<b>100.0%</b>	<b>3.2%</b>

APPENDIX TABLE 4  
AVERAGE ANNUAL COMPENSATION, 2006  
RESIDENT SERVICES WORKER OCCUPATIONS  
DIRECT, INDIRECT & INDUCED EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO  
RESIDENTIAL NEXUS ANALYSIS  
CITY OF SAN FRANCISCO, CA

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
<b>Page 4 of 5</b>			
<i>Personal care and service occupations</i>			
First-line supervisors/managers of personal service workers	\$47,100	4.0%	0.2%
Ushers, lobby attendants, and ticket takers	\$19,600	4.5%	0.2%
Amusement and recreation attendants	\$19,800	7.8%	0.3%
Hairdressers, hairstylists, and cosmetologists	\$34,000	15.0%	0.6%
Child care workers	\$26,200	19.9%	0.8%
Personal and home care aides	\$22,000	20.6%	0.8%
Recreation workers	\$29,700	6.1%	0.2%
All Other Personal care and service occupations (Avg. All Categories)	<u>\$26,900</u>	<u>22.2%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$26,900</b>	<b>100.0%</b>	<b>3.9%</b>
<i>Sales and related occupations</i>			
First-line supervisors/managers of retail sales workers	\$41,800	8.6%	1.0%
Cashiers	\$23,400	27.6%	3.1%
Counter and rental clerks	\$28,100	5.2%	0.6%
Retail salespersons	\$27,100	34.9%	3.9%
Sales representatives, wholesale and manufacturing, except technical and scientific	\$68,800	6.3%	0.7%
All Other Sales and related occupations (Avg. All Categories)	<u>\$30,600</u>	<u>17.5%</u>	<u>2.0%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$30,600</b>	<b>100.0%</b>	<b>11.2%</b>
<i>Office and administrative support occupations</i>			
First-line supervisors/managers of office and administrative support workers	\$56,000	5.6%	0.9%
Bookkeeping, accounting, and auditing clerks	\$40,200	8.3%	1.3%
Customer service representatives	\$37,600	7.9%	1.2%
Receptionists and information clerks	\$30,200	6.5%	1.0%
Stock clerks and order fillers	\$28,200	7.4%	1.2%
Executive secretaries and administrative assistants	\$47,200	6.7%	1.0%
Secretaries, except legal, medical, and executive	\$39,100	9.2%	1.4%
Office clerks, general	\$29,900	14.1%	2.2%
All Other Office and administrative support occupations (Avg. All Categories)	<u>\$37,200</u>	<u>34.3%</u>	<u>5.4%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$37,200</b>	<b>100.0%</b>	<b>15.7%</b>
<i>Construction and extraction occupations</i>			
First-line supervisors/managers of construction trades and extraction workers	\$82,800	12.8%	0.2%
Carpenters	\$52,300	31.7%	0.5%
Construction laborers	\$42,700	18.5%	0.3%
All Other Construction and extraction occupations (Avg. All Categories)	<u>\$55,700</u>	<u>37.0%</u>	<u>0.6%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$55,700</b>	<b>100.0%</b>	<b>1.7%</b>

**APPENDIX TABLE 4  
AVERAGE ANNUAL COMPENSATION, 2006  
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<b>Occupation <sup>3</sup></b>	<b>2006 Avg. Compensation <sup>1</sup></b>	<b>% of Total Occupation Group <sup>2</sup></b>	<b>% of Total Resident Services Workers</b>
<b>Page 5 of 5</b>			
<i>Installation, maintenance, and repair occupations</i>			
First-line supervisors/managers of mechanics, installers, and repairers	\$71,200	8.6%	0.3%
Automotive body and related repairers	\$50,300	9.7%	0.4%
Automotive service technicians and mechanics	\$51,500	24.8%	0.9%
Bus and truck mechanics and diesel engine specialists	\$46,800	4.8%	0.2%
Maintenance and repair workers, general	\$44,400	22.7%	0.8%
All Other Installation, maintenance, and repair occupations (Avg. All Categories)	<u>\$51,100</u>	<u>29.4%</u>	<u>1.1%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$51,100</b>	<b>100.0%</b>	<b>3.7%</b>
<i>Production occupations</i>			
First-line supervisors/managers of production and operating workers	\$57,800	5.9%	0.1%
Team assemblers	\$29,600	5.8%	0.1%
Bakers	\$25,800	5.9%	0.1%
Butchers and meat cutters	\$34,600	4.5%	0.1%
Laundry and dry-cleaning workers	\$24,500	12.8%	0.3%
Pressers, textile, garment, and related materials	\$22,100	5.8%	0.1%
Sewing machine operators	\$19,100	9.5%	0.2%
Inspectors, testers, sorters, samplers, and weighers	\$34,600	4.7%	0.1%
Helpers--production workers	\$25,400	4.3%	0.1%
All Other Production occupations (Avg. All Categories)	<u>\$29,000</u>	<u>40.9%</u>	<u>0.9%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$29,000</b>	<b>100.0%</b>	<b>2.3%</b>
<i>Transportation and material moving occupations</i>			
Bus drivers, school	\$28,200	10.4%	0.5%
Driver/sales workers	\$30,500	7.0%	0.4%
Truck drivers, heavy and tractor-trailer	\$41,900	8.9%	0.5%
Truck drivers, light or delivery services	\$31,800	10.2%	0.5%
Parking lot attendants	\$26,200	4.3%	0.2%
Cleaners of vehicles and equipment	\$24,500	9.9%	0.5%
Laborers and freight, stock, and material movers, hand	\$27,800	18.2%	0.9%
Packers and packagers, hand	\$19,100	7.1%	0.4%
All Other Transportation and material moving occupations (Avg. All Categories)	<u>\$29,000</u>	<u>24.0%</u>	<u>1.2%</u>
<b>Weighted Mean Annual Wage</b>	<b>\$29,000</b>	<b>100.0%</b>	<b>5.2%</b>

90.3%

<sup>1</sup> 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.

<sup>2</sup> Occupation percentages are based on the 2005 National Industry - Specific Occupational Employment survey compiled by the Bureau of Labor Statistics. Wages are based on the 2005 Occupational Employment Survey data for San Francisco-San Mateo-Redwood City MD, California (San Francisco, San Mateo, and Marin Counties) updated by the California Employment Development Department to 2006 wage levels.

<sup>3</sup> Including occupations representing 4% or more of the major occupation group

<sup>4</sup> Includes Artists and Musicians which represent 5% and 16% of the occupation group respectively. The Occupational Employment Survey did not calculate annual

**APPENDIX TABLE 4**  
**AVERAGE ANNUAL COMPENSATION, 2006**  
**RESIDENT SERVICES WORKER OCCUPATIONS**  
**DIRECT, INDIRECT & INDUCED EMPLOYMENT IMPACTS WITHIN THE CITY OF SAN FRANCISCO**  
**RESIDENTIAL NEXUS ANALYSIS**  
**CITY OF SAN FRANCISCO, CA**

Occupation <sup>3</sup>	2006 Avg. Compensation <sup>1</sup>	% of Total Occupation Group <sup>2</sup>	% of Total Resident Services Workers
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wage and salary information for these occupations.