

# Administrative Review Draft

## Seattle Affordable Housing Nexus Study



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# Executive Summary

## 1. Background and Introduction

In May 2013, the Seattle City Council adopted Resolution 31444, which sets out a work program for reviewing and potentially revising the current affordable housing incentive program and reviewing best practices for affordable housing production and preservation. Review of national best practices was conducted by Otak and Peninger Consulting.

Pursuant to Resolution 31444, the City of Seattle retained DRA to conduct an economic analysis for the purpose of advising the City on revision and potential expansion of its affordable housing incentive programs for commercial and residential development, currently in place in the Downtown and South Lake Union Urban Centers and other areas of the City that have been upzoned since 2006. The City's current programs provide developers with bonus floor area in exchange for the provision of housing for households with incomes up to 80% of Area Median Income (AMI) for rental housing and up to 100% of AMI for homeownership housing. The payment of a fee in lieu of providing units is allowed in some areas, including the Downtown and South Lake Union Urban Centers. For commercial projects in the Downtown and South Lake Union areas and residential development in South Lake Union the program imposes other requirements, including the purchase of transfer of development rights (TDR) and, for commercial development only, payment of a childcare fee.

DRA worked closely with City staff to develop twelve residential and commercial office development prototypes that reflect current underlying zoning designations in the City. Each prototype is examined in a base case "no incentive" version that reflects the requirements of the underlying zoning, and a "with incentive" version that reflects the additional bonus floor area and other guidelines associated with the incentive program. The prototypes include mid- and high-rise residential and office prototypes appropriate to zoning designations in the Downtown and South Lake Union areas of the City. They also include low- and mid-rise prototypes consistent with zoning designations found in areas surrounding the Downtown and in target Urban Centers and Villages. These 24 prototypes form the basis of DRA's economic analysis of the current incentive program and alternative policies, and were examined under several economic scenarios. The findings of the analysis will assist the City in evaluating alternative policy options for the incentive programs





that will generate affordable housing and/or in lieu fees while being sensitive to current and future real estate market conditions.

The City of Seattle (City) retained David Paul Rosen & Associates (DRA) to prepare a study establishing a rational nexus between market-rate residential and commercial (office and hotel) development and the need for affordable housing in the City. To the extent that new market-rate residential and commercial development in the City increases demand for housing and exacerbates the City's shortage of affordable housing, the City has a strong public interest in, and a legal basis for, causing new affordable housing to be developed to meet this additional demand.

In designing a fee on new residential development to assist the provision of affordable housing, the basis for the fee is that such development has a deleterious impact by increasing employment, which also increases the demand for housing for the added employees, because market-rate housing development, with no public assistance, will not provide housing affordable for the additional lower-earning employees. The legal requirement is that a local government charging a fee make some affirmative showing that: (1) those who must pay the fee are contributing to the problem that the fee will address; and (2) the amount of the fee is reasonably justified by the magnitude of the fee-payer's contribution to the problem. This relationship has been well documented and nexus fees have been successfully upheld against legal challenge where the fees met standards set by case law.

## Target Income Levels

The nexus analysis uses income limits commonly defined by the U.S. Department of Housing and Urban Development (HUD) and the Low Income Housing Tax Credit program. This study calculates an affordable housing nexus fee for the following income categories:

- Households with incomes up to 30 percent of area median income (AMI), or approximately \$26,460 for a four-person household in King County in 2014;
- Households with incomes between 31 percent and 60 percent of AMI, or between \$26,461 and \$52,920 for a four-person household in 2014; and
- Households with incomes between 61 percent and 80 percent of AMI, or between \$52,921 and \$70,560 for a four-person household.



All of these income limits are based on the 2014 median family income (MFI) of \$88,200 for the Seattle-Bellevue HUD Metro FMR Area (HMFA)<sup>1</sup>, adjusted by household size, as provided by the City of Seattle Department of Planning and Development.

**Table 1** shows 2014 income limits for the City of Seattle for these income categories for household sizes of one to six persons.

<b>Table 1</b> <b>Affordable Housing Income Limits by Household Size</b> City of Seattle Affordable Housing Nexus Study 2014			
<b>Household Size</b>	<b>30% AMI</b>	<b>60% AMI</b>	<b>80% AMI</b>
One Person	\$18,550	\$37,080	\$49,440
Two Persons	\$21,200	\$42,360	\$56,480
Three Persons	\$23,850	\$47,640	\$63,520
Four Persons	\$26,440	\$52,920	\$70,560
Five Persons	\$28,600	\$57,180	\$78,240
Six Persons	\$31,970	\$61,440	\$81,920

Source: 2014 median household income for the Seattle-Bellevue HMFA of \$88,200, adjusted by household size and income level; City of Seattle Department of Planning and Development; DRA.

## Affordability Gap Analysis

The affordability gap analysis compares the cost of housing development in the City to the amount very low and low income households can afford to pay for housing. The affordability gap represents the capital subsidy required to develop housing affordable to families at these target income levels. For the purpose of the nexus analysis, the affordability gap is calculated assuming new construction of low- or mid-rise multifamily units, based on assumptions developed by DRA for the “Affordable Housing Incentive Program Economic Analysis”, 2014.

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<sup>1</sup>FMR stands for Fair Market Rent. The Seattle-Bellevue HMFA is a HUD-defined metropolitan area comprised of King and Snohomish Counties.

The per unit subsidy required to make new housing affordable to households at the above income level was calculated by subtracting per unit development costs from the per unit mortgage supportable from affordable rents. No leverage (e.g. use of tax credits) is assumed. The resulting per unit subsidies required by unit bedroom count are shown for new housing development in **Table 2**.

The results of the gap analysis show significant affordability gaps at the above income levels analyzed in this report.

<b>Table 2</b> <b>Per Unit Affordability Gaps</b> <b>New Construction Multifamily Housing</b> <b>City of Seattle Affordable Housing Nexus Study</b> <b>2014</b>				
Unit Bedroom Count	Per Unit Development Cost <sup>1</sup>	Per Unit Affordability Gap by Percent of Area Median Income <sup>2</sup>		
		30% AMI <sup>3</sup>	60% AMI	80% AMI
Studio	\$227,500	\$227,500	\$187,800	\$140,400
One Bedroom	\$280,000	\$280,000	\$230,200	\$179,400
Two Bedrooms	\$420,000	\$420,000	\$347,500	\$286,600

<sup>1</sup>Assumes average development cost of \$350 per net square foot (NSF) and unit sizes of 650 NSF for a studio unit, 800 NSF for a one-bedroom unit and 1,200 for a two-bedroom unit based on DRA's "Affordable Housing Incentive Program Economic Analysis", 2014.

<sup>2</sup>Based on per unit supportable mortgage by income level less total development cost, assuming affordable rents at 30% of gross income, utility allowances of \$110 for studio/one-bedroom units and \$160 for a two-bedroom units, annual operating costs of \$6,500 per unit, and a 30-year fixed mortgage at an interest rate of 6.5%.

<sup>3</sup>At the 30% AMI level, affordable rents are insufficient to pay full operating costs and there is no cash flow available for debt service.

Source: DRA.

## Residential Nexus Analysis

The methodology used for the residential nexus analysis begins with the estimated sales prices of a prototypical condominium development, or rents at an apartment complex, and moves through a series of linkages to the incomes of the households that purchase or rent the units, the annual expenditures of those households on goods and services, the jobs associated with the delivery of these goods and services, the income of the workers performing those jobs, the household income

of those worker households, and finally to the affordability level of the housing needed by those worker households. The steps of the analysis are as follows:

1. Define a prototypical market-rate residential development.
2. Estimate the household income distribution of the households purchasing or renting these homes.
3. Estimate the consumer expenditures of those households.
4. Estimate the number of new full-time employees required to provide the goods and services purchased by these households.
5. Estimate the number of new households associated with this employment growth.
6. Estimate the income distribution of these new employee households.
7. Estimate the number of new households requiring affordable housing.
8. Estimate the housing affordability gap for these affordable housing units.
9. Calculate the maximum supportable residential nexus fee.

For owner housing, DRA estimated the household income distribution of households purchasing the new homes based on the estimated minimum income necessary to afford the mortgage principal and interest, property taxes and property insurance required to purchase the home. For renters, tenant household income is calculated from typical income to rent standards used by apartment owners. This analysis uses the sales prices and rents estimated for these prototypes (under the “middle” cost scenario for the low- and mid-rise prototypes) in DRA’s “Affordable Housing Incentive Program Economic Analysis”, 2014.

The consumer expenditures of these households and the jobs generated by these expenditures are estimated using the IMPLAN model, a model widely used for the past 25 years to quantify employment impacts from personal income. Based on the employment generation by industry from the IMPLAN model, DRA used its nexus model to quantify the income of worker households by affordability level.

The 2013 wage data for the Seattle-Bellevue-Everett Metropolitan Division from the U.S. Department of Labor used in this analysis do not take into account Seattle’s new minimum wage ordinance (Ordinance 124490) adopted by the City Council





in June 2014. The \$15 per hour minimum wage for larger employees in 2017 means that a full-time minimum wage worker will earn an annual wage of approximately \$31,200, which exceeds the 30% of area median income limit in 2014 for even a six-person household (\$31,970). This means that virtually all of the full-time 30% AMI employees will move up into the 30% to 50% AMI category, based on today's area median income. To account for this change, DRA calculated a second version of the maximum supportable residential and non-residential nexus with just two income levels (under 60% of AMI, and 60% to 80% of AMI), assuming the households earning less than 30% of AMI move into the 30% to 60% of AMI category. This reduces the nexus fees, since it is more costly to provide an affordable unit at 30% of AMI than at 60% of AMI.

**Table 3** summarizes the estimated maximum supportable residential nexus fee per housing unit and per net square foot, and **Table 4** summarizes the estimated maximum supportable non-residential nexus fees per net square foot building area, based on the 2013 wage data unadjusted for the future increase in the minimum wage. **Tables 5 and 6** summarize the estimated maximum supportable nexus fees for residential and non-residential development, respectively, after adjusting for the estimated effects of the future increase in the minimum wage. As noted above, this analysis uses the “middle” sales price and rent scenario for the low- and mid-rise prototypes. DRA also calculated the maximum nexus fee for these prototypes

These fees are based on the costs to build new multifamily housing in Seattle, the most cost-effective means of housing these very low and low income employee households. Given the average household size of 2.06<sup>1</sup> persons in the City, the affordability gap for a one-bedroom unit is used to calculate the nexus fees. The results of the nexus analysis show significant supportable nexus fees for all prototypes and income levels.

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<sup>1</sup>Based on a household population of 583,735 divided by 283,510 households in the City of Seattle as of the 2010 census.

<b>Table 3</b> <b>Estimated Maximum Residential Nexus Fees</b> <b>New Renter and Owner Market-Rate Housing Prototypes</b> <b>Current Minimum Wage</b> <b>Seattle Affordable Housing Nexus Study</b> <b>2014</b>					
Prototype <sup>1</sup>	Prototype Description	Maximum Nexus Fee per Net Square Foot			
		Under 30% AMI	30% to 60% AMI	60% to 80% AMI	Total
Prototype 1A	DT Rental, 40 Stories	\$11.79	\$26.09	\$8.13	\$46.00
Prototype 2A	DT Owner, 40 Stories	\$13.82	\$30.03	\$8.86	\$52.71
Prototype 4A	SLU Rental, 24 Stories	\$11.03	\$24.95	\$7.95	\$43.94
Prototype 4B	SLU Rental, 7 Stories	\$9.34	\$23.05	\$7.98	\$40.37
Prototype 5A	SLU Owner, 24 Stories	\$12.11	\$26.13	\$7.76	\$46.00
Prototype 5B	SLU Renter, 7 Stories	\$10.53	\$20.20	\$6.75	\$37.48
Prototype 7A	Rental, 7 Stories	\$12.13	\$24.94	\$7.77	\$44.85
Prototype 7B	Rental, 4 Stories	\$12.67	\$20.83	\$8.12	\$41.62
Prototype 9A	Rental, 6 Stories	\$12.19	\$23.39	\$7.81	\$43.39
Prototype 9B	Rental, 4 Stories	\$11.97	\$24.59	\$7.67	\$44.23
Prototype 10A	Owner, 6 Stories	\$8.13	\$20.05	\$5.21	\$33.39
Prototype 10B	Owner, 4 Stories	\$11.98	\$19.70	\$7.68	\$39.36
Prototype 11A	Rental, 7 Stories	\$9.57	\$23.61	\$6.13	\$39.32
Prototype 12A	Owner, 7 Stories	\$6.38	\$15.74	\$4.09	\$26.21

DT = Downtown, SLU = South Lake Union

<sup>1</sup>Based on prototypes from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014, as described in Table 13.

Source: DRA

<b>Table 4</b> <b>Estimated Maximum Non-Residential Nexus Fees</b> <b>New Renter and Owner Market-Rate Housing Prototypes</b> <b>Current Minimum Wage</b> <b>Seattle Affordable Housing Nexus Study</b> <b>2014</b>					
Prototype <sup>1</sup>	Prototype Description	Maximum Nexus Fee per Net Square Foot			
		Under 30% AMI	30% to 60% AMI	60% to 80% AMI	Total
Prototype 3A	DT Office, 8 Stories	\$4.71	\$55.82	\$16.11	\$76.65
Prototype 6A	SLU Office, 8 Stories	\$4.82	\$55.81	\$16.25	\$76.88
Hotel Prototype	DT Hotel, 14 Stories	\$25.95	\$51.87	\$4.58	\$82.40

DT = Downtown, SLU = South Lake Union

<sup>1</sup>Based on prototypes from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014, as described in Table 13.

Source: DRA



<b>Table 5</b> <b>Estimated Maximum Residential Nexus Fees</b> <b>New Renter and Owner Market-Rate Housing Prototypes</b> <b>2017 Minimum Wage</b> <b>Seattle Affordable Housing Nexus Study</b> <b>2014</b>				
Prototype <sup>1</sup>	Prototype Description	Maximum Nexus Fee per Net Square Foot		
		Under 60% AMI	60% to 80% AMI	Total
Prototype 1A	DT Rental, 40 Stories	\$35.78	\$8.13	\$43.91
Prototype 2A	DT Owner, 40 Stories	\$41.39	\$8.86	\$50.25
Prototype 4A	SLU Rental, 24 Stories	\$34.02	\$7.95	\$41.97
Prototype 4B	SLU Rental, 7 Stories	\$30.73	\$7.98	\$38.71
Prototype 5A	SLU Owner, 24 Stories	\$36.09	\$7.76	\$43.85
Prototype 5B	SLU Renter, 7 Stories	\$28.86	\$6.75	\$35.61
Prototype 7A	Rental, 7 Stories	\$34.92	\$7.77	\$42.69
Prototype 7B	Rental, 4 Stories	\$33.41	\$7.81	\$41.22
Prototype 9A	Rental, 6 Stories	\$34.43	\$7.67	\$42.10
Prototype 9B	Rental, 4 Stories	\$34.43	\$7.67	\$42.10
Prototype 10A	Owner, 6 Stories	\$26.74	\$5.21	\$31.95
Prototype 10B	Owner, 4 Stories	\$29.55	\$7.68	\$37.23
Prototype 11A	Rental, 7 Stories	\$31.48	\$6.13	\$37.61
Prototype 12A	Owner, 7 Stories	\$20.99	\$4.09	\$25.08

DT = Downtown, SLU = South Lake Union

<sup>1</sup>Based on prototypes from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014, as described in Table 13.

Source: DRA

<b>Table 6</b> <b>Estimated Maximum Non-Residential Nexus Fee</b> <b>New Renter and Owner Market-Rate Housing Prototypes</b> <b>2017 Minimum Wage</b> <b>Seattle Affordable Housing Nexus Study</b> <b>2014</b>				
Prototype <sup>1</sup>	Prototype Description	Maximum Nexus Fee per Net Square Foot		
		Under 60% AMI	60% to 80% AMI	Total
Prototype 3A	DT Office, 8 Stories	\$59.70	\$16.11	\$75.81
Prototype 6A	SLU Office, 8 Stories	\$59.77	\$16.25	\$76.03
Hotel Prototype	DT Hotel, 14 Stories	\$73.21	\$4.58	\$77.79

DT = Downtown, SLU = South Lake Union

<sup>1</sup>Based on prototypes from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014, as described in Table 13.

Source: DRA



<b>Table 7</b> <b>Estimated Maximum Residential Nexus Fees</b> <b>Low and Mid-Rise Housing Prototypes</b> <b>2014 Minimum Wage and “Low” Price Scenario</b> <b>Seattle Affordable Housing Nexus Study</b> <b>2014</b>				
Prototype <sup>1</sup>	Prototype Description	Maximum Nexus Fee per Net Square Foot		
		Under 60% AMI	60% to 80% AMI	Total
Prototype 7A	Rental, 7 Stories	\$30.81	\$6.86	\$37.67
Prototype 7B	Rental, 4 Stories	\$27.57	\$7.16	\$34.74
Prototype 9A	Rental, 6 Stories	\$29.48	\$6.89	\$36.37
Prototype 9B	Rental, 4 Stories	\$30.38	\$6.76	\$37.15
Prototype 10A	Owner, 6 Stories	\$21.03	\$4.10	\$25.13
Prototype 10B	Owner, 4 Stories	\$23.25	\$6.04	\$29.29
Prototype 11A	Rental, 7 Stories	\$27.78	\$5.41	\$33.19
Prototype 12A	Owner, 7 Stories	\$16.51	\$3.22	\$19.73

DT = Downtown, SLU = South Lake Union

<sup>1</sup>Based on prototypes from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014, as described in Table 13.

Source: DRA

Detailed calculation of the nexus fees by prototype are shown in **Tables 8** and **9** for the residential and non-residential nexus fees, respectively, under the current minimum wage, and in **Tables 10** and **11** for residential and non-residential uses, respectively, under the 2017 minimum wage. These tables, along with the rest of the tables referenced in this analysis, are presented at the end of the text.

Development impact fee programs may include the cost of administering the program that funds affordable housing, including:

- The administrative costs of assessing, collecting, cost accounting, and public reporting of the fee;
- The cost of justification analyses, legal support, and other costs of annual and/or periodic updates to the fee; and
- Costs of capital planning and programming, including project management costs associated with the share of projects funded by the fee.

Administration charges typically range from 1.0 percent up to 5.0 percent and may be added to the maximum fee level.



## Introduction

The City of Seattle (City) retained David Paul Rosen & Associates (DRA) to prepare a nexus study establishing a rational nexus between residential development and the need for affordable housing in the City.

This report describes the methodology, assumptions and findings of the nexus analysis. The nexus analysis estimates the number of very low and low income households associated with development of new residential and commercial (office and hotel) development in the City, and calculates the maximum nexus fee based on the cost to produce housing affordable to these households. The nexus analysis is based on the demographic and economic characteristics of employees expected to provide goods and services to new residential customers, and for those expected to work in the commercial buildings.

This report is presented in the following major sections:

- Nexus Rationale
- Affordability Gap Analysis
- Residential Nexus Analysis
- Non-Residential Nexus Analysis

## The Nexus Rationale

Job growth does not occur in most industry sectors without buildings to house new workers. Therefore, new buildings are constructed to accommodate the workers associated with job growth.

Any new non-residential building in the City may be occupied partly or wholly by businesses relocating from elsewhere in the City. However, when a business relocates to a new building in the City, it vacates building space in the old location, which in turn is filled by new businesses and employees. Somewhere in





the chain there are jobs new to the City. The net effect is that new buildings accommodate new employees.

Just as new non-residential buildings make room for new firms and their employees relocating to the City, so new residential construction makes room for new population and households moving to the City. Even if the household moving into a new unit is relocating from another house in the City, the household vacates an existing unit that, in turn, is filled with another household. Again, somewhere in the chain new population and households are added to the City.

New market-rate housing development accommodates growth in population and households. The arrival of new population creates demand for additional jobs in retail outlets and services that serve that population. A portion of the income of the residents in new market-rate housing units will be spent to purchase a range of goods and services, such as purchases at local supermarkets and restaurants or services at local dry cleaners. These purchases in the local economy in turn generate employment in a range of different compensation levels.

New housing affordable to lower income households is not added to the supply in sufficient quantities to meet the needs of new lower income employee households. The cost to build new housing, or to acquire and rehabilitate existing housing, is more than the rents or home prices that lower income households can afford to pay.

The methodology for quantifying the nexus relationship for new market rate residential development can be demonstrated in relation to a new family moving into the City. A new residential unit is developed within the City and sold or rented to a family at the going market rate. The family's income can be estimated based on the amount needed to purchase or rent the home, by using current mortgage rates, lending standards, and income/rent ratios used by rental property managers. A portion of a household's income will be used to purchase goods and services, which will generate the need for additional employees at the businesses the household frequents. The additional employees will be paid at different salary levels, based on the industry and type of job. Some of the jobs that are produced will be low paying, especially service industry jobs, and will produce very low, low, and moderate income households, even when there are multiple earners in the households. These households are unable to purchase or rent housing units at market rates, and thus will seek out affordable units.

The nexus methodology used by DRA quantifies the estimated increase in lower income households associated with new non-residential and residential



development, and estimates the costs of providing housing affordable to these new households. These costs are then translated into the maximum nexus fee that may be levied on residential and non-residential development. This methodology is consistent with the standards of reasonable relationship established by Supreme Court case law.

DRA's nexus analyses are designed to demonstrate the economic relationship between residential and non-residential development and the need for affordable housing in the City. DRA employs consistently conservative assumptions, so that the resulting calculations of the maximum fees are likely to understate the maximum nexus calculation for each land use type.

## Affordability Gap Analysis

The affordability gap analysis compares the cost of housing development in the City to the amount very low and low income households can afford to pay for housing. The affordability gap represents the capital subsidy required to develop housing affordable to families at target income levels. The methodology, key assumptions and findings of the affordability gap analysis are summarized below.

The resulting affordability gaps are used in later sections of this report to estimate the maximum residential nexus fees required to mitigate new demand generated by each building type for housing affordable to very low and low income households.

## Methodology

The first step in the gap analysis establishes the amount a tenant or homebuyer can afford to contribute to the cost of renting or owning a dwelling unit. The second step estimates the costs of constructing or preserving affordable housing in the City. For the purposes of the nexus analysis, DRA calculated the affordability gap based on the costs to build new multifamily housing in Seattle, the most cost-effective means of housing these very low and low income employee households. Given the average household size of 2.06<sup>1</sup> persons in the City, the affordability gap for a one-bedroom unit is used to calculate the nexus fees.

The third step in the gap analysis establishes the housing expenses borne by the tenants and owners. These costs can be categorized into operating costs, and

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<sup>1</sup>Based on a household population of 583,735 divided by 283,510 households in the City of Seattle as of the 2010 census.

financing or mortgage obligations. Operating costs are the maintenance expenses of the unit, including utilities, property maintenance, property taxes, management fees, property insurance, replacement reserve, and insurance. For the rental prototype used in this analysis, DRA assumed that the landlord pays all but certain tenant-paid utilities as an annual operating cost of the unit paid from rental income.

Financing or mortgage obligations are the costs associated with the purchase or development of the housing unit itself. These costs occur when all or a portion of the development cost is financed. This cost is always an obligation of the landlord or owner. Supportable financing is deducted from the total development cost, to determine the capital subsidy required to develop the prototypical housing unit affordable to an eligible family at each income level.

For the rental housing prototype used in this analysis, the gap analysis calculates the difference between total development costs and the conventional mortgage supportable by net operating income from restricted rents.

The purpose of the gap analysis is to determine the fee amount that would be required to develop housing affordable to the very low and low income households who will need to find housing in the City in connection with new market-rate residential and commercial development in the City. Therefore, no other housing subsidies, or leverage, are assumed.

## **Housing Development Costs**

DRA estimated the costs to build the new rental housing prototype used in the gap analysis based on interviews with developers active in the Seattle Area as part of DRA's "Affordable Housing Incentive Program Economic Analysis," 2014. Based on this analysis, we assume average development costs of \$350 per square foot for low or mid-rise multifamily construction and average unit sizes of 650 net square feet for a studio unit, 800 net square feet for a one-bedroom units, and 1,200 net square feet for a two-bedroom unit.

## **Calculation of Per Unit Subsidy Amounts**

The per unit subsidy required to make new housing affordable to very low and low income residents was calculated by subtracting per unit development costs from



the per unit mortgage supportable from affordable rents. These calculations are shown in **Table 12**.

The results of the gap analysis show significant affordability gaps for very low and low income households.

## Residential Nexus Analysis

### Impact Methodology and Use of the IMPLAN Model

The methodology used for the residential nexus analysis begins with the estimated sales prices of a prototypical residential development and moves through a series of linkages to the incomes of the households that purchased the units, the annual expenditures of those households on goods and services, the jobs associated with the delivery of these goods and services, the income of the workers performing those jobs, the household income of those worker households, and finally to the affordability level of the housing needed by those worker households. The steps of the analysis are as follows:

1. Define a prototypical residential development.
2. Estimate the household income distribution of the households purchasing or renting these homes.
3. Estimate the consumer expenditures of those households.
4. Estimate the number of new full-time employees required to provide the goods and services purchased by these households.
5. Estimate the number of new households associated with this employment growth.
6. Estimate the income distribution of these new employee households.
7. Estimate the number of new households requiring affordable housing.
8. Estimate the housing affordability gap for these affordable housing units.
9. Calculate the maximum supportable residential nexus fee.

For owner housing, DRA estimated the household income distribution of households purchasing the new homes based on the estimated minimum income necessary to afford the mortgage principal and interest, property taxes and property insurance required to purchase the home. For renters, tenant household income is calculated from typical income to rent standards used by apartment owners. The consumer expenditures of these households and the jobs generated by these expenditures are estimated using the IMPLAN model, a model widely used for the past 25 years to quantify employment impacts from personal income. Based on the employment generation by industry from the IMPLAN model, DRA used its nexus model to quantify the income of worker households by affordability level.

### **THE IMPLAN MODEL**

The IMPLAN model is an economic analysis software package now commercially available through the Minnesota IMPLAN Group (MIG). 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. It has been in use since 1979 and refined over time. IMPLAN has become one of the industry standards widely used across the United States to predict economic impacts in a broad range of applications from major construction projects to natural resource programs. IMPLAN's clients include more than 20 federal government agencies, 60 state agencies across the country, and academic, local government, nonprofit and private sector clients numbering in the hundreds (follow these links to IMPLAN's [Client List](#) and [Consultants Listing](#)). IMPLAN is also the industry standard in California for use in local residential nexus impact fee analyses.

The IMPLAN model projects the number of employees needed to produce a given amount of goods and services, based on actual 2012 economic data for King County. More specifically, 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. The model tracks changes in purchases for final consumption through the supply chain. Industries that produce goods and services for final consumption must purchase inputs from other producers that, 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.

IMPLAN's industry sectoring scheme is tied to the Bureau of Economic Analysis (BEA) Input-Output Study. The most recent 2007 BEA Benchmark study uses a 440-sector scheme. This scheme approximates 6-digit North American Industrial





Classification System (NAICS) for manufacturing, and is more highly aggregated for service sectors. IMPLAN 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 uses the most current 2012 data set for King County.

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

**Direct impacts** result from the household spending included in the analysis. 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** result from supplier purchases made by the business operations of the companies included in the analysis. With the restaurant example, indirect impacts would include employment at food wholesalers, kitchen suppliers, and producers of agricultural products.

**Induced impacts** result from increased demand for local-serving retail and services by the new employees. Again using the restaurant example, induced impacts would include employment generated when employees of the restaurant, food wholesaler and kitchen suppliers spend their earnings in the local economy.

The IMPLAN model projections include all three of the impacts listed above. The IMPLAN Pro Guide provides an introduction to input-output analysis and further documentation on the model's assumptions and mathematical equations. (Follow these links to the [Version 2 IMPLAN Pro guide](#) and the [Version 3.0 Reference Manual](#).)

## Disposable Income of New Households

The analysis begins with fourteen of the prototypical housing prototypes and the two office prototypes analyzed by DRA in its 2014 "Affordable Housing Incentive Analysis Economic Analysis" prepared for the City of Seattle, as well as one additional hotel prototype provided by City staff. These prototypes are described in **Table 13**. This analysis also uses the sales prices and rents estimated for these prototypes (under the "middle" cost scenario for the low- and mid-rise prototypes) in that study. The income of the new households moving into these units is estimated based on the estimated average sales price or rent for each prototype.



To estimate the income distribution for the buyers of new for-sale homes, this analysis assumes the average incomes are approximately equal to the minimum qualifying income criteria for a new-home loan. This calculation assumes that the new buyers pay a 10 percent down payment and secure a mortgage equal to 90 percent of the home's sale price. Monthly principal and interest payments on the mortgage are calculated assuming a 30-year fixed rate mortgage at 5.0 percent interest. Qualifying household income is estimated assuming households pay 35 percent of gross household income for principal, income, taxes and insurance (PITI), a typical standard used by mortgage lenders.

For renters, the income distribution of tenants in the new apartments is estimated assuming tenants on average spend 33 percent of their household income for rent.

The IMPLAN model 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 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. Housing expenses are not deducted from disposable income as they are also handled internally with the IMPLAN model. Based on a review of data from the Tax Policy Center (a joint venture of the Brookings Institution and the Urban Institute), and the California Franchise Tax Board, disposable income for households in the income levels projected for the buyers and renters of the prototypical market-rate housing units is estimated at 65 percent of total household income.

**Table 14** shows the estimated average household income, projected total household income, and projected total disposable household income of new homebuyers for each of the owner prototypes. **Table 15** shows the disposable household income projections for new renters by prototype.

## Projected Employment Generation

The IMPLAN model has been applied to link household consumption expenditures to job growth occurring in the City. The IMPLAN model distributes spending among various types of goods and services, and therefore 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. The IMPLAN model also projects total industry output and payroll associated with the direct, indirect and induced impacts.

The IMPLAN model input is the projected disposable income of the renters and homebuyers. The projected economic impacts from each residential development are summarized in **Table 16**. **Table 17** shows the breakdown of the new jobs created by major industry category for each prototype. The IMPLAN model also projects total payroll associated with these new employees. **Tables 18 through 31** detail the projected labor income by industry sector for each prototype, as well as the number of employees and average income per employee.

## Projected Household Growth

The next step in this analysis is to translate the number of new employees into the number of employee households in the City. The 2012 Five-Year ACS indicates that the City of Seattle had an average of 1.59 workers per worker household.<sup>1</sup> Therefore, DRA divided the number of new employees by 1.59 to generate the number of new households.

## Projected Very Low and Low Income Households

This step estimates the number of new employee households that will require affordable housing. The IMPLAN model provides information on payroll per employee. To estimate household incomes, DRA multiplied each payroll per employee figure by 1.59, the citywide average number of workers per worker household. This approach assumes that all workers in a household earn similar wages.

The average household size in the City of Seattle as of the 2010 census was 2.06 persons.<sup>2</sup> Therefore, this analysis uses the income limits for a household size of two and one-half persons<sup>3</sup> of \$22,500 at 30% AMI, \$44,950 at 60% AMI, and \$59,950 at 80% AMI.

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<sup>1</sup> 356,914 employed residents divided by 224,155 households with at least one worker.

<sup>2</sup> Total household population of 583,735 divided by 283,510 households.

<sup>3</sup> This is more conservative than using an average household size of two persons since it results in higher income limits.

The percentage of employee households in each industry category expected to fall into each of the three income categories (less than 30% AMI, 30% to 60% AMI, and 60% to 80% AMI) was estimated based on wage data by occupational grouping for the Seattle-Bellevue-Everett Metropolitan Division from the U.S. Department of Labor, Bureau of Labor Statistics dated May, 2013. **Table 32** summarizes this wage data by two-digit Standard Occupational Classification (SOC) code, including mean, 10<sup>th</sup> percentile, 25<sup>th</sup> percentile, median, 75<sup>th</sup> percentile and 90<sup>th</sup> percentile wages for each occupational category. The wage distribution for these occupational groupings are translated into wage distribution by income categories based on the distribution of occupations associated with each industry category from the May 2013 National Industry-Specific Occupational Employment and Wage Estimates.

The 2013 wage data in this analysis do not take into account Seattle's new minimum wage ordinance (Ordinance 124490) adopted by the City Council in June 2014. The \$15 per hour minimum wage for larger employees in 2017 means that a full-time minimum wage worker will earn an annual wage of approximately \$31,200, which substantially exceeds the 30% of area median income limit for a 2.5 person household of \$22,500. This means that most of the full-time 30% AMI employees will move up into the 30% to 50% AMI category.

**Tables 33** through **46** detail the calculation of very low and low income households that would be expected to move to the City for each of the fourteen housing prototypes.

## Total Affordability Gap for New Households

Using the projected number of households that will require affordable housing, DRA estimated the costs of providing housing to these new households using the results of the affordability gap analysis.

The results of the nexus analysis show significant supportable nexus fees for all prototypes for very low and low income households.



## Non-Residential Nexus Analysis

### Overview of Non-Residential Nexus Methodology

The numerical nexus analysis in this report identifies the number of households at very low and low income levels associated with the employees that work in a building of a given size and land use type in the City, and calculates the development impact fee required to make housing affordable to those households.

DRA examined the development of two office prototypes and one hotel prototype.

The nexus analysis employs a tested nexus and gap methodology, described below, that has proven acceptable to the courts. The economic analysis uses a conservative approach to understate the maximum fee amount. Therefore, the housing impacts are likely even greater than indicated in the analysis.

The nexus economic analysis methodology employs the following steps:

1. Estimate total new employees;
2. Estimate new employees living in the City;
3. Adjust for potential future increase in labor force participation;
4. Estimate the number of new households represented by the number of new employees;
5. Distribute households by industry groupings for each land use; and
6. Estimate the number of employee households meeting very low and low income limits, adjusted for household size, based on estimated wages by occupation and industry.

The result of these steps is the estimated number of households by land use living in the City and qualifying as very low and low income based on development in the City. DRA used the results of the housing affordability gap analysis to calculate the development impact fee required to make housing affordable to the very low and low income households who will need to find housing in the City in connection with new non-residential development in the City.





## Non-Residential Nexus Methodology and Assumptions

The nexus analysis requires a number of assumptions. In all cases, we consistently employ conservative assumptions that serve to understate the nexus calculation. We expect that the cumulative effect of these assumptions understates the maximum nexus fee calculation for each building type. We do not believe, therefore, that changing individual assumptions would fundamentally alter the conclusions of the analysis.

The residential nexus fee calculation estimates affordable housing needs generated by employees meeting the goods and services needs generated by new market rate residential development in the City. This is particularly the case for commercial/retail space (which is not analyzed in the present study). To address the overlap between employees created by new residential development and those created by new non-residential development, DRA recommends that the City establish residential and non-residential nexus fees that are below the maximum level. However, not all of the non-residential employment impact is caused by local employment. For example, typical ratios for community shopping space from the 2008 Urban Land Institute “Retail Development Handbook” and “Dollars & Cents of Shopping Centers,” suggest that at least 30 percent of the demand for this space typically comes from sources other than local residents, including visitors, travelers, employees, and others.

Each of the steps in the nexus analysis is described below, along with corresponding assumptions.

### ESTIMATE TOTAL NEW EMPLOYEES IN PROTOTYPE BUILDINGS

The first step estimates the total number of direct employees who will work at or in the building type being analyzed. This step implicitly assumes that all employees are new employees to the City. When firms and their employees relocate from other buildings in the City, they will have vacated spaces that will likely be filled by other firms and employees. A subsequent step in this analysis adjusts for existing unemployed City residents who may be hired in the building.

The estimate of the number of employees that will be working in each prototype building is based on an employment density factor for each land use (i.e. number of net square feet per employee). The net square feet of building area is divided by the employment density factor to calculate employment.

The employment density factors used in this analysis are as follows:



**Office:** 250 net square feet per employee. Average office density is usually found in the range of 200 to 300 square feet per employee, depending upon the type of office activity, such as professional office versus back office.

**Hotel:** One employee per room and an average of 500 square feet per hotel room. This is on the larger size for hotel rooms, and so is again a conservative assumption.

#### **ESTIMATE EMPLOYEES LIVING IN THE CITY OF SEATTLE**

This step estimates the number of new employees associated with new employment growth in the City that would live in the City.

The 2012 Five-Year ACS indicates that 73.8 percent of workers in the City aged 16 years and older worked in the City<sup>1</sup>. For the purposes of this analysis, we have assumed that 73.8 percent of new City workers will reside in the City.

#### **ADJUST FROM EMPLOYEES TO EMPLOYEE HOUSEHOLDS**

The next step in the analysis converts the number of employees living in the City to the number of employee households that will work at or in the building type being analyzed. This step recognizes that there is, on average, more than one worker per household, and thus the number of housing units in demand for new workers must be reduced. The worker per worker household ratio also eliminates all non-working households, including retired persons, students, and those on public assistance.

Based on ACS Five-Year estimates for 2012, the City of Seattle had 356,914 employed residents and 224,155 households with one or more workers, for an average of 1.59 workers per worker households. The total number of employed residents includes part-time and full-time workers. This is a conservative assumption. If only full-time workers were included, the ratio of workers per household would be smaller, leading to a larger estimate of new households created. In addition, wages by occupation and industry assume full-time employment. Household incomes will be lower for households with part-time workers, generating a larger impact than projected in this study.

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<sup>1</sup> Based 350,673 workers in the City of Seattle and 258,706 workers in the City of Seattle that work in their place of residence.

## **DISTRIBUTE EMPLOYEE HOUSEHOLDS BY OCCUPATION**

This step distributes households by occupational groupings for each land use. This step is necessary to estimate new workers' incomes. DRA used data from the May, 2013 U.S. Bureau of Labor Statistics, National Industry-Specific Occupational Employment and Wage Estimates to calculate the percentage distribution of employment by industry occupational category for office and hotel land uses. These distributions are shown in **Table 47**. The calculation of the number of new employee households by occupation and prototype are shown in **Table 48**.

## **ESTIMATE WAGES BY OCCUPATION**

In this step, occupation is translated to income based on May 2013 wage and salary information for the Seattle-Bellevue-Everett Metropolitan Division from the U.S. Department of Labor, Bureau of Labor Statistics. Data on mean, median, 10<sup>th</sup> percentile, 25<sup>th</sup> percentile, 75<sup>th</sup> percentile and 90<sup>th</sup> percentile hourly wages by occupation were used to estimate the percentage of employees earning salaries in the very low and low income categories based on the 2014 HUD income limits for the Seattle-Bellevue HMFA. This data was shown earlier in Table 32.

## **ESTIMATE VERY LOW AND LOW INCOME HOUSEHOLDS**

The estimated percentage and number of households earning salaries under 30 percent AMI, between 31 percent and 60 percent AMI, and between 61 percent and 80 percent AMI are shown in **Tables 49, 50 and 51**, respectively. These estimates were derived using 2014 income limits for a family of 2.5 persons of \$22,500 for households earning less than 30 percent of AMI, \$44,950 for households at 60 percent of AMI, and \$59,950 for households at 80 percent of AMI. As noted above, these calculations do not factor in the increase in the City's minimum wage starting in 2017.

Individual employee income data was used to calculate the number of households that fall into these income categories by assuming that multiple earner households are, on average, formed of individuals with incomes within the same income category (very low income or low income).

**Table 8**  
**Calculation of Estimated Maximum Residential Nexus Fees**  
**Current Minimum Wage**  
**Seattle Affordable Housing Nexus Study**  
**2014**

	Less than 30% AMI	30% to 60% AMI	60% to 80% AMI	Total
<b>Prototype 1A</b>				
Est. No. of New Employee Households	13	35	14	62
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$3,640,000	\$8,057,000	\$2,511,600	
No. of Units in Prototype	426	426	426	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$8,545	\$18,913	\$5,896	\$33,354
Average Square Feet Per Unit in Prototype	725	725	725	
Gap Per Net Square Foot = Supportable Nexus Fee (3)	\$11.79	\$26.09	\$8.13	\$46.00
<b>Prototype 2A</b>				
Est. No. of New Employee Households	14	37	14	65
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$3,920,000	\$8,517,400	\$2,511,600	
No. of Units in Prototype	344	344	344	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$11,395	\$24,760	\$7,301	\$43,456
Average Square Feet Per Unit in Prototype	825	825	825	
Gap Per Net Square Foot = Supportable Nexus Fee (3)	\$13.82	\$30.03	\$8.86	\$52.71
<b>Prototype 4A</b>				
Est. No. of New Employee Households	8	22	9	39
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$2,240,000	\$5,064,400	\$1,614,600	
No. of Units in Prototype	280	280	280	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$8,000	\$18,087	\$5,766	\$31,854
Average Square Feet Per Unit in Prototype	725	725	725	
Gap Per Net Square Foot = Supportable Nexus Fee (3)	\$11.03	\$24.95	\$7.95	\$43.94
<b>Prototype 4B</b>				
Est. No. of New Employee Households	3	9	4	16
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$840,000	\$2,071,800	\$717,600	
No. of Units in Prototype	124	124	124	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$6,774	\$16,708	\$5,787	\$29,269
Average Square Feet Per Unit in Prototype	725	725	725	
Gap Per Net Square Foot = Supportable Nexus Fee (3)	\$9.34	\$23.05	\$7.98	\$40.37
<b>Prototype 5A</b>				
Est. No. of New Employee Households	8	21	8	37
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$2,240,000	\$4,834,200	\$1,435,200	
No. of Units in Prototype	218	218	218	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$10,275	\$22,175	\$6,583	\$39,034
Average Square Feet Per Unit in Prototype	849	849	849	
Gap Per Net Square Foot (3)	\$12.11	\$26.13	\$7.76	\$46.00
<b>Prototype 5B</b>				
Est. No. of New Employee Households	3	7	3	13
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$840,000	\$1,611,400	\$538,200	
No. of Units in Prototype	94	94	94	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$8,936	\$17,143	\$5,726	\$31,804
Average Square Feet Per Unit in Prototype	849	849	849	
Gap Per Net Square Foot (3)	\$10.53	\$20.20	\$6.75	\$37.48
<b>Prototype 7A</b>				
Est. No. of New Employee Households	2	5	2	9
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$560,000	\$1,151,000	\$358,800	
No. of Units in Prototype	71	71	71	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$7,887	\$16,211	\$5,054	\$29,152
Average Square Feet Per Unit in Prototype	650	650	650	
Gap Per Net Square Foot (3)	\$12.13	\$24.94	\$7.77	\$44.85

**Table 8**  
**Calculation of Estimated Maximum Residential Nexus Fees**  
**Current Minimum Wage**  
**Seattle Affordable Housing Nexus Study**  
**2014**

	Less than 30% AMI	30% to 60% AMI	60% to 80% AMI	Total
<b>Prototype 7B</b>				
Est. No. of New Employee Households	1	2	1	4
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$280,000	\$460,400	\$179,400	
No. of Units in Prototype	34	34	34	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$8,235	\$13,541	\$5,276	\$27,053
Average Square Feet Per Unit in Prototype	650	650	650	
Gap Per Net Square Foot (3)	\$12.67	\$20.83	\$8.12	\$41.62
<b>Prototype 9A</b>				
Est. No. of New Employee Households	3	7	3	13
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$840,000	\$1,611,400	\$538,200	
No. of Units in Prototype	106	106	106	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$7,925	\$15,202	\$5,077	\$28,204
Average Square Feet Per Unit in Prototype	650	650	650	
Gap Per Net Square Foot (3)	\$12.19	\$23.39	\$7.81	\$43.39
<b>Prototype 9B</b>				
Est. No. of New Employee Households	2	5	2	9
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$560,000	\$1,151,000	\$358,800	
No. of Units in Prototype	72	72	72	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$7,778	\$15,986	\$4,983	\$28,747
Average Square Feet Per Unit in Prototype	650	650	650	
Gap Per Net Square Foot (3)	\$11.97	\$24.59	\$7.67	\$44.23
<b>Prototype 10A</b>				
Est. No. of New Employee Households	2	6	2	10
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$560,000	\$1,381,200	\$358,800	
No. of Units in Prototype	84	84	84	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$6,667	\$16,443	\$4,271	\$27,381
Average Square Feet Per Unit in Prototype	820	820	820	
Gap Per Net Square Foot (3)	\$8.13	\$20.05	\$5.21	\$33.39
<b>Prototype 10B</b>				
Est. No. of New Employee Households	2	4	2	8
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$560,000	\$920,800	\$358,800	
No. of Units in Prototype	57	57	57	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$9,825	\$16,154	\$6,295	\$32,274
Average Square Feet Per Unit in Prototype	820	820	820	
Gap Per Net Square Foot (3)	\$11.98	\$19.70	\$7.68	\$39.36
<b>Prototype 11A</b>				
Est. No. of New Employee Households	3	9	3	15
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$840,000	\$2,071,800	\$538,200	
No. of Units in Prototype	135	135	135	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$6,222	\$15,347	\$3,987	\$25,556
Average Square Feet Per Unit in Prototype	650	650	650	
Gap Per Net Square Foot (3)	\$9.57	\$23.61	\$6.13	\$39.32
<b>Prototype 12A</b>				
Est. No. of New Employee Households	2	6	2	10
Gap Per Household (1)	\$280,000	\$230,200	\$179,400	
Total Gap	\$560,000	\$1,381,200	\$358,800	
No. of Units in Prototype	107	107	107	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$5,234	\$12,908	\$3,353	\$21,495
Average Square Feet Per Unit in Prototype	820	820	820	
Gap Per Net Square Foot (3)	\$6.38	\$15.74	\$4.09	\$26.21

- (1) Based on per unit affordability gap by income level for one-bedroom units.  
(2) Equals total gap divided by the number of units in each prototype.  
(3) Equals gap per unit divided by average square feet per unit for each prototype.

Source: DRA



**Table 9**  
**Calculation of Estimated Maximum Residential Nexus Fees**  
**2017 Minimum Wage**  
**Seattle Affordable Housing Nexus Study**  
**2014**

		Office Prototype 3A	Office Prototype 6A	Hotel Prototype
Net Square Feet by Prototype		249,480	238,400	117,600
<b>Households Earning Up to 30% AMI</b>				
1. Number of Employee Households		4.2	4.1	10.9
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	\$280,000	\$1,176,000	\$1,148,000	\$3,052,000
<b>3. Cost of Housing Gap Per Square Foot Bldg. Area</b>		<b>\$4.71</b>	<b>\$4.82</b>	<b>\$25.95</b>
<b>Households Earning Between 31% and 60% AMI</b>				
1. Number of Employee Households		61	58	27
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	\$230,200	\$13,927,100	\$13,305,560	\$6,100,300
<b>3. Cost of Housing Gap Per Square Foot Bldg. Area</b>		<b>\$55.82</b>	<b>\$55.81</b>	<b>\$51.87</b>
<b>Households Earning Between 61% and 80% AMI</b>				
1. Number of Employee Households		22	22	3
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	\$179,400	\$4,018,560	\$3,875,040	\$538,200
<b>3. Cost of Housing Gap Per Square Foot Bldg. Area</b>		<b>\$16.11</b>	<b>\$16.25</b>	<b>\$4.58</b>
<b>Total Fee Per Square Foot</b>		<b>\$76.65</b>	<b>\$76.88</b>	<b>\$82.40</b>

(1) Based on per unit affordability gap for one-bedroom units.

**Table 10**  
**Calculation of Estimated Maximum Non-Residential Nexus Fee by Land Use**  
**2017 Minimum Wage**  
**Seattle Affordable Housing Nexus Study**  
**2014**

	Less than 60% AMI	60% to 80% AMI	Total
<b>Prototype 1A</b>			
Est. No. of New Employee Households	48	14	62
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$11,049,600	\$2,511,600	
No. of Units in Prototype	426	426	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$25,938	\$5,896	\$31,834
Average Square Feet Per Unit in Prototype	725	725	
Gap Per Net Square Foot (3)	\$35.78	\$8.13	\$43.91
<b>Prototype 2A</b>			
Est. No. of New Employee Households	51	14	65
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$11,740,200	\$2,511,600	
No. of Units in Prototype	344	344	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$34,128	\$7,301	\$41,430
Average Square Feet Per Unit in Prototype	825	825	
Gap Per Net Square Foot (3)	\$41.39	\$8.86	\$50.25
<b>Prototype 4A</b>			
Est. No. of New Employee Households	30	9	39
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$6,906,000	\$1,614,600	
No. of Units in Prototype	280	280	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$24,664	\$5,766	\$30,431
Average Square Feet Per Unit in Prototype	725	725	
Gap Per Net Square Foot (3)	\$34.02	\$7.95	\$41.97
<b>Prototype 4B</b>			
Est. No. of New Employee Households	12	4	16
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$2,762,400	\$717,600	
No. of Units in Prototype	124	124	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$22,277	\$5,787	\$28,065
Average Square Feet Per Unit in Prototype	725	725	
Gap Per Net Square Foot (3)	\$30.73	\$7.98	\$38.71
<b>Prototype 5A</b>			
Est. No. of New Employee Households	29	8	37
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$6,675,800	\$1,435,200	
No. of Units in Prototype	218	218	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$30,623	\$6,583	\$37,206
Average Square Feet Per Unit in Prototype	849	849	
Gap Per Net Square Foot (3)	\$36.09	\$7.76	\$43.85
<b>Prototype 5B</b>			
Est. No. of New Employee Households	10	3	13
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$2,302,000	\$538,200	
No. of Units in Prototype	94	94	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$24,489	\$5,726	\$30,215
Average Square Feet Per Unit in Prototype	849	849	
Gap Per Net Square Foot (3)	\$28.86	\$6.75	\$35.61
<b>Prototype 7A</b>			
Est. No. of New Employee Households	7	2	9
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$1,611,400	\$358,800	
No. of Units in Prototype	71	71	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$22,696	\$5,054	\$27,749
Average Square Feet Per Unit in Prototype	650	650	
Gap Per Net Square Foot (3)	\$34.92	\$7.77	\$42.69

**Table 10**  
**Calculation of Estimated Maximum Non-Residential Nexus Fee by Land Use**  
**2017 Minimum Wage**  
**Seattle Affordable Housing Nexus Study**  
**2014**

	Less than 60% AMI	60% to 80% AMI	Total
<b>Prototype 7B</b>			
Est. No. of New Employee Households	3	1	4
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$690,600	\$179,400	
No. of Units in Prototype	34	34	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$20,312	\$5,276	\$25,588
Average Square Feet Per Unit in Prototype	650	650	
Gap Per Net Square Foot (3)	\$31.25	\$8.12	\$39.37
<b>Prototype 9A</b>			
Est. No. of New Employee Households	10	3	13
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$2,302,000	\$538,200	
No. of Units in Prototype	106	106	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$21,717	\$5,077	\$30,308
Average Square Feet Per Unit in Prototype	650	650	
Gap Per Net Square Foot (3)	\$33.41	\$7.81	\$41.22
<b>Prototype 9B</b>			
Est. No. of New Employee Households	7	2	9
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$1,611,400	\$358,800	
No. of Units in Prototype	72	72	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$22,381	\$4,983	\$30,308
Average Square Feet Per Unit in Prototype	650	650	
Gap Per Net Square Foot (3)	\$34.43	\$7.67	\$42.10
<b>Prototype 10A</b>			
Est. No. of New Employee Households	8	2	10
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$1,841,600	\$358,800	
No. of Units in Prototype	84	84	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$21,924	\$4,271	\$30,308
Average Square Feet Per Unit in Prototype	820	820	
Gap Per Net Square Foot (3)	\$26.74	\$5.21	\$31.95
<b>Prototype 10B</b>			
Est. No. of New Employee Households	6	2	8
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$1,381,200	\$358,800	
No. of Units in Prototype	57	57	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$24,232	\$6,295	\$30,308
Average Square Feet Per Unit in Prototype	820	820	
Gap Per Net Square Foot (3)	\$29.55	\$7.68	\$37.23
<b>Prototype 11A</b>			
Est. No. of New Employee Households	12	3	15
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$2,762,400	\$538,200	
No. of Units in Prototype	135	135	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$20,462	\$3,987	\$30,308
Average Square Feet Per Unit in Prototype	650	650	
Gap Per Net Square Foot (3)	\$31.48	\$6.13	\$37.61
<b>Prototype 12A</b>			
Est. No. of New Employee Households	8	2	10
Gap Per Household (1)	\$230,200	\$179,400	
Total Gap	\$1,841,600	\$358,800	
No. of Units in Prototype	107	107	
Gap Per Unit in Prototype = Supportable Nexus Fee (2)	\$17,211	\$3,353	\$30,308
Average Square Feet Per Unit in Prototype	820	820	
Gap Per Net Square Foot (3)	\$20.99	\$4.09	\$25.08

(1) Based on per unit affordability gap by income level for one-bedroom units.

(2) Equals total gap divided by the number of units in each prototype.

(3) Equals gap per unit divided by average square feet per unit for each prototype.

Source: DRA

**Table 11**  
**Calculation of Estimated Maximum Non-Residential Nexus Fee by Land Use**  
**Current Minimum Wage**  
**Seattle Affordable Housing Nexus Study**  
**2014**

		<b>Office Prototype 3A</b>	<b>Office Prototype 6A</b>	<b>Hotel Prototype</b>
Net Square Feet by Prototype		249,480	238,400	117,600
<b>Households Earning Up to 60% AMI</b>				
1. Number of Employee Households		65	62	37
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	\$230,200	\$14,893,940	\$14,249,380	\$8,609,480
<b>3. Cost of Housing Gap Per Square Foot Bldg. Area</b>		<b>\$59.70</b>	<b>\$59.77</b>	<b>\$73.21</b>
<b>Households Earning Between 61% and 80% AMI</b>				
1. Number of Employee Households		22	22	3
2. Estimated Housing Gap Cost at Per Unit Gap of: (1)	\$179,400	\$4,018,560	\$3,875,040	\$538,200
<b>3. Cost of Housing Gap Per Square Foot Bldg. Area</b>		<b>\$16.11</b>	<b>\$16.25</b>	<b>\$4.58</b>
<b>Total Fee Per Square Foot</b>		<b>\$75.81</b>	<b>\$76.03</b>	<b>\$77.79</b>

(1) Based on per unit affordability gap for one-bedroom units.

**Table 12**  
**Rental Affordability Gap Calculations**  
**Low and Mid-Rise Prototypes**  
**Seattle Affordable Housing Incentive Program**  
**Economic Analysis**  
**2014**

**Assumptions**

HUD Median Household Income, Seattle-Bellevue HMFA, 2014  
Affordable Housing Expense As a % of Income

\$88,200  
30%

No. of Bedrooms	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom
Household Size	1.0 Persons	1.5 Persons	3.0 Persons	4.5 Persons	6.0 Persons
Household Size Income Adjust. Factor	70%	75%	90%	104%	116%
Renter Utility Allowance, City of Seattle (1)					
Tenant Pays All Utilities (2)	\$110	\$110	\$160	\$245	\$325
Tenant Pays Heat and Electricity	\$35	\$35	\$60	\$95	\$155
Tenant Pays Electricity Only	\$15	\$15	\$20	\$35	\$65
Assumed for these calculations:	\$110	\$110	\$160	\$245	\$325

Miscellaneous Income Per Unit Per Year	\$100
Vacancy Rate	3.00%
Operating Cost Per Unit Per Year	
Low-Rise/Mid-Rise Prototypes, Citywide	\$6,500
Mortgage Interest Rate	6.50%
Mortgage Amortization (Years)	30
Debt Coverage Ratio	1.00
Prototype Development Cost per Net SF (3)	\$350

Income Levels by Family Size	1.0 Persons	1.5 Persons	2.0 Persons	2.5 Persons	3.0 Persons	4.0 Persons	5.0 Persons
Household Size Income Adjust. Factor	70%	75%	80%	85%	90%	100%	108%
30% of Median	\$18,550	\$19,875	\$21,200	\$22,525	\$23,850	\$26,460	\$28,600
60% of Median	\$37,080	\$39,720	\$42,360	\$45,000	\$47,640	\$52,920	\$57,180
80% of Median	\$49,440	\$52,960	\$56,480	\$60,000	\$63,520	\$70,560	\$78,240

Affordability Gap Calculations	Studio	1 Bedroom	2 Bedroom
Average Unit Size (3)	650	800	1,200
Average Per Unit Development Cost	\$227,500	\$280,000	\$420,000

30% of Median

Annual Income Limit	\$18,550	\$19,875	\$23,850
Affordable Monthly Housing Expense	\$464	\$497	\$596
Less: Monthly Utility Allowance	(\$110)	(\$110)	(\$160)
Affordable Monthly Rent	\$354	\$387	\$436
Annual Gross Rental Income Per Unit	\$4,248	\$4,644	\$5,232
Less: Vacancy	(\$127)	(\$139)	(\$157)
Less: Annual Unit Operating Costs	(\$6,500)	(\$6,500)	(\$6,500)
Net Operating Income Per Unit	(\$2,379)	(\$1,995)	(\$1,425)
Available for Debt Service	(\$2,379)	(\$1,995)	(\$1,425)
Supportable Mortgage Per Unit	(\$31,400)	(\$26,300)	(\$18,800)
Per Unit Affordability Gap (4)	\$227,500	\$280,000	\$420,000

60% of Median

Annual Income Limit	\$37,080	\$39,720	\$47,640
Affordable Monthly Housing Expense	\$927	\$993	\$1,191
Less: Monthly Utility Allowance	(\$110)	(\$110)	(\$160)
Affordable Monthly Rent	\$817	\$883	\$1,031
Annual Gross Rental Income Per Unit	\$9,804	\$10,596	\$12,372
Less: Vacancy	(\$294)	(\$318)	(\$371)
Less: Annual Unit Operating Costs	(\$6,500)	(\$6,500)	(\$6,500)
Net Operating Income Per Unit	\$3,010	\$3,778	\$5,501
Available for Debt Service	\$3,010	\$3,778	\$5,501
Supportable Mortgage Per Unit	\$39,700	\$49,800	\$72,500
Per Unit Affordability Gap (4)	\$187,800	\$230,200	\$347,500

80% of Median

Annual Income Limit	\$49,440	\$52,960	\$63,520
Affordable Monthly Housing Cost	\$1,236	\$1,324	\$1,588
Less: Monthly Utility Allowance	(\$110)	(\$110)	(\$160)
Affordable Monthly Rent	\$1,126	\$1,214	\$1,428
Annual Gross Rental Income Per Unit	\$13,512	\$14,568	\$17,136
Less: Vacancy	(\$405)	(\$437)	(\$514)
Less: Annual Unit Operating Costs	(\$6,500)	(\$6,500)	(\$6,500)
Net Operating Income Per Unit	\$6,607	\$7,631	\$10,122
Supportable Mortgage Per Unit	\$87,100	\$100,600	\$133,400
Per Unit Affordability Gap (4)	\$140,400	\$179,400	\$286,600

(1) Source: Seattle Housing Authority, effective 11/1/2013.

(2) Includes electricity, heating, water, and garbage.

(3) From DRA "Affordable Housing Incentive Program Economic Analysis," 2014. Represents average cost per net SF for low- and mid-rise rental prototypes.

(4) Equals per unit development cost less per unit supportable mortgage.

Source: City of Seattle Department of Planning and Development; Seattle Housing Authority; DRA

**Table 13**  
**Development Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**Economic Analysis**  
**2014**

Prototype Number (1)	Downtown/HR				South Lake Union		
	Resid. Rental	Resid. Owner	Office	Hotel	Residential Rental		Residential
	Prototype 1A With Incentive	Prototype 2A With Incentive	Prototype 3A With Incentive		Prototype 4A With Incentive	Prototype 4B No Incentive	Prototype 5A With Incentive
Zoning	In DMC 240/290-400 and HR	In DMC 240/290-400 and HR	In DOC 2 500/300-500	In DOC 2 500/300-500	in SM 160/85-240	in SM 160/85-240	in SM 160/85-240
Zip Code(s)	98121/ 98191 / 98101	98121/ 98191 / 98101	98121 / 98101	98121 / 98101	98109	98109	98109
Neighborhood/Geographic Subarea	Downtown Urban Center / First Hill	Downtown Urban Center / First Hill	Downtown Urban Center	Downtown Urban Center	SLU Urban Center	SLU Urban Center	SLU Urban Center
Primary Land Use(s)	Residential	Residential	Office	Hotel	Residential	Residential	Residential
Residential Tenure (Renter/Owner)	Renter	Owner			Renter	Renter	Ownership
Total Site Area (Acre)	0.34 Acres	0.34 Acres	0.74 Acres	0.34 Acres	0.48 Acres	0.48 Acres	0.48 Acres
Total Site Area (SF)	15,000	15,000	32,400	15,000	21,000	21,000	21,000
Construction Type	Type I	Type I	Type I	Type I	Type I	Type V over Type I	Type I
Approximate Building Stories	40 Stories	40 Stories	8 Stories	14 Stories	24 Stories	7 Stories	24 Stories
Total Gross Building SF, Including Parking (2)	509,500	524,500	447,000	206,000	341,250	153,000	341,250
Total Gross Building SF Above Ground (Incl. Pkg) (3)	449,500	449,500	324,000	206,000	278,250	132,000	278,250
Floor Area Ratio (Gross Bldg SF, Incl. Pkg.) (3)	29.97	29.97	10.00	13.73	13.25	6.29	13.25
Total Gross Building SF (Excluding All Parking) (4)	344,500 SF	296,500 SF	201,000 SF	147,000 SF	204,250 SF	99,000 SF	179,250 SF
Total Gross Building SF Above Ground	449,500	449,500	324,000	206,000	278,250	132,000	278,250
Total Gross Parking SF Above Ground	45,000	78,000	0	0	12,000	12,000	36,000
Total Gross SF Above Ground Excluding Parking	404,500	371,500	324,000	206,000	266,250	120,000	242,250
Total Net Building SF Excluding Parking	311,000	286,000	249,000	164,800	205,000	92,000	187,000
Office or Hotel Space (Gross SF)	0	0	324,000	147,000	0	0	0
Ground Floor Retail Space (Gross SF)	3,000	3,000	3,000	2,500	3,000	3,000	3,000
Ground Floor Service/Lobby Space	12,000	12,000	32,400	15,000	12,750	0	12,750
Residential Space (Gross SF)	389,500	356,500	0	0	250,500	117,000	226,500
Building Efficiency Ratio (%)	77%	77%	77%	80%	77%	77%	77%
Site Coverage (Bldg. Footprint) (%)	100%	100%	100%	100%	75%	100%	75%
Max. Bldg Footprint, Ground Floor (Gross SF)	15,000	15,000	32,400	15,000	15,750	21,000	15,750
Max. Tower Floor Plate (Gross SF)	10,700	10,700	N/A	N/A	10,500	N/A	10,500
Assumed Floor Plate for Commercial (Gross SF)			25,000				
Levels Underground Parking	4.0	5.0	4.0	4.0	3.0	1.0	3.0
Levels Structured Parking Above Grade	3.0	5.2	0.0	0.0	0.6	0.6	1.7
Stories of Ground Floor Retail/Lobby/Service Space	1.0	1.0	1.0	1.0	1.0	0.1	1.0
Stories of Office Space	0.0	0.0	10.0	14.0	0.0	0.0	0.0
Stories of Residential Space	36.0	33.8	0.0	0.0	22.4	5.6	21.3
Total Stories Above Ground	40.0	40.0	11.0	14.0	24.0	6.3	24.0
Net Rentable SF Retail	2,100 SF	2,100 SF	2,100 SF	2,000 SF	2,100 SF	2,100 SF	2,100 SF
Net Rentable SF Office	0 SF	0 SF	249,480 SF	117,600 SF	0 SF	0 SF	0 SF
Net SF Residential	308,900 SF	283,900 SF	0 SF	0 SF	202,900 SF	89,900 SF	184,900 SF
Net SF Total	311,000 SF	286,000 SF	251,580 SF	119,600 SF	205,000 SF	92,000 SF	187,000 SF
Unit Bedroom Count Distribution							
Studio	25%	33%	0	0	25%	25%	25%
One Bedroom	50%	50%	0	0	50%	50%	55%
Two Bedroom	25%	15%	0	0	25%	25%	18%
Three Bedroom	0%	2%	0	0	0%	0%	2%
Total	100%	100%	0	0	100%	100%	100%
Units by BR Count							
Studio	107	114	0	0	70	31	55
One Bedroom	213	172	0	0	140	62	120
Two Bedroom	106	52	0	0	70	31	39
Three Bedroom	0	6	0	0	0	0	4
Total Residential Units	426	344	0	0	280	124	218
Residential Density (units per acre) (1)	1237 du/a	999 du/a	0 du/a	0 du/a	581 du/a	257 du/a	452 du/a
Unit Size (Net SF)							
Studio	500 SF	650 SF	0 SF	0 SF	500 SF	500 SF	650 SF
One Bedroom	700 SF	800 SF	0 SF	0 SF	700 SF	700 SF	800 SF
Two Bedroom	1,000 SF	1,200 SF	0 SF	0 SF	1,000 SF	1,000 SF	1,200 SF
Three Bedroom	0 SF	1,500 SF	0 SF	0 SF	0 SF	0 SF	1,500 SF
Average Unit Size	725 SF	825 SF	0 SF	0 SF	725 SF	725 SF	849 SF
Parking Ratio - Residential (Spaces/Unit)	0.65	1.17	0	0	0.70	0.70	1.20
Parking Ratio - Office (Spaces/1000 GSF)	0	0	1	0	0	0	0
Parking Ratio - Hotel (Spaces/Room)	0	0	0	1	0	0	0
Parking Spaces Per Floor	39 Spaces/Floor	39 Spaces/Floor	85 Spaces/Floor	37 Spaces/Floor	55 Spaces/Floor	55 Spaces/Floor	55 Spaces/Floor
No. of Underground Parking Spaces	158 Spaces	197 Spaces	324 Spaces	147 Spaces	166 Spaces	55 Spaces	166 Spaces
No. of Above-Ground Parking Spaces	119 Spaces	205 Spaces	0 Spaces	0 Spaces	30 Spaces	32 Spaces	95 Spaces
Total Parking Spaces Provided	277 Spaces	402 Spaces	324 Spaces	147 Spaces	196 Spaces	87 Spaces	261 Spaces
Total Parking Spaces Required	277 Spaces	402 Spaces	324 Spaces	0 Spaces	196 Spaces	87 Spaces	261 Spaces
Gross SF/Parking Space (Incl. Circulation)	380 SF	380 SF	380 SF	400 SF	380 SF	380 SF	380 SF
Total Parking SF	105,000 SF	153,000 SF	123,000 SF	58,800 SF	74,000 SF	33,000 SF	99,000 SF
Total Underground Parking SF	60,000 SF	75,000 SF	123,000 SF	58,800 SF	63,000 SF	21,000 SF	63,000 SF
Total Parking SF Above Grade	45,000 SF	78,000 SF	0 SF	0 SF	11,000 SF	12,000 SF	36,000 SF

(1) Represents prototype number from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014. That study does not include a hotel prototype.

(2) Includes below-grade and above-grade parking.

(3) Includes above-grade parking; excludes underground parking. Excludes modest ground floor retail for commercial prototypes.

(4) Excludes above-grade and below-grade parking.

Source: City of Seattle Department of Planning and Development; DRA



**Table 13**  
**Development Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**Economic Analysis**  
**2014**

Prototype Number (1)	South Lake Union		Lowrise to Midrise		4 Stories to 6 Stories		
	Ownership	Commercial	Residential Rental		Residential Rental		Residential
	Prototype 5B No Incentive	Prototype 6A With Incentive	Prototype 7A With Incentive	Prototype 7B No Incentive	Prototype 9A With Incentive	Prototype 9B No Incentive	Prototype 10A With Incentive
Zoning	in SM 160/85-240	in SM 160/85-240	in MR	in LR3	in NC 65	in NC 40	in NC 65
Zip Code(s)	98109	98109	Zips throughout the city except downtown and SLU.	Zips throughout the city except downtown and SLU.	Zips throughout the city except downtown and SLU.	Zips throughout the city except downtown and SLU.	Zips throughout the city except downtown and SLU.
Neighborhood/Geographic Subarea	SLU Urban Center	SLU Urban Center	Outside Downtown and Urban Villages Citywide	Urban Centers Outside Downtown and Urban Villages Citywide	Outside Downtown and Urban Villages Citywide	Outside Downtown and Urban Villages Citywide	Outside Downtown and Urban Villages Citywide
Primary Land Use(s)	Residential	Commercial	Residential	Residential	Res over Retail	Res over Retail	Res over Retail
Residential Tenure (Renter/Owner)	Ownership	n/a	Renter	Renter	Renter	Renter	Ownership
Total Site Area (Acre)	0.48 Acres	0.99 Acres	0.33 Acres	0.33 Acres	0.46 Acres	0.46 Acres	0.46 Acres
Total Site Area (SF)	21,000	43,000	14,400	14,400	20,000	20,000	20,000
Construction Type	Type V over Type I	Type I	Type V over Type I	Type V	Type V over Type I	Type V	Type V over Type I
Approximate Building Stories	7 Stories	8 Stories	7 Stories	4 Stories	6 Stories	4 Stories	6 Stories
Total Gross Building SF, Including Parking (2)	148,000	414,000	77,200	36,800	119,000	81,000	127,000
Total Gross Building SF Above Ground (Incl. Pkg.) (3)	119,000	301,000	61,200	28,800	95,000	65,000	95,000
Floor Area Ratio (Gross Bldg SF, Incl. Pkg.) (3)	5.67	7.00	4.25	2.00	4.75	3.25	4.75
Total Gross Building SF (Excluding All Parking) (4)	76,000 SF	188,000 SF	45,200 SF	20,800 SF	71,000 SF	49,000 SF	63,000 SF
Total Gross Building SF Above Ground	119,000	301,000	61,200	28,800	95,000	65,000	95,000
Total Gross Parking SF Above Ground	13,000	0	0	0	0	0	0
Total Gross SF Above Ground Excluding Parking	106,000	301,000	61,200	28,800	95,000	65,000	95,000
Total Net Building SF Excluding Parking	82,000	241,000	46,000	22,000	71,000	49,000	71,000
Office or Hotel Space (Gross SF)	0	298,000	0	0	0	0	0
Ground Floor Retail Space (Gross SF)	3,000	3,000	0	0	3,000	3,000	3,000
Ground Floor Service/Lobby Space	0	43,000					
Residential Space (Gross SF)	103,000	0	61,200	28,800	92,000	62,000	92,000
Building Efficiency Ratio (%)	77%	80%	75%	75%	75%	75%	75%
Site Coverage (Bldg. Footprint) (%)	100%	100%	66%	50%	100%	100%	100%
Max. Bldg Footprint, Ground Floor (Gross SF)	21,000	43,000	9,540	7,200	20,000	20,000	20,000
Max. Tower Floor Plate (Gross SF)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Assumed Floor Plate for Commercial (Gross SF)		25,000					
Levels Underground Parking	1.4	3.0	1.1	0.5	1.2	0.8	1.6
Levels Structured Parking Above Grade	0.6	0.0	0.0	0.0	1.0	0.0	0.0
Stories of Ground Floor Retail/Lobby/Service Space	0.1	1.0	0.0	0.0	0.2	0.2	0.2
Stories of Office Space	0.0	6.9	0.0	0.0	0.0	0.0	0.0
Stories of Residential Space	4.9	0.0	6.4	4.0	4.6	3.1	4.6
Total Stories Above Ground	5.7	7.9	6.4	4.0	5.8	3.3	4.8
Net Rentable SF Retail	2,100 SF	2,100 SF	0 SF	0 SF	2,100 SF	2,100 SF	2,100 SF
Net Rentable SF Office	0 SF	238,400 SF	0 SF	0 SF	0 SF	0 SF	0 SF
Net SF Residential	79,900 SF	0 SF	46,000 SF	22,000 SF	68,900 SF	46,900 SF	68,900 SF
Net SF Total	82,000 SF	240,500 SF	46,000 SF	22,000 SF	71,000 SF	49,000 SF	71,000 SF
Unit Bedroom Count Distribution							
Studio	25%	0	25%	25%	25%	25%	0%
One Bedroom	55%	0	50%	50%	50%	50%	50%
Two Bedroom	18%	0	25%	25%	25%	25%	40%
Three Bedroom	2%	0	0%	0%	0%	0%	10%
Total	100%	0	100%	100%	100%	100%	100%
<b>Units by BR Count</b>							
Studio	24	0	18	9	27	18	0
One Bedroom	52	0	36	17	53	36	42
Two Bedroom	17	0	17	8	26	18	34
Three Bedroom	1	0	0	0	0	0	8
<b>Total Residential Units</b>	<b>94</b>	<b>0</b>	<b>71</b>	<b>34</b>	<b>106</b>	<b>72</b>	<b>84</b>
<b>Residential Density (units per acre) (1)</b>	<b>195 du/a</b>	<b>0 du/a</b>	<b>215 du/a</b>	<b>103 du/a</b>	<b>231 du/a</b>	<b>157 du/a</b>	<b>183 du/a</b>
Unit Size (Net SF)							
Studio	650 SF	0 SF	450 SF	450 SF	450 SF	450 SF	0 SF
One Bedroom	800 SF	0 SF	650 SF	650 SF	650 SF	650 SF	700 SF
Two Bedroom	1,200 SF	0 SF	850 SF	850 SF	850 SF	850 SF	900 SF
Three Bedroom	1,500 SF	0 SF	0 SF	0 SF	0 SF	0 SF	1,100 SF
<i>Average Unit Size</i>	<i>849 SF</i>	<i>0 SF</i>	<i>650 SF</i>	<i>650 SF</i>	<i>650 SF</i>	<i>650 SF</i>	<i>820 SF</i>
<b>Parking Ratio - Residential (Spaces/Unit)</b>	1.19	0	0.60	0.60	0.60	0.60	1.0
<b>Parking Ratio - Office (Spaces/1000 GSF)</b>	0	Max 1	0	0	0	0	0
<b>Parking Ratio - Hotel (Spaces/Room)</b>	0	0	0	0	0	0	0
Parking Spaces Per Floor	55 Spaces/Floor	113 Spaces/Floor	38 Spaces/Floor	38 Spaces/Floor	53 Spaces/Floor	53 Spaces/Floor	53 Spaces/Floor
No. of Underground Parking Spaces	77 Spaces	298 Spaces	43 Spaces	20 Spaces	64 Spaces	43 Spaces	84 Spaces
No. of Above-Ground Parking Spaces	35 Spaces	0 Spaces	0 Spaces	0 Spaces	0 Spaces	0 Spaces	0 Spaces
<b>Total Parking Spaces Provided</b>	<b>112 Spaces</b>	<b>298 Spaces</b>	<b>43 Spaces</b>	<b>20 Spaces</b>	<b>64 Spaces</b>	<b>43 Spaces</b>	<b>84 Spaces</b>
<b>Total Parking Spaces Required</b>	<b>112 Spaces</b>	<b>298 Spaces</b>	<b>43 Spaces</b>	<b>20 Spaces</b>	<b>64 Spaces</b>	<b>43 Spaces</b>	<b>84 Spaces</b>
Gross SF/Parking Space (Incl. Circulation)	380 SF	380 SF	380 SF	380 SF	380 SF	380 SF	380 SF
Total Parking SF	43,000 SF	113,000 SF	16,000 SF	8,000 SF	24,000 SF	16,000 SF	32,000 SF
Total Underground Parking SF	29,000 SF	113,000 SF	16,000 SF	8,000 SF	24,000 SF	16,000 SF	32,000 SF
Total Parking SF Above Grade	13,000 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF

(1) Represents prototype number from DRA's "Affordable

(2) Includes below-grade and above-grade parking.

(3) Includes above-grade parkin; excludes underground p

(4) Excludes above-grade and below-grade parking.

Source: City of Seattle Department of Planning and Devel

**Table 13**  
**Development Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**Economic Analysis**  
**2014**

Prototype Number (1)	6 Stories to 7 Stories		
	Ownership	Residential Rental	Residential Owner
	Prototype 10B No Incentive	Prototype 11A With Incentive	Prototype 12A With Incentive
Zoning	in NC 40	in NC 85	in NC 85
Zip Code(s)	Zips throughout the city except downtown and SLU. Outside Downtown and Urban Villages	Zips throughout the city except downtown and SLU. Outside Downtown and Urban Villages	Zips throughout the city except downtown and SLU. Outside Downtown and Urban Villages
Neighborhood/Geographic Subarea	Citywide	Citywide	Citywide
Primary Land Use(s)	Res over Retail	Res over Retail	Res over Retail
Residential Tenure (Renter/Owner)	Ownership	Renter	Ownership
Total Site Area (Acre)	0.46 Acres	0.46 Acres	0.46 Acres
Total Site Area (SF)	20,000	20,000	20,000
Construction Type	Type V	Type V over Type I	Type V over Type I
Approximate Building Stories	4 Stories	7 Stories	7 Stories
Total Gross Building SF, Including Parking (2)	87,000	171,000	161,000
Total Gross Building SF Above Ground (Incl. Pkg) (3)	65,000	120,000	120,000
Floor Area Ratio (Gross Bldg SF, Incl. Pkg.) (3)	3.25	6.00	6.00
Total Gross Building SF (Excluding All Parking) (4)	43,000 SF	69,000 SF	79,000 SF
Total Gross Building SF Above Ground	65,000	120,000	120,000
Total Gross Parking SF Above Ground	0	0	0
Total Gross SF Above Ground Excluding Parking	65,000	120,000	120,000
Total Net Building SF Excluding Parking	49,000	90,000	90,000
Office or Hotel Space (Gross SF)	0	0	0
Ground Floor Retail Space (Gross SF)	3,000	3,000	3,000
Ground Floor Service/Lobby Space			
Residential Space (Gross SF)	62,000	117,000	117,000
Building Efficiency Ratio (%)	75%	75%	75%
Site Coverage (Bldg. Footprint) (%)	100%	100%	100%
Max. Bldg Footprint, Ground Floor (Gross SF)	20,000	20,000	20,000
Max. Tower Floor Plate (Gross SF)	N/A	N/A	N/A
Assumed Floor Plate for Commercial (Gross SF)			
Levels Underground Parking	1.1	2.6	2.0
Levels Structured Parking Above Grade	0.0	0.0	0.0
Stories of Ground Floor Retail/Lobby/Service Space	0.2	0.2	0.2
Stories of Office Space	0.0	0.0	0.0
Stories of Residential Space	3.1	5.9	5.9
Total Stories Above Ground	3.3	6.0	6.0
Net Rentable SF Retail	2,100 SF	2,100 SF	2,100 SF
Net Rentable SF Office	0 SF	0 SF	0 SF
Net SF Residential	46,900 SF	87,900 SF	87,900 SF
Net SF Total	49,000 SF	90,000 SF	90,000 SF
Unit Bedroom Count Distribution			
Studio	0%	25%	0%
One Bedroom	50%	50%	50%
Two Bedroom	40%	25%	40%
Three Bedroom	10%	0%	10%
Total	100%	100%	100%
<b>Units by BR Count</b>			
Studio	0	34	0
One Bedroom	29	68	54
Two Bedroom	23	33	43
Three Bedroom	5	0	10
<b>Total Residential Units</b>	<b>57</b>	<b>135</b>	<b>107</b>
<b>Residential Density (units per acre) (1)</b>	<b>124 du/a</b>	<b>294 du/a</b>	<b>233 du/a</b>
Unit Size (Net SF)			
Studio	0 SF	450 SF	0 SF
One Bedroom	700 SF	650 SF	700 SF
Two Bedroom	900 SF	850 SF	900 SF
Three Bedroom	1,100 SF	0 SF	1,100 SF
<i>Average Unit Size</i>	<i>820 SF</i>	<i>650 SF</i>	<i>820 SF</i>
<b>Parking Ratio - Residential (Spaces/Unit)</b>	1.0	1.0	1.0
<b>Parking Ratio - Office (Spaces/1000 GSF)</b>	0	0	0
<b>Parking Ratio - Hotel (Spaces/Room)</b>	0	0	0
Parking Spaces Per Floor	53 Spaces/Floor	53 Spaces/Floor	53 Spaces/Floor
No. of Underground Parking Spaces	57 Spaces	135 Spaces	107 Spaces
No. of Above-Ground Parking Spaces	0 Spaces	0 Spaces	0 Spaces
<b>Total Parking Spaces Provided</b>	<b>57 Spaces</b>	<b>135 Spaces</b>	<b>107 Spaces</b>
<b>Total Parking Spaces Required</b>	<b>57 Spaces</b>	<b>135 Spaces</b>	<b>107 Spaces</b>
Gross SF/Parking Space (Incl. Circulation)	380 SF	380 SF	380 SF
Total Parking SF	22,000 SF	51,000 SF	41,000 SF
Total Underground Parking SF	22,000 SF	51,000 SF	41,000 SF
Total Parking SF Above Grade	0 SF	0 SF	0 SF

(1) Represents prototype number from DRA's "Affordable"  
(2) Includes below-grade and above-grade parking.  
(3) Includes above-grade parkin; excludes underground p  
(4) Excludes above-grade and below-grade parking.  
Source: City of Seattle Department of Planning and Deve

**Table 14**  
**Disposable Household Income of New Homebuyers**  
**Owner Housing Prototypes**  
**Seattle Residential Nexus Analysis**  
**2014**

	<b>Downtown</b>	<b>South Lake Union</b>		<b>Midrise</b>		
	<b>Prototype 2A With Incentive</b>	<b>Prototype 5A With Incentive</b>	<b>Prototype 5B No Incentive</b>	<b>Prototype 10A With Incentive</b>	<b>Prototype 10B No Incentive</b>	<b>Prototype 12A With Incentive</b>
Average Unit Size (SF)	825	849	849	820	820	820
Average Sales Price Per SF (1)	\$741	\$641	\$538	\$400	\$400	\$400
Average Sales Price Per Unit (2)	\$611,000	\$543,900	\$456,500	\$328,000	\$328,000	\$328,000
Mortgage Amount (3)	\$549,900	\$489,510	\$410,850	\$295,200	\$295,200	\$295,200
Monthly Principal and Interest Payment (4)	\$2,952	\$2,628	\$2,206	\$1,585	\$1,585	\$1,585
Monthly Property Taxes (5)	\$611	\$544	\$457	\$328	\$328	\$328
Monthly HOA Dues Plus Insurance (6)	\$400	\$400	\$275	\$275	\$275	\$275
Total Monthly Housing Cost	\$3,963	\$3,572	\$2,937	\$2,188	\$2,188	\$2,188
Estimated Average Annual Income (7)	\$136,000	\$122,000	\$101,000	\$75,000	\$75,000	\$75,000
Sales Price to Income Ratio	4.49	4.46	4.52	4.37	4.37	4.37
Percent of Income Available for Expenditures (8)	65%	65%	65%	65%	65%	65%
Ave. Disposable Income Available for Expenditures	\$88,400	\$79,300	\$65,650	\$48,750	\$48,750	\$48,750
Number of Units in Prototype	344	218	94	84	57	107
Total Disposable Household Income of Resident HHs	\$30,409,600	\$17,287,400	\$6,171,100	\$4,095,000	\$2,778,750	\$5,216,250

(1) For low- and mid-rise prototypes, price based on middle priced scenario of Version B from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014.

(2) Estimated average sales price of homes for this prototype, based on Version B from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014.

(3) At a 90% loan to value (price) ratio, assuming a 10% buyer downpayment.

(4) Monthly mortgage principal and interest payment assuming a 5.0% fixed-rate loan for 30 years.

(5) Monthly property taxes estimated at 1.2% annual tax rate.

**Table 15**  
**Disposable Household Income of New Renter Households**  
**Rental Housing Prototypes**  
**Seattle Residential Nexus Analysis**  
**2014**

	<b>Downtown</b>	<b>South Lake Union</b>		<b>Lowrise and Midrise</b>				
	<b>Prototype 1A With Incentive</b>	<b>Prototype 4A With Incentive</b>	<b>Prototype 4B No Incentive</b>	<b>Prototype 7A With Incentive</b>	<b>Prototype 7B No Incentive</b>	<b>Prototype 9A With Incentive</b>	<b>Prototype 9B No Incentive</b>	<b>Prototype 11A With Incentive</b>
Average Unit Size (SF)	725	725	725	650	650	650	650	650
Average Monthly Rent Per SF	\$3.25	\$3.20	\$2.85	\$2.60	\$2.60	\$2.60	\$2.60	\$2.60
Average Monthly Rent Per Unit (1)	\$2,400	\$2,300	\$2,100	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700
Average Household Income (2)	\$96,000	\$92,000	\$84,000	\$68,000	\$68,000	\$68,000	\$68,000	\$68,000
Annual Household Income to Rent Ratio	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
Percent of Income Available for Expenditures (3)	65%	65%	65%	65%	65%	65%	65%	65%
Disposable Income Available for Expenditures	\$62,400	\$59,800	\$54,600	\$44,200	\$44,200	\$44,200	\$44,200	\$44,200
Number of Units in Prototype	426	280	124	71	34	106	72	135
Total Disposable Household Income of Resident HHs	\$26,582,400	\$16,744,000	\$6,770,400	\$3,138,200	\$1,502,800	\$4,685,200	\$3,182,400	\$5,967,000

(1) Estimated average rent for each prototype, based on Version B from DRA's "Affordable Housing Incentive Program Economic Analysis", 2014. For low- and mid-rise prototypes, represents middle scenario.

(2) Assumes rent at 33% of household income.

(3) After deductions for federal and state income taxes, Social Security and Medicare (FICA) taxes, and person savings. Based on data from the Tax Policy Center for households at the income levels projected for the housing prototypes.

Source: DRA

**Table 16**  
**Projected Economic Impact by Prototype**  
**Residential Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**2013**

	<b>Downtown/HR</b>		<b>South Lake Union</b>				<b>Lowrise to Midrise</b>	
	<b>Resid. Rental</b>	<b>Resid. Owner</b>	<b>Residential Rental</b>		<b>Residential Ownership</b>		<b>Residential Rental</b>	
	<b>Prototype 1A With Incentive</b>	<b>Prototype 2A With Incentive</b>	<b>Prototype 4A With Incentive</b>	<b>Prototype 4B No Incentive</b>	<b>Prototype 5A With Incentive</b>	<b>Prototype 5B No Incentive</b>	<b>Prototype 7A With Incentive</b>	<b>Prototype 7B No Incentive</b>
Employment (Number of Employees)	129.3	135.4	81.5	32.9	77.0	27.5	17.5	8.4
Total Industry Output	\$18,721,015	\$19,135,456	\$11,792,189	\$4,768,146	\$10,878,219	\$3,883,208	\$2,531,614	\$1,212,322
Payroll	\$7,555,910	\$7,813,826	\$4,759,395	\$1,924,451	\$4,442,042	\$1,585,680	\$1,023,152	\$489,960
Average Payroll Per Employee	\$58,419	\$57,702	\$58,419	\$58,419	\$57,702	\$57,702	\$58,595	\$58,595

Source: IMPLAN Input/Output Model; DRA.

**Table 16**  
**Projected Economic Impact by Prototype**  
**Residential Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**2013**

	<b>4 Stories to 6 Stories</b>				<b>6 Stories to 7 Stories</b>	
	<b>Residential Rental</b>		<b>Residential Ownership</b>		<b>Resid. Rental</b>	<b>Resid. Owner</b>
	<b>Prototype 9A With Incentive</b>	<b>Prototype 9B No Incentive</b>	<b>Prototype 10A With Incentive</b>	<b>Prototype 10B No Incentive</b>	<b>Prototype 11A With Incentive</b>	<b>Prototype 12A With Incentive</b>
Employment (Number of Employees)	26.1	17.7	22.8	15.5	33.2	29.0
Total Industry Output	\$3,779,593	\$2,567,271	\$3,303,473	\$2,241,642	\$4,813,632	\$4,207,996
Payroll	\$1,527,523	\$1,037,563	\$1,335,099	\$905,960	\$1,945,430	\$1,700,662
Average Payroll Per Employee	\$58,595	\$58,595	\$58,595	\$58,595	\$58,595	\$58,595



**Table 17**  
**Projected Employment Generation**  
**Residential Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**2013**

	Downtown/HR		South Lake Union				Lowrise to Midrise	
	Resid. Rental	Resid. Owner	Residential Rental		Residential Ownership		Residential Rental	
	Prototype 1A With Incentive	Prototype 2A With Incentive	Prototype 4A With Incentive	Prototype 4B No Incentive	Prototype 5A With Incentive	Prototype 5B No Incentive	Prototype 7A With Incentive	Prototype 7B No Incentive
<b>Total Household Expenditures</b>	\$26,582,400	\$30,409,600	\$16,744,000	\$6,770,400	\$17,287,400	\$6,171,100	\$3,138,200	\$1,502,800
<b>Total Jobs Generated by Industry (1)</b>								
Manufacturing	1.8	1.8	1.1	0.5	1.0	0.4	0.2	0.1
Wholesale Trade	4.9	3.9	3.1	1.3	2.2	0.8	0.7	0.4
Retail Trade	22.1	25.3	13.9	5.6	14.4	5.1	3.0	1.4
Transportation	2.6	2.8	1.6	0.7	1.6	0.6	0.3	0.2
Warehousing and Storage	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0
Information and Communication	3.8	3.9	2.4	1.0	2.2	0.8	0.5	0.2
Finance and Insurance	7.2	7.9	4.5	1.8	4.5	1.6	0.9	0.5
Real Estate, Rentals and Leasing	7.8	6.5	4.9	2.0	3.7	1.3	1.3	0.6
Professional, Scientific and Technical	5.2	5.6	3.3	1.3	3.2	1.1	0.7	0.3
Management and Administrative Services	5.6	5.8	3.6	1.4	3.3	1.2	0.8	0.4
Educational Services	4.0	5.0	2.5	1.0	2.8	1.0	0.5	0.2
Health Care and Social Assistance	29.3	30.0	18.5	7.5	17.1	6.1	4.0	1.9
Arts, Entertainment and Recreation	5.6	6.0	3.5	1.4	3.4	1.2	0.7	0.4
Other Services	27.2	28.6	17.1	6.9	16.2	5.8	3.5	1.7
Government	2.0	2.1	1.3	0.5	1.2	0.4	0.3	0.1
<b>Total</b>	<b>129.3</b>	<b>135.4</b>	<b>81.5</b>	<b>33.0</b>	<b>76.9</b>	<b>27.5</b>	<b>17.4</b>	<b>8.4</b>

(1) Includes total employment, full-time and part-time.

Source: IMPLAN Input/Output Model; DRA.

**Table 17**  
**Projected Employment Generation**  
**Residential Prototypes**  
**Seattle Affordable Housing Nexus Study**  
**2013**

	4 Stories to 6 Stories				6 Stories to 7 Stories	
	Residential Rental		Residential Ownership		Resid. Rental	Resid. Owner
	Prototype 9A With Incentive	Prototype 9B No Incentive	Prototype 10A With Incentive	Prototype 10B No Incentive	Prototype 11A With Incentive	Prototype 12A With Incentive
<b>Total Household Expenditures</b>	\$4,685,200	\$3,182,400	\$4,095,000	\$2,778,750	\$5,967,000	\$5,216,250
<b>Total Jobs Generated by Industry (1)</b>						
Manufacturing	0.4	0.2	0.3	0.2	0.5	0.4
Wholesale Trade	1.1	0.8	1.0	0.7	1.4	1.2
Retail Trade	4.4	3.0	3.9	2.6	5.6	4.9
Transportation	0.5	0.3	0.4	0.3	0.6	0.6
Warehousing and Storage	0.0	0.0	0.0	0.0	0.0	0.0
Information and Communication	0.8	0.5	0.7	0.4	1.0	0.8
Finance and Insurance	1.4	1.0	1.2	0.8	1.8	1.6
Real Estate, Rentals and Leasing	1.9	1.3	1.7	1.1	2.4	2.1
Professional, Scientific and Technical	1.0	0.7	0.9	0.6	1.3	1.2
Management and Administrative Services	1.1	0.8	1.0	0.7	1.5	1.3
Educational Services	0.7	0.5	0.6	0.4	0.9	0.8
Health Care and Social Assistance	5.9	4.0	5.2	3.5	7.6	6.6
Arts, Entertainment and Recreation	1.1	0.8	1.0	0.7	0.8	1.2
Other Services	5.2	3.5	4.6	3.1	6.6	5.8
Government	0.4	0.3	0.4	0.2	0.5	0.5
<b>Total</b>	<b>25.9</b>	<b>17.7</b>	<b>22.9</b>	<b>15.3</b>	<b>32.5</b>	<b>29.0</b>

**Table 18**  
**Projected Labor Income by Industry Sector**  
**Prototype 1A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$37,739	1.80	\$20,966
Wholesale Trade	\$126,607	4.90	\$25,838
Retail Trade	\$230,452	22.10	\$10,428
Transportation	\$38,452	2.60	\$14,789
Warehousing and Storage	\$3,920	0.20	\$19,601
Information and Communication	\$96,435	3.80	\$25,378
Finance and Insurance	\$117,452	7.20	\$16,313
Real Estate, Rentals and Leasing	\$50,772	7.80	\$6,509
Professional, Scientific and Technical	\$107,178	5.20	\$20,611
Management and Administrative Services	\$78,144	5.60	\$13,954
Educational Services	\$26,096	4.00	\$6,524
Health Care and Social Assistance	\$482,082	29.30	\$16,453
Arts, Entertainment and Recreation	\$33,309	5.60	\$5,948
Other Services	\$225,074	27.20	\$8,275
Government	\$46,950	2.00	\$23,475
<b>Total</b>	<b>\$1,700,662</b>	<b>127.500</b>	<b>\$13,339</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 19**  
**Projected Labor Income by Industry Sector**  
**Prototype 2A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$168,029	1.800	\$93,349
Wholesale Trade	\$404,728	3.900	\$103,776
Retail Trade	\$1,182,000	25.300	\$46,719
Transportation	\$195,506	2.800	\$69,824
Warehousing and Storage	\$17,449	0.200	\$87,247
Information and Communication	\$449,901	3.900	\$115,359
Finance and Insurance	\$590,150	7.900	\$74,703
Real Estate, Rentals and Leasing	\$159,779	6.500	\$24,581
Professional, Scientific and Technical	\$510,402	5.600	\$91,143
Management and Administrative Services	\$350,111	5.800	\$60,364
Educational Services	\$171,576	5.000	\$34,315
Health Care and Social Assistance	\$2,131,690	30.000	\$71,056
Arts, Entertainment and Recreation	\$162,258	6.000	\$27,043
Other Services	\$1,110,816	28.600	\$38,840
Government	\$209,431	2.100	\$99,729
<b>Total</b>	<b>\$7,813,826</b>	<b>135.400</b>	<b>\$57,709</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 20**  
**Projected Labor Income by Industry Sector**  
**Prototype 4A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$105,652	1.100	\$96,047
Wholesale Trade	\$317,466	3.100	\$102,408
Retail Trade	\$650,272	13.900	\$46,782
Transportation	\$111,277	1.600	\$69,548
Warehousing and Storage	\$10,726	0.200	\$53,630
Information and Communication	\$276,149	2.400	\$115,062
Finance and Insurance	\$343,958	4.500	\$76,435
Real Estate, Rentals and Leasing	\$119,260	4.900	\$24,339
Professional, Scientific and Technical	\$302,497	3.300	\$91,666
Management and Administrative Services	\$217,368	3.600	\$60,380
Educational Services	\$85,236	2.500	\$34,094
Health Care and Social Assistance	\$1,336,822	18.500	\$72,261
Arts, Entertainment and Recreation	\$94,814	3.500	\$27,090
Other Services	\$659,207	17.100	\$38,550
Government	\$128,689	1.300	\$98,992
<b>Total</b>	<b>\$4,759,395</b>	<b>81.500</b>	<b>\$58,397</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 21**  
**Projected Labor Income by Industry Sector**  
**Prototype 4B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$42,720	0.460	\$92,870
Wholesale Trade	\$128,367	1.300	\$98,744
Retail Trade	\$262,936	5.600	\$46,953
Transportation	\$44,995	0.700	\$64,278
Warehousing and Storage	\$4,337	0.100	\$43,370
Information and Communication	\$111,660	1.000	\$111,660
Finance and Insurance	\$139,079	1.800	\$77,266
Real Estate, Rentals and Leasing	\$48,222	2.000	\$24,111
Professional, Scientific and Technical	\$122,314	1.300	\$94,088
Management and Administrative Services	\$87,892	1.400	\$62,780
Educational Services	\$34,465	1.000	\$34,465
Health Care and Social Assistance	\$540,541	7.500	\$72,072
Arts, Entertainment and Recreation	\$38,338	1.400	\$27,384
Other Services	\$266,549	6.900	\$38,630
Government	\$52,035	0.500	\$104,070
<b>Total</b>	<b>\$1,924,451</b>	<b>32.960</b>	<b>\$58,387</b>

Source: IMPLAN Input/Output Model; DRA.



**Table 22**  
**Projected Labor Income by Industry Sector**  
**Prototype 5A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$95,522	1.000	\$95,522
Wholesale Trade	\$230,082	2.200	\$104,583
Retail Trade	\$671,949	14.400	\$46,663
Transportation	\$111,142	1.600	\$69,464
Warehousing and Storage	\$9,920	0.100	\$99,197
Information and Communication	\$255,762	2.200	\$116,255
Finance and Insurance	\$335,491	4.500	\$74,554
Real Estate, Rentals and Leasing	\$90,832	3.700	\$24,549
Professional, Scientific and Technical	\$290,156	3.200	\$90,674
Management and Administrative Services	\$199,033	3.300	\$60,313
Educational Services	\$97,538	2.800	\$34,835
Health Care and Social Assistance	\$1,211,834	17.100	\$70,867
Arts, Entertainment and Recreation	\$92,241	3.400	\$27,130
Other Services	\$631,482	16.200	\$38,980
Government	\$119,058	1.200	\$99,215
<b>Total</b>	<b>\$4,442,042</b>	<b>76.900</b>	<b>\$57,764</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 23**  
**Projected Labor Income by Industry Sector**  
**Prototype 5B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$34,099	0.400	\$85,246
Wholesale Trade	\$82,133	0.800	\$102,666
Retail Trade	\$239,866	5.100	\$47,033
Transportation	\$39,675	0.600	\$66,124
Warehousing and Storage	\$3,541	0.100	\$35,411
Information and Communication	\$91,300	0.800	\$114,124
Finance and Insurance	\$119,761	1.600	\$74,850
Real Estate, Rentals and Leasing	\$32,424	1.300	\$24,942
Professional, Scientific and Technical	\$103,577	1.100	\$94,161
Management and Administrative Services	\$71,049	1.200	\$59,208
Educational Services	\$34,818	1.000	\$34,818
Health Care and Social Assistance	\$432,589	6.100	\$70,916
Arts, Entertainment and Recreation	\$32,928	1.200	\$27,440
Other Services	\$225,421	5.800	\$38,866
Government	\$42,500	0.400	\$106,251
<b>Total</b>	<b>\$1,585,680</b>	<b>27.500</b>	<b>\$57,661</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 24**  
**Projected Labor Income by Industry Sector**  
**Prototype 7A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$22,704	0.200	\$113,522
Wholesale Trade	\$76,170	0.700	\$108,814
Retail Trade	\$138,644	3.000	\$46,215
Transportation	\$23,134	0.300	\$77,112
Warehousing and Storage	\$2,358	0.000	\$0
Information and Communication	\$58,017	0.500	\$116,035
Finance and Insurance	\$70,661	0.900	\$78,513
Real Estate, Rentals and Leasing	\$30,546	1.300	\$23,497
Professional, Scientific and Technical	\$64,480	0.700	\$92,115
Management and Administrative Services	\$47,013	0.800	\$58,766
Educational Services	\$15,700	0.500	\$31,400
Health Care and Social Assistance	\$290,030	4.000	\$72,508
Arts, Entertainment and Recreation	\$20,039	0.700	\$28,627
Other Services	\$135,409	3.500	\$38,688
Government	\$28,246	0.300	\$94,153
<b>Total</b>	<b>\$1,023,152</b>	<b>17.400</b>	<b>\$58,802</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 25**  
**Projected Labor Income by Industry Sector**  
**Prototype 7B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$10,873	0.100	\$108,725
Wholesale Trade	\$36,476	0.400	\$91,189
Retail Trade	\$66,393	1.400	\$47,424
Transportation	\$11,078	0.200	\$55,390
Warehousing and Storage	\$1,129	0.000	\$0
Information and Communication	\$27,783	0.200	\$138,915
Finance and Insurance	\$33,838	0.500	\$67,676
Real Estate, Rentals and Leasing	\$14,627	0.600	\$24,379
Professional, Scientific and Technical	\$30,878	0.300	\$102,926
Management and Administrative Services	\$22,513	0.400	\$56,283
Educational Services	\$7,518	0.200	\$37,592
Health Care and Social Assistance	\$138,888	1.900	\$73,099
Arts, Entertainment and Recreation	\$9,596	0.400	\$23,990
Other Services	\$64,844	1.700	\$38,143
Government	\$13,526	0.100	\$135,263
<b>Total</b>	<b>\$489,960</b>	<b>8.400</b>	<b>\$58,329</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 26**  
**Projected Labor Income by Industry Sector**  
**Prototype 9A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$33,897	0.400	\$84,742
Wholesale Trade	\$113,718	1.100	\$103,380
Retail Trade	\$206,990	4.400	\$47,043
Transportation	\$34,537	0.500	\$69,075
Warehousing and Storage	\$3,521	0.000	\$0
Information and Communication	\$86,617	0.800	\$108,272
Finance and Insurance	\$105,494	1.400	\$75,353
Real Estate, Rentals and Leasing	\$45,603	1.900	\$24,002
Professional, Scientific and Technical	\$96,266	1.000	\$96,266
Management and Administrative Services	\$70,189	1.100	\$63,808
Educational Services	\$23,439	0.700	\$33,485
Health Care and Social Assistance	\$433,003	5.900	\$73,390
Arts, Entertainment and Recreation	\$29,917	1.100	\$27,198
Other Services	\$202,159	5.200	\$38,877
Government	\$42,170	0.400	\$105,425
<b>Total</b>	<b>\$1,527,523</b>	<b>25.900</b>	<b>\$58,978</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 27**  
**Projected Labor Income by Industry Sector**  
**Prototype 9B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$23,024	0.200	\$115,121
Wholesale Trade	\$77,242	0.800	\$96,553
Retail Trade	\$140,597	3.000	\$46,866
Transportation	\$23,459	0.300	\$78,198
Warehousing and Storage	\$2,392	0.000	\$0
Information and Communication	\$58,834	0.500	\$117,669
Finance and Insurance	\$71,657	1.000	\$71,657
Real Estate, Rentals and Leasing	\$30,976	1.300	\$23,828
Professional, Scientific and Technical	\$65,388	0.700	\$93,412
Management and Administrative Services	\$47,675	0.800	\$59,594
Educational Services	\$15,921	0.500	\$31,842
Health Care and Social Assistance	\$294,115	4.000	\$73,529
Arts, Entertainment and Recreation	\$20,321	0.800	\$25,402
Other Services	\$137,316	3.500	\$39,233
Government	\$28,644	0.300	\$95,480
<b>Total</b>	<b>\$1,037,563</b>	<b>17.700</b>	<b>\$58,619</b>

Source: IMPLAN Input/Output Model; DRA.



**Table 28**  
**Projected Labor Income by Industry Sector**  
**Prototype 10A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$29,627	0.300	\$98,756
Wholesale Trade	\$99,393	1.000	\$99,393
Retail Trade	\$180,915	3.900	\$46,389
Transportation	\$30,187	0.400	\$75,467
Warehousing and Storage	\$3,077	0.000	\$0
Information and Communication	\$75,706	0.700	\$108,152
Finance and Insurance	\$92,205	1.200	\$76,838
Real Estate, Rentals and Leasing	\$39,859	1.700	\$23,446
Professional, Scientific and Technical	\$84,140	0.900	\$93,488
Management and Administrative Services	\$61,347	1.000	\$61,347
Educational Services	\$20,487	0.600	\$34,145
Health Care and Social Assistance	\$378,457	5.200	\$72,780
Arts, Entertainment and Recreation	\$26,149	1.000	\$26,149
Other Services	\$176,693	4.600	\$38,412
Government	\$36,858	0.400	\$92,145
<b>Total</b>	<b>\$1,335,099</b>	<b>22.900</b>	<b>\$56,615</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 29**  
**Projected Labor Income by Industry Sector**  
**Prototype 10B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$20,104	0.200	\$100,519
Wholesale Trade	\$67,445	0.700	\$96,350
Retail Trade	\$122,764	2.600	\$47,217
Transportation	\$20,484	0.300	\$68,279
Warehousing and Storage	\$2,088	0.000	\$0
Information and Communication	\$51,372	0.400	\$128,430
Finance and Insurance	\$62,568	0.800	\$78,210
Real Estate, Rentals and Leasing	\$27,047	1.100	\$24,588
Professional, Scientific and Technical	\$57,095	0.600	\$95,158
Management and Administrative Services	\$41,628	0.700	\$59,469
Educational Services	\$13,902	0.400	\$34,754
Health Care and Social Assistance	\$256,810	3.500	\$73,374
Arts, Entertainment and Recreation	\$17,744	0.700	\$25,348
Other Services	\$119,899	3.100	\$38,677
Government	\$25,011	0.200	\$125,054
<b>Total</b>	<b>\$905,960</b>	<b>15.300</b>	<b>\$56,615</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 30**  
**Projected Labor Income by Industry Sector**  
**Prototype 11A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$43,170	0.500	\$86,341
Wholesale Trade	\$144,829	1.400	\$103,450
Retail Trade	\$263,619	5.600	\$47,075
Transportation	\$43,986	0.600	\$73,311
Warehousing and Storage	\$4,484	0.000	\$0
Information and Communication	\$110,315	1.000	\$110,315
Finance and Insurance	\$134,356	1.800	\$74,642
Real Estate, Rentals and Leasing	\$58,080	2.400	\$24,200
Professional, Scientific and Technical	\$122,603	1.300	\$94,310
Management and Administrative Services	\$89,391	1.500	\$59,594
Educational Services	\$29,852	0.900	\$33,169
Health Care and Social Assistance	\$551,466	7.600	\$72,561
Arts, Entertainment and Recreation	\$38,102	0.800	\$47,628
Other Services	\$257,467	6.600	\$39,010
Government	\$53,707	0.500	\$107,414
<b>Total</b>	<b>\$1,945,430</b>	<b>32.500</b>	<b>\$56,615</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 31**  
**Projected Labor Income by Industry Sector**  
**Prototype 12A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Industry Sector</b>	<b>Total Labor Income</b>	<b>Total Employees</b>	<b>Average Income Per Employee</b>
Manufacturing	\$37,739	0.400	\$94,347
Wholesale Trade	\$126,607	1.200	\$105,506
Retail Trade	\$230,452	4.900	\$47,031
Transportation	\$38,452	0.600	\$64,087
Warehousing and Storage	\$3,920	0.000	\$0
Information and Communication	\$96,435	0.800	\$120,544
Finance and Insurance	\$117,452	1.600	\$73,407
Real Estate, Rentals and Leasing	\$50,772	2.100	\$24,177
Professional, Scientific and Technical	\$107,178	1.200	\$89,315
Management and Administrative Services	\$78,144	1.300	\$60,111
Educational Services	\$26,096	0.800	\$32,620
Health Care and Social Assistance	\$482,082	6.600	\$73,043
Arts, Entertainment and Recreation	\$33,309	1.200	\$27,757
Other Services	\$225,074	5.800	\$38,806
Government	\$46,950	0.500	\$93,900
<b>Total</b>	<b>\$1,700,662</b>	<b>29.000</b>	<b>\$56,615</b>

Source: IMPLAN Input/Output Model; DRA.

**Table 32**  
**Wages by Occupational Grouping**  
**Seattle-Bellevue-Everett Metropolitan Division**  
**May, 2013**

SOC Code Prefix (1)	Occupational Category	2013 Employ- ment Estimates	% of Total Employ- ment	Mean Hourly Wage	Mean Annual Wage	10th Percentile Hourly Wage	25th Percentile Hourly Wage	Median (50th Percentile) Hourly Wage	75th Percentile Hourly Wage	90th Percentile Hourly Wage
11	Management	78,480	5%	\$59.30	\$123,340	\$28.17	\$39.15	\$54.11	\$72.47	N/A
13	Business and Financial Operations	107,980	7%	\$38.00	\$79,050	\$20.65	\$26.36	\$34.85	\$45.72	\$59.45
15	Computer and Mathematical	115,870	8%	\$49.35	\$102,640	\$26.81	\$37.53	\$49.34	\$59.90	\$70.97
17	Architecture and Engineering	50,710	3%	\$42.51	\$88,420	\$24.94	\$32.28	\$41.52	\$52.40	\$63.40
19	Life, Physical and Social Science	17,990	1%	\$34.54	\$71,840	\$18.08	\$22.38	\$31.04	\$42.34	\$55.14
21	Community and Social Services	19,460	1%	\$21.56	\$44,840	\$12.07	\$15.18	\$20.20	\$26.36	\$33.57
23	Legal	12,690	1%	\$49.49	\$102,950	\$20.79	\$29.08	\$39.22	\$63.40	N/A
25	Education, Training, and Library	73,840	5%	\$26.67	\$55,470	\$13.76	\$17.38	\$23.66	\$32.29	\$40.70
27	Arts, Design, Entertainment, Sports, Media	27,790	2%	\$27.87	\$57,970	\$11.57	\$16.39	\$24.01	\$35.31	\$46.95
29	Healthcare Practitioners and Technical	68,090	5%	\$40.93	\$85,130	\$19.43	\$26.55	\$36.72	\$47.42	\$61.69
31	Healthcare Support	31,940	2%	\$17.43	\$36,260	\$11.52	\$13.29	\$16.29	\$20.39	\$25.52
33	Protective Service	25,600	2%	\$25.27	\$52,550	\$10.48	\$13.21	\$21.27	\$36.13	\$44.56
35	Food Preparation and Serving-Related	114,810	8%	\$12.74	\$26,500	\$9.24	\$9.37	\$10.92	\$14.19	\$18.50
37	Building and Grounds Cleaning and Maintenance	34,380	2%	\$14.84	\$30,870	\$9.42	\$10.86	\$13.80	\$17.55	\$21.74

**Table 32**  
**Wages by Occupational Grouping**  
**Seattle-Bellevue-Everett Metropolitan Division**  
**May, 2013**

<b>SOC Code Prefix (1)</b>	<b>Occupational Category</b>	<b>2013 Employ- ment Estimates</b>	<b>% of Total Employ- ment</b>	<b>Mean Hourly Wage</b>	<b>Mean Annual Wage</b>	<b>10th Percentile Hourly Wage</b>	<b>25th Percentile Hourly Wage</b>	<b>Median (50th Percentile) Hourly Wage</b>	<b>75th Percentile Hourly Wage</b>	<b>90th Percentile Hourly Wage</b>
39	Personal Care and Service	43,790	3%	\$14.53	\$30,210	\$9.36	\$10.15	\$11.75	\$16.23	\$24.67
40	Sales and Related	148,800	10%	\$22.15	\$46,080	\$9.51	\$11.13	\$16.11	\$26.20	\$44.26
43	Office and Administrative Support	196,340	14%	\$19.38	\$40,320	\$11.34	\$14.29	\$18.29	\$23.17	\$28.47
45	Farming, Fishing, Forestry	1,360	0%	\$16.12	\$33,530	\$9.22	\$9.31	\$11.99	\$21.47	\$29.70
47	Construction and Extraction	53,680	4%	\$27.38	\$56,960	\$14.82	\$19.16	\$26.98	\$34.49	\$42.00
49	Installation, Maintenance and Repair	47,390	3%	\$25.58	\$53,210	\$13.79	\$17.82	\$24.63	\$32.33	\$40.16
51	Production	88,040	6%	\$21.04	\$43,770	\$10.50	\$13.52	\$18.70	\$27.53	\$35.59
53	Transportation and Material Moving	90,730	6%	\$19.92	\$41,430	\$9.64	\$12.04	\$16.89	\$23.52	\$33.96
TOTAL		1,449,770	100%							

(1) The first two digits of the six digit Standard Occupational Classification (SOC) code.

(2) Based on the following income limits adjusted for a 2.5 person household: \$22,500 at 30% AMI; \$44,950 at 60%AMI and \$59,950 at 80% AMI. and Wage Estimates, Seattle-Bellevue-Everett,

Source: U.S. Department of Labor, Bureau of Labor Statistics, May 2013 Metropolitan and Nonmetropolitan Area Occupational Employment  
Washington Metropolitan Division; 2013; DRA

**Table 32**  
**Wages by Occupational Grouping**  
**Seattle-Bellevue-Everett Metropolitan Division**  
**May, 2013**

SOC Code Prefix (1)	Occupational Category	2013 Employment Estimates	10th Percentile Annual Wage	25th Percentile Annual Wage	Median (50th Percentile) Annual Wage	75th Percentile Annual Wage	90th Percentile Annual Wage	Est. % of Jobs Below 30% AMI (2)	Est. % of Jobs Between 30%-60% AMI (2)	Est. % of Jobs Between 60%-80% AMI (2)
11	Management	78,480	\$58,594	\$81,432	\$112,549	\$150,738	N/A	0%	0%	10%
13	Business and Financial Operations	107,980	\$42,952	\$54,829	\$72,488	\$95,098	\$123,656	0%	10%	20%
15	Computer and Mathematical	115,870	\$55,765	\$78,062	\$102,627	\$124,592	\$147,618	0%	0%	10%
17	Architecture and Engineering	50,710	\$51,875	\$67,142	\$86,362	\$108,992	\$131,872	0%	0%	15%
19	Life, Physical and Social Science	17,990	\$37,606	\$46,550	\$64,563	\$88,067	\$114,691	5%	10%	25%
21	Community and Social Services	19,460	\$25,106	\$31,574	\$42,016	\$54,829	\$69,826	7%	43%	30%
23	Legal	12,690	\$43,243	\$60,486	\$81,578	\$131,872	N/A	0%	10%	15%
25	Education, Training, and Library	73,840	\$28,621	\$36,150	\$49,213	\$67,163	\$84,656	5%	35%	20%
27	Arts, Design, Entertainment, Sports, Media	27,790	\$24,066	\$34,091	\$49,941	\$73,445	\$97,656	8%	32%	25%
29	Healthcare Practitioners and Technical	68,090	\$40,414	\$55,224	\$76,378	\$98,634	\$128,315	0%	15%	15%
31	Healthcare Support	31,940	\$23,962	\$27,643	\$33,883	\$42,411	\$53,082	10%	70%	20%
33	Protective Service	25,600	\$21,798	\$27,477	\$44,242	\$75,150	\$92,685	10%	40%	25%
35	Food Preparation and Serving-Related	114,810	\$19,219	\$19,490	\$22,714	\$29,515	\$38,480	50%	50%	0%
37	Building and Grounds Cleaning and Maintenance	34,380	\$19,594	\$22,589	\$28,704	\$36,504	\$45,219	25%	60%	15%

**Table 32**  
**Wages by Occupational Grouping**  
**Seattle-Bellevue-Everett Metropolitan Division**  
**May, 2013**

<b>SOC Code Prefix</b>	<b>Occupational Category</b>	<b>2013 Employment Estimates</b>	<b>10th Percentile Annual Wage</b>	<b>25th Percentile Annual Wage</b>	<b>Median (50th Percentile) Annual Wage</b>	<b>75th Percentile Annual Wage</b>	<b>90th Percentile Annual Wage</b>	<b>Est. % of Jobs Below 30% AMI (2)</b>	<b>Est. % of Jobs Between 30%-60% AMI (2)</b>	<b>Est. % of Jobs Between 60%-80% AMI (2)</b>
39	Personal Care and Service	43,790	\$19,469	\$21,112	\$24,440	\$33,758	\$51,314	35%	55%	10%
40	Sales and Related	148,800	\$19,781	\$23,150	\$33,509	\$54,496	\$92,061	25%	40%	15%
43	Office and Administrative Support	196,340	\$23,587	\$29,723	\$38,043	\$48,194	\$59,218	10%	50%	30%
45	Farming, Fishing, Forestry	1,360	\$19,178	\$19,365	\$24,939	\$44,658	\$61,776	35%	40%	10%
47	Construction and Extraction	53,680	\$30,826	\$39,853	\$56,118	\$71,739	\$87,360	5%	30%	20%
49	Installation, Maintenance and Repair	47,390	\$28,683	\$37,066	\$51,230	\$67,246	\$83,533	15%	20%	25%
51	Production	88,040	\$21,840	\$28,122	\$38,896	\$57,262	\$74,027	10%	5%	65%
53	Transportation and Material Moving	90,730	\$20,051	\$25,043	\$35,131	\$48,922	\$70,637	20%	45%	15%
	TOTAL	1,449,770								



**Table 33**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 1A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	1.80	1.13	\$20,966	\$33,336	10%	5%	65%	0.11	0.06	0.74
Wholesale Trade	4.90	3.08	\$25,838	\$41,083	20%	45%	15%	0.62	1.39	0.46
Retail Trade	22.10	13.90	\$10,428	\$16,580	25%	40%	15%	3.47	5.56	2.08
Transportation	2.60	1.64	\$14,789	\$23,515	20%	45%	15%	0.33	0.74	0.25
Warehousing and Storage	0.20	0.13	\$19,601	\$31,165	20%	45%	15%	0.03	0.06	0.02
Information and Communication	3.80	2.39	\$25,378	\$40,351	10%	50%	30%	0.24	1.19	0.72
Finance and Insurance	7.20	4.53	\$16,313	\$25,937	0%	10%	20%	0.00	0.45	0.91
Real Estate, Rentals and Leasing	7.80	4.91	\$6,509	\$10,350	0%	10%	20%	0.00	0.49	0.98
Professional, Scientific and Technical	5.20	3.27	\$20,611	\$32,772	5%	10%	25%	0.16	0.33	0.82
Management and Administrative Services	5.60	3.52	\$13,954	\$22,187	0%	0%	10%	0.00	0.00	0.35
Educational Services	4.00	2.52	\$6,524	\$10,373	5%	35%	20%	0.13	0.88	0.50
Health Care and Social Assistance	29.30	18.43	\$16,453	\$26,161	10%	70%	20%	1.84	12.90	3.69
Arts, Entertainment and Recreation	5.60	3.52	\$5,948	\$9,457	8%	32%	25%	0.28	1.13	0.88
Other Services	27.20	17.11	\$8,275	\$13,157	35%	55%	10%	5.99	9.41	1.71
Government	2.00	1.26	\$23,475	\$37,325	10%	50%	30%	0.13	0.63	0.38
<b>Total/Average</b>	<b>127.50</b>	<b>80.19</b>	<b>\$13,339</b>	<b>\$21,208</b>				<b>13.21</b>	<b>35.15</b>	<b>13.74</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 34**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 2A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	1.80	1.13	\$93,349	\$148,426	10%	5%	65%	0.11	0.06	0.74
Wholesale Trade	3.90	2.45	\$103,776	\$165,004	20%	45%	15%	0.49	1.10	0.37
Retail Trade	25.30	15.91	\$46,719	\$74,284	25%	40%	15%	3.98	6.36	2.39
Transportation	2.80	1.76	\$69,824	\$111,020	20%	45%	15%	0.35	0.79	0.26
Warehousing and Storage	0.20	0.13	\$87,247	\$138,723	20%	45%	15%	0.03	0.06	0.02
Information and Communication	3.90	2.45	\$115,359	\$183,421	10%	50%	30%	0.25	1.23	0.74
Finance and Insurance	7.90	4.97	\$74,703	\$118,777	0%	10%	20%	0.00	0.50	0.99
Real Estate, Rentals and Leasing	6.50	4.09	\$24,581	\$39,084	0%	10%	20%	0.00	0.41	0.82
Professional, Scientific and Technical	5.60	3.52	\$91,143	\$144,918	5%	10%	25%	0.18	0.35	0.88
Management and Administrative Services	5.80	3.65	\$60,364	\$95,979	0%	0%	10%	0.00	0.00	0.36
Educational Services	5.00	3.14	\$34,315	\$54,561	5%	35%	20%	0.16	1.10	0.63
Health Care and Social Assistance	30.00	18.87	\$71,056	\$112,980	10%	70%	20%	1.89	13.21	3.77
Arts, Entertainment and Recreation	6.00	3.77	\$27,043	\$42,998	8%	32%	25%	0.30	1.21	0.94
Other Services	28.60	17.99	\$38,840	\$61,755	35%	55%	10%	6.30	9.89	1.80
Government	2.10	1.32	\$99,729	\$158,569	10%	50%	30%	0.13	0.66	0.40
<b>Total/Average</b>	<b>133.60</b>	<b>84.03</b>	<b>\$57,709</b>	<b>\$91,758</b>				<b>14.04</b>	<b>36.87</b>	<b>14.37</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 35**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 4A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	1.10	0.69	\$96,047	\$152,715	10%	5%	65%	0.07	0.03	0.45
Wholesale Trade	3.10	1.95	\$102,408	\$162,829	20%	45%	15%	0.39	0.88	0.29
Retail Trade	13.90	8.74	\$46,782	\$74,384	25%	40%	15%	2.19	3.50	1.31
Transportation	1.60	1.01	\$69,548	\$110,582	20%	45%	15%	0.20	0.45	0.15
Warehousing and Storage	0.20	0.13	\$53,630	\$85,271	20%	45%	15%	0.03	0.06	0.02
Information and Communication	2.40	1.51	\$115,062	\$182,949	10%	50%	30%	0.15	0.75	0.45
Finance and Insurance	4.50	2.83	\$76,435	\$121,532	0%	10%	20%	0.00	0.28	0.57
Real Estate, Rentals and Leasing	4.90	3.08	\$24,339	\$38,699	0%	10%	20%	0.00	0.31	0.62
Professional, Scientific and Technical	3.30	2.08	\$91,666	\$145,749	5%	10%	25%	0.10	0.21	0.52
Management and Administrative Services	3.60	2.26	\$60,380	\$96,004	0%	0%	10%	0.00	0.00	0.23
Educational Services	2.50	1.57	\$34,094	\$54,210	5%	35%	20%	0.08	0.55	0.31
Health Care and Social Assistance	18.50	11.64	\$72,261	\$114,894	10%	70%	20%	1.16	8.14	2.33
Arts, Entertainment and Recreation	3.50	2.20	\$27,090	\$43,073	8%	32%	25%	0.18	0.70	0.55
Other Services	17.10	10.75	\$38,550	\$61,295	35%	55%	10%	3.76	5.92	1.08
Government	1.30	0.82	\$98,992	\$157,397	10%	50%	30%	0.08	0.41	0.25
<b>Total/Average</b>	<b>80.40</b>	<b>50.57</b>	<b>\$58,397</b>	<b>\$92,852</b>				<b>8.32</b>	<b>22.16</b>	<b>8.67</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

Table 36  
Estimated Qualifying Very Low and Low Income Households  
Prototype 4B  
Seattle Affordable Housing Nexus Study  
2014

Economic Sector	Total New FTE Employees Generated by Development (1)	No. of New Households (2)	Average Payroll Per Employee (3)	Estimated Household Income (4)	Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)	Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)	Percent of HH Earning Incomes Between 61% and 80% AMI	Estimated Households Earning Incomes Below 30% AMI	Estimated Households Earning Incomes Between 31% and 60% AMI	Estimated Households Earning Incomes Between 61% and 80% AMI
Manufacturing	0.46	0.29	\$92,870	\$147,663	10%	5%	65%	0.03	0.01	0.19
Wholesale Trade	1.30	0.82	\$98,744	\$157,002	20%	45%	15%	0.16	0.37	0.12
Retail Trade	5.60	3.52	\$46,953	\$74,655	25%	40%	15%	0.88	1.41	0.53
Transportation	0.70	0.44	\$64,278	\$102,202	20%	45%	15%	0.09	0.20	0.07
Warehousing and Storage	0.10	0.06	\$43,370	\$68,958	20%	45%	15%	0.01	0.03	0.01
Information and Communication	1.00	0.63	\$111,660	\$177,540	10%	50%	30%	0.06	0.31	0.19
Finance and Insurance	1.80	1.13	\$77,266	\$122,853	0%	10%	20%	0.00	0.11	0.23
Real Estate, Rentals and Leasing	2.00	1.26	\$24,111	\$38,337	0%	10%	20%	0.00	0.13	0.25
Professional, Scientific and Technical	1.30	0.82	\$94,088	\$149,599	5%	10%	25%	0.04	0.08	0.20
Management and Administrative Services	1.40	0.88	\$62,780	\$99,821	0%	0%	10%	0.00	0.00	0.09
Educational Services	1.00	0.63	\$34,465	\$54,799	5%	35%	20%	0.03	0.22	0.13
Health Care and Social Assistance	7.50	4.72	\$72,072	\$114,595	10%	70%	20%	0.47	3.30	0.94
Arts, Entertainment and Recreation	1.40	0.88	\$27,384	\$43,541	8%	32%	25%	0.07	0.28	0.22
Other Services	6.90	4.34	\$38,630	\$61,422	35%	55%	10%	1.52	2.39	0.43
Government	0.50	0.31	\$104,070	\$165,472	10%	50%	30%	0.03	0.16	0.09
Total/Average	32.50	<b>20.44</b>	\$58,387	\$92,836				<b>3.37</b>	<b>8.99</b>	<b>3.50</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 37**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 5A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

Economic Sector	Total New FTE Employees Generated by Development (1)	No. of New Households (2)	Average Payroll Per Employee (3)	Estimated Household Income (4)	Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)		Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)		Estimated Households Earning Incomes Below 30% AMI	Estimated Households Earning Incomes Between 31% and 60% AMI	Estimated Households Earning Incomes Between 61% and 80% AMI
Manufacturing	1.00	0.63	\$95,522	\$151,880	10%		5%	65%	0.06	0.03	0.41
Wholesale Trade	2.20	1.38	\$104,583	\$166,286	20%		45%	15%	0.28	0.62	0.21
Retail Trade	14.40	9.06	\$46,663	\$74,194	25%		40%	15%	2.26	3.62	1.36
Transportation	1.60	1.01	\$69,464	\$110,448	20%		45%	15%	0.20	0.45	0.15
Warehousing and Storage	0.10	0.06	\$99,197	\$157,724	20%		45%	15%	0.01	0.03	0.01
Information and Communication	2.20	1.38	\$116,255	\$184,846	10%		50%	30%	0.14	0.69	0.42
Finance and Insurance	4.50	2.83	\$74,554	\$118,540	0%		10%	20%	0.00	0.28	0.57
Real Estate, Rentals and Leasing	3.70	2.33	\$24,549	\$39,033	0%		10%	20%	0.00	0.23	0.47
Professional, Scientific and Technical	3.20	2.01	\$90,674	\$144,171	5%		10%	25%	0.10	0.20	0.50
Management and Administrative Services	3.30	2.08	\$60,313	\$95,898	0%		0%	10%	0.00	0.00	0.21
Educational Services	2.80	1.76	\$34,835	\$55,388	5%		35%	20%	0.09	0.62	0.35
Health Care and Social Assistance	17.10	10.75	\$70,867	\$112,679	10%		70%	20%	1.08	7.53	2.15
Arts, Entertainment and Recreation	3.40	2.14	\$27,130	\$43,136	8%		32%	25%	0.17	0.68	0.53
Other Services	16.20	10.19	\$38,980	\$61,979	35%		55%	10%	3.57	5.60	1.02
Government	1.20	0.75	\$99,215	\$157,752	10%		50%	30%	0.08	0.38	0.23
Total/Average	75.90	<b>47.74</b>	\$58,387	\$92,836					<b>7.97</b>	<b>20.95</b>	<b>8.17</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

Table 38  
Estimated Qualifying Very Low and Low Income Households  
Prototype 5B  
Seattle Affordable Housing Nexus Study  
2014

Economic Sector	Total New FTE Employees Generated by Development (1)	No. of New Households (2)	Average Payroll Per Employee (3)	Estimated Household Income (4)	Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)	Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)	Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)	Estimated Households Earning Incomes Below 30% AMI	Estimated Households Earning Incomes Between 31% and 60% AMI	Estimated Households Earning Incomes Between 61% and 80% AMI
Manufacturing	0.40	0.25	\$85,246	\$135,542	10%	5%	65%	0.03	0.01	0.16
Wholesale Trade	0.80	0.50	\$102,666	\$163,238	20%	45%	15%	0.10	0.23	0.08
Retail Trade	5.10	3.21	\$47,033	\$74,782	25%	40%	15%	0.80	1.28	0.48
Transportation	0.60	0.38	\$66,124	\$105,138	20%	45%	15%	0.08	0.17	0.06
Warehousing and Storage	0.10	0.06	\$35,411	\$56,303	20%	45%	15%	0.01	0.03	0.01
Information and Communication	0.80	0.50	\$114,124	\$181,458	10%	50%	30%	0.05	0.25	0.15
Finance and Insurance	1.60	1.01	\$74,850	\$119,012	0%	10%	20%	0.00	0.10	0.20
Real Estate, Rentals and Leasing	1.30	0.82	\$24,942	\$39,657	0%	10%	20%	0.00	0.08	0.16
Professional, Scientific and Technical	1.10	0.69	\$94,161	\$149,716	5%	10%	25%	0.03	0.07	0.17
Management and Administrative Services	1.20	0.75	\$59,208	\$94,140	0%	0%	10%	0.00	0.00	0.08
Educational Services	1.00	0.63	\$34,818	\$55,361	5%	35%	20%	0.03	0.22	0.13
Health Care and Social Assistance	6.10	3.84	\$70,916	\$112,757	10%	70%	20%	0.38	2.69	0.77
Arts, Entertainment and Recreation	1.20	0.75	\$27,440	\$43,629	8%	32%	25%	0.06	0.24	0.19
Other Services	5.80	3.65	\$38,866	\$61,796	35%	55%	10%	1.28	2.01	0.36
Government	0.40	0.25	\$106,251	\$168,939	10%	50%	30%	0.03	0.13	0.08
Total/Average	27.10	17.04	\$58,387	\$92,836				2.85	7.49	2.91

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

Table 39  
Estimated Qualifying Very Low and Low Income Households  
Prototype 7A  
Seattle Affordable Housing Nexus Study  
2014

Economic Sector	Total New FTE Employees Generated by Development (1)	No. of New Households (2)	Average Payroll Per Employee (3)	Estimated Household Income (4)	Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)	Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)	Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)	Estimated Households Earning Incomes Below 30% AMI	Estimated Households Earning Incomes Between 31% and 60% AMI	Estimated Households Earning Incomes Between 61% and 80% AMI
Manufacturing	0.20	0.13	\$113,522	\$180,500	10%	5%	65%	0.01	0.01	0.08
Wholesale Trade	0.70	0.44	\$108,814	\$173,014	20%	45%	15%	0.09	0.20	0.07
Retail Trade	3.00	1.89	\$46,215	\$73,481	25%	40%	15%	0.47	0.75	0.28
Transportation	0.30	0.19	\$77,112	\$122,608	20%	45%	15%	0.04	0.08	0.03
Warehousing and Storage	0.00	0.00	\$0	\$0	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.50	0.31	\$116,035	\$184,495	10%	50%	30%	0.03	0.16	0.09
Finance and Insurance	0.90	0.57	\$78,513	\$124,835	0%	10%	20%	0.00	0.06	0.11
Real Estate, Rentals and Leasing	1.30	0.82	\$23,497	\$37,360	0%	10%	20%	0.00	0.08	0.16
Professional, Scientific and Technical	0.70	0.44	\$92,115	\$146,462	5%	10%	25%	0.02	0.04	0.11
Management and Administrative Services	0.80	0.50	\$58,766	\$93,439	0%	0%	10%	0.00	0.00	0.05
Educational Services	0.50	0.31	\$31,400	\$49,926	5%	35%	20%	0.02	0.11	0.06
Health Care and Social Assistance	4.00	2.52	\$72,508	\$115,287	10%	70%	20%	0.25	1.76	0.50
Arts, Entertainment and Recreation	0.70	0.44	\$28,627	\$45,517	8%	32%	25%	0.04	0.14	0.11
Other Services	3.50	2.20	\$38,688	\$61,514	35%	55%	10%	0.77	1.21	0.22
Government	0.30	0.19	\$94,153	\$149,704	10%	50%	30%	0.02	0.09	0.06
Total/Average	17.20	10.82	\$58,387	\$92,836				1.74	4.69	1.86

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 40**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 7B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	0.10	0.06	\$108,725	\$172,873	10%	5%	65%	0.01	0.00	0.04
Wholesale Trade	0.40	0.25	\$91,189	\$144,990	20%	45%	15%	0.05	0.11	0.04
Retail Trade	1.40	0.88	\$47,424	\$75,403	25%	40%	15%	0.22	0.35	0.13
Transportation	0.20	0.13	\$55,390	\$88,070	20%	45%	15%	0.03	0.06	0.02
Warehousing and Storage	0.00	0.00	\$0	\$0	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.20	0.13	\$138,915	\$220,874	10%	50%	30%	0.01	0.06	0.04
Finance and Insurance	0.50	0.31	\$67,676	\$107,604	0%	10%	20%	0.00	0.03	0.06
Real Estate, Rentals and Leasing	0.60	0.38	\$24,379	\$38,763	0%	10%	20%	0.00	0.04	0.08
Professional, Scientific and Technical	0.30	0.19	\$102,926	\$163,653	5%	10%	25%	0.01	0.02	0.05
Management and Administrative Services	0.40	0.25	\$56,283	\$89,491	0%	0%	10%	0.00	0.00	0.03
Educational Services	0.20	0.13	\$37,592	\$59,771	5%	35%	20%	0.01	0.04	0.03
Health Care and Social Assistance	1.90	1.19	\$73,099	\$116,227	10%	70%	20%	0.12	0.84	0.24
Arts, Entertainment and Recreation	0.40	0.25	\$23,990	\$38,145	8%	32%	25%	0.02	0.08	0.06
Other Services	1.70	1.07	\$38,143	\$60,648	35%	55%	10%	0.37	0.59	0.11
Government	0.10	0.06	\$135,263	\$215,068	10%	50%	30%	0.01	0.03	0.02
<b>Total/Average</b>	<b>8.30</b>	<b>5.22</b>	<b>\$58,387</b>	<b>\$92,836</b>				<b>0.84</b>	<b>2.25</b>	<b>0.89</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.



**Table 41**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 9A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	0.40	0.25	\$84,742	\$134,740	10%	5%	65%	0.03	0.01	0.16
Wholesale Trade	1.10	0.69	\$103,380	\$164,374	20%	45%	15%	0.14	0.31	0.10
Retail Trade	4.40	2.77	\$47,043	\$74,799	25%	40%	15%	0.69	1.11	0.42
Transportation	0.50	0.31	\$69,075	\$109,829	20%	45%	15%	0.06	0.14	0.05
Warehousing and Storage	0.00	0.00	\$0	\$0	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.80	0.50	\$108,272	\$172,152	10%	50%	30%	0.05	0.25	0.15
Finance and Insurance	1.40	0.88	\$75,353	\$119,812	0%	10%	20%	0.00	0.09	0.18
Real Estate, Rentals and Leasing	1.90	1.19	\$24,002	\$38,163	0%	10%	20%	0.00	0.12	0.24
Professional, Scientific and Technical	1.00	0.63	\$96,266	\$153,063	5%	10%	25%	0.03	0.06	0.16
Management and Administrative Services	1.10	0.69	\$63,808	\$101,455	0%	0%	10%	0.00	0.00	0.07
Educational Services	0.70	0.44	\$33,485	\$53,241	5%	35%	20%	0.02	0.15	0.09
Health Care and Social Assistance	5.90	3.71	\$73,390	\$116,691	10%	70%	20%	0.37	2.60	0.74
Arts, Entertainment and Recreation	1.10	0.69	\$27,198	\$43,244	8%	32%	25%	0.06	0.22	0.17
Other Services	5.20	3.27	\$38,877	\$61,814	35%	55%	10%	1.14	1.80	0.33
Government	0.40	0.25	\$105,425	\$167,626	10%	50%	30%	0.03	0.13	0.08
<b>Total/Average</b>	<b>25.50</b>	<b>16.04</b>	<b>\$58,387</b>	<b>\$92,836</b>				<b>2.59</b>	<b>6.98</b>	<b>2.76</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 42**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 9B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	0.20	0.13	\$115,121	\$183,042	10%	5%	65%	0.01	0.01	0.08
Wholesale Trade	0.80	0.50	\$96,553	\$153,519	20%	45%	15%	0.10	0.23	0.08
Retail Trade	3.00	1.89	\$46,866	\$74,516	25%	40%	15%	0.47	0.75	0.28
Transportation	0.30	0.19	\$78,198	\$124,335	20%	45%	15%	0.04	0.08	0.03
Warehousing and Storage	0.00	0.00	\$0	\$0	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.50	0.31	\$117,669	\$187,094	10%	50%	30%	0.03	0.16	0.09
Finance and Insurance	1.00	0.63	\$71,657	\$113,934	0%	10%	20%	0.00	0.06	0.13
Real Estate, Rentals and Leasing	1.30	0.82	\$23,828	\$37,886	0%	10%	20%	0.00	0.08	0.16
Professional, Scientific and Technical	0.70	0.44	\$93,412	\$148,525	5%	10%	25%	0.02	0.04	0.11
Management and Administrative Services	0.80	0.50	\$59,594	\$94,755	0%	0%	10%	0.00	0.00	0.05
Educational Services	0.50	0.31	\$31,842	\$50,629	5%	35%	20%	0.02	0.11	0.06
Health Care and Social Assistance	4.00	2.52	\$73,529	\$116,911	10%	70%	20%	0.25	1.76	0.50
Arts, Entertainment and Recreation	0.80	0.50	\$25,402	\$40,389	8%	32%	25%	0.04	0.16	0.13
Other Services	3.50	2.20	\$39,233	\$62,381	35%	55%	10%	0.77	1.21	0.22
Government	0.30	0.19	\$95,480	\$151,812	10%	50%	30%	0.02	0.09	0.06
<b>Total/Average</b>	<b>17.50</b>	<b>11.01</b>	<b>\$58,387</b>	<b>\$92,836</b>				<b>1.76</b>	<b>4.75</b>	<b>1.90</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 43**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 10A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	0.30	0.19	\$98,756	\$157,022	10%	5%	65%	0.02	0.01	0.12
Wholesale Trade	1.00	0.63	\$98,744	\$157,002	20%	45%	15%	0.13	0.28	0.09
Retail Trade	3.90	2.45	\$46,953	\$74,655	25%	40%	15%	0.61	0.98	0.37
Transportation	0.40	0.25	\$64,278	\$102,202	20%	45%	15%	0.05	0.11	0.04
Warehousing and Storage	0.00	0.00	\$43,370	\$68,958	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.70	0.44	\$111,660	\$177,540	10%	50%	30%	0.04	0.22	0.13
Finance and Insurance	1.20	0.75	\$77,266	\$122,853	0%	10%	20%	0.00	0.08	0.15
Real Estate, Rentals and Leasing	1.70	1.07	\$24,111	\$38,337	0%	10%	20%	0.00	0.11	0.21
Professional, Scientific and Technical	0.90	0.57	\$94,088	\$149,599	5%	10%	25%	0.03	0.06	0.14
Management and Administrative Services	1.00	0.63	\$62,780	\$99,821	0%	0%	10%	0.00	0.00	0.06
Educational Services	0.60	0.38	\$34,465	\$54,799	5%	35%	20%	0.02	0.13	0.08
Health Care and Social Assistance	5.20	3.27	\$72,072	\$114,595	10%	70%	20%	0.33	2.29	0.65
Arts, Entertainment and Recreation	1.00	0.63	\$27,384	\$43,541	8%	32%	25%	0.05	0.20	0.16
Other Services	4.60	2.89	\$38,630	\$61,422	35%	55%	10%	1.01	1.59	0.29
Government	0.40	0.25	\$104,070	\$165,472	10%	50%	30%	0.03	0.13	0.08
Total/Average	22.60	14.21	\$58,387	\$92,836				2.30	6.18	2.45

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 44**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 10B**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	0.20	0.13	\$92,870	\$147,663	10%	5%	65%	0.01	0.01	0.08
Wholesale Trade	0.70	0.44	\$98,744	\$157,002	20%	45%	15%	0.09	0.20	0.07
Retail Trade	2.60	1.64	\$46,953	\$74,655	25%	40%	15%	0.41	0.65	0.25
Transportation	0.30	0.19	\$64,278	\$102,202	20%	45%	15%	0.04	0.08	0.03
Warehousing and Storage	0.00	0.00	\$43,370	\$68,958	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.40	0.25	\$111,660	\$177,540	10%	50%	30%	0.03	0.13	0.08
Finance and Insurance	0.80	0.50	\$77,266	\$122,853	0%	10%	20%	0.00	0.05	0.10
Real Estate, Rentals and Leasing	1.10	0.69	\$24,111	\$38,337	0%	10%	20%	0.00	0.07	0.14
Professional, Scientific and Technical	0.60	0.38	\$94,088	\$149,599	5%	10%	25%	0.02	0.04	0.09
Management and Administrative Services	0.70	0.44	\$62,780	\$99,821	0%	0%	10%	0.00	0.00	0.04
Educational Services	0.40	0.25	\$34,465	\$54,799	5%	35%	20%	0.01	0.09	0.05
Health Care and Social Assistance	3.50	2.20	\$72,072	\$114,595	10%	70%	20%	0.22	1.54	0.44
Arts, Entertainment and Recreation	0.70	0.44	\$27,384	\$43,541	8%	32%	25%	0.04	0.14	0.11
Other Services	3.10	1.95	\$38,630	\$61,422	35%	55%	10%	0.68	1.07	0.19
Government	0.20	0.13	\$104,070	\$165,472	10%	50%	30%	0.01	0.06	0.04
<b>Total/Average</b>	<b>15.10</b>	<b>9.50</b>	<b>\$58,387</b>	<b>\$92,836</b>				<b>1.54</b>	<b>4.13</b>	<b>1.63</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 45**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 11A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development (1)</b>	<b>No. of New Households (2)</b>	<b>Average Payroll Per Employee (3)</b>	<b>Estimated Household Income (4)</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI (5)(6)</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI (5)(6)</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
Manufacturing	0.50	0.31	\$92,870	\$147,663	10%	5%	65%	0.03	0.02	0.20
Wholesale Trade	1.40	0.88	\$98,744	\$157,002	20%	45%	15%	0.18	0.40	0.13
Retail Trade	5.60	3.52	\$46,953	\$74,655	25%	40%	15%	0.88	1.41	0.53
Transportation	0.60	0.38	\$64,278	\$102,202	20%	45%	15%	0.08	0.17	0.06
Warehousing and Storage	0.00	0.00	\$43,370	\$68,958	20%	45%	15%	0.00	0.00	0.00
Information and Communication	1.00	0.63	\$111,660	\$177,540	10%	50%	30%	0.06	0.31	0.19
Finance and Insurance	1.80	1.13	\$77,266	\$122,853	0%	10%	20%	0.00	0.11	0.23
Real Estate, Rentals and Leasing	2.40	1.51	\$24,111	\$38,337	0%	10%	20%	0.00	0.15	0.30
Professional, Scientific and Technical	1.30	0.82	\$94,088	\$149,599	5%	10%	25%	0.04	0.08	0.20
Management and Administrative Services	1.50	0.94	\$62,780	\$99,821	0%	0%	10%	0.00	0.00	0.09
Educational Services	0.90	0.57	\$34,465	\$54,799	5%	35%	20%	0.03	0.20	0.11
Health Care and Social Assistance	7.60	4.78	\$72,072	\$114,595	10%	70%	20%	0.48	3.35	0.96
Arts, Entertainment and Recreation	0.80	0.50	\$27,384	\$43,541	8%	32%	25%	0.04	0.16	0.13
Other Services	6.60	4.15	\$38,630	\$61,422	35%	55%	10%	1.45	2.28	0.42
Government	0.50	0.31	\$104,070	\$165,472	10%	50%	30%	0.03	0.16	0.09
<b>Total/Average</b>	<b>32.00</b>	<b>20.13</b>	<b>\$58,387</b>	<b>\$92,836</b>				<b>3.27</b>	<b>8.78</b>	<b>3.44</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 46**  
**Estimated Qualifying Very Low and Low Income Households**  
**Prototype 12A**  
**Seattle Affordable Housing Nexus Study**  
**2014**

<b>Economic Sector</b>	<b>Total New FTE Employees Generated by Development</b>	<b>No. of New Households</b>	<b>Average Payroll Per Employee</b>	<b>Estimated Household Income</b>	<b>Estimated Percent of HH Earning Incomes Below 30% AMI</b>	<b>Estimated Percent of HH Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Percent of HH Earning Incomes Between 61% and 80% AMI</b>	<b>Estimated Households Earning Incomes Below 30% AMI</b>	<b>Estimated Households Earning Incomes Between 31% and 60% AMI</b>	<b>Estimated Households Earning Incomes Between 61% and 80% AMI</b>
	(1)	(2)	(3)	(4)	(5)(6)	(5)(6)	(5)(6)			
Manufacturing	0.30	0.19	\$92,870	\$147,663	10%	5%	65%	0.02	0.01	0.12
Wholesale Trade	1.00	0.63	\$98,744	\$157,002	20%	45%	15%	0.13	0.28	0.09
Retail Trade	3.90	2.45	\$46,953	\$74,655	25%	40%	15%	0.61	0.98	0.37
Transportation	0.40	0.25	\$64,278	\$102,202	20%	45%	15%	0.05	0.11	0.04
Warehousing and Storage	0.00	0.00	\$43,370	\$68,958	20%	45%	15%	0.00	0.00	0.00
Information and Communication	0.70	0.44	\$111,660	\$177,540	10%	50%	30%	0.04	0.22	0.13
Finance and Insurance	1.20	0.75	\$77,266	\$122,853	0%	10%	20%	0.00	0.08	0.15
Real Estate, Rentals and Leasing	1.70	1.07	\$24,111	\$38,337	0%	10%	20%	0.00	0.11	0.21
Professional, Scientific and Technical	0.90	0.57	\$94,088	\$149,599	5%	10%	25%	0.03	0.06	0.14
Management and Administrative Services	1.00	0.63	\$62,780	\$99,821	0%	0%	10%	0.00	0.00	0.06
Educational Services	0.60	0.38	\$34,465	\$54,799	5%	35%	20%	0.02	0.13	0.08
Health Care and Social Assistance	5.20	3.27	\$72,072	\$114,595	10%	70%	20%	0.33	2.29	0.65
Arts, Entertainment and Recreation	1.00	0.63	\$27,384	\$43,541	8%	32%	25%	0.05	0.20	0.16
Other Services	4.60	2.89	\$38,630	\$61,422	35%	55%	10%	1.01	1.59	0.29
Government	0.40	0.25	\$104,070	\$165,472	10%	50%	30%	0.03	0.13	0.08
<b>Total/Average</b>	<b>22.60</b>	<b>14.21</b>	<b>\$58,387</b>	<b>\$92,836</b>				<b>2.30</b>	<b>6.18</b>	<b>2.45</b>

(1) Includes full-time equivalent employees from the IMPLAN input/output model.

(2) Number of FTE conversion employees divided by 1.59 employees per worker household.

(3) From IMPLAN input/output model.

(4) Average payroll per employee multiplied by 1.59 employees per worker household.

(5) Based on 2.5 persons per household and income limits of \$22,500 at 30% AMI, \$44,950 at 60% AMI and \$59,950 at 80% AMI.

(6) Percentage of employees by income category estimated based on IMPLAN average payroll figures, and BLS wage by occupation survey.

Source: IMPLAN; U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics, May 2013; DRA.

**Table 47**  
**National Office and Hotel Worker Distribution by Occupation**  
**2014**

<b>Industry/Occupation Category</b>	<b>Office Workers</b>	<b>Hotel Workers</b>
Management	9%	5%
Business and Financial Operations	10%	0%
Computer and Mathematical	3%	0%
Architecture and Engineering	5%	0%
Life, Physical and Social Science	0%	0%
Community and Social Services	0%	0%
Legal	4%	0%
Education, Training, and Library	0%	0%
Arts, Design, Entertainment, Sports and Media	0%	0%
Healthcare Practitioners and Technical	9%	0%
Healthcare Support	4%	0%
Protective Service	0%	0%
Food Preparation and Serving Related	0%	27%
Building and Grounds Cleaning and Maintenance	0%	29%
Personal Care and Service	0%	7%
Sales and Related	7%	3%
Office and Administrative Support	37%	17%
Farming, Fishing and Forestry	0%	0%
Construction and Extraction	0%	0%
Installation, Maintenance and Repair	4%	4%
Production	0%	0%
Transportation and Material Moving	0%	0%
All Other Office Related Occupations	8%	8%
<b>Industry Total</b>	<b>100%</b>	<b>100%</b>

Source: Bureau of Labor Statistics, Occupational Employment Statistics, May 2013 National Industry-Specific Occupational Employment and Wage Estimates.

**Table 48**  
**Projected Occupational Distribution of New Employee Households by Non-Residential Prototype**  
**Non-Residential Nexus Fee Analysis**  
**Seattle Affordable Housing Nexus Study**  
**2014**

Steps	Factor	Office Prototype 3A			Office Prototype 6A			Hotel Prototype		
		%	No.	Units	%	No.	Units	%	No.	Units
1. Grost Square Feet			249,480			238,400			117,600	
2. Employment Density Factor			250	GSF/Emp.		250	GSF/Emp.		1.00	Emp./Rm. 500 GSF/Room
Number of Employees			998	Emp.		954	Emp.		235	Emp.
3. Employees Living in Seattle (1)	73.8%		737	Emp.		704	Emp.		173	Emp.
4. Adjustment for Number of Employees Per Household	1.59 Emp/HH		463	HH		443	HH		109	HH
5. Household Occupational Distribution (2)										
Management		9%	41.3	HH	9%	39.5	HH	5%	5.4	HH
Business and Financial Operations		10%	45.2	HH	10%	43.2	HH	0%	0.0	HH
Computer and Mathematical		3%	15.7	HH	3%	15.0	HH	0%	0.0	HH
Architecture and Engineering		5%	22.8	HH	5%	21.8	HH	0%	0.0	HH
Life, Physical and Social Science		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Community and Social Services		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Legal		4%	16.8	HH	4%	16.1	HH	0%	0.0	HH
Education, Training, and Library		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Arts, Design, Entertainment, Sports and Media		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Healthcare Practitioners and Technical		9%	41.1	HH	9%	39.3	HH	0%	0.0	HH
Healthcare Support		4%	20.5	HH	4%	19.6	HH	0%	0.0	HH
Protective Service		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Food Preparation and Serving-Related		0%	0.0	HH	0%	0.0	HH	27%	29.6	HH
Building/Grounds Cleaning and Maintenance		0%	0.0	HH	0%	0.0	HH	29%	31.6	HH
Personal Care and Service		0%	0.0	HH	0%	0.0	HH	7%	8.0	HH
Sales and Related		7%	30.4	HH	7%	29.0	HH	3%	3.3	HH
Office and Administrative Support		37%	173.1	HH	37%	165.5	HH	17%	18.4	HH
Farming, Fishing and Forestry		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Construction and Extraction		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Installation, Maintenance and Repair		4%	17.6	HH	4%	16.8	HH	4%	4.2	HH
Production		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
Transportation and Material Moving		0%	0.0	HH	0%	0.0	HH	0%	0.0	HH
All Other Occupations		8%	38.7	HH	8%	37.0	HH	8%	8.6	HH
Total		100%	463.2		100%	442.8		100%	109.1	

Legend: HH = households; SF = square feet; Emp = employees.

(1) Source: American Community Survey, five-year estimates, 2012.

(2) From Bureau of Labor Statistics, Occupational Employment Statistics, May 2013 National Industry-Specific Occupational Employment and Wage Estimates.

Source: American Community Survey; Bureau of Labor Statistics; DRA.



**Table 49**  
**Estimated Households Earning Up to 30% AMI By Non-Residential Prototype**  
**Seattle Affordable Housing Nexus Study**

**2014**

Steps	% of	Office		Office		Hotel	
	Employees Earning Up to 30% AMI	Prototype 3A		Prototype 3A		Prototype	
		Percent (1)	No. (2)	Percent (1)	No. (2)	Percent (1)	No. (2)
6. Households Earning Up to 30% AMI							
Management	0%	0%	0.0	0%	0.0	0%	0.0
Business and Financial Operations	0%	0%	0.0	0%	0.0	0%	0.0
Computer and Mathematical	0%	0%	0.0	0%	0.0	0%	0.0
Architecture and Engineering	0%	0%	0.0	0%	0.0	0%	0.0
Life, Physical and Social Science	5%	0%	0.0	0%	0.0	0%	0.0
Community and Social Services	7%	0%	0.0	0%	0.0	0%	0.0
Legal	0%	0%	0.0	0%	0.0	0%	0.0
Education, Training, and Library	5%	0%	0.0	0%	0.0	0%	0.0
Arts, Design, Entertainment, Sports and Media	8%	0%	0.0	0%	0.0	0%	0.0
Healthcare Practitioners and Technical	0%	0%	0.0	0%	0.0	0%	0.0
Healthcare Support	10%	0%	0.2	0%	0.2	0%	0.0
Protective Service	10%	0%	0.0	0%	0.0	0%	0.0
Food Preparation and Serving Related	50%	0%	0.0	0%	0.0	14%	7.4
Building and Grounds Cleaning and Maintenance	25%	0%	0.0	0%	0.0	7%	2.0
Personal Care and Service	35%	0%	0.0	0%	0.0	3%	1.0
Sales and Related	25%	2%	1.9	2%	1.8	1%	0.2
Office and Administrative Support	10%	4%	1.7	4%	1.7	2%	0.2
Farming, Fishing and Forestry	35%	0%	0.0	0%	0.0	0%	0.0
Construction and Extraction	5%	0%	0.0	0%	0.0	0%	0.0
Installation, Maintenance and Repair	15%	1%	0.4	1%	0.4	1%	0.1
Production	10%	0%	0.0	0%	0.0	0%	0.0
Transportation and Material Moving	20%	0%	0.0	0%	0.0	0%	0.0
Total		6%	4.2	6%	4.1	26%	10.9

(1) Percent distribution of households by occupation by land use multiplied by estimated percent of occupation earning less than 30% AMI.

(2) Percent of occupation earning less than 30% AMI by land use multiplied by total employee households generated by land use.

Source: Bureau of Labor Statistics; DRA

**Table 50**  
**Estimated Households Earning Between 31% and 60% AMI By Non-Residential Prototype**  
**Seattle Affordable Housing Nexus Study**

**2014**

Steps	% of Employees Earning 31% to 60% AMI	Office Prototype 3A		Office Prototype 6A		Hotel Prototype	
		Percent (1)	No. (2)	Percent (1)	No. (2)	Percent (1)	No. (2)
6. Households Earning Between 31% AMI and 60% AMI							
Management	0%	0%	0.0	0%	0.0	0%	0.0
Business and Financial Operations	10%	1%	0.5	1%	0.4	0%	0.0
Computer and Mathematical	0%	0%	0.0	0%	0.0	0%	0.0
Architecture and Engineering	0%	0%	0.0	0%	0.0	0%	0.0
Life, Physical and Social Science	10%	0%	0.0	0%	0.0	0%	0.0
Community and Social Services	43%	0%	0.0	0%	0.0	0%	0.0
Legal	10%	0%	0.2	0%	0.2	0%	0.0
Education, Training, and Library	35%	0%	0.0	0%	0.0	0%	0.0
Arts, Design, Entertainment, Sports and Media	32%	0%	0.0	0%	0.0	0%	0.0
Healthcare Practitioners and Technical	15%	1%	0.9	1%	0.9	0%	0.0
Healthcare Support	70%	3%	10.0	3%	9.6	0%	0.0
Protective Service	40%	0%	0.0	0%	0.0	0%	0.0
Food Preparation and Serving Related	50%	0%	0.0	0%	0.0	14%	7.4
Building and Grounds Cleaning and Maintenance	60%	0%	0.0	0%	0.0	17%	11.4
Personal Care and Service	55%	0%	0.0	0%	0.0	4%	2.4
Sales and Related	40%	3%	4.9	3%	4.6	1%	0.5
Office and Administrative Support	50%	19%	43.3	19%	41.4	8%	4.6
Farming, Fishing and Forestry	40%	0%	0.0	0%	0.0	0%	0.0
Construction and Extraction	30%	0%	0.0	0%	0.0	0%	0.0
Installation, Maintenance and Repair	20%	1%	0.7	1%	0.7	1%	0.2
Production	5%	0%	0.0	0%	0.0	0%	0.0
Transportation and Material Moving	45%	0%	0.0	0%	0.0	0%	0.0
Total		28%	60.5	28%	57.8	45%	26.5

(1) Percent distribution of households by occupation by land use multiplied by estimated percent of occupation earning between 31% and 60% AMI.

(2) Percent of occupation earning between 31% and 60% AMI by land use multiplied by total households generated by land use.

Source: Bureau of Labor Statistics; DRA

**Table 51**  
**Estimated Households Earning Between 61% and 80% AMI By No-Residential Prototype**  
**Seattle Affordable Housing Nexus Study**

2014							
Steps	% of Employees Earning 61% to 80% AMI	Office Prototype 3A		Office Prototype 6A		Hotel Prototype	
		Percent (1)	No. (2)	Percent (1)	No. (2)	Percent (1)	No. (2)
6. Households Earning Between 61% AMI and 80% AMI							
Management	10%	1%	0.4	1%	0.4	0%	0.1
Business and Financial Operations	20%	2%	1.8	2%	1.7	0%	0.0
Computer and Mathematical	10%	0%	0.2	0%	0.2	0%	0.0
Architecture and Engineering	15%	1%	0.5	1%	0.5	0%	0.0
Life, Physical and Social Science	25%	0%	0.0	0%	0.0	0%	0.0
Community and Social Services	30%	0%	0.0	0%	0.0	0%	0.0
Legal	15%	1%	0.4	1%	0.4	0%	0.0
Education, Training, and Library	20%	0%	0.0	0%	0.0	0%	0.0
Arts, Design, Entertainment, Sports and Media	25%	0%	0.0	0%	0.0	0%	0.0
Healthcare Practitioners and Technical	15%	1%	0.9	1%	0.9	0%	0.0
Healthcare Support	20%	1%	0.8	1%	0.8	0%	0.0
Protective Service	25%	0%	0.0	0%	0.0	0%	0.0
Food Preparation and Serving Related	0%	0%	0.0	0%	0.0	0%	0.0
Building and Grounds Cleaning and Maintenance	15%	0%	0.0	0%	0.0	4%	0.7
Personal Care and Service	10%	0%	0.0	0%	0.0	1%	0.1
Sales and Related	15%	1%	0.7	1%	0.7	0%	0.1
Office and Administrative Support	30%	11%	15.6	11%	14.9	5%	1.7
Farming, Fishing and Forestry	10%	0%	0.0	0%	0.0	0%	0.0
Construction and Extraction	20%	0%	0.0	0%	0.0	0%	0.0
Installation, Maintenance and Repair	25%	1%	1.1	1%	1.1	1%	0.3
Production	65%	0%	0.0	0%	0.0	0%	0.0
Transportation and Material Moving	15%	0%	0.0	0%	0.0	0%	0.0
Total		20%	22.4	20%	21.6	12%	3.0

(1) Percent distribution of households by occupation by land use multiplied by estimated percent of occupation earning between 61% and 80% AMI.

(2) Percent of occupation earning between 61% and 80% AMI by land use multiplied by total households generated by land use.

Source: Bureau of Labor Statistics; DRA