

**AGENDA BILL**

Subject: Review Town of Mammoth Lakes' Draft Nexus and Fee Study

Presented by: Jennifer Halferty, Executive Director

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**BACKGROUND:**

The Town of Mammoth Lakes has entered into a contractual agreement with AECOM to provide services that include updating the Town's housing mitigation ordinance, establishing a nexus method for the housing mitigation fee, and providing a peer resort analysis. The Town has requested Mammoth Lakes Housing, Inc. (MLH) review and provide expertise guidance on the early draft nexus study establishing a housing mitigation fee.

**ANALYSIS:**

Due to the extremely tight timeline, having just received the final draft nexus study the morning of Monday, May 5, MLH staff has only briefly reviewed the document at this time. Staff will review the draft today in preparation for tonight's Board meeting. Town staff has requested feedback on the inputs to the calculation along with any other aspect of the draft that demands comments.

Next, the draft ordinance and fee/nexus study will be presented during a public hearing at the Town Council meeting on May 20.

**RECOMMENDATION:**

No action is requested. This workshop is an opportunity for the MLH Board of Directors to provide feedback and direction to staff on the Town of Mammoth Lakes draft fee/nexus study. MLH staff will in turn share the MLH Board input with Town staff.

Enclosures:

- 1) Draft Nexus and Fee Study

# Memorandum

To Jen Daugherty Page 1

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Subject Nexus and Fee Study

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From AECOM

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Date May 1, 2015 60341310

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## Introduction

The Town of Mammoth Lakes (Town) has retained AECOM to prepare a nexus study that establishes a nexus methodology to determine the appropriate housing fees in conjunction with the Town's Housing Ordinance Update. The purpose of this report is to provide the reasonable relationship (nexus) between future residential and non-residential development that occurs in the town and the need for additional housing that is affordable for the workforce as a result of new development. The fees presented herein represent the maximum fee as determined by the analysis. However, adjustments downward from the maximum fees may be warranted so the actual fees adopted encourage and do not prevent development activity in the town. The fees generated by the program can be used to provide assistance for production, acquisition, and/or rehabilitation of affordable housing, in addition to other housing activities consistent with the Housing Ordinance Update.

**Table 1 Summary of Maximum Allowable Fees (Residential)**

<i>Market-Rate Unit Price</i>	<i>Maximum Impact Fee (Per Unit)<sup>1</sup></i>	
\$600,000 Per Unit	\$	35,060
\$800,000 Per Unit	\$	40,578
\$1,000,000 Per Unit	\$	43,565

<sup>1</sup> Please see Table 3, Table 4, and Table 5.

Source: AECOM

**Table 2 Summary of Maximum Allowable Fees (Commercial)**

<i>Employment Category</i>	<i>Maximum Impact Fee (Per Square Foot) <sup>1</sup></i>	<i>Maximum Impact Fee (Per Room) <sup>2</sup></i>
Lodging	\$ 132	\$ 65,952
Retail/Restaurants	\$ 188	NA
Office	\$ 130	NA
Light Industrial	\$ 39	NA
Personal Services	\$ 123	NA

<sup>1</sup> Please see Tables 6 - 10.

<sup>2</sup> Fees for lodging will be charged on a per room basis (500 gross square feet per room).

The analysis relies on a number of public data sources referenced in various tables that include, but are not limited to, the: US Census American Community Survey (ACS); Economic Census Survey (ECS); California Housing and Community Development (HCD); Mammoth Lakes Housing Needs Assessment, 2011; Mammoth Lakes Housing Element, 2014; Bureau of Labor Statistics (BLS); Consumer Expenditure Survey (CES); and US Economic Census.

The methodology used to determine the maximum fees is summarized below.

### **Residential Methodology**

AECOM examined the employment associated with the development of a hypothetical 100-unit development. The project size is used solely to facilitate understanding of the analysis by being able to avoid cumbersome fractions. Then, through a series of linkage steps, the number of employees is converted to households and housing units by affordability level. The findings are expressed in terms of numbers of households related to this development size and then presented on a per unit basis.

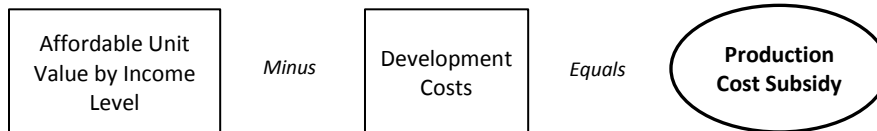
This analysis estimates the subsidy that would be required to build for-sale and for-rent housing for the lower- to middle-income worker households. The impact fee analysis assumes that the most cost-efficient tenure type of development would be used to satisfy the program's requirement (e.g., if for-sale units can be built for less subsidy than for-rent units the analysis would assume new affordable units would be for-sale). The maximum supportable nexus-based fees are based on the estimated number of income-qualified local workers required to support the residents of market-rate units and the total subsidy required to construct housing for those workers.

Three key steps form the basis of the nexus methodology:

1. Estimate typical production cost subsidy requirement to construct affordable housing units at various income levels.
2. Determine the market-rate household's expenditures/demand for goods and services, the jobs created by this demand, and affordable housing needed for the workers in those jobs.
3. Combine the production cost subsidy with the affordable housing demand projections to estimate the supportable nexus-based affordable housing fees per market-rate-unit.

The maximum fee may represent too high a cost burden to sustain development feasibility so adjustments downward from the maximum fees may be warranted.

## Production Cost Subsidy



The production cost subsidy analysis evaluates whether the costs to construct affordable units exceed the values of units that are affordable to target workforce households. AECOM examined the need for housing at various area median income (AMI) levels:

- Extremely Low Income (30% of AMI)
- Very Low Income (31% – 50% of AMI)
- Low Income (51% – 60% of AMI)
- Low Income (61% – 80% of AMI)
- Moderate Income (81% – 120% of AMI)
- Middle Income (121% – 150% of AMI)

For each affordable housing income level, this analysis estimates the subsidy required to construct affordable housing units.

## Development Cost Assumptions

**Housing Cost:** This includes land costs, direct costs (e.g., labor and materials), indirect or “soft” costs (e.g., architecture, entitlement, marketing, etc.), and developer profit. Assumptions used herein are based on the Town’s 2014 Housing Element and updated as needed.

- Land costs in Mammoth Lakes can vary considerably, depending on the location of the parcels. Using tax assessor records for 2014, the value of residential land in Mammoth Lakes also varied by zoning designation, including an average of \$38.12 per square foot (\$1,660,279 per acre) in Residential Multiple-Family 2 (RMF-2), \$11.72 per square foot (\$510,351 per acre) in Residential Multiple-family 1 (RMF-1), \$10.31 per square foot (\$448,904 per acre) in RR (Rural Residential), and \$18.05 per square foot (\$786,419 per acre) in Residential Single Family (RSF). For the purposes of this analysis, AECOM assumes the land costs for development would be \$1,000,000 per acre or \$23 per square foot).
- Direct costs include labor and materials, including cost for public improvements, site work, building construction, tenant improvements, and parking, as well as general contractor and contingency. This analysis uses the high cost range of the RSMeans Quick Cost Estimator of \$210.87 per square foot to determine the multiple-family building costs. An inflation factor of 22 percent was then added to account for local conditions.

- Indirect or “soft costs” include architecture and engineering costs, financing costs, developer overhead, legal and accounting, and contingencies. This analysis assumes softer costs are 30 percent of hard construction costs.
- Developers attempt to determine the potential profit that could be generated from a project before moving forward. In general, developers target projects that can earn a profit of 10 percent above total development costs, but can move forward with lower projected profit depending on the strength of the market, project financing, and developer’s willingness to take a higher risk. In this analysis, AECOM assumes a developer profit of 10 percent.

## Housing Assumptions

**Household Size:** To determine the average household size of future affordable housing units, AECOM used two estimates from the ACS (2012). The data indicate that the average household size is 3.20. The average was rounded down to three (3.0) people per household, which allowed AECOM to use the applicable US Housing and Urban Development (HUD) income limits for the new two-bedroom units.

**Housing Type:** Subsidies available are most efficiently used to develop multiple-family affordable units. AECOM assumes new lower- to middle-income workers will be housed in multiple-family developments in Mammoth Lakes.

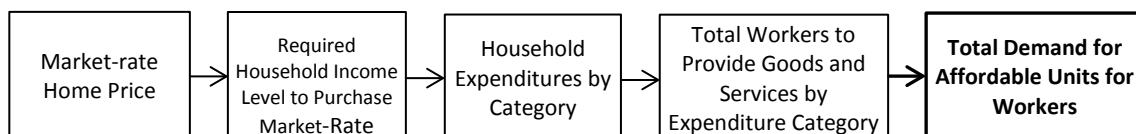
**Unit Size:** California State Law (California Health and Safety Code Section 500.52.5) assumes that a two-bedroom unit is occupied by a three-person household. AECOM has assumed a multi-family unit size of 1,100 square feet.

**Percentage of Gross Household Income Available for Housing Cost:** According to HUD, a home is affordable if it is suitably sized and costs the household 30 percent or less of its gross monthly income. For this analysis, AECOM assumes that all households will spend 30 percent of their gross income on housing costs, including rent or mortgage payments, homeowner association (HOA) fees, maintenance, insurance, and property taxes for for-sale units.

**Vacancy for Rental Units:** AECOM has assumed a level of structural vacancy of 5.0 percent for units above 80 percent AMI. For developments below 80 percent AMI, AECOM has assumed 2.0 percent vacancy.

**Operating Costs for Rental Units:** The analysis assumes that apartment operators incur annual operating costs of 25 percent of net operating income per unit for units affordable at 80 percent AMI or below and operating costs of 35 percent of net operating income per unit for units above 80 percent AMI. AECOM assumes the difference in operating costs is due to units for median income households and above would have been built by for-profit builders and thus would also be subject to property taxes.

## Affordable Housing Demand



This analysis assumes that all households purchasing new market-rate units in the town are “net new” households to the town. The homebuyer household’s typical expenditures are converted to the number of jobs created by their spending using an industry gross receipt-to-wages ratio. After determining the amount of the household’s expenditures (business revenue) used for employee wages, AECOM estimated the number of employees those aggregate wages represent. AECOM calculates the number of workers supported by that spending using the average-wage worker.

To calculate the number of households supported by the expenditures of market-rate housing units, AECOM estimates the employees’ household formation rates. AECOM assumes that not all new employees will form households, specifically those aged 16–19 years. Data from the BLS indicate, for businesses where at least 5.0 percent of workers are between the ages 16 and 19 (primarily retail/restaurant), the average number of workers in this age range is 9.4 percent. For all other businesses 1.5 percent is assumed. AECOM applied these discounts to household formation to get a more accurate calculation of households formed by the employees and the average total incomes of those households.

To establish overall household income, the wages of workers forming households were multiplied by the average number of workers per household in the town. Using ACS 2009 – 2013 data, AECOM created a weighted average based on the number of workers in a household by the household size. This resulted in an average of 1.59 workers per working household in the town. The average household incomes were then allocated to various income categories to estimate the number of affordable housing units demanded by income category.

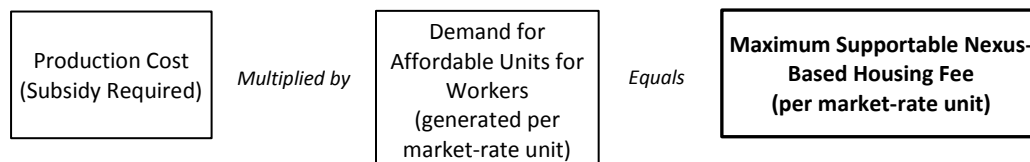
### Market-Rate Home Value Assumptions

**Home Price:** To assess the impact that market-rate units have on the need for affordable housing, AECOM is estimating the household income required to purchase a home at various home values (\$600,000, \$800,000, and \$1,000,000). The value is based on an assumption regarding the cost to construct a for-sale or for-rent unit and the required developer’s return as reflected in the assumed value or price of the units.

### Household Expenditures Assumptions

**Household Expenditures:** Using the ECS data and the CES data, AECOM made determinations as to the industries involved with expenditures in various categories (e.g., “Food at Home” CES category would likely involved the ECS “Food & Beverage Store” industry). Where more than one ECS category was attributable to a CES category, AECOM estimated the proportion of expenditures associated with each ECS category. Adjustments for retail spending were made based on the required income to purchase a home at various prices and the amount of spending after taxes, savings, etc. based on the 2013 CES.

### Calculate Impact Fee



AECOM estimates the subsidy between the cost of developing new housing and the achievable values of the new units based on the financial resources available to households at different income levels created by the new market-rate housing units. To estimate the maximum fee, this subsidy is multiplied by the number of lower- to middle-income workers anticipated by the new development projects and the number of households at various income categories those workers are likely to form.

The total number of income-qualified households required to support the expenditure needs of new market-rate units is determined based on the affordable housing income limits from HCD. A final adjustment was made to account for the seasonal nature of household occupancy in the Town. Since the nexus analysis is driven by the assumed level of purchases created by new households, an adjustment was necessary because a large portion of households are not spending money on an annual basis. AECOM relied on 2010 US Census data that suggest 51.7 percent of the entire housing stock is dedicated to seasonal, recreational, or occasional use, reflecting the popularity of the town as a location for second-home ownership. As such, 48.3 percent of households are year-round residents. For those seasonal units, AECOM have assumed that they are fully occupied on average for 3 months a year (25 percent occupied) suggesting that the total year-round household equivalency is 61.2 percent.

### **Commercial Methodology**

AECOM has identified three building types or land use activities in the analysis:

- Lodging
- Retail/restaurants
- Office
- Light Industrial
- Personal Services

The proportion of lower- to middle-income workers generated by job creation from these land uses is based on assumptions regarding job density and the associated income levels of the new workers. As noted in the residential analysis, these workers are assumed to be “net new” to the town.

### **Job Density Assumptions**

The first step in the analysis is to identify the total number of direct employees who will work at or in the building type being analyzed. Average employment density factors are used to make the conversion. The density factors used are described by building types or land use activities below.

**Lodging:** One employee per room and 500 square feet per hotel room (inclusive of other non-room hotel space) or 500 square feet per employee. This density estimate is intended to cover range of hotel types from lower service hotels, where rooms may be smaller to higher service hotels, where average room size (inclusive of lobbies, restaurants, meeting space, etc.) is larger, but the number of employees per room is higher.

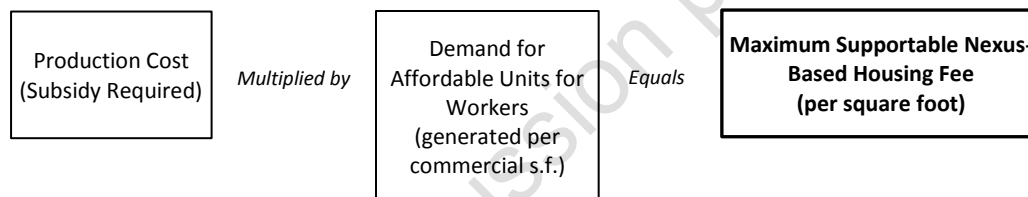
**Retail/Restaurants:** 350 square feet per employee. This category covers a broad range of experience from high service restaurants, where densities are far greater than average, to some retail uses, such as furniture stores, where densities are far lower.

**Office:** 200 square feet per employee. This density estimate is intended to be in the middle of typical office densities, which are usually found in the range of 150 to 250 square feet per employee depending on the character of the office activity. The average is based on gross building area and takes into account the lobby, corridors, restrooms, etc.

**Light Industrial:** 750 square feet per employee. This density estimate is intended to be in the middle of typical light industrial densities, which are usually found in the range of 500 – 1,000 square feet. The average is based on gross building area and takes into account the lobby, corridors, restrooms, etc.

**Personal Services:** 350 square feet per employee. This category covers a broad range of uses and is intended to be used as an “other” category based on a variety of personal services.

### Calculate Impact Fee



AECOM estimates the subsidy between the cost of developing new housing and the achievable values of the new units based on the financial resources available to households at different income levels created by the new commercial use. To estimate the maximum fee, this subsidy is multiplied by the number of lower- to middle-income workers anticipated by the new development projects and the number of households at various income categories those workers are likely to form.

The total number of income-qualified households required to support the new commercial use is determined based on the affordable housing income limits from HCD. A final adjustment has been made based on OnTheMap data from the US Census that reports the inflow/outflow characteristics of an area based on the number of workers that live and work in the same geography. In 2011 it was reported that approximately 28 percent of workers in the town both work and live in the town. For Mono County, the percent of those employed and living in the county was approximately 52 percent. AECOM has used the county estimate to adjust the number of households that would be demanded in the Mammoth Lakes.

### Fee Recommendation

Table 1 and Table 2 summarize our findings regarding the maximum allowable fees based on our nexus and fee study analysis. A comprehensive list of tables is provided that show background calculations to arrive at the maximum allowable fee by land use (please see Table 3 – Table 16). As



noted, developers may target a 10 percent profit rate but may move forward with lower profit depending on the strength of market, project financing, and/or willingness to take on higher risk. The current maximum fee (as a percent of assumed value) is approximately 6 percent for a \$600,000 unit. As such, if a fee was set at the maximum level, development would not likely be feasible at the price assumed in the analysis (\$600,000) unless the developer was willing to take a lower rate of return. In other words, the price would have to be 6 percent higher (e.g., \$636,000) for a developer to satisfy his or her theoretical rate of return with the inclusion of the fee.

*[to come pending review of internal preliminary draft]*

### **Examination of Current Inclusionary Requirement**

Based on AECOM's nexus analysis, the range of inclusionary requirement is between 10.1 and 12.9 workforce housing units demanded per 100 market-rate units. In other words, based on our analysis range of units demand is approximately 10 percent to 13 percent of units. This range is generally consistent with the 10 percent currently being utilized in inclusionary housing provision.

*[fee comparison to come pending review of internal preliminary draft]*

## **Application of Fee to Housing Programs and Effectiveness**

To the extent that various other approaches (beyond using funds for new development) are available to retain and/or expand the supply of housing affordable to income-qualified households, the Town may elect to explore these options to invest the fee revenues created by new development.

Examples of alternative programs may include, but are not limited to:

- Acquisition and rehabilitation of existing older market-rate housing units that would then be subject to income restrictions (e.g., convert to deed restricted workforce housing).
- Down payment assistance or other credit enhancements for income-qualified home buyers.
- Changes in land use designations to accommodate future housing.
- Explore viability of potential arrangements with second home owners who might consider renting their units year-round.

*[Additional information (prioritization/recommendations) to come pending review of internal preliminary draft]*

DRAFT for discussion purposes only

**Table 3 Maximum Impact Fee Calculation (\$600,000 Unit)**

	Affordable Units Required Per 1,000 Market-Rate Units <sup>1</sup>	Year-Round Occupancy <sup>2</sup>	Adjusted Affordable Units Required per 100 Market-Rate Units [C = (A x B) / 10]	Financing Gap per Affordable Unit <sup>3</sup>	Total Fee Required	
					Per 100 Market-Rate Units [E = (C x D)]	Per Market- Rate Unit [F = (E / 100)]
	[A]	[B]	[C = (A x B) / 10]	[D]	[E = (C x D)]	[F = (E / 100)]
Extremely Low Income (30%)	74.3	61.2%	4.5	\$ 322,600	\$ 1,467,270	
Very Low Income (31% - 50%)	62.0	61.2%	3.8	\$ 258,200	\$ 980,046	
Low Income (51% - 60%)	37.9	61.2%	2.3	\$ 226,000	\$ 524,951	
Low Income (61% - 80%)	39.0	61.2%	2.4	\$ 165,800	\$ 395,861	
Moderate Income (81% - 120%)	23.6	61.2%	1.4	\$ 94,500	\$ 136,355	
Middle Income (121% - 150%)	1.9	61.2%	0.1	\$ 13,100	\$ 1,488	
Above Middle Income (151%)	0.6	61.2%	0.0	\$ -	\$ -	
Total	239.3		10.1		\$ 3,505,971	\$ 35,060
Percent of Unit Value						5.8%

<sup>1</sup> Please see Table 11

<sup>2</sup> 2010 Census; Housing stock dedicated to seasonal, recreational, or occasional use

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 4 Maximum Impact Fee Calculation (\$800,000 Unit)**

	Affordable Units Required Per 1,000 Market-Rate Units <sup>1</sup>	Year-Round Occupancy <sup>2</sup>	Adjusted Affordable Units Required per 100 Market-Rate Units	Financing Gap per Affordable Unit <sup>3</sup>	Total Fee Required	
					Per 100 Market-Rate Units	Per Market- Rate Unit
	[A]	[B]	[C = (A x B) / 10]	[D]	[E = (C x D)]	[F = (E / 100)]
Extremely Low Income (30%)	80.7	61.2%	4.9	\$ 322,600	\$ 1,594,727	
Very Low Income (31% - 50%)	73.3	61.2%	4.5	\$ 258,200	\$ 1,159,471	
Low Income (51% - 80%)	53.4	61.2%	3.3	\$ 226,000	\$ 739,536	
Low Income (61% - 80%)	39.7	61.2%	2.4	\$ 165,800	\$ 402,643	
Moderate Income (81% - 120%)	27.6	61.2%	1.7	\$ 94,500	\$ 159,958	
Middle Income (121% - 150%)	1.9	61.2%	0.1	\$ 13,100	\$ 1,488	
Above Middle Income (151%)	1.2	61.2%	0.1	\$ -	\$ -	
Total	277.9		12.1		\$ 4,057,823	\$ 40,578
Percent of Unit Value						5.1%

<sup>1</sup> Please see Table 12

<sup>2</sup> 2010 Census; Housing stock dedicated to seasonal, recreational, or occasional use

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 5 Maximum Impact Fee Calculation (\$1,000,000 Unit)**

	Affordable Units Required Per 1,000 Market-Rate Units <sup>1</sup>	Year-Round Occupancy <sup>2</sup>	Adjusted Affordable Units Required per 100 Market-Rate Units	Financing Gap per Affordable Unit <sup>3</sup>	Total Fee Required	
					Per 100 Market-Rate Units	Per Market- Rate Unit
	[A]	[B]	[C = (A x B) / 10]	[D]	[E = (C x D)]	[F = (E / 100)]
Extremely Low Income (30%)	87.1	61.2%	5.3	\$ 322,600	\$ 1,720,217	
Very Low Income (31% - 50%)	78.2	61.2%	4.8	\$ 258,200	\$ 1,236,096	
Low Income (51% - 60%)	58.3	61.2%	3.6	\$ 226,000	\$ 807,294	
Low Income (61% - 80%)	41.5	61.2%	2.5	\$ 165,800	\$ 420,968	
Moderate Income (81% - 120%)	29.5	61.2%	1.8	\$ 94,500	\$ 170,402	
Middle Income (121% - 150%)	1.9	61.2%	0.1	\$ 13,100	\$ 1,488	
Above Middle Income (151%)	1.2	61.2%	0.1	\$ -	\$ -	
Total	297.6		12.9		\$ 4,356,465	\$ 43,565
Percent of Unit Value						4.4%

<sup>1</sup> Please see Table 13

<sup>2</sup> 2010 Census; Housing stock dedicated to seasonal, recreational, or occasional use.

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 6 Maximum Impact Fee Calculation (Lodging)**

	<i>Affordable Units Required Per 100,000 Square Feet</i> <sup>1</sup>	<i>Percent of Employees Who Work and Live in Town</i> <sup>2</sup>	<i>Adjusted Affordable Units Required per 100,000 Square Feet</i>	<i>Financing Gap per Affordable Unit</i> <sup>3</sup>	<i>Total Fee Required</i>	
	[A]	[B]	[C = (A x B)]	[D]	<i>Per 100,000 Square Feet</i>	<i>Per Market- Rate Unit</i>
					[E = (C x D)]	[F = (E / 100,000)]
Extremely Low Income (30%)	-	51.5%	-	\$ 322,600	\$ -	
Very Low Income (31% - 50%)	-	51.5%	-	\$ 258,200	\$ -	
Low Income (51% - 60%)	94.5	51.5%	48.7	\$ 226,000	\$11,000,108	
Low Income (61% - 80%)	21.0	51.5%	10.8	\$ 165,800	\$ 1,794,036	
Moderate Income (81% - 120%)	8.1	51.5%	4.2	\$ 94,500	\$ 396,200	
Middle Income (121% - 150%)	-	51.5%	-	\$ 13,100	\$ -	
Above Middle Income (151%)	0.0	51.5%	0.0	\$ -	\$ -	
<b>Total</b>	<b>123.7</b>		<b>63.7</b>		<b>\$13,190,343</b>	<b>\$ 132</b>

<sup>1</sup> Please see Table 18

<sup>2</sup> 2011 OnTheMap (Inflow /Outflow).

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 7 Maximum Impact Fee Calculation (Retail/Restaurant)**

	<i>Affordable Units Required Per 100,000 Square Feet <sup>1</sup></i>	<i>Percent of Employees Who Work and Live in Town <sup>2</sup></i>	<i>Adjusted Affordable Units Required per 100,000 Square Feet</i>	<i>Financing Gap per Affordable Unit <sup>3</sup></i>	<i>Total Fee Required</i>	
	[A]	[B]	[C = (A x B)]	[D]	<i>Per 100,000 Square Feet</i>	<i>Per Market- Rate Unit</i>
					[E = (C x D)]	[F = (E / 100,000)]
Extremely Low Income (30%)	-	51.5%	-	\$ 322,600	\$ -	
Very Low Income (31% - 50%)	63.7	51.5%	32.8	\$ 258,200	\$ 8,466,077	
Low Income (51% - 60%)	81.6	51.5%	42.0	\$ 226,000	\$ 9,500,596	
Low Income (61% - 80%)	8.2	51.5%	4.2	\$ 165,800	\$ 699,572	
Moderate Income (81% - 120%)	1.5	51.5%	0.8	\$ 94,500	\$ 73,382	
Middle Income (121% - 150%)	7.4	51.5%	3.8	\$ 13,100	\$ 50,170	
Above Middle Income (151%)	0.0	51.5%	0.0	\$ -	\$ -	
<b>Total</b>	<b>162.4</b>		<b>83.7</b>		<b>\$18,789,797</b>	<b>\$ 188</b>

<sup>1</sup> Please see Table 18

<sup>2</sup> 2011 OnTheMap (Inflow /Outflow).

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 8 Maximum Impact Fee Calculations (Office)**

	Affordable Units Required Per 100,000 Square Feet <sup>1</sup>	Percent of Employees Who Work and Live in Town <sup>2</sup>	Adjusted Affordable Units Required per 100,000 Square Feet	Financing Gap per Affordable Unit <sup>3</sup>	Total Fee Required	
					Per 100,000 Square Feet	Per Market- Rate Unit
	[A]	[B]	[C = (A x B)]	[D]	[E = (C x D)]	[F = (E / 100,000)]
Extremely Low Income (30%)	-	51.5%	-	\$ 322,600	\$ -	
Very Low Income (31% - 50%)	0.1	51.5%	0.0	\$ 258,200	\$ 9,298	
Low Income (51% - 60%)	23.3	51.5%	12.0	\$ 226,000	\$ 2,715,287	
Low Income (61% - 80%)	96.0	51.5%	49.4	\$ 165,800	\$ 8,195,928	
Moderate Income (81% - 120%)	41.6	51.5%	21.4	\$ 94,500	\$ 2,024,052	
Middle Income (121% - 150%)	14.1	51.5%	7.2	\$ 13,100	\$ 94,945	
Above Middle Income (151%)	134.1	51.5%	69.1	\$ -	\$ -	
<b>Total</b>	<b>309.2</b>		<b>159.2</b>		<b>\$13,039,510</b>	<b>\$ 130</b>

<sup>1</sup> Please see Table 18

<sup>2</sup> 2011 OnTheMap (Inflow /Outflow).

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 9 Maximum Impact Fee Calculations (Light Industrial)**

	Affordable Units Required Per 100,000 Square Feet <sup>1</sup>	Percent of Employees Who Work and Live in Town <sup>2</sup>	Adjusted Affordable Units Required per 100,000 Square Feet [C = (A x B)]	Financing Gap per Affordable Unit <sup>3</sup>	Total Fee Required	
					Per 100,000 Square Feet	Per Market- Rate Unit
	[A]	[B]	[C = (A x B)]	[D]	[E = (C x D)]	[F = (E / 100,000)]
Extremely Low Income (30%)	-	51.5%	-	\$ 322,600	\$ -	
Very Low Income (31% - 50%)	0.2	51.5%	0.1	\$ 258,200	\$ 26,125	
Low Income (51% - 60%)	0.6	51.5%	0.3	\$ 226,000	\$ 72,398	
Low Income (61% - 80%)	12.6	51.5%	6.5	\$ 165,800	\$ 1,076,517	
Moderate Income (81% - 120%)	53.8	51.5%	27.7	\$ 94,500	\$ 2,616,072	
Middle Income (121% - 150%)	8.8	51.5%	4.5	\$ 13,100	\$ 59,140	
Above Middle Income (151%)	6.5	51.5%	3.3	\$ -	\$ -	
<b>Total</b>	<b>82.4</b>		<b>39.1</b>		<b>\$ 3,850,253</b>	<b>\$ 39</b>

<sup>1</sup> Please see Table 18

<sup>2</sup> 2011 OnTheMap (Inflow/Outflow).

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 10 Maximum Impact Fee Calculations (Personal Services)**

	<i>Affordable Units Required Per 100,000 Square Feet <sup>1</sup></i>	<i>Percent of Employees Who Work and Live in Town <sup>2</sup></i>	<i>Adjusted Affordable Units Required per 100,000 Square Feet</i>	<i>Financing Gap per Affordable Unit <sup>3</sup></i>	<i>Total Fee Required</i>	
	[A]	[B]	[C = (A x B)]	[D]	<i>Per 100,000 Square Feet</i>	<i>Per Market- Rate Unit</i>
					[E = (C x D)]	[F = (E / 100,000)]
Extremely Low Income (30%)	-	51.5%	-	\$ 322,600	\$ -	
Very Low Income (31% - 50%)	3.5	51.5%	1.8	\$ 258,200	\$ 464,394	
Low Income (51% - 60%)	0.4	51.5%	0.2	\$ 226,000	\$ 52,198	
Low Income (61% - 80%)	100.4	51.5%	51.7	\$ 165,800	\$ 8,569,151	
Moderate Income (81% - 120%)	64.0	51.5%	33.0	\$ 94,500	\$ 3,115,206	
Middle Income (121% - 150%)	8.0	51.5%	4.1	\$ 13,100	\$ 54,017	
Above Middle Income (151%)	0.4	51.5%	0.2	\$ -	\$ -	
<b>Total</b>	<b>176.7</b>		<b>90.8</b>		<b>\$12,254,966</b>	<b>\$ 123</b>

<sup>1</sup> Please see Table 18

<sup>2</sup> 2011 OnTheMap (Inflow/Outflow).

<sup>3</sup> Please see Table 14 (assumes delivery of for-rent product)

Source: AECOM

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**Table 11 Household Employment Generation per 1,000 Market-Rate Units (\$600,000)**

Industry	Household Income	Household Generation <sup>2</sup>								
		Total Households (\$400K Unit) <sup>1</sup>	Extremely Low-Income (30% of AMI)	Very Low-Income (31% - 50% of AMI)	Low-Income (51% - 60% of AMI)	Low-Income (61% - 80% of AMI)	Moderate-Income (81% - 120% of AMI)	Middle-Income (121% - 150% of AMI)	Above-Middle (151% of AMI)	
<b>Retail</b>										
Food & Beverage Stores	\$45,273	14.3	0	0	0	14	0	0	0	
Food Services and Drinking Places	\$21,695	69.3	69	0	0	0	0	0	0	
Health and Personal Care Stores	\$47,510	3.1	0	0	0	3	0	0	0	
General Merchandise	\$33,656	5.1	0	5	0	0	0	0	0	
Furniture and Home Furnishings Stores	\$33,128	4.9	0	5	0	0	0	0	0	
Building material and Garden Equipment and Suppliers	\$35,380	4.3	0	4	0	0	0	0	0	
Electronics and Appliance Stores	\$50,966	10.5	0	0	0	11	0	0	0	
Clothing and Clothing Accessories Stores	\$23,739	4.5	0	5	0	0	0	0	0	
Motor Vehicle and Parts Dealers	\$67,479	8.0	0	0	0	0	8	0	0	
Gasoline Stations	\$43,799	4.5	0	0	5	0	0	0	0	
Sporting Goods, Hobby, and Musical Instruments	\$24,043	9.7	0	10	0	0	0	0	0	
Miscellaneous Store Retailers	\$31,038	6.2	0	6	0	0	0	0	0	
Nonstore Retailers	\$47,526	0.6	0	0	0	1	0	0	0	
<b>Arts, Entertainment, &amp; Recreation</b>	\$62,590	6.3	0	0	0	0	6	0	0	
<b>Medical/Health</b>										
Ambulatory Health Care Services	\$82,644	2.5	0	0	0	0	2	0	0	
General Medical and Surgical Hospitals	\$92,462	1.9	0	0	0	0	0	2	0	
Nursing and Residential Care Facilities	\$40,816	8.0	0	0	8	0	0	0	0	
Social Assistance		4.9	5	0	0	0	0	0	0	
<b>Services</b>										
Personal and Household Goods Repair and Maintenance	\$42,657	8.0	0	0	8	0	0	0	0	
Services to Buildings and Dwellings	\$30,154	11.7	0	12	0	0	0	0	0	
Waste Management and Remediation Services	\$76,010	2.5	0	0	0	0	2	0	0	
Real Estate and Rental and Leasing	\$45,474	1.2	0	0	0	1	0	0	0	
Personal Care Services	\$26,255	14.2	0	14	0	0	0	0	0	
Dry Cleaning and Laundry Services	\$39,861	0.6	0	0	1	0	0	0	0	
Auto Repair and Maintenance	\$54,396	6.2	0	0	0	6	0	0	0	
Veterinary services	\$54,387	1.2	0	0	0	1	0	0	0	
Photographic Services	\$35,922	1.2	0	1	0	0	0	0	0	
Educations Services	\$40,145	16.7	0	0	17	0	0	0	0	
Accounting	\$46,287	1.9	0	0	0	2	0	0	0	
Architectural, Engineering, and Related	\$86,935	1.9	0	0	0	0	2	0	0	
Specialized Designed Services	\$85,826	1.2	0	0	0	0	1	0	0	
Death Care Services	\$58,902	1.2	0	0	0	0	1	0	0	
Legal Services	\$136,547	0.6	0	0	0	0	0	0	1	
<b>Total Households Generate Per 1,000 Market-Rate Units</b>		<b>239.3</b>	<b>74</b>	<b>62</b>	<b>38</b>	<b>39</b>	<b>24</b>	<b>2</b>	<b>1</b>	
<b>Total Income-Qualified Households Generated Per 100 Market-Rate Units</b>			<b>8</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>1</b>	

<sup>1</sup> Assumes 1.59 workers per household based on the ACS, 2013. Includes a 9.4% average discount for business with more than 5% of workers between the ages of 16 and 19, and a 1.5% discount for businesses with less than 5% of workers between the ages of 16 and 19.

<sup>2</sup> Excludes above middle-income households because these income are adequate to acquire market-rate housing. Please see Appendix Table 1 for additional details.

**Table 12 Household Employment Generation per 1,000 Market Rate Units (\$800,000)**

Industry	Household Income	Total Households (\$500K Unit) <sup>1</sup>	Household Generation <sup>2</sup>							
			Extremely Low-Income (30% of AMI)	Very Low-Income (31% - 50% of AMI)	Low-Income (51% - 60% of AMI)	Low-Income (61% - 80% of AMI)	Moderate-Income (81% - 120% of AMI)	Middle-Income (121% - 150% of AMI)	Above-Middle (151% of AMI)	
<b>Retail</b>										
Food & Beverage Stores	\$45,273	13.7	0	0	0	0	14	0	0	0
Food Services and Drinking Places	\$21,695	73.9	74	0	0	0	0	0	0	0
Health and Personal Care Stores	\$47,510	2.5	0	0	0	0	2	0	0	0
General Merchandise	\$33,656	5.7	0	6	0	0	0	0	0	0
Furniture and Home Furnishings Stores	\$33,128	5.6	0	6	0	0	0	0	0	0
Building material and Garden Equipment and Suppliers	\$35,380	4.3	0	4	0	0	0	0	0	0
Electronics and Appliance Stores	\$50,966	10.5	0	0	0	0	11	0	0	0
Clothing and Clothing Accessories Stores	\$23,739	5.1	0	5	0	0	0	0	0	0
Motor Vehicle and Parts Dealers	\$67,479	8.0	0	0	0	0	0	8	0	0
Gasoline Stations	\$43,799	4.0	0	0	4	0	0	0	0	0
Sporting Goods, Hobby, and Musical Instruments	\$24,043	13.1	0	13	0	0	0	0	0	0
Miscellaneous Store Retailers	\$31,038	6.8	0	7	0	0	0	0	0	0
Nonstore Retailers	\$47,526	0.6	0	0	0	0	1	0	0	0
<b>Arts, Entertainment, &amp; Recreation</b>	<b>\$62,590</b>	<b>9.1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>0</b>
<b>Medical/Health</b>										
Ambulatory Health Care Services	\$82,644	3.1	0	0	0	0	0	3	0	0
General Medical and Surgical Hospitals	\$92,462	1.9	0	0	0	0	0	0	2	0
Nursing and Residential Care Facilities	\$40,816	9.9	0	0	10	0	0	0	0	0
Social Assistance		6.8	7	0	0	0	0	0	0	0
<b>Services</b>										
Personal and Household Goods Repair and Maintenance	\$42,657	8.0	0	0	8	0	0	0	0	0
Services to Buildings and Dwellings	\$30,154	17.3	0	17	0	0	0	0	0	0
Waste Management and Remediation Services	\$76,010	2.5	0	0	0	0	0	2	0	0
Real Estate and Rental and Leasing	\$45,474	1.9	0	0	0	2	0	0	0	0
Personal Care Services	\$26,255	14.2	0	14	0	0	0	0	0	0
Dry Cleaning and Laundry Services	\$39,861	0.6	0	0	1	0	0	0	0	0
Auto Repair and Maintenance	\$54,396	6.8	0	0	0	7	0	0	0	0
Veterinary services	\$54,387	1.9	0	0	0	2	0	0	0	0
Photographic Services	\$35,922	1.2	0	1	0	0	0	0	0	0
Educations Services	\$40,145	30.9	0	0	31	0	0	0	0	0
Accounting	\$46,287	1.9	0	0	0	2	0	0	0	0
Architectural, Engineering, and Related	\$86,935	1.9	0	0	0	0	0	2	0	0
Specialized Designed Services	\$85,826	1.2	0	0	0	0	0	1	0	0
Death Care Services	\$58,902	1.9	0	0	0	0	0	2	0	0
Legal Services	\$136,547	1.2	0	0	0	0	0	0	0	1
<b>Total Households Generate Per 1,000 Market-Rate Units</b>		<b>277.9</b>	<b>81</b>	<b>73</b>	<b>53</b>	<b>40</b>	<b>28</b>	<b>2</b>	<b>2</b>	<b>1</b>
<b>Total Income-Qualified Households Generated Per 100 Market-Rate Units</b>			<b>9</b>	<b>8</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>

<sup>1</sup> Assumes 1.59 workers per household based on the ACS, 2013. Includes a 9.4% average discount for business with more than 5% of workers between the ages of 16 and 19, and a 1.5% discount for businesses with less than 5% of workers between the ages of 16 and 19.

<sup>2</sup> Excludes above middle-income households because these income are adequate to acquire market-rate housing. Please see Appendix Table 2 for additional details.

**Table 13 Household Employment Generation per 1,000 Market-rate Units (\$1,000,000)**

Industry	Household Income	Total Households (\$500K Unit) <sup>1</sup>	Household Generation <sup>2</sup>							
			Extremely Low-Income (30% of AMI)	Very Low-Income (31% - 50% of AMI)	Low-Income (51% - 60% of AMI)	Low-Income (61% - 80% of AMI)	Moderate-Income (81% - 120% of AMI)	Middle-Income (121% - 150% of AMI)	Above-Middle (151% of AMI)	
<b>Retail</b>										
Food & Beverage Stores	\$45,273	14.3	0	0	0	14	0	0	0	
Food Services and Drinking Places	\$21,695	79.7	80	0	0	0	0	0	0	
Health and Personal Care Stores	\$47,510	2.5	0	0	0	2	0	0	0	
General Merchandise	\$33,656	5.7	0	6	0	0	0	0	0	
Furniture and Home Furnishings Stores	\$33,128	6.2	0	6	0	0	0	0	0	
Building material and Garden Equipment and Suppliers	\$35,380	4.9	0	5	0	0	0	0	0	
Electronics and Appliance Stores	\$50,966	11.1	0	0	0	11	0	0	0	
Clothing and Clothing Accessories Stores	\$23,739	5.7	0	6	0	0	0	0	0	
Motor Vehicle and Parts Dealers	\$67,479	8.7	0	0	0	0	9	0	0	
Gasoline Stations	\$43,799	4.5	0	0	5	0	0	0	0	
Sporting Goods, Hobby, and Musical Instruments	\$24,043	13.6	0	14	0	0	0	0	0	
Miscellaneous Store Retailers	\$31,038	7.4	0	7	0	0	0	0	0	
Nonstore Retailers	\$47,526	0.6	0	0	0	1	0	0	0	
<b>Arts, Entertainment, &amp; Recreation</b>	<b>\$62,590</b>	<b>9.7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	
<b>Medical/Health</b>										
Ambulatory Health Care Services	\$82,644	3.1	0	0	0	0	3	0	0	
General Medical and Surgical Hospitals	\$92,462	1.9	0	0	0	0	0	2	0	
Nursing and Residential Care Facilities	\$40,816	11.1	0	0	11	0	0	0	0	
Social Assistance		7.4	7	0	0	0	0	0	0	
<b>Services</b>										
Personal and Household Goods Repair and Maintenance	\$42,657	8.7	0	0	9	0	0	0	0	
Services to Buildings and Dwellings	\$30,154	18.6	0	19	0	0	0	0	0	
Waste Management and Remediation Services	\$76,010	3.1	0	0	0	0	3	0	0	
Real Estate and Rental and Leasing	\$45,474	1.9	0	0	0	2	0	0	0	
Personal Care Services	\$26,255	14.8	0	15	0	0	0	0	0	
Dry Cleaning and Laundry Services	\$39,861	0.6	0	0	1	0	0	0	0	
Auto Repair and Maintenance	\$54,396	7.4	0	0	0	7	0	0	0	
Veterinary services	\$54,387	1.9	0	0	0	2	0	0	0	
Photographic Services	\$35,922	1.2	0	1	0	0	0	0	0	
Educations Services	\$40,145	33.4	0	0	33	0	0	0	0	
Accounting	\$46,287	1.9	0	0	0	2	0	0	0	
Architectural, Engineering, and Related	\$86,935	1.9	0	0	0	0	2	0	0	
Specialized Designed Services	\$85,826	1.2	0	0	0	0	1	0	0	
Death Care Services	\$58,902	1.9	0	0	0	0	2	0	0	
Legal Services	\$136,547	1.2	0	0	0	0	0	0	1	
<b>Total Households Generate Per 1,000 Market-Rate Units</b>		<b>297.6</b>	<b>87</b>	<b>78</b>	<b>58</b>	<b>41</b>	<b>29</b>	<b>2</b>	<b>1</b>	
<b>Total Income-Qualified Households Generated Per 100 Market-Rate Units</b>			<b>9</b>	<b>8</b>	<b>6</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>1</b>	

<sup>1</sup> Assumes 1.59 w orkers per household based on the ACS, 2013. Includes a 9.4% average discount for business w ith more than 5% of w orkers betw een the ages of 16 and 19, and a 1.5% discount for businesses w ith less than 5% of w orkers betw een the ages of 16 and 19.

<sup>2</sup> Excludes above middle-income households because these income are adequate to acquire market-rate housing. Please see Appendix Table 3 for additional details.

**Table 14 Production Cost Subsidy Analysis by Development Prototype**

	<i>Very Low Income (31% - 50%)</i>	<i>Very Low Income (31% - 50%)</i>	<i>Low Income (51% - 60%)</i>	<i>Low Income (61% - 80%)</i>	<i>Moderate Income (81% - 120%)</i>	<i>Middle Income (121% - 150%)</i>
<b>Multiple-Family (For-Sale)</b>						
Production Costs <sup>1</sup>	\$ 520,700	\$ 520,700	\$ 520,700	\$ 520,700	\$ 520,700	\$ 520,700
Supportable Price at Income Levels <sup>2</sup>	<u>\$ 7,543</u>	<u>\$ 64,022</u>	<u>\$ 92,261</u>	<u>\$ 145,065</u>	<u>\$ 261,891</u>	<u>\$ 346,802</u>
Subsidy	\$ 513,157	\$ 456,678	\$ 428,439	\$ 375,635	\$ 258,809	\$ 173,898
<b>Multiple-Family (For-Rent)</b>						
Production Costs <sup>1</sup>	\$ 419,400	\$ 419,400	\$ 419,400	\$ 419,400	\$ 419,400	\$ 419,400
Supportable Price at Income Levels <sup>3</sup>	<u>\$ 96,800</u>	<u>\$ 161,200</u>	<u>\$ 193,400</u>	<u>\$ 253,600</u>	<u>\$ 324,900</u>	<u>\$ 406,300</u>
Subsidy	\$ 322,600	\$ 258,200	\$ 226,000	\$ 165,800	\$ 94,500	\$ 13,100

<sup>1</sup> Please see Table 15

<sup>2</sup> Please see Table 16

<sup>3</sup> Please see Table 17

Source: AECOM

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**Table 15 Multi-Family Residential Development Costs Summary**

Item	2 Stories Multifamily					
	Extremely Low	Low Income (50%)	Low Income (60%)	Low Income (80%)	Moderate Income (120%)	Middle Income (150%)
<b>Development Program Assumptions</b>						
Density/Acre	12	12	12	12	12	12
Average Gross Unit Size	1,100	1,100	1,100	1,100	1,100	1,100
Average Net Unit Size	1,050	1,050	1,050	1,050	1,050	1,050
Average Number of Bedrooms	2	2	2	2	2	2
Average Number of Persons per Household	3	3	3	3	3	3
<b>For-Sale Cost Assumptions</b>						
Land/Acre <sup>1</sup>	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Land/Unit	<b>\$83,333</b>	<b>\$83,333</b>	<b>\$83,333</b>	<b>\$83,333</b>	<b>\$83,333</b>	<b>\$83,333</b>
Direct Construction Costs/Gross SF <sup>2</sup>	\$260	\$260	\$260	\$260	\$260	\$260
Direct Construction Costs/Unit	\$286,000	\$286,000	\$286,000	\$286,000	\$286,000	\$286,000
Subtotal, Direct Costs/Unit	<b>\$286,000</b>	<b>\$286,000</b>	<b>\$286,000</b>	<b>\$286,000</b>	<b>\$286,000</b>	<b>\$286,000</b>
Indirect Costs as a % of Direct Costs <sup>3</sup>	30%	30%	30%	30%	30%	30%
Indirect Costs/Unit	<b>\$85,800</b>	<b>\$85,800</b>	<b>\$85,800</b>	<b>\$85,800</b>	<b>\$85,800</b>	<b>\$85,800</b>
Develop Profit margin (% of all cost)	10%	10%	10%	10%	10%	10%
Developer Profit	\$65,533	\$65,533	\$65,533	\$65,533	\$65,533	\$65,533
<b>Total Cost/Unit (Rounded)</b>	<b>\$520,700</b>	<b>\$520,700</b>	<b>\$520,700</b>	<b>\$520,700</b>	<b>\$520,700</b>	<b>\$520,700</b>
<b>For-Rent Cost Assumptions</b>						
Land/Acre <sup>1</sup>	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Land/Unit	\$83,333	\$83,333	\$83,333	\$83,333	\$83,333	\$83,333
Direct Construction Costs/Gross SF <sup>2</sup>	\$235	\$235	\$235	\$235	\$235	\$235
Direct Construction Costs/Unit	\$258,500	\$258,500	\$258,500	\$258,500	\$258,500	\$258,500
Subtotal, Direct Costs/Unit	<b>\$258,500</b>	<b>\$258,500</b>	<b>\$258,500</b>	<b>\$258,500</b>	<b>\$258,500</b>	<b>\$258,500</b>
Indirect Costs as a % of Direct Costs <sup>3</sup>	30%	30%	30%	30%	30%	30%
Indirect Costs/Unit	<b>\$77,550</b>	<b>\$77,550</b>	<b>\$77,550</b>	<b>\$77,550</b>	<b>\$77,550</b>	<b>\$77,550</b>
<b>Total Cost/Unit (Rounded)</b>	<b>\$419,400</b>	<b>\$419,400</b>	<b>\$419,400</b>	<b>\$419,400</b>	<b>\$419,400</b>	<b>\$419,400</b>

<sup>1</sup> Assumes dwelling units would be built in Residential Multiple-Family Zones, which is estimated at \$23 per square foot per tax assessor records for 2014.

<sup>2</sup> Assumes three story brick veneer/concrete block backup/wood joist construction. The high cost range of the RSMeans Quick Cost Estimator of \$210.87 per square foot was used to determine the multiple-family building costs. An inflation factor of 22 percent was then added to account for local conditions. The Town's Main Street Plan identifies the cost of multiple-family construction as \$295 per square foot, which reflects costs to construct in the commercial zone. The costs here reflect construction in Residential Multiple-Family Zones, which have fewer requirements related to public improvements, building design, and parking.

<sup>3</sup> Assumes soft costs are 30 percent of hard construction costs. Soft costs include architecture and engineering costs, financing costs, developer overhead, legal and accounting, and contingencies.

<sup>4</sup> Profit margin target of 10% on for-sale housing with cap rate used to estimate profit for for-rent (upon time of sale).

**Table 16 Supportable Price by For-Sale Development Prototype**

	<i>Extremely Low</i>	<i>Low Income (50%)</i>	<i>Low Income (60%)</i>	<i>Low Income (80%)</i>	<i>Moderate Income (120%)</i>	<i>Middle Income (150%)</i>
Household Income <sup>1</sup>	\$21,950	\$36,550	\$43,850	\$57,500	\$87,700	\$109,650
Income Available for Housing Costs/Year <sup>2</sup>	\$6,585	\$10,965	\$13,155	\$17,250	\$26,310	\$32,895
Less Annual HOA Fee <sup>3</sup>	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Less Property Taxes <sup>4</sup>	\$94	\$800	\$1,153	\$1,813	\$3,274	\$4,335
Income Available for Mortgage <sup>5</sup>	\$491	\$4,165	\$6,002	\$9,437	\$17,036	\$22,560
Mortgage Interest Rate <sup>6</sup>	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Mortgage Repayment Period (years)	30	30	30	30	30	30
Down Payment <sup>7</sup>	\$377	\$3,201	\$4,613	\$7,253	\$13,095	\$17,340
<b>Total Supportable Home Price</b>	<b>\$7,543</b>	<b>\$64,022</b>	<b>\$92,261</b>	<b>\$145,065</b>	<b>\$261,891</b>	<b>\$346,802</b>

<sup>1</sup> Based on HUD 2014 Income limits for Mono County.

<sup>2</sup> Assumes housing costs to be 30% of gross household income for low-income and moderate-income households.

<sup>3</sup> Homeowner association fees provided by Mammoth Lakes Housing Needs Assessment (2011). Some projects may include insurance costs in the HOA fees, while others may not. To be conservative, AECOM has assumed that the average HOA fee includes insurance.

<sup>4</sup> Exceeds basic 1.00% tax rate to include allowance for special assessment districts (1.25).

<sup>5</sup> Income available for mortgage payments consists of total income available for housing less property taxes, insurance and HOA fees.

<sup>6</sup> Reflects CalHFA mortgage rates.

<sup>7</sup> Assumes a 5% down payment.

Source: Mammoth Lakes Housing Element, 2013; Mammoth Lakes Housing Needs Assessment, 2011; HUD Income Limits (2014), AECOM



**Table 17 Supportable Price by For-Rent Development Prototype**

	<i>Extremely Low Income (31% - 50%)</i>	<i>Very Low Income (31% - 50%)</i>	<i>Low Income (51% - 60%)</i>	<i>Low Income (61% - 80%)</i>	<i>Moderate Income (81% - 120%)</i>	<i>Middle Income (121% - 150%)</i>
<b>Income</b>						
Income Available for Housing Per Month	\$ 21,950	\$ 36,550	\$ 43,850	\$ 57,500	\$ 87,700	\$ 109,650
	\$ 549	\$ 914	\$ 1,096	\$ 1,438	\$ 2,193	\$ 2,741
<b>Development</b>						
Vacancy	2.00%	2.00%	2.00%	2.00%	5.00%	5.00%
Gross Scheduled Income per Year	\$ 6,453	\$ 10,746	\$ 12,892	\$ 16,905	\$ 24,995	\$ 31,250
Operating Ratio <sup>1</sup>	25.00%	25.00%	25.00%	25.00%	35.00%	35.00%
Operating Expense	\$ 1,613	\$ 2,686	\$ 3,223	\$ 4,226	\$ 8,748	\$ 10,938
Net Operating Income	\$ 4,840	\$ 8,059	\$ 9,669	\$ 12,679	\$ 16,246	\$ 20,313
Capitalization rate <sup>2</sup>	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Indicative Value (Rounded)	\$ 96,800	\$ 161,200	\$ 193,400	\$ 253,600	\$ 324,900	\$ 406,300

<sup>1</sup> REIS; Low er income properties assumes that no property tax is paid. Analysis does not assume that additional subsidies are provided.

<sup>2</sup> CBRE (US Cap Rate Survey)

Source: AECOM

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**Table 18 Household Generation Rates by Employment Category**

Employment Category	Sq. Ft. per Worker <sup>1</sup>	Total Workers per 100,000 Square Feet	% of Workers Forming Households <sup>2</sup>	Total		Households by Income Level <sup>4</sup>						
				Households per 100,000 Square Feet <sup>3</sup>	Extremely Low-Income (>30% of AMI)	Very Low-Income (31% - 50% of AMI)	Low-Income (51% - 60% of AMI)	Low-Income (61% - 80% of AMI)	Moderate-Income (81% - 120% of AMI)	Middle-Income (121% - 150% of AMI)	Above-Middle (151% of AMI)	
Lodging	500	200	98%	123.7	-	-	94.5	21.0	8.1	-	0.0	
Retail/Restaurants	350	286	91%	162.4	-	63.7	81.6	8.2	1.5	7.4	0.0	
Office	200	500	98%	309.2	-	0.1	23.3	96.0	41.6	14.1	134.1	
Light Industrial	750	133	98%	82.4	-	0.2	0.6	12.6	53.8	8.8	6.5	
Personal Services	350	286	98%	176.7	-	3.5	0.4	100.4	64.0	8.0	0.4	

<sup>1</sup> AECOM Estimate. Hotel estimate is equivalent to 1 worker per room.

<sup>2</sup> BLS; AECOM has assumed that workers of age 16-19 do not form their own households

<sup>3</sup> ACS (2013)

<sup>4</sup> Please see Appendix Tables 4 - 8 for additional details.

Sources: BLS; ACS, 2013; AECOM

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### **General Limiting Conditions**

AECOM has endeavored to ensure that the reported data and information contained in this report are complete, accurate, and relevant. All estimates, assumptions, and extrapolations are based on methodological techniques employed by AECOM and believed to be reliable. These assumptions are outlined throughout this report. AECOM assumes no responsibility for inaccuracies in reporting by the client, its agencies, representatives, or any other third party data source used in the preparation of this report.

Further, AECOM makes no warranty or representation concerning any of the estimated or projected values or results contained in this study materializing. Written consent from AECOM shall be sought in advance of publishing this report in any media. No abstracting, excerpting, or summarizing of this study may be made without first obtaining the prior written consent of AECOM.

This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person, other than the client, without first obtaining the prior written consent of AECOM. This study may not be used for purposes other than that for which it is prepared or for which prior written consent has first been obtained from AECOM. This study is qualified in its entirety by, and should be considered in light of the above limitations, conditions, and considerations.

**Appendix Table 1 Estimated Average Annual Household Expenditures by Sales Price**

<i>Assumed Base Price</i>	<i>Down Payment at 20%</i>	<i>Beginning Mortgage Principal</i>	<i>Monthly Mortgage Payment<sup>1</sup></i>	<i>Annual Taxes at 1.25%<sup>2</sup></i>	<i>Annual HOA + Insurance Fees<sup>3</sup></i>	<i>Total Annual Housing Costs</i>	<i>Required Household Income<sup>4</sup></i>	<i>Percent of Spending After Taxes and Savings<sup>5</sup></i>	<i>Spending Used to Calculate Demand</i>
\$600,000	\$120,000	\$480,000	\$2,577	\$7,500	\$6,000	\$44,421	\$148,070	65%	\$ 96,245
\$800,000	\$160,000	\$640,000	\$3,436	\$10,000	\$6,000	\$57,228	\$190,760	58%	\$ 110,641
\$1,000,000	\$200,000	\$800,000	\$4,295	\$12,500	\$6,000	\$70,035	\$233,450	51%	\$ 119,059

<sup>1</sup> Assumes 5% interest for 30 years, reflecting higher than current rates but well below historical averages.

<sup>2</sup> Tax rate allows for some special assessments above 1.00% basic tax rate.

<sup>3</sup> Mammoth Lakes Housing Needs Assessment (2011) average for condominiums (\$417/month), adjusted for inflation and rounded (2013). Some projects may include insurance costs in the HOA fees, while others may not. To be conservative, AECOM has assumed that the average HOA fee includes insurance.

<sup>4</sup> Assume households spend 30% of total household income on total annual housing costs.

Source: AECOM

**Appendix Table 1 Estimated Average Annual Household Expenditures and Associated Employment Generation**  
**\$600,000 Per Unit**

Expenditure Type/Industry	Percent of Income Spent per Category (%) <sup>1</sup> [a]	Percent of Expenditure per Type of Industry <sup>2</sup> [b]	2013 Expenditures [c] = income x a x b	2007 Expenditures <sup>3</sup> [d] = c x CPI	2007 Expenditures per 1,000 Households [e] = d x 1,000	Gross Receipts to Wages [f]	2007 Total Wages [g] = e/f	2007 Average Wages [h]	Number of Workers [i] = g/h	Percent Forming Households <sup>4</sup> [j]	Workers / Households <sup>5</sup> [k]	Total Worker Households [l] = i x (j/k)	2007 Household Income [m] = h x k
Food at home	6.6	100%	\$5,716	\$5,716	\$5,715,921	10.40	\$549,857	\$28,426	20.0	90.6%	1.59	11.4	\$45,273
Food & Beverage Stores		100%	\$6,352	\$5,716	\$5,715,921								
Food away from home	5.4	100%	\$5,197	\$4,677	\$4,676,663	3.13	\$1,492,744	\$13,621	110.0	90.6%	1.59	62.5	\$21,695
Food Services and Drinking Places		100%	\$5,197	\$4,677	\$4,676,663								
Alcoholic beverages	1	100%	\$962	\$866	\$866,049								
Food & Beverage Stores		50%	\$481	\$433	\$433,024	10.40	\$41,656	\$28,426	2.0	90.6%	1.59	1.1	\$45,273
Food Services and Drinking Places		50%	\$481	\$433	\$433,024	3.13	\$138,217	\$13,621	11.0	98.5%	1.59	6.8	\$21,695
Maintenance, repairs, insurance, other expenses	2.6	100%	\$2,502	\$2,252	\$2,251,727								
Personal and Household Goods Repair and Maintenance <sup>7</sup>		45%	\$1,126	\$1,013	\$1,013,277	3.72	\$272,455	\$26,783	11.0	98.5%	1.59	6.8	\$42,657
Building Material and Garden Equipment and Supplies Dealer		45%	\$1,126	\$1,013	\$1,013,277	8.09	\$125,316	\$22,214	6.0	98.5%	1.59	3.7	\$35,380
Real Estate and Rental and Leasing		10%	\$250	\$225	\$225,173	4.00	\$56,337	\$28,552	2.0	98.5%	1.59	1.2	\$45,474
Fuel oil and other fuels	0.2	100%	\$192	\$173	\$173,210								
Nonstore Retailers		100%	\$192	\$173	\$173,210	13.72	\$12,620	\$29,840	1.0	98.5%	1.59	0.6	\$47,526
Water and other public services <sup>5</sup>	0.8	100%	\$770	\$693	\$692,839								
Waste Management and Remediation Services <sup>7</sup>		100%	\$770	\$693	\$692,839	4.25	\$162,875	\$47,724	4.0	98.5%	1.59	2.5	\$76,010
Household operations - Personal Services	1	100%	\$962	\$866	\$866,049								
Nursing and Residential Care Facilities <sup>7</sup>		40%	\$385	\$346	\$346,419	2.37	\$146,320	\$25,627	6.0	98.5%	1.59	3.7	\$40,816
Social Assistance <sup>7</sup>		60%	\$577	\$520	\$519,629	2.98	\$174,168	\$23,861	8.0	98.5%	1.59	4.9	\$38,003
Household operations - Other Household Expenses	1.4	100%	\$1,347	\$1,212	\$1,212,468								
Services to Buildings and Dwellings		100%	\$1,347	\$1,212	\$1,212,468	3.43	\$353,323	\$18,933	19.0	98.5%	1.59	11.7	\$30,154
Housekeeping supplies	1.1	100%	\$1,059	\$953	\$952,654								
Building Materials and Garden Equipment and Supplies Dealers		10%	\$106	\$95	\$95,265	8.09	\$11,782	\$22,214	1.0	98.5%	1.59	0.6	\$35,380
Food & Beverage Stores		35%	\$371	\$333	\$333,429	10.40	\$32,075	\$28,426	2.0	90.6%	1.59	1.1	\$45,273
General Merchandise <sup>7</sup>		35%	\$371	\$333	\$333,429	11.05	\$30,181	\$21,132	2.0	90.6%	1.59	1.1	\$33,656
Miscellaneous Store Retailers <sup>7</sup>		20%	\$212	\$191	\$190,531	7.16	\$26,619	\$19,488	2.0	98.5%	1.59	1.2	\$31,038
Household furnishings and equipment	3.3	100%	\$3,176	\$2,858	\$2,857,961								
Furniture and Home Furnishings Stores		40%	\$1,270	\$1,143	\$1,143,184	7.33	\$155,889	\$20,800	8.0	98.5%	1.59	4.9	\$33,128
Electronics and Appliance Stores		40%	\$1,270	\$1,143	\$1,143,184	5.06	\$225,930	\$32,000	8.0	98.5%	1.59	4.9	\$50,966
General Merchandise Stores <sup>7</sup>		10%	\$318	\$286	\$285,796	11.05	\$25,870	\$21,132	2.0	90.6%	1.59	1.1	\$33,656
Miscellaneous Store Retailers <sup>7</sup>		10%	\$318	\$286	\$285,796	7.16	\$39,928	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Apparel and services	3	100%	\$2,887	\$2,598	\$2,598,146								
Clothing and Clothing Accessories Stores		40%	\$1,155	\$1,039	\$1,039,258	9.13	\$113,891	\$14,905	8.0	90.6%	1.59	4.5	\$23,739
General Merchandise Stores <sup>7</sup>		40%	\$1,155	\$1,039	\$1,039,258	11.05	\$94,071	\$21,132	5.0	90.6%	1.59	2.8	\$33,656
Miscellaneous Store Retailers <sup>7</sup>		10%	\$289	\$260	\$259,815	7.16	\$36,298	\$19,488	2.0	98.5%	1.59	1.2	\$31,038
Personal and Household Goods Repair and Maintenance <sup>7</sup>		5%	\$144	\$130	\$129,907	3.72	\$34,930	\$26,783	2.0	98.5%	1.59	1.2	\$42,657
Dry Cleaning and Laundry Services <sup>7</sup>		5%	\$144	\$9	\$8,660	3.17	\$2,736	\$25,028	1.0	98.5%	1.59	0.6	\$39,861
Vehicle purchases (net outlay)	7.2	100%	\$6,930	\$6,236	\$6,235,551								
Motor Vehicle and Parts Dealers <sup>7</sup>		100%	\$6,930	\$6,236	\$6,235,551	11.73	\$531,381	\$42,368	13.0	98.5%	1.59	8.0	\$67,479
Gasoline and motor oil	4.5	100%	\$4,331	\$3,897	\$3,897,219								
Gasoline Stations		100%	\$4,331	\$3,897	\$3,897,219	18.78	\$207,557	\$27,500	8.0	90.6%	1.59	4.5	\$43,799
Vehicle Maintenance and repairs	1.6	100%	\$1,540	\$1,386	\$1,385,678								
Repair and Maintenance		100%	\$1,540	\$1,386	\$1,385,678	4.07	\$340,100	\$34,154	10.0	98.5%	1.59	6.2	\$54,396
Medical services	1.5	100%	\$1,444	\$1,299	\$1,299,073								
Ambulatory Health Care Services <sup>7</sup>		40%	\$577	\$520	\$519,629	2.67	\$194,776	\$51,890	4.0	98.5%	1.59	2.5	\$82,644
General Medical and Surgical Hospitals <sup>7</sup>		30%	\$433	\$390	\$389,722	2.63	\$148,177	\$58,054	3.0	98.5%	1.59	1.9	\$92,462
Nursing and Residential Care Facilities <sup>7</sup>		30%	\$433	\$390	\$389,722	2.37	\$164,610	\$25,627	7.0	98.5%	1.59	4.3	\$40,816
Drugs	0.7	100%	\$674	\$606	\$606,234								
Health and Personal Care Stores <sup>7</sup>		100%	\$674	\$606	\$606,234	7.57	\$80,057	\$29,830	3.0	98.5%	1.59	1.9	\$47,510
Medical supplies	0.3	100%	\$289	\$260	\$259,815								
Health and Personal Care Stores <sup>7</sup>		100%	\$289	\$260	\$259,815	7.57	\$34,310	\$29,830	2.0	98.5%	1.59	1.2	\$47,510
Entertainment Fees and Admissions	1.5	100%	\$1,444	\$1,299	\$1,299,073								
Arts, Entertainment, & Recreation <sup>7</sup>		100%	\$1,444	\$1,299	\$1,299,073	3.07	\$423,070	\$39,299	11.0	90.6%	1.59	6.3	\$62,590
Audio and Visual Equipment and Services	1.6	100%	\$1,540	\$1,386	\$1,385,678								
Electronics and Appliance Stores		100%	\$1,540	\$1,386	\$1,385,678	5.06	\$273,855	\$32,000	9.0	98.5%	1.59	5.6	\$50,966
Pets, toys, hobbies, and playground equipment	0.9	100%	\$866	\$779	\$779,444								

**Appendix Table 1 Estimated Average Annual Household Expenditures and Associated Employment Generation**  
**\$600,000 Per Unit**

Expenditure Type/Industry	Percent of Income Spent per Category (%) <sup>1</sup> [a]	Percent of Expenditure per Type of Industry <sup>2</sup> [b]	2013 Expenditures [c] = income x a x b	2007 Expenditures <sup>3</sup> [d] = c x CPI	2007 Expenditures per 1,000 Households [e] = d x 1,000	Gross Receipts to Wages [f]	2007 Total Wages [g] = e/f	2007 Average Wages [h]	Number of Workers [i] = g/h	Percent Forming Households <sup>4</sup> [j]	Workers / Households <sup>5</sup> [k]	Total Worker Households [l] = i x (j/k)	2007 Household Income [m] = h x k
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$346	\$312	\$311,778	4.86	\$64,099	\$15,096	5.0	90.6%	1.59	2.8	\$24,043
Miscellaneous Store Retailers <sup>7</sup>		40%	\$346	\$312	\$311,778	7.16	\$43,558	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Veterinary Services <sup>7</sup>		20%	\$173	\$156	\$155,889	2.81	\$55,406	\$34,148	2.0	98.5%	1.59	1.2	\$54,387
Other entertainment supplies, equipment, and services	0.8	100%	\$770	\$693	\$692,839								
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$654	\$589	\$588,913	4.86	\$121,076	\$15,096	9.0	90.6%	1.59	5.1	\$24,043
Photographic Services <sup>7</sup>		15%	\$115	\$104	\$103,926	4.55	\$22,820	\$22,554	2.0	98.5%	1.59	1.2	\$35,922
Personal care products and services	1.3	100%	\$1,251	\$1,126	\$1,125,863								
Personal Care Services <sup>7</sup>		100%	\$1,251	\$1,126	\$1,125,863	2.99	\$376,031	\$16,484	23.0	98.5%	1.59	14.2	\$26,255
Reading	0.2	100%	\$192	\$173	\$173,210								
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$192	\$173	\$173,210	4.86	\$35,611	\$15,096	3.0	90.6%	1.59	1.7	\$24,043
Education	2.3	100%	\$2,214	\$1,992	\$1,991,912								
Educational Services <sup>7</sup>		100%	\$2,214	\$1,992	\$1,991,912	2.95	\$675,006	\$25,206	27.0	98.5%	1.59	16.7	\$40,145
Tobacco products and smoking supplies	0.3	100%	\$289	\$260	\$259,815								
Food & Beverage Stores		100%	\$289	\$260	\$259,815	10.40	\$24,993	\$28,426	1.0	98.5%	1.59	0.6	\$45,273
Miscellaneous	1.3	100%	\$1,251	\$1,126	\$1,125,863								
Accounting		20%	\$250	\$225	\$225,173	3.32	\$67,770	\$29,063	3.0	98.5%	1.59	1.9	\$46,287
Architectural, Engineering		20%	\$250	\$225	\$225,173	1.79	\$125,749	\$54,584	3.0	98.5%	1.59	1.9	\$86,935
Specialized Deion Services <sup>7</sup>		20%	\$250	\$225	\$225,173	3.72	\$60,606	\$53,888	2.0	98.5%	1.59	1.2	\$85,826
Death Care Services <sup>7</sup>		20%	\$250	\$225	\$225,173	3.47	\$64,804	\$36,983	2.0	98.5%	1.59	1.2	\$58,902
Legal Services <sup>7</sup>		20%	\$250	\$225	\$225,173	2.76	\$81,540	\$85,734	1.0	98.5%	1.59	0.6	\$136,547
<b>Estimated Household Income to purchase =</b>			<b>\$148,070</b>										
<b>Estimated Spending =</b>			<b>\$96,245</b>						<b>402.0</b>			<b>239.3</b>	

<sup>1</sup> Percent of income spent per category is based on the 2013 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimation of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, health insurance, personal/life insurance, cash contributions, and financing charges.

<sup>2</sup> Where multiple business types are likely to provide goods and services in the expenditure category, AECOM has estimate the proportion accruing to each business type.

<sup>3</sup> 2013 expenditures converted to 2007 dollars using the Consumer Price Index for California from the Bureau of Labor Statistics.

<sup>4</sup> BLS data indicates that out of retail/restaurant sectors with 5% or more workers age 16-19, the average is 9.4% 16-19 year old workers, but the average is only 1.5% in other sectors. AECOM has assumed that such young workers do not form their own households.

<sup>5</sup> Based on 2013 ACS for Mono County.

<sup>6</sup> Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census

<sup>7</sup> Mono county data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data

<sup>8</sup> Note that average salary reported for architecture, engineering and related industries reflect the full range of employees within the industry, not solely professional and technical staff.

Source: AECOM

**Appendix Table 2 Estimated Average Annual Household Expenditures and Associated Employment Generation  
\$800,000 Per Unit**

Expenditure Type/Industry	Percent of Income Spent per Category (%) <sup>1</sup> [a]	Percent of Expenditure per Type of Industry <sup>2</sup> [b]	2013 Expenditures [c] = income x a x b	2007 Expenditures <sup>3</sup> [d] = c x CPI	2007 Expenditures per 1,000 Households [e] = d x 1,000	Gross Receipts to Wages [f]	2007 Total Wages [g] = e/f	2007 Average Wages [h]	Number of Workers [j] = g/h	Percent Forming Households <sup>4</sup> [i]	Workers / Households <sup>5</sup> [k]	Total Worker Households [l] = i x (j/k)	2007 Household Income [m] = h x k
Food at home		5.4	\$5,975	\$5,376	\$5,376								
Food & Beverage Stores		100%	\$5,975	\$5,376	\$5,376,144	10.40	\$517,171	\$28,426	19.0	90.6%	1.59	10.8	\$45,273
Food away from home		5	\$5,532	\$4,978	\$4,977,911								
Food Services and Drinking Places		100%	\$5,532	\$4,978	\$4,977,911	3.13	\$1,588,900	\$13,621	117.0	90.6%	1.59	66.5	\$21,695
Alcoholic beverages		1	\$1,106	\$996	\$995,582								
Food & Beverage Stores		50%	\$553	\$498	\$497,791	10.40	\$47,886	\$28,426	2.0	90.6%	1.59	1.1	\$45,273
Food Services and Drinking Places		50%	\$553	\$498	\$497,791	3.13	\$158,890	\$13,621	12.0	98.5%	1.59	7.4	\$21,695
Maintenance, repairs, insurance, other expenses		2.4	\$2,655	\$2,389	\$2,389,397								
Personal and Household Goods Repair and Maintenance <sup>7</sup>		45%	\$1,195	\$1,075	\$1,075,229	3.72	\$289,112	\$26,783	11.0	98.5%	1.59	6.8	\$42,657
Building Material and Garden Equipment and Supplies Dealer		45%	\$1,195	\$1,075	\$1,075,229	8.09	\$132,978	\$22,214	6.0	98.5%	1.59	3.7	\$35,380
Real Estate and Rental and Leasing		10%	\$266	\$239	\$238,940	4.00	\$59,782	\$28,552	3.0	98.5%	1.59	1.9	\$45,474
Fuel oil and other fuels		0.3	\$332	\$299	\$298,675								
Nonstore Retailers		100%	\$332	\$299	\$298,675	13.72	\$21,762	\$29,840	1.0	98.5%	1.59	0.6	\$47,526
Water and other public services <sup>8</sup>		0.8	\$885	\$796	\$796,466								
Waste Management and Remediation Services <sup>7</sup>		100%	\$885	\$796	\$796,466	4.25	\$187,236	\$47,724	4.0	98.5%	1.59	2.5	\$76,010
Household operations - Personal Services		1.3	\$1,438	\$1,294	\$1,294,257								
Nursing and Residential Care Facilities <sup>7</sup>		40%	\$575	\$518	\$517,703	2.37	\$218,666	\$25,627	9.0	98.5%	1.59	5.6	\$40,816
Social Assistance <sup>7</sup>		60%	\$863	\$777	\$776,554	2.98	\$260,284	\$23,861	11.0	98.5%	1.59	6.8	\$38,003
Household operations - Other Household Expenses		1.8	\$1,992	\$1,792	\$1,792,048								
Services to Buildings and Dwellings		100%	\$1,992	\$1,792	\$1,792,048	3.43	\$522,218	\$18,933	28.0	98.5%	1.59	17.3	\$30,154
Housekeeping supplies		1.1	\$1,217	\$1,095	\$1,095,141								
Building Materials and Garden Equipment and Supplies Dealers		10%	\$122	\$110	\$109,514	8.09	\$13,544	\$22,214	1.0	98.5%	1.59	0.6	\$35,380
Food & Beverage Stores		35%	\$426	\$383	\$383,299	10.40	\$36,872	\$28,426	2.0	90.6%	1.59	1.1	\$45,273
General Merchandise <sup>7</sup>		35%	\$426	\$383	\$383,299	11.05	\$34,695	\$21,132	2.0	90.6%	1.59	1.1	\$33,656
Miscellaneous Store Retailers <sup>7</sup>		20%	\$243	\$219	\$219,028	7.16	\$30,600	\$19,488	2.0	98.5%	1.59	1.2	\$31,038
Household furnishings and equipment		3.4	\$3,762	\$3,385	\$3,384,980								
Furniture and Home Furnishings Stores		40%	\$1,505	\$1,354	\$1,353,992	7.33	\$184,635	\$20,800	9.0	98.5%	1.59	5.6	\$33,128
Electronics and Appliance Stores		40%	\$1,505	\$1,354	\$1,353,992	5.06	\$267,593	\$32,000	9.0	98.5%	1.59	5.6	\$50,966
General Merchandise Stores <sup>7</sup>		10%	\$376	\$338	\$338,498	11.05	\$30,640	\$21,132	2.0	90.6%	1.59	1.1	\$33,656
Miscellaneous Store Retailers <sup>7</sup>		10%	\$376	\$338	\$338,498	7.16	\$47,291	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Apparel and services		3.0	\$3,319	\$2,987	\$2,986,747								
Clothing and Clothing Accessories Stores		40%	\$1,328	\$1,195	\$1,194,699	9.13	\$130,926	\$14,905	9.0	90.6%	1.59	5.1	\$23,739
General Merchandise Stores <sup>7</sup>		40%	\$1,328	\$1,195	\$1,194,699	11.05	\$108,141	\$21,132	6.0	90.6%	1.59	3.4	\$33,656
Miscellaneous Store Retailers <sup>7</sup>		10%	\$332	\$299	\$298,675	7.16	\$41,727	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Personal and Household Goods Repair and Maintenance <sup>7</sup>		5%	\$166	\$149	\$149,337	3.72	\$40,155	\$26,783	2.0	98.5%	1.59	1.2	\$42,657
Drv Cleaning and Laundry Services <sup>7</sup>		5%	\$17	\$15	\$14,934	3.17	\$4,717	\$25,028	1.0	98.5%	1.59	0.6	\$39,861
Vehicle purchases (net outlay)		6.3	\$6,970	\$6,272	\$6,272,168								
Motor Vehicle and Parts Dealers <sup>7</sup>		100%	\$6,970	\$6,272	\$6,272,168	11.73	\$534,501	\$42,368	13.0	98.5%	1.59	8.0	\$67,479
Gasoline and motor oil		3.4	\$3,762	\$3,385	\$3,384,980								
Gasoline Stations		100%	\$3,762	\$3,385	\$3,384,980	18.78	\$180,276	\$27,500	7.0	90.6%	1.59	4.0	\$43,799
Vehicle Maintenance and repairs		1.5	\$1,660	\$1,493	\$1,493,373								
Repair and Maintenance		100%	\$1,660	\$1,493	\$1,493,373	4.07	\$366,533	\$34,154	11.0	98.5%	1.59	6.8	\$54,396
Medical services		1.4	\$1,549	\$1,394	\$1,393,815								
Ambulatory Health Care Services <sup>7</sup>		40%	\$620	\$558	\$557,526	2.67	\$208,981	\$51,890	5.0	98.5%	1.59	3.1	\$82,644
General Medical and Surgical Hospitals <sup>7</sup>		30%	\$465	\$418	\$418,145	2.63	\$158,984	\$58,054	3.0	98.5%	1.59	1.9	\$92,462
Nursing and Residential Care Facilities <sup>7</sup>		30%	\$465	\$418	\$418,145	2.37	\$176,615	\$25,627	7.0	98.5%	1.59	4.3	\$40,816
Drugs		0.6	\$664	\$597	\$597,349								
Health and Personal Care Stores <sup>7</sup>		100%	\$664	\$597	\$597,349	7.57	\$78,884	\$29,830	3.0	98.5%	1.59	1.9	\$47,510
Medical supplies		0.2	\$221	\$199	\$199,116								
Health and Personal Care Stores <sup>7</sup>		100%	\$221	\$199	\$199,116	7.57	\$26,295	\$29,830	1.0	98.5%	1.59	0.6	\$47,510
Entertainment Fees and Admissions		1.9	\$2,102	\$1,892	\$1,891,606								
Arts, Entertainment, & Recreation <sup>7</sup>		100%	\$2,102	\$1,892	\$1,891,606	3.07	\$616,041	\$39,299	16.0	90.6%	1.59	9.1	\$62,590
Audio and Visual Equipment and Services		1.3	\$1,438	\$1,294	\$1,294,257								
Electronics and Appliance Stores		100%	\$1,438	\$1,294	\$1,294,257	5.06	\$255,787	\$32,000	8.0	98.5%	1.59	4.9	\$50,966
Pets, toys, hobbies, and playground equipment		1	\$1,106	\$996	\$995,582								
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$443	\$398	\$398,233	4.86	\$81,874	\$15,096	6.0	90.6%	1.59	3.4	\$24,043
Miscellaneous Store Retailers <sup>7</sup>		40%	\$443	\$398	\$398,233	7.16	\$55,637	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Veterinary Services <sup>7</sup>		20%	\$221	\$199	\$199,116	2.81	\$70,770	\$34,148	3.0	98.5%	1.59	1.9	\$54,387

**Appendix Table 2 Estimated Average Annual Household Expenditures and Associated Employment Generation  
\$800,000 Per Unit**

Expenditure Type/Industry	Percent of Income Spent per Category (%) <sup>1</sup> [a]	Percent of Expenditure per Type of Industry <sup>2</sup> [b]	2013 Expenditures [c] = income x a x b	2007 Expenditures <sup>3</sup> [d] = c x CPI	2007 Expenditures per 1,000 Households [e] = d x 1,000	Gross Receipts to Wages [f]	2007 Total Wages [g] = e/f	2007 Average Wages [h]	Number of Workers [j] = g/h	Percent Forming Households <sup>4</sup> [i]	Workers / Households <sup>5</sup> [k]	Total Worker Households [l] = i x (j/k)	2007 Household Income [m] = h x k
Other entertainment supplies, equipment, and services	1.2	100%	\$1,328	\$1,195	\$1,194,699								
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$1,129	\$1,015	\$1,015,494	4.86	\$208,778	\$15,096	14.0	90.6%	1.59	8.0	\$24,043
Photographic Services <sup>7</sup>		15%	\$199	\$179	\$179,205	4.55	\$39,349	\$22,554	2.0	98.5%	1.59	1.2	\$35,922
Personal care products and services	1.1	100%	\$1,217	\$1,095	\$1,095,141								
Personal Care Services <sup>7</sup>		100%	\$1,217	\$1,095	\$1,095,141	2.99	\$365,770	\$16,484	23.0	98.5%	1.59	14.2	\$26,255
Reading	0.2	100%	\$221	\$199	\$199,116								
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$221	\$199	\$199,116	4.86	\$40,937	\$15,096	3.0	90.6%	1.59	1.7	\$24,043
Education	3.7	100%	\$4,094	\$3,684	\$3,683,654								
Educational Services <sup>7</sup>		100%	\$4,094	\$3,684	\$3,683,654	2.95	\$1,248,292	\$25,206	50.0	98.5%	1.59	30.9	\$40,145
Tobacco products and smoking supplies	0.2	100%	\$221	\$199	\$199,116								
Food & Beverage Stores		100%	\$221	\$199	\$199,116	10.40	\$19,154	\$28,426	1.0	98.5%	1.59	0.6	\$45,273
Miscellaneous	1.3	100%	\$1,438	\$1,294	\$1,294,257								
Accounting		20%	\$288	\$259	\$258,851	3.32	\$77,907	\$29,063	3.0	98.5%	1.59	1.9	\$46,287
Architectural, Engineering		20%	\$288	\$259	\$258,851	1.79	\$144,557	\$54,584	3.0	98.5%	1.59	1.9	\$86,935
Specialized Design Services <sup>7</sup>		20%	\$288	\$259	\$258,851	3.72	\$69,671	\$53,888	2.0	98.5%	1.59	1.2	\$85,826
Death Care Services <sup>7</sup>		20%	\$288	\$259	\$258,851	3.47	\$74,497	\$36,983	3.0	98.5%	1.59	1.9	\$58,902
Legal Services <sup>7</sup>		20%	\$288	\$259	\$258,851	2.76	\$93,735	\$85,734	2.0	98.5%	1.59	1.2	\$136,547
<b>Estimated Household Income to purchase =</b>													
<b>Estimated Spending =</b>			<b>\$190,760</b>	<b>\$110,641</b>					<b>466.0</b>			<b>277.9</b>	

<sup>1</sup> Percent of income spent per category is based on the 2013 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimation of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, health insurance, personal/life insurance, cash contributions, and financing charges.

<sup>2</sup> Where multiple business types are likely to provide goods and services in the expenditure category, AECOM has estimated the proportion accruing to each business type.

<sup>3</sup> 2013 expenditures converted to 2007 dollars using the Consumer Price Index for California from the Bureau of Labor Statistics.

<sup>4</sup> BLS data indicates that out of retail/restaurant sectors with 5% or more workers age 16-19, the average is 9.4% 16-19 year old workers, but the average is only 1.5% in other sectors. AECOM has assumed that such young workers do not form their own households.

<sup>5</sup> Based on 2013 ACS for Mono County.

<sup>6</sup> Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census.

<sup>7</sup> Mono county data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wages thus based on statewide data.

<sup>8</sup> Note that average salary reported for architecture, engineering and related industries reflect the full range of employees within the industry, not solely professional and technical staff.

Source: AECOM



**Appendix Table 3 Estimated Average Annual Household Expenditures and Associated Employment Generation  
\$1,000,000 Per Unit**

Expenditure Type/Industry	Percent of Income Spent per Category (%) <sup>1</sup> [a]	Percent of Expenditure per Type of Industry <sup>2</sup> [b]	2013 Expenditures [c] = income x a x b	2007 Expenditures <sup>3</sup> [d] = c x CPI	2007 Expenditures per 1,000 Households [e] = d x 1,000	Gross Receipts to Wages [f]	2007 Total Wages [g] = e/f	2007 Average Wages [h]	Number of Workers [i] = g/h	Percent Forming Households <sup>4</sup> [j]	Workers / Households <sup>5</sup> [k]	Total Worker Households [l] = i x (j/k)	2007 Household Income [m] = h x k
Food at home		5.4	\$6,429	\$5,785	\$5,785,217	10.40	\$556,523	\$28,426	20	90.6%	1.59	11.4	\$45,273
Food & Beverage Stores		100%	\$6,429	\$5,785	\$5,785,217								
Food away from home		5	\$5,953	\$5,357	\$5,356,682	3.13	\$1,709,799	\$13,621	126	90.6%	1.59	71.6	\$21,695
Food Services and Drinking Places		100%	\$5,953	\$5,357	\$5,356,682								
Alcoholic beverages		1	\$1,191	\$1,071	\$1,071,336								
Food & Beverage Stores		50%	\$595	\$536	\$535,668	10.40	\$51,530	\$28,426	2	90.6%	1.59	1.1	\$45,273
Food Services and Drinking Places		50%	\$595	\$536	\$535,668	3.13	\$170,980	\$13,621	13	98.5%	1.59	8.0	\$21,695
Maintenance, repairs, insurance, other expenses		2.4	\$2,857	\$2,571	\$2,571,208								
Personal and Household Goods Repair and Maintenance <sup>7</sup>		45%	\$1,286	\$1,157	\$1,157,043	3.72	\$311,111	\$26,783	12	98.5%	1.59	7.4	\$42,657
Building Material and Garden Equipment and Supplies Dealer		45%	\$1,286	\$1,157	\$1,157,043	8.09	\$143,097	\$22,214	7	98.5%	1.59	4.3	\$35,380
Real Estate and Rental and Leasing		10%	\$286	\$257	\$257,121	4.00	\$64,331	\$28,552	3	98.5%	1.59	1.9	\$45,474
Fuel oil and other fuels		0.3	\$357	\$321	\$321,401	13.72	\$23,418	\$29,840	1	98.5%	1.59	0.6	\$47,526
Nonstore Retailers		100%	\$357	\$321	\$321,401								
Water and other public services <sup>6</sup>		0.8	\$952	\$857	\$857,069	4.25	\$201,483	\$47,724	5	98.5%	1.59	3.1	\$76,010
Waste Management and Remediation Services <sup>7</sup>		100%	\$952	\$857	\$857,069								
Household operations - Personal Services		1.3	\$1,548	\$1,393	\$1,392,737	2.37	\$235,305	\$25,627	10.0	98.5%	1.59	6.2	\$40,816
Nursing and Residential Care Facilities <sup>7</sup>		40%	\$619	\$557	\$557,095	2.98	\$280,089	\$23,861	12.0	98.5%	1.59	7.4	\$38,003
Social Assistance <sup>7</sup>		60%	\$929	\$836	\$835,642								
Household operations - Other Household Expenses		1.8	\$2,143	\$1,928	\$1,928,406	3.43	\$561,953	\$18,933	30.0	98.5%	1.59	18.6	\$30,154
Services to Buildings and Dwellings		100%	\$2,143	\$1,928	\$1,928,406								
Housekeeping supplies		1.1	\$1,310	\$1,178	\$1,178,470	8.09	\$14,575	\$22,214	1.0	98.5%	1.59	0.6	\$35,380
Building Materials and Garden Equipment and Supplies Dealers		10%	\$131	\$118	\$117,847	10.40	\$39,678	\$28,426	2.0	90.6%	1.59	1.1	\$45,273
Food & Beverage Stores		35%	\$458	\$412	\$412,465	11.05	\$37,335	\$21,132	2.0	90.6%	1.59	1.1	\$33,656
General Merchandise <sup>7</sup>		35%	\$458	\$412	\$412,465	7.16	\$32,929	\$19,488	2.0	98.5%	1.59	1.2	\$31,038
Miscellaneous Store Retailers <sup>7</sup>		20%	\$262	\$236	\$236,694								
Household furnishings and equipment		3.4	\$4,048	\$3,643	\$3,642,544	7.33	\$198,694	\$20,800	10.0	98.5%	1.59	6.2	\$33,128
Furniture and Home Furnishings Stores		40%	\$1,619	\$1,457	\$1,457,018	5.06	\$287,954	\$32,000	9.0	98.5%	1.59	5.6	\$50,966
Electronics and Appliance Stores		40%	\$1,619	\$1,457	\$1,457,018	11.05	\$32,971	\$21,132	2.0	90.6%	1.59	1.1	\$33,656
General Merchandise Stores <sup>7</sup>		10%	\$405	\$364	\$364,254	7.16	\$50,890	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Miscellaneous Store Retailers <sup>7</sup>		10%	\$405	\$364	\$364,254								
Apparel and services		3	\$3,572	\$3,214	\$3,214,009	9.13	\$140,888	\$14,905	10.0	90.6%	1.59	5.7	\$23,739
Clothing and Clothing Accessories Stores		40%	\$1,429	\$1,286	\$1,285,604	11.05	\$116,370	\$21,132	6.0	90.6%	1.59	3.4	\$33,656
General Merchandise Stores <sup>7</sup>		40%	\$1,429	\$1,286	\$1,285,604	7.16	\$44,903	\$19,488	3.0	98.5%	1.59	1.9	\$31,038
Miscellaneous Store Retailers <sup>7</sup>		10%	\$357	\$321	\$321,401	3.72	\$43,210	\$26,783	2.0	98.5%	1.59	1.2	\$42,657
Personal and Household Goods Repair and Maintenance <sup>7</sup>		5%	\$179	\$161	\$160,700	3.17	\$5,076	\$25,028	1.0	98.5%	1.59	0.6	\$39,861
Drv Cleaning and Laundry Services <sup>7</sup>		5%	\$18	\$16	\$16,070								
Vehicle purchases (net outlay)		6.3	\$7,501	\$6,749	\$6,749,420	11.73	\$575,171	\$42,368	14.0	98.5%	1.59	8.7	\$67,479
Motor Vehicle and Parts Dealers <sup>7</sup>		100%	\$7,501	\$6,749	\$6,749,420								
Gasoline and motor oil		3.4	\$4,048	\$3,643	\$3,642,544	18.78	\$193,994	\$27,500	8.0	90.6%	1.59	4.5	\$43,799
Gasoline Stations		100%	\$4,048	\$3,643	\$3,642,544								
Vehicle Maintenance and repairs		1.5	\$1,786	\$1,607	\$1,607,005	4.07	\$394,422	\$34,154	12.0	98.5%	1.59	7.4	\$54,396
Repair and Maintenance		100%	\$1,786	\$1,607	\$1,607,005								
Medical services		1.4	\$1,667	\$1,500	\$1,499,871	2.67	\$224,882	\$51,890	5.0	98.5%	1.59	3.1	\$82,644
Ambulatory Health Care Services <sup>7</sup>		40%	\$667	\$600	\$599,948	2.63	\$171,081	\$58,054	3.0	98.5%	1.59	1.9	\$92,462
General Medical and Surgical Hospitals <sup>7</sup>		30%	\$500	\$450	\$449,961	2.37	\$190,054	\$25,627	8.0	98.5%	1.59	4.9	\$40,816
Nursing and Residential Care Facilities <sup>7</sup>		30%	\$500	\$450	\$449,961								
Drugs		0.6	\$714	\$643	\$642,802	7.57	\$84,886	\$29,830	3.0	98.5%	1.59	1.9	\$47,510
Health and Personal Care Stores <sup>7</sup>		100%	\$714	\$643	\$642,802								
Medical supplies		0.2	\$238	\$214	\$214,267	7.57	\$28,295	\$29,830	1.0	98.5%	1.59	0.6	\$47,510
Health and Personal Care Stores <sup>7</sup>		100%	\$238	\$214	\$214,267								
Entertainment Fees and Admissions		1.9	\$2,262	\$2,036	\$2,035,539	3.07	\$662,916	\$39,299	17.0	90.6%	1.59	9.7	\$62,590
Arts, Entertainment, & Recreation <sup>7</sup>		100%	\$2,262	\$2,036	\$2,035,539								
Audio and Visual Equipment and Services		1.3	\$1,548	\$1,393	\$1,392,737	5.06	\$275,250	\$32,000	9.0	98.5%	1.59	5.6	\$50,966
Electronics and Appliance Stores		100%	\$1,548	\$1,393	\$1,392,737								
Pets, toys, hobbies, and playground equipment		1	\$1,191	\$1,071	\$1,071,336	4.86	\$88,104	\$15,096	6.0	90.6%	1.59	3.4	\$24,043
Sporting Goods, Hobby, and Musical Instrument Stores		40%	\$476	\$429	\$428,535	7.16	\$59,870	\$19,488	4.0	98.5%	1.59	2.5	\$31,038
Miscellaneous Store Retailers <sup>7</sup>		40%	\$476	\$429	\$428,535	2.81	\$76,155	\$34,148	3.0	98.5%	1.59	1.9	\$54,387
Veterinary Services <sup>7</sup>		20%	\$238	\$214	\$214,267								

**Appendix Table 3 Estimated Average Annual Household Expenditures and Associated Employment Generation  
\$1,000,000 Per Unit**

Expenditure Type/Industry	Percent of Income Spent per Category (%) <sup>1</sup> [a]	Percent of Expenditure per Type of Industry <sup>2</sup> [b]	2013 Expenditures [c] = income x a x b	2007 Expenditures <sup>3</sup> [d] = c x CPI	2007 Expenditures per 1,000 Households [e] = d x 1,000	Gross Receipts to Wages [f]	2007 Total Wages [g] = e/f	2007 Average Wages [h]	Number of Workers [i] = g/h	Percent Forming Households <sup>4</sup> [j]	Workers / Households <sup>5</sup> [k]	Total Worker Households [l] = i x (j/k)	2007 Household Income [m] = h x k
Other entertainment supplies, equipment, and services	1.2	100%	\$1,429	\$1,286	\$1,285,604								
Sporting Goods, Hobby, and Musical Instrument Stores		85%	\$1,214	\$1,093	\$1,092,763	4.86	\$224,664	\$15,096	15.0	90.6%	1.59	8.5	\$24,043
Photographic Services <sup>7</sup>		15%	\$214	\$193	\$192,841	4.55	\$42,343	\$22,554	2.0	98.5%	1.59	1.2	\$35,922
Personal care products and services	1.1	100%	\$1,310	\$1,178	\$1,178,470								
Personal Care Services <sup>7</sup>		100%	\$1,310	\$1,178	\$1,178,470	2.99	\$393,602	\$16,484	24.0	98.5%	1.59	14.8	\$26,255
Reading	0.2	100%	\$238	\$214	\$214,267								
Sporting Goods, Hobby, and Musical Instrument Stores		100%	\$238	\$214	\$214,267	4.86	\$44,052	\$15,096	3.0	90.6%	1.59	1.7	\$24,043
Education	3.7	100%	\$4,405	\$3,964	\$3,963,945								
Educational Services <sup>7</sup>		100%	\$4,405	\$3,964	\$3,963,945	2.95	\$1,343,275	\$25,206	54.0	98.5%	1.59	33.4	\$40,145
Tobacco products and smoking supplies	0.2	100%	\$238	\$214	\$214,267								
Food & Beverage Stores		100%	\$238	\$214	\$214,267	10.40	\$20,612	\$28,426	1.0	98.5%	1.59	0.6	\$45,273
Miscellaneous	1.3	100%	\$1,548	\$1,393	\$1,392,737								
Accounting		20%	\$310	\$279	\$278,547	3.32	\$83,835	\$29,063	3.0	98.5%	1.59	1.9	\$46,287
Architectural, Engineering		20%	\$310	\$279	\$278,547	1.79	\$155,556	\$54,584	3.0	98.5%	1.59	1.9	\$86,935
Specialized Deion Services <sup>7</sup>		20%	\$310	\$279	\$278,547	3.72	\$74,972	\$53,888	2.0	98.5%	1.59	1.2	\$85,826
Death Care Services <sup>7</sup>		20%	\$310	\$279	\$278,547	3.47	\$80,166	\$36,983	3.0	98.5%	1.59	1.9	\$58,902
Legal Services <sup>7</sup>		20%	\$310	\$279	\$278,547	2.76	\$100,868	\$85,734	2.0	98.5%	1.59	1.2	\$136,547
<b>Estimated Household Income to purchase =</b>			<b>\$233,450</b>										
<b>Estimated Spending =</b>			<b>\$119,059</b>						<b>499.0</b>			<b>297.6</b>	

<sup>1</sup> Percent of income spent per category is based on the 2013 Consumer Expenditure Survey data for households at this income level. Note that the sum of the categories included in this analysis is well below the total expenditures of households at this income level, and thus represent a conservative estimation of job creation and housing impacts. Expenditure categories not incorporated due to data constraints include taxes, housing and lodging, most utilities, health insurance, personal/life insurance, cash contributions, and financing charges.

<sup>2</sup> Where multiple business types are likely to provide goods and services in the expenditure category, AECOM has estimate the proportion accruing to each business type.

<sup>3</sup> 2013 expenditures converted to 2007 dollars using the Consumer Price index for California from the Bureau of Labor Statistics.

<sup>4</sup> BLS data indicates that out of retail/restaurant sectors with 5% or more workers age 16-19, the average is 9.4% 16-19 year old workers, but the average is only 1.5% in other sectors. AECOM has assumed that such young workers do not form their own households.

<sup>5</sup> Based on 2013 ACS for Mono County.

<sup>6</sup> Part of the Utilities, Fuels, and Public Services category, which also includes natural gas, electricity, and telephone services. Natural gas, electricity, and telephone services not estimated because data was not available in the 2007 Economic Census

<sup>7</sup> Mono county data not available from 2007 Economic Census. Gross receipts to wages and 2007 average wage thus based on statewide data

<sup>8</sup> Note that average salary reported for architecture, engineering and related industries reflect the full range of employees within the industry, not solely professional and technical staff.

Source: AECOM

**Appendix Table 4 Occupation and Wage Distribution - Hotels/Lodging**

<i>Occupation Category</i>	<i>Hotels/Lodging<sup>1</sup></i>					
	<i>US Total Jobs by Occupation in Industry</i>	<i>US Avg. Wage by Occupation in Industry</i>	<i>Eastern Sierra Region Wage Estimate</i>	<i>% of Industry Jobs in Occupation Category</i>	<i>HH Income per Household</i>	<i>Income Category</i>
Management	78,460	\$73,580	\$54,371	4.28%	\$86,596	Moderate Income
Business and Financial Operations	26,870	\$51,120	\$44,080	1.47%	\$70,206	Moderate Income
Computer and Mathematical Science	2,340	\$56,020	\$55,310	0.13%	\$88,091	Moderate Income
Architecture and Engineering	370	\$58,190	\$59,875	0.02%	\$95,363	Moderate Income
Life, Physical, and Social Science	110	\$48,650	\$35,920	0.01%	\$57,209	LI - 80
Community and Social Services	150	\$34,440	\$37,899	0.01%	\$60,361	LI - 80
Legal Occupations	80	\$105,060	\$125,477	0.00%	\$199,845	Above Middle
Education, Training and Library	840	\$34,910	\$32,334	0.05%	\$51,498	LI - 80
Arts, Design, Entertainment, Sports, and Media	8,160	\$47,620	\$37,853	0.45%	\$60,287	LI - 80
Healthcare Practitioner and Technical <sup>2</sup>	320	46,770	\$51,770	0.02%	\$82,453	Moderate Income
Healthcare Support	7,670	\$37,820	\$47,562	0.42%	\$75,752	Moderate Income
Protective Services	40,580	\$28,930	\$34,462	2.22%	\$54,887	LI - 80
Food Preparation and Serving	457,330	\$26,380	\$27,138	24.97%	\$43,222	LI - 60
Buildings and Grounds Cleaning and Maintenance	531,910	\$23,060	\$27,538	29.04%	\$43,859	LI - 60
Personal Care and Service	134,990	\$26,270	\$29,555	7.37%	\$47,072	LI - 80
Sales and Related Occupations	46,520	\$35,940	\$28,460	2.54%	\$45,328	LI - 60
Office Administrative Support	340,750	\$25,790	\$26,078	18.60%	\$41,534	LI - 60
Farming, Fishing and Forestry	710	\$28,690	\$49,562	0.04%	\$78,936	Moderate Income
Construction and Extraction	3,840	\$47,000	\$54,859	0.21%	\$87,373	Moderate Income
Installation, Maintenance, and Repair Production	91,570	\$33,830	\$34,363	5.00%	\$54,730	LI - 80
Production Occupations	34,800	\$24,960	\$30,927	1.90%	\$49,256	LI - 80
Transportation and Material Moving	23,340	\$24,640	\$27,158	1.27%	\$43,254	LI - 60
<b>Total or Weighted Average</b>	<b>1,831,710</b>	<b>\$41,803</b>	<b>\$43,298</b>	<b>100.00%</b>	<b>\$47,039</b>	

<sup>1</sup> Includes NAICS Sector (2013): 72100 - Accommodation.

<sup>2</sup> NAICS Sector (2012) - Estimate not released for 2013.

<i>Household Income Level</i>	<i>Percent of Total Jobs</i>	<i>Estimated Jobs by Household Income Levels</i>
<i>Extremely Low Income (31% - 50%)</i>	0%	-
<i>Very Low Income (31% - 50%)</i>	0%	-
<i>Low Income (51% - 60%)</i>	76%	94.5
<i>Low Income (61% - 80%)</i>	17%	21.0
<i>Moderate Income (81% - 120%)</i>	7%	8.1
<i>Middle Income (121% - 150%)</i>	0%	-
<i>Above-Middle (150% +)</i>	0%	0.0
<i>Total</i>	100%	123.7

Source: BLS and AECOM

**Appendix Table 5 Occupation and Wage Distribution - Retail/Restaurants**

<i>Occupation Category</i>	<b>Retail/Restaurants<sup>1</sup></b>					
	<i>US Total Jobs by Occupation in Industry</i>	<i>US Avg. Wage by Occupation in Industry</i>	<i>Eastern Sierra Region Wage Estimate</i>	<i>% of Industry Jobs in Occupation Category</i>	<i>HH Income per Household</i>	<i>Income Category</i>
Architecture and Engineering Occupations	3,770	\$73,970	\$54,660	0.01%	\$87,055	Moderate Income
Arts, Design, Entertainment, Sports, and Media Occupation:	105,700	\$34,425	\$29,684	0.42%	\$47,278	LI - 80
Building and Grounds Cleaning and Maintenance Occupatic	181,060	\$22,640	\$22,353	0.71%	\$35,601	VLI
Business and Financial Operations Occupations	155,570	\$55,025	\$56,619	0.61%	\$90,176	Moderate Income
Community and Social Service Occupations	800	\$47,050	\$34,738	0.00%	\$55,327	LI - 80
Computer and Mathematical Occupations	51,920	\$63,055	\$69,387	0.20%	\$110,512	Middle Income
Construction and Extraction Occupations	34,480	\$53,640	\$64,064	0.14%	\$102,034	Middle Income
Education, Training, and Library Occupations	7,810	\$34,905	\$32,329	0.03%	\$51,491	LI - 80
Farming, Fishing, and Forestry Occupations	19,190	\$22,125	\$17,587	0.08%	\$28,010	VLI
Food Preparation and Serving Related Occupations	9,772,850	\$21,780	\$24,108	38.41%	\$38,397	VLI
Healthcare Practitioners and Technical Occupations	505,010	\$57,915	\$72,834	1.98%	\$116,001	Middle Income
Healthcare Support Occupations	42,930	\$24,190	\$28,816	0.17%	\$45,894	LI - 60
Installation, Maintenance, and Repair Occupations	722,570	\$35,220	\$36,232	2.84%	\$57,706	LI - 80
Legal Occupations	1,180	\$84,050	\$100,370	0.00%	\$159,858	Above Middle
Life, Physical, and Social Science Occupations	300	\$58,340	\$65,635	0.00%	\$104,536	Middle Income
Management Occupations	573,160	\$77,760	\$61,577	2.25%	\$98,073	Middle Income
Office and Administrative Support Occupations	2,618,570	\$28,425	\$28,743	10.29%	\$45,778	LI - 60
Personal Care and Service Occupations	76,850	\$23,770	\$41,063	0.30%	\$65,400	Moderate Income
Production Occupations	446,490	\$26,810	\$31,293	1.75%	\$49,840	LI - 80
Protective Service Occupations	81,410	\$27,840	\$28,279	0.32%	\$45,039	LI - 60
Sales and Related Occupations	8,827,730	\$23,125	\$28,653	34.69%	\$45,635	LI - 60
Transportation and Material Moving Occupations	1,215,710	\$22,695	\$25,014	4.78%	\$39,840	LI - 60
<b>Total or Weighted Average</b>	<b>25,445,060</b>	<b>\$41,762</b>	<b>\$43,365</b>	<b>100.00%</b>	<b>\$46,063</b>	

<sup>1</sup> Includes NAICS Sectors (2013): 44 an 45 - Retail Trade and 722000 - Food Services and Drinking Places.

<i>Household Income Level</i>	<i>Percent of Total Jobs</i>	<i>Estimated Jobs by Household Income Levels</i>
<i>Extremely Low Income (31% - 50%)</i>	0%	-
<i>Very Low Income (31% - 50%)</i>	39%	63.7
<i>Low Income (51% - 60%)</i>	50%	81.6
<i>Low Income (61% - 80%)</i>	5%	8.2
<i>Moderate Income (81% - 120%)</i>	1%	1.5
<i>Middle Income (121% - 150%)</i>	5%	7.4
<i>Above-Middle (150% +)</i>	0%	0.0
<i>Total</i>	100%	162.4

Source: BLS and AECOM

**Appendix Table 6 Occupation and Wage Distribution - Office**

<i>Occupation Category</i>	<i>US Total Jobs by Occupation in Industry</i>	<i>US Avg. Wage by Occupation in Industry</i>	<i>Office<sup>1</sup></i>		<i>HH Income per Household</i>	<i>Income Category</i>
			<i>Eastern Sierra Region Wage Estimate</i>	<i>% of Industry Jobs in Occupation Category</i>		
Architecture and Engineering Occupations	1,020,420	82,421	\$60,904	3.68%	\$97,001	Middle Income
Arts, Design, Entertainment, Sports, and Media Occupation:	861,790	63,093	\$54,404	3.11%	\$86,649	Moderate Income
Building and Grounds Cleaning and Maintenance Occupatic	1,931,880	27,249	\$26,904	6.97%	\$42,849	LI - 60
Business and Financial Operations Occupations	3,555,680	73,817	\$75,955	12.83%	\$120,972	Above Middle
Community and Social Service Occupations	47,450	45,337	\$33,473	0.17%	\$53,312	LI - 80
Computer and Mathematical Occupations	2,517,140	79,731	\$87,738	9.08%	\$139,739	Above Middle
Construction and Extraction Occupations	241,560	51,858	\$61,936	0.87%	\$98,644	Middle Income
Education, Training, and Library Occupations	38,920	51,736	\$47,919	0.14%	\$76,320	Moderate Income
Farming, Fishing, and Forestry Occupations	6,270	30,706	\$24,408	0.02%	\$38,873	VLI
Food Preparation and Serving Related Occupations	160,100	26,638	\$29,486	0.58%	\$46,962	LI - 60
Healthcare Practitioners and Technical Occupations	393,590	62,686	\$78,834	1.42%	\$125,557	Above Middle
Healthcare Support Occupations	172,440	32,165	\$38,316	0.62%	\$61,025	LI - 80
Installation, Maintenance, and Repair Occupations	862,910	44,695	\$45,979	3.11%	\$73,230	Moderate Income
Legal Occupations	743,310	113,363	\$135,375	2.68%	\$215,609	Above Middle
Life, Physical, and Social Science Occupations	377,630	73,825	\$83,057	1.36%	\$132,284	Above Middle
Management Occupations	2,091,790	133,915	\$106,046	7.55%	\$168,897	Above Middle
Office and Administrative Support Occupations	7,413,560	37,663	\$38,084	26.74%	\$60,655	LI - 80
Personal Care and Service Occupations	201,590	27,645	\$47,757	0.73%	\$76,062	Moderate Income
Production Occupations	938,900	39,451	\$46,048	3.39%	\$73,340	Moderate Income
Protective Service Occupations	825,300	40,366	\$41,002	2.98%	\$65,304	Moderate Income
Sales and Related Occupations	2,347,860	64,361	\$79,747	8.47%	\$127,011	Above Middle
Transportation and Material Moving Occupations	973,790	34,288	\$37,792	3.51%	\$60,190	LI - 80
<b>Total or Weighted Average</b>	<b>27,723,880</b>	<b>\$56,228</b>	<b>\$58,235</b>	<b>100.00%</b>	<b>\$97,628</b>	

<sup>1</sup> Includes NAICS Sectors (2013): 51-Information; 52 - Finance and Insurance; 53 - Real Estate and Rental and Leasing (excluding 532000 - Rental and Leasing Services); 54- Professional, Scientific, and Technical Services; 55- Management of Companies and Enterprises; 561000 - Admin. and Support Services.

<i>Household Income Level</i>	<i>Percent of Total Jobs</i>	<i>Estimated Jobs by Household Income Levels</i>
<i>Extremely Low Income (31% - 50%)</i>	0%	-
<i>Very Low Income (31% - 50%)</i>	0%	0.1
<i>Low Income (51% - 60%)</i>	8%	23.3
<i>Low Income (61% - 80%)</i>	31%	96.0
<i>Moderate Income (81% - 120%)</i>	13%	41.6
<i>Middle Income (121% - 150%)</i>	5%	14.1
<i>Above-Middle (150% +)</i>	<u>43%</u>	<u>134.1</u>
<i>Total</i>	100%	309.2

Source: BLS and AECOM

**Appendix Table 7 Occupation and Wage Distribution - Light Industrial**

<i>Occupation Category</i>	<i>US Total Jobs by Occupation in Industry</i>	<i>US Avg. Wage by Occupation in Industry</i>	<b>Light Industrial<sup>1</sup></b>		<i>HH Income per Household</i>	<i>Income Category</i>
			<i>Eastern Sierra Region Wage Estimate</i>	<i>% of Industry Jobs in Occupation Category</i>		
Architecture and Engineering Occupations	985,030	77,410	\$57,201	3.25%	\$91,104	Moderate Income
Arts, Design, Entertainment, Sports, and Media Occupation:	152,930	54,212	\$46,746	0.50%	\$74,452	Moderate Income
Building and Grounds Cleaning and Maintenance Occupatic	174,950	29,872	\$29,493	0.58%	\$46,973	LI - 60
Business and Financial Operations Occupations	1,068,740	67,810	\$69,774	3.53%	\$111,128	Middle Income
Community and Social Service Occupations	930	45,538	\$33,622	0.00%	\$53,549	LI - 80
Computer and Mathematical Occupations	510,150	76,438	\$84,115	1.68%	\$133,968	Above Middle
Construction and Extraction Occupations	3,891,870	48,605	\$58,051	12.84%	\$92,457	Moderate Income
Education, Training, and Library Occupations	3,020	59,187	\$54,819	0.01%	\$87,310	Moderate Income
Farming, Fishing, and Forestry Occupations	72,240	27,534	\$21,887	0.24%	\$34,858	VLI
Food Preparation and Serving Related Occupations	53,760	26,223	\$29,027	0.18%	\$46,230	LI - 60
Healthcare Practitioners and Technical Occupations	53,490	64,463	\$81,069	0.18%	\$129,117	Above Middle
Healthcare Support Occupations	2,260	34,457	\$41,045	0.01%	\$65,372	Moderate Income
Installation, Maintenance, and Repair Occupations	2,511,210	49,028	\$50,437	8.28%	\$80,330	Moderate Income
Legal Occupations	14,170	129,182	\$154,265	0.05%	\$245,696	Above Middle
Life, Physical, and Social Science Occupations	139,400	70,258	\$79,044	0.46%	\$125,892	Above Middle
Management Occupations	1,672,420	112,537	\$89,116	5.52%	\$141,934	Above Middle
Office and Administrative Support Occupations	4,579,350	38,083	\$38,509	15.11%	\$61,332	LI - 80
Personal Care and Service Occupations	31,310	26,360	\$45,537	0.10%	\$72,526	Moderate Income
Production Occupations	6,790,410	42,995	\$50,184	22.40%	\$79,928	Moderate Income
Protective Service Occupations	55,320	35,533	\$36,093	0.18%	\$57,485	LI - 80
Sales and Related Occupations	2,154,420	58,828	\$72,891	7.11%	\$116,093	Middle Income
Transportation and Material Moving Occupations	5,396,540	36,447	\$40,171	17.80%	\$63,980	Moderate Income
<b>Total or Weighted Average</b>	<b>30,313,920</b>	<b>\$55,045</b>	<b>\$57,414</b>	<b>100.00%</b>	<b>\$84,226</b>	

<sup>1</sup> Includes NAICS Sectors (2013): 22 - Construction; 23- Utilities; 31, 32, and 33 - Manufacturing; 42 - Wholesale Trade; 48 and 49 - Transportation & Warehousing; and 811000 - Repair and Maintenance.

<i>Household Income Level</i>	<i>Percent of Total Jobs</i>	<i>Estimated Jobs by Household Income Levels</i>
<i>Extremely Low Income (31% - 50%)</i>	0%	-
<i>Very Low Income (31% - 50%)</i>	0%	0.2
<i>Low Income (51% - 60%)</i>	1%	0.6
<i>Low Income (61% - 80%)</i>	15%	12.6
<i>Moderate Income (81% - 120%)</i>	65%	53.8
<i>Middle Income (121% - 150%)</i>	11%	8.8
<i>Above-Middle (150% +)</i>	<u>8%</u>	<u>6.5</u>
<i>Total</i>	100%	82.4

Source: BLS and AECOM

**Appendix Table 8 Occupation and Wage Distribution - Personal Services**

Occupation Category	<b>Personal Services<sup>1</sup></b>					
	US Total Jobs by Occupation in Industry	US Avg. Wage by Occupation in Industry	Eastern Sierra Region Wage Estimate	% of Industry Jobs in Occupation Category	HH Income per Household	Income Category
Architecture and Engineering Occupations	720	\$61,550	\$45,482	0.04%	\$72,438	Moderate Income
Arts, Design, Entertainment, Sports, and Media Occupation:	14,910	\$41,455	\$35,746	0.81%	\$56,933	LI - 80
Building and Grounds Cleaning and Maintenance Occupatic	36,600	\$24,640	\$24,328	1.98%	\$38,746	VLI
Business and Financial Operations Occupations	19,580	\$59,605	\$61,331	1.06%	\$97,681	Middle Income
Community and Social Service Occupations	1,060	\$40,415	\$29,840	0.06%	\$47,525	LI - 80
Computer and Mathematical Occupations	3,580	\$72,910	\$80,232	0.19%	\$127,784	Above Middle
Construction and Extraction Occupations	6,400	\$45,230	\$54,020	0.35%	\$86,037	Moderate Income
Education, Training, and Library Occupations	1,160	\$31,010	\$28,722	0.06%	\$45,745	LI - 60
Farming, Fishing, and Forestry Occupations	-	\$25,520	\$20,286	0.00%	\$32,309	VLI
Food Preparation and Serving Related Occupations	3,540	\$22,855	\$25,298	0.19%	\$40,292	LI - 60
Healthcare Practitioners and Technical Occupations	8,810	\$55,445	\$69,727	0.48%	\$111,054	Middle Income
Healthcare Support Occupations	40,020	\$35,400	\$42,169	2.16%	\$67,162	Moderate Income
Installation, Maintenance, and Repair Occupations	77,930	\$38,155	\$39,251	4.21%	\$62,515	LI - 80
Legal Occupations	130	\$96,120	\$114,784	0.01%	\$182,814	Above Middle
Life, Physical, and Social Science Occupations	-	\$69,250	\$77,910	0.00%	\$124,086	Above Middle
Management Occupations	55,520	\$93,510	\$74,049	3.00%	\$117,937	Middle Income
Office and Administrative Support Occupations	210,230	\$29,705	\$30,037	11.35%	\$47,839	LI - 80
Personal Care and Service Occupations	623,680	\$24,840	\$42,911	33.69%	\$68,344	Moderate Income
Production Occupations	187,560	\$27,945	\$32,618	10.13%	\$51,950	LI - 80
Protective Service Occupations	3,200	\$29,735	\$30,204	0.17%	\$48,105	LI - 80
Sales and Related Occupations	303,840	\$30,205	\$37,425	16.41%	\$59,607	LI - 80
Transportation and Material Moving Occupations	253,000	\$27,280	\$30,068	13.66%	\$47,888	LI - 80
<b>Total or Weighted Average</b>	<b>1,851,470</b>	<b>\$44,672</b>	<b>\$46,656</b>	<b>100.00%</b>	<b>\$61,250</b>	

<sup>1</sup> Includes NAICS Sectors (2013): 532000 - Rental and Leasing Services and 812000 - Personal and Laundry Services.

Household Income Level	Percent of Total Jobs	Estimated Jobs by Household Income Levels
Extremely Low Income (31% - 50%)	0%	-
Very Low Income (31% - 50%)	2%	3.5
Low Income (51% - 60%)	0%	0.4
Low Income (61% - 80%)	57%	100.4
Moderate Income (81% - 120%)	36%	64.0
Middle Income (121% - 150%)	5%	8.0
Above-Middle (150% +)	0%	0.4
<b>Total</b>	<b>100%</b>	<b>176.7</b>

Source: BLS and AECOM