



**City of St. Helena
Special City Council Meeting
Thursday, September 12, 2024 @ 10:00 AM
1088 College Avenue, Main Conference
Room, St. Helena CA 94574**

PLEASE NOTE: Any person who wishes to speak regarding an item on the agenda or make a comment under the "Oral Communication" portion of the agenda may do so, but please observe the time limit of four minutes.

The City Council meeting will be live-streamed on Comcast Channel 28 and on the City's website.

Public comment for City Council meetings will be accepted via email to publiccomment@cityofsthelena.org. All public comments must be received three hours prior to the meeting. All other public comments received after the deadline will be attached to the item the next business day or soon thereafter. Public comments will not be read out loud but will be publicly available and attached to the on-line City Council agenda.

Simultaneous Spanish interpretation services during meetings can be scheduled upon request. To ensure interpreters are available, requests must be made at least 72 hours in advance by calling the Office of the City Clerk at (707) 968-2640 or emailing cityclerk@cityofsthelena.org.

The schedule of upcoming meetings and published meeting agendas can be found on the City of St. Helena website at <https://sthelena.civicweb.net/portal/>.

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1. CALL TO ORDER
2. ROLL CALL
Mayor: Paul Dohring, Vice Mayor Eric Hall:, City Council Members: Anna Chouteau, Patrick Kenealy, Billy Summers
3. ADOPTION OF THE AGENDA
4. PUBLIC COMMENT:
Under California law, public comments at special meetings are limited to subjects on the agenda only. Therefore public comment will take place during consideration of the item. Each person's comments shall be limited to 4 minutes.
5. NEW BUSINESS:

- 5.1. Discussion on City's Affordable Housing In-Lieu Fees and Nonresidential/Commercial Linkage Fees.

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[St. Helena - Affordable Housing and Commercial Linkage Fee Report - Final Presentation](#)
[Public Comment.Mary Stephenson](#)

6. ADJOURNMENT

The next Regular City Council meeting is scheduled for September 24, 2024, at 6:00 p.m.

This agenda was posted at City Hall, 1088 College Avenue, St. Helena, California on September 10, 2024.



Cindy Tzaferopoulos, City Clerk

In Compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please call the City Clerk's Office (707) 967-2792. Notification 72 hours prior to the meeting as required by Section 202 of the Americans with Disabilities Act will enable the City to make reasonable arrangements to ensure accessibility to this meeting.

Any supplemental writings or documents distributed to a majority of the City Council regarding any item on this Agenda, after the posting of the Agenda, will be available for public review in the City Clerk's Office located at 1088 College Avenue, St. Helena, California, during normal business hours and by appointment. In addition, such writings or documents will be made available on the City's web site at <https://sthelena.civicweb.net> and will be available for public review at the respective meeting.

CITY OF ST. HELENA

AFFORDABLE HOUSING AND COMMERCIAL LINKAGE IMPACT FEE STUDY

FINAL

MAY 22, 2024



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Executive Summary

This report documents an analysis of affordable housing impact fees needed to fund new development's share of affordable housing induced by the household spending associated with new market rate development. It also documents a commercial linkage fee analysis which quantifies the connection between the development of commercial, office, industrial and hotel, development projects and the demand for affordable housing units.

Background and Study Objectives

The City of St. Helena has an inclusionary housing ordinance. In order to address the City's ongoing unmet housing needs, St. Helena is considering implementing an amended affordable housing fee on new development projects and inclusionary housing regulation. The purpose of the affordable housing fee is to mitigate the impact of new market rate development on the demand for affordable housing.

To adopt a development impact fee, a local jurisdiction must demonstrate the reasonable relationship (or "nexus") between the development projects paying the fee and the fee that is charged. This nexus study quantifies the connection between the development of market rate housing and the demand for affordable housing units.

This residential nexus study examines the household income and spending generated by the new market rate households renting or buying new units in St. Helena. Using the IMPLAN economic model, the household spending associated with new development is translated into new induced job growth. These induced jobs will be at various wage rates; though many induced jobs will earn lower wages. Low-wage households cannot reasonably afford to pay for market rate housing in St. Helena, a housing impact fee can be justified to bridge the difference between what these new households can afford to pay and the cost of developing modest housing units to accommodate lower income households associated with induced job growth.

The commercial linkage fee analysis examines the relationship between jobs housed in various nonresidential development prototypes and the worker households that would need a subsidy to be able to afford to live in the City. Similar to the affordable housing impact fee, the commercial linkage fee would generate fee revenue to bridge the difference between what these new worker households can afford to pay and the cost of developing modest housing units to accommodate lower income households associated with the prototype development projects.

Affordable Housing Impact Fee Schedule

The maximum justified affordable housing impact fee schedule is summarized in **Table E.1**. The fees shown here are the maximum supportable under state law. However, as a policy decision the City Council can adopt fee amounts that are less than the maximum justified amounts. Consequently, Table E.1 also demonstrates the resulting fees if adopted at 15%, or 10%, respectively of the maximum justified fee amounts.

Table E.1: Maximum Justified Affordable Housing Impact Fee Schedule

		Maximum Justified Fee per Square Foot		15% of Maximum Justified fee per Square Foot		10% of Maximum Justified fee per Square Foot
New Residential Rental Unit	\$	135	\$	20	\$	14
New Residential For Sale Unit		196		29		20

Source: Table 1.11

Commercial Linkage Fee Schedule

The maximum justified commercial linkage fee schedule is summarized in **Table E.2**. The fees shown here are the maximum supportable under state law. The City can adopt any amount up to the amounts shown here. Table E.2 also demonstrates the resulting fees if adopted at 15%, or 10%, respectively of the maximum justified fee amounts.

Table E.2: Maximum Justified Commercial Linkage Impact Fee Schedule

		Maximum Justified Fee per Square Foot		15% of Maximum Justified fee per Square Foot		10% of Maximum Justified fee per Square Foot
Commercial	\$	141	\$	21	\$	14
Office		176		26		18
Industrial		67		10		7
Hotel		75		11		7

Source: Table 2.12.

1. Affordable Housing Fee Nexus Analysis

This chapter details an analysis of the need for affordable housing required to accommodate lower-income employees that support growth within the City of St. Helena. It documents a reasonable relationship between new development and a fee to fund affordable housing.

Nexus Approach

New residential development generates population growth. Residents who can afford to purchase or rent this new housing then spend their disposable income in the city. Consequently, this increased spending results in the need to hire new workers to accommodate the increased demand for goods and services associated with new development. This analysis establishes the connection between the increase in household spending associated with new development and the number of new workers that will be hired by local businesses to meet that demand.

Employment growth provides occupations at various wage and salary levels. Low wage workers cannot afford market rate housing within the City of St. Helena, so an affordable housing impact fee can be calculated to bridge the gap between what low wage workers can afford to pay for and the cost of providing that housing.

The analysis presented here defines the upper limit for a housing impact fee to be charged on new rental and for-sale housing to mitigate impacts on affordable housing needs. The maximum fee is not necessarily the recommended fee.

Housing Affordability in St. Helena

This section of the chapter evaluates housing affordability in St. Helena, using Department of Housing and Community Development State Income Limits and current market rate rent data.

Table 1.1 displays the Napa County Income limits, as identified by HUD.

Table 1.1: 2023 Napa County Income Limits

Persons per HH:	1	2	3	4	5	6	7	8
Median Income	90,700	103,700	116,650	129,600	139,950	150,350	160,700	171,050
Extremely Low	28,050	32,050	36,050	40,050	43,300	46,500	49,700	52,900
Very Low Income	46,750	53,400	60,100	66,750	72,100	77,450	82,800	88,150
Low Income	74,700	85,400	96,050	106,700	115,250	123,800	132,350	140,850
Median Income	90,700	103,700	116,650	129,600	139,950	150,350	160,700	171,050
Moderate Income	108,850	124,400	139,950	155,500	167,950	180,400	192,800	205,250

Source: Department of Housing and Community Development, State Income Limits 2023.

Market Rate Rents

Willdan gathered data regarding existing market rate rents within the City of St. Helena city limits. This information will inform the assumption of the household income necessary to rent a housing unit in St. Helena at the market rate. Average asking rents as of October, 2023 are shown in

Table 1.2. All current rental listings in St. Helena from Zillow.com; and apartments.com were collected and analyzed. Luxury listings asking above \$10,000 per month in rent were excluded from the sample. The remaining observations were used to calculate the average asking rent, by number of bedrooms in Table 1.2. **Appendix Table A.1** includes details regarding the observations of asking rents in the City.

Table 1.2: Average Asking Rent, October 2023

Unit Type	Average Asking Rent	Unit Count
Studio ¹	\$ 1,823	-
1-Bedroom	3,350	3
2-Bedroom	3,672	16
3-Bedroom	5,802	33

¹ There are no studio apartments in St. Helena. Rent for studio apartment estimated using trend implied by rents for larger units.

Sources: Apartments.com; Zillow .com; Willdan Financial Services.

Market Rate Housing Affordability

To evaluate housing affordability in St. Helena, the analysis compares the household income at the midpoint of each income category from Table 1.1 to the market rents by number of bedrooms from Table 1.2. This analysis uses household incomes at the mid-point of each income range when calculating affordable rents as a conservative measure to avoid overstating the affordability of rental housing. In addition to rents, the analysis also includes a conservative estimate of utility costs. The maximum affordable monthly rent including utilities for each income category is calculated as 30 percent of gross monthly household income. If the difference between the maximum affordable rent and the total monthly housing costs is negative, then housing for that income category and housing product is considered unaffordable.

Table 1.3: Affordability of Market Rate Rental Housing in St. Helena, 2023

Household (Unit) Size:	1 Person (Studio)	2 Person (1 Bedroom)	3 Person (2 Bedrooms)	4 Person (3 Bedrooms)
Average Market-Rate Rent ¹	\$ 1,823	\$ 3,350	\$ 3,672	\$ 5,802
Utility Costs ²	202	219	261	326
Total Monthly Housing Costs	\$ 2,025	\$ 3,569	\$ 3,933	\$ 6,128
<u>Extremely Low Income (up to 30% AMI)</u>				
Household Income at Midpoint of Income Range ³	\$ 14,025	\$ 16,025	\$ 18,025	\$ 20,025
Maximum Affordable Monthly Rent ⁴	149	182	190	175
Amount Above (Below) Market Rate Rent	(1,674)	(3,168)	(3,482)	(5,627)
<u>Very Low Income (31-50% AMI)</u>				
Household Income at Midpoint of Income Range ³	\$ 37,400	\$ 42,725	\$ 48,075	\$ 53,400
Maximum Affordable Monthly Rent ⁴	733	849	941	1,009
Amount Above (Below) Market Rate Rent	(1,090)	(2,501)	(2,731)	(4,793)
<u>Low Income (51-80% AMI)</u>				
Household Income at Midpoint of Income Range ³	\$ 60,725	\$ 69,400	\$ 78,075	\$ 86,725
Maximum Affordable Monthly Rent ⁴	1,316	1,516	1,691	1,842
Amount Above (Below) Market Rate Rent	(507)	(1,834)	(1,981)	(3,960)
<u>Moderate Income (81-120% AMI)</u>				
Household Income at Midpoint of Income Range ³	\$ 91,775	\$ 104,900	\$ 118,000	\$ 131,100
Maximum Affordable Monthly Rent ⁴	2,092	2,404	2,689	2,952
Amount Above (Below) Market Rate Rent	269	(946)	(983)	(2,850)

¹ See Table 1.2

² Utility Costs per HACN Utility Allowance

³ Household income limits published by the California Department of Housing and Community Development for Napa County, 2023. Shows midpoint of income range. See Table 1.1

⁴ Assumes 30-percent of gross income spent on housing and utilities costs.

Sources: California Department of Housing and Community Development, 2023; Willdan Financial Services.

Table 1.4 identifies the income required to afford market rate rents in the City, by household size. The income required to afford market rate rents is assumes that 30 percent of gross income spent on housing and utility costs is considered affordable. The annual affordable housing costs is then compared to the area median income (area median income) to estimate amount of gross income above AMI that is needed to afford each product type, by household size.

Table 1.4: Income Required to Afford Market-Rate Rents in St. Helena, 2023

Household (Unit)	1 Person Size: (Studio)	2 Person (1 Bedroom)	3 Person (2 Bedrooms)	4 Person (3 Bedrooms)
Total Monthly Housing Costs	\$ 2,025	\$ 3,569	\$ 3,933	\$ 6,128
Annual Housing Costs	\$ 24,296	\$ 42,828	\$ 47,195	\$ 73,534
Household Income Required ¹	80,988	142,760	157,315	245,113
Area Median Income (AMI)	90,700	103,700	116,650	129,600
Income Required as Percent of AMI	89%	138%	135%	189%

¹ Assumes 30-percent of gross income spent on housing and utilities costs.

Sources: Tables 1.1 and 1.3.

Market Rate Prototypes and Gross Income

This analysis identified two market rate residential prototypes based on a review of the housing market in St. Helena.

Market Rate Rental Prototype

The data collected to identify the current average asking rent in St. Helena was also used to identify typical rental product characteristics. The typical rental unit in the City is a three bedroom, two bathroom detached single family unit sized at roughly 1,600 square feet.¹ Using the current asking rent data, and the housing cost as percent of gross income assumptions discussed above, the amount of gross income needed to afford rent in St. Helena is calculated in **Table 1.5**. It requires an annual gross household income of \$217,347 to rent a three-bedroom market rate rental unit in St. Helena.

¹ Typical rental unit in St. Helena identified based on data from CoStar which is summarized in Table 1.5. Full dataset is included in the Appendix.

Table 1.5: Rental Residential Prototype, Q3 2023

Rental	
Bedrooms	3
Bathrooms	2
Square feet	1,608
Rent per Square Foot	\$ 3.38
Monthly Rent	\$ 5,434
Annual Rent	65,204
Housing Cost as Percent of Income ¹	30%
Gross Household Income	\$ 217,347

¹ Renter housing burden is estimated at 30-percent of gross household income, based on California Health & Safety Code Sections 50052.5 and 50053.

Sources: CoStar; Willdan Financial Services.

Market Rate For Sale Prototype

Recent housing sales data was collected from mlslistings.com from June to September 2023. The sample included 24 observations of home sales within this time period. That data informed the typical for sale product prototypes displayed below in **Table 1.6**. The gross household income necessary to afford to purchase the prototype is then calculated using current interest rates and estimated housing ownership costs. It requires an annual gross household income of over \$328,000 to purchase a home in St. Helena.

Table 1.6: For Sale Residential Prototype

	Single Family Detached	
<u>Prototype Assumptions</u> ¹		
Bedrooms		3
Bathrooms		2
Square feet		1,669
Sales Price per Square Foot	\$	889
Sales Price	\$	1,483,500
Down Payment (20%)	\$	296,700
Loan Amount	\$	1,186,800
Interest Rate ²		7.18%
Monthly Mortgage Payment	\$	8,040
Annual Property Tax ³		15,676
Homeowners Insurance		2,800
Annual Housing Costs	\$	114,954
Housing Cost as Percent of Income ⁴		35%
Gross Household Income	\$	328,439

¹ Based on an analysis of recent sales in St. Helena, as reported by mlslistings.com from June to September 2023.

² Average 30-year fixed interest rate as of September 14, 2023 per http://www.freddiemac.com/pmms/pmms_archives.html

³ City of St. Helena California Comprehensive Annual Financial Report, For The Fiscal Year Ended June 30, 2022, p. 125.

⁴ Homeowner housing burden is estimated at 35-percent of gross household income, based on California Health & Safety Code Sections 50052.5 and 50053.

Sources: mlslistings.com; Freddie Mac; City of St. Helena; Willdan Financial Services.

Aggregate Income

Table 1.7 identifies the aggregate household income of 100 single family owner households and 100 single family renter households who can afford housing at the market rate. This aggregate income is used as the driver of induced economic effects using the IMPLAN model.

Table 1.7: Estimated Incomes by Income Categories of Prototype Buyers and Renters

	Single Family Detached (Buyer)	Single Family Detached (Renter)
Income Category	Over \$200,000	Over \$200,000
Gross Household Income	\$ 328,439	\$ 217,347
New Households	100	100
Aggregate Household Income	\$ 32,843,915	\$ 21,734,748

Sources: Tables 1.5 and 1.6.

Induced Employment Impacts

The aggregate household income identified above is used to estimate the number of new jobs that new households will support with their household expenditures using the IMPLAN model. IMPLAN is an input-output based economic impact model used for a variety of different analyses. In this case IMPLAN models the economy for a region.

For this analysis, IMPLAN used data specific to Napa County to estimate the multipliers effects from new households. Essentially, IMPLAN used the increase in household spending associated with the new prototype households to identify the jobs (or fraction of jobs) that are supported by that spending.

The output of the IMPLAN model was then cross referenced with the assumed compensation associated with each occupation to estimate the aggregate number of jobs induced within each income category.

Table 1.8 shows the results of the IMPLAN analysis in terms of the induced employment and household generation supported by household spending from the gross income of 100 market rate rental households.

Table 1.9 shows the results of the IMPLAN analysis in terms of the induced employment and household generation supported by household spending from the gross income of 100 market rate single family ownership households.

Table 1.8: Employment and Household Generation from a New 100-Unit Rental Development by Income Level

SOC Code	Major Group	Extremely Low	Very Low Income	Low Income	Moderate Income	Above Moderate	Total Employment
11	Management Occupations	-	-	-	1.30	0.38	1.68
13	Business and Financial Operations Occupations	-	-	0.86	0.49	-	1.35
15	Computer and Mathematical Occupations	-	-	-	0.36	-	0.36
17	Architecture and Engineering Occupations	-	-	0.02	0.06	-	0.08
19	Life, Physical, and Social Science Occupations	-	0.02	-	0.05	0.04	0.11
21	Community and Social Service Occupations	-	0.87	-	0.19	-	1.06
23	Legal Occupations	-	-	0.05	-	0.07	0.12
25	Educational Instruction and Library Occupations	-	1.30	0.18	-	-	1.48
27	Arts, Design, Entertainment, Sports, and Media Occupations	-	-	0.14	0.26	-	0.40
29	Healthcare Practitioners and Technical Occupations	-	-	0.83	-	1.59	2.42
31	Healthcare Support Occupations	2.71	0.63	0.07	-	-	3.41
33	Protective Service Occupations	-	0.34	0.02	-	-	0.36
35	Food Preparation and Serving Related Occupations	3.30	1.55	0.57	-	-	5.42
37	Building and Grounds Cleaning and Maintenance Occupations	1.03	0.25	0.06	-	-	1.34
39	Personal Care and Service Occupations	1.51	0.12	-	-	-	1.63
41	Sales and Related Occupations	3.06	0.09	0.81	0.11	-	4.07
43	Office and Administrative Support Occupations	-	3.30	0.30	-	-	3.60
45	Farming, Fishing, and Forestry Occupations	-	0.07	-	-	-	0.07
47	Construction and Extraction Occupations	-	0.01	0.28	-	-	0.29
49	Installation, Maintenance, and Repair Occupations	-	0.39	0.55	-	-	0.94
51	Production Occupations	-	0.47	0.09	-	-	0.56
53	Transportation and Material Moving Occupations	-	2.35	0.13	0.01	-	2.49
Total Jobs		11.61	11.76	4.96	2.83	2.08	33.24
Total Households ¹		9.83	9.95	4.20	2.40	1.76	28.13

¹ Assumes 1.18 jobs per household in Napa County based on data from the 2021 American Community Survey.

Sources: IPED.AN, US Census, American Community Survey, 2021; Willdan Financial Services.

Table 1.9: Employment and Household Generation from a New 100-Unit Single Family For Sale Development by Income Level

SOC Code	Major Group	Extremely Low	Very Low Income	Low Income	Moderate Income	Above Moderate	Total Employment
11	Management Occupations	-	-	-	1.95	0.57	2.52
13	Business and Financial Operations Occupations	-	-	1.30	0.74	-	2.04
15	Computer and Mathematical Occupations	-	-	-	0.54	-	0.54
17	Architecture and Engineering Occupations	-	-	0.03	0.08	-	0.11
19	Life, Physical, and Social Science Occupations	-	0.03	-	0.07	0.06	0.16
21	Community and Social Service Occupations	-	1.31	-	0.29	-	1.60
23	Legal Occupations	-	-	0.07	-	0.11	0.18
25	Educational Instruction and Library Occupations	-	1.97	0.27	-	-	2.24
27	Arts, Design, Entertainment, Sports, and Media Occupations	-	-	0.21	0.40	-	0.61
29	Healthcare Practitioners and Technical Occupations	-	-	1.25	-	2.41	3.66
31	Healthcare Support Occupations	4.10	0.95	0.11	-	-	5.16
33	Protective Service Occupations	-	0.52	0.03	-	-	0.55
35	Food Preparation and Serving Related Occupations	4.98	2.34	0.85	-	-	8.17
37	Building and Grounds Cleaning and Maintenance Occupations	1.56	0.38	0.08	-	-	2.02
39	Personal Care and Service Occupations	2.28	0.18	-	-	-	2.46
41	Sales and Related Occupations	4.62	0.13	1.22	0.16	-	6.13
43	Office and Administrative Support Occupations	-	5.00	0.45	-	-	5.45
45	Farming, Fishing, and Forestry Occupations	-	0.10	0.01	-	-	0.11
47	Construction and Extraction Occupations	-	0.02	0.44	-	-	0.46
49	Installation, Maintenance, and Repair Occupations	-	0.59	0.84	-	-	1.43
51	Production Occupations	-	0.71	0.14	-	-	0.85
53	Transportation and Material Moving Occupations	-	3.55	0.18	0.02	-	3.75
Total Jobs		17.54	17.78	7.48	4.25	3.15	50.20
Total Households ¹		14.84	15.05	6.33	3.60	2.67	42.49

¹ Assumes 1.18 jobs per household in Napa County based on data from the 2021 American Community Survey.

Sources: IMPLAN, US Census, American Community Survey, 2021; Willdan Financial Services.

Affordable Housing Development Costs

Table 1.10 estimates the cost to build an affordable rental unit within the City of St. Helena. These cost assumptions were provided by the City of St. Helena based on the City's estimated cost of a five-unit affordable housing development project, and were adjusted for inflation from 2020 to current 2023 dollars.

Table 1.10: Affordable Housing Development Costs

	Apartment Rental
Total Development Costs per Unit ¹	\$ 910,500

¹ Cost per unit to construct affordable units was \$694,000 in 2020. Adjusted for inflation to September, 2023 using the Engineering News Record's Building Cost Index.

Source: City of St. Helena.

Affordability Gap and Maximum Fee Calculation

The housing affordability gap is the difference between what very low, low, and moderate-income households can afford to pay for housing, and the cost to develop affordable housing units. The affordable monthly rent associated with each income level is used to estimate the monthly supportable debt per unit, which is then used to estimate the loan proceeds associated with that level of income. The loan amount is compared to the affordable unit development costs, and the difference is the financing gap per unit.

The financing gap per unit is then multiplied by the number of units induced within each income category to determine the total financing gap associated with the 100 prototype units. This figure is then divided by 100 to determine the housing fee per unit, but prototype type. The fee per unit is finally divided by the assumed prototype square footage to determine the fee per square foot.

Table 1.11 displays the calculation of the affordability gap and maximum justified affordable housing impact fee for new rental units and for new single family units.

Table 1.11: Affordable Housing Impact Fee Calculation

	Extremely Low Income (up to 30% AMI)	Very Low Income (31- 50% AMI)	Low Income (51-80% AMI)	Moderate Income (81- 120% AMI)
Household Income Limit	\$ 36,050	\$ 60,100	\$ 96,050	\$ 139,950
Affordable Monthly Rent per Unit ¹	640	1,242	2,140	3,238
Monthly Operating Expenses	500	500	500	500
Vacancy	5%	5%	5%	5%
Net Operating Income per Unit	108	679	1,533	2,576
Monthly Supportable Debt Service per Unit	83	523	1,179	1,981
Loan Amount	12,177	76,438	172,495	289,795
Affordable Unit Development Costs	910,500	910,500	910,500	910,500
Financing Gap per Affordable Unit	898,323	834,062	738,005	620,705
<u>Fee Calculation for New Rental Units</u>				
Units Demanded	9.83	9.95	4.20	2.40
Total Financing Gap	\$ 8,826,782	\$ 8,301,249	\$ 3,097,980	\$ 1,486,653
Maximum Impact Fee per 100-Unit Development	\$ 21,712,665			
Maximum Impact Fee per Unit	\$ 217,127			
Prototype Square Feet	1,608			
Maximum Impact Fee per Square Foot	\$ 135			
<u>Fee Calculation for New For Sale Single Family Units</u>				
Units Demanded	14.84	15.05	6.33	3.60
Total Financing Gap	\$ 13,335,208	\$ 12,550,698	\$ 4,671,954	\$ 2,232,607
Maximum Impact Fee per 100-Unit Development	\$ 32,790,466			
Maximum Impact Fee per Unit	\$ 327,905			
Prototype Square Feet	1,669			
Maximum Impact Fee per Square Foot	\$ 196			
<u>Financing Terms</u>				
Debt Coverage Ratio	1.3			
Interest Rate	7.18%			
Term of Loan	30			
¹ Monthly affordable rent is calculated at 30% of the monthly AMI for a three-person household from Table 1.1, less utility allowance for a three person household identified in Table 1.3.				
Sources: Tables 1.1, 1.3, 1.5, 1.6, 1.8, 1.9 and 1.10.				

2. Commercial Linkage Fee

This chapter details an analysis of the need for affordable housing required to accommodate lower-income employees associated with commercial development projects within the City of St. Helena. It documents a reasonable relationship between new development and a commercial linkage fee to fund affordable housing.

Nexus Approach

This study calculates the maximum legal fee charged on new commercial development for affordable housing in the following steps:

1. **Establish commercial prototypes representing typical commercial development in St. Helena.** The prototypes used in this study are not intended to represent specific development projects. Instead, they represent the types of development projects that may be built in St. Helena.
2. **Estimate the number of workers that will work in the new commercial space.** The estimated number of workers are based occupancy density assumptions for each type of commercial development project. The employment density assumptions density factors were multiplied by the building size (100,000 square feet) to calculate the total number of workers occupying each commercial prototype.
3. **Estimate worker household incomes.** To determine the proportion of households requiring affordable housing the analysis uses local wage data associated with the industries and occupations housed within each prototype.
4. **Calculate the affordability gap.** The housing affordability gap is defined as the difference between what very low, low, and moderate-income households can afford to pay for housing, and the cost to develop new, modest housing units.
5. **Calculate maximum commercial linkage fee for each prototype.** The maximum commercial linkage fee for each prototype is calculated by multiplying the total number of very low, low, and moderate- income new worker households for each prototype (calculated in Step 3), by the corresponding affordable housing gap figure (calculated in Step 4). The total affordability gap was then divided by 100,000 SF, the size of each commercial prototype, to generate a maximum fee per square foot.

Commercial Prototypes

This study calculates commercial linkage fees for four types of nonresidential development projects. These nonresidential land use classifications correspond with the nonresidential land uses in the City's development impact fee program. The prototypes are 100,000 square feet of commercial (service, retail), office, industrial and hotel development.

Table 2.1 displays prototype building sizes, and an estimate of net new workers per household. Data from the US Census was used to identify the share of workers for each prototype that would be housed within City limits. The resulting net new workers are divided by the assumption of jobs per household to determine the number of net new worker households in St. Helena associated with each prototype.

Table 2.1: Net New Workers per Prototype

	Commercial	Office	Industrial	Hotel
Prototype Building Size (Sq. Ft.)	100,000	100,000	100,000	100,000
Employees per 100,000 Sq. Ft. ¹	212	326	116	100
Percent of St. Helena Employees with Jobs inside City limits ²	11.40%	11.40%	11.40%	11.40%
Net New Workers Living in St. Helena	24.17	37.16	13.22	11.40
Jobs per Household ³	1.18	1.18	1.18	1.18
Households	20.48	31.49	11.21	9.66

¹ Consistent with occupancy density factors from Development Impact Fee Study.

² OnTheMap Application. Percent employed and living in St. Helena.

³ Assumes 1.18 jobs per household in Napa County based on data from the 2021 American Community Survey.

Sources: <https://onthemap.ces.census.gov/>; 2021 American Community Survey; Tables 2.2, Willdan Financial Services.

Industries

Various industries could be housed within each prototype. This analysis used the most recent available national industry data as of the fourth quarter of 2022 from the US Bureau of Labor Statistics to identify the range of industries associated with each prototype. **Table 2.2 through Table 2.5** identify the industries associated with each prototype. In the next step, the occupations associated with each industry will be used to estimate the wages of workers that may be employed within each prototype.

Table 2.2: Definition of Industries for Retail Commercial Prototype

NAICS Code (2022)	NAICS Code (2017)	Description	Percent Total Workers in Prototype
7225	7225	Restaurants and other eating places	37.8%
4451	4451	Grocery stores	10.0%
4411	4411	Automobile dealers	4.5%
4441	4441	Building material and supplies dealers	4.4%
4561	4461	Health and personal care stores	4.0%
8111	8111	Automotive repair and maintenance	3.5%
4571	4471	Gasoline stations	3.4%
4581	4481	Clothing stores	3.2%
8121	8121	Personal care services	2.5%
4413	4413	Auto parts, accessories, and tire stores	2.1%
4591	4511	Sporting goods and musical instrument stores	1.8%
4599	4539	Other miscellaneous store retailers	1.7%
4491	4422	Home furnishings stores	1.6%
4492	4431	Electronics and appliance stores	1.6%
7224	7224	Drinking places, alcoholic beverages	1.5%
8129	8129	Other personal services	1.4%
4231	4231	Motor vehicle and parts merchant wholesalers	1.3%
4237	4237	Hardware and plumbing merchant wholesalers	1.1%
4233	4233	Lumber and const. supply merchant wholesalers	0.9%
8123	8123	Drycleaning and laundry services	0.9%
4452	4452	Specialty food stores	0.9%
8113	8113	Commercial machinery repair and maintenance	0.8%
4594	4532	Office supplies, stationery, and gift stores	0.8%
5321	5321	Automotive equipment rental and leasing	0.7%
4595	4533	Used merchandise stores	0.7%
4442	4442	Lawn and garden equipment and supplies stores	0.7%
5324	5324	Machinery and equipment rental and leasing	0.7%
5615	5615	Travel arrangement and reservation services	0.6%
4582	4482	Shoe stores	0.6%
4453	4453	Beer, wine, and liquor stores	0.6%
4412	4412	Other motor vehicle dealers	0.6%
8122	8122	Death care services	0.5%
5322	5322	Consumer goods rental	0.5%
4583	4483	Jewelry, luggage, and leather goods stores	0.4%
4232	4421	Furniture stores	0.4%
8112	8112	Electronic equipment repair and maintenance	0.4%
8114	8114	Household goods repair and maintenance	0.3%
4592	4512	Book stores and news dealers	0.3%
4593	4531	Florists	0.2%
5323	5323	General rental centers	0.1%

Sources: BLS, Quarterly Census of Employment and Wages, Fourth Quarter 2022.

Table 2.3: Definition of Industries for Office Prototype

NAICS Code (2022)	NAICS Code (2017)	Description	Percent Total Workers in Prototype
5613	5613	Employment services	9.3%
6211	6211	Offices of physicians	6.8%
5511	5511	Management of companies and enterprises	6.1%
5415	5415	Computer systems design and related services	6.0%
5617	5617	Services to buildings and dwellings	5.3%
5416	5416	Management and technical consulting services	4.5%
5221	5221	Depository credit intermediation	4.3%
5413	5413	Architectural and engineering services	3.9%
5242	5242	Insurance agencies and brokerages	3.2%
5241	5241	Insurance carriers	2.9%
5411	5411	Legal services	2.8%
5412	5412	Accounting and bookkeeping services	2.7%
6213	6213	Offices of other health practitioners	2.7%
6214	6214	Outpatient care centers	2.5%
6212	6212	Offices of dentists	2.4%
5616	5616	Investigation and security services	2.4%
5417	5417	Scientific research and development services	2.2%
5419	5419	Other professional and technical services	2.0%
5313	5313	Activities related to real estate	1.9%
5614	5614	Business support services	1.9%
7223	7223	Special food services	1.7%
5132	5112	Software publishers	1.5%
5311	5311	Lessors of real estate	1.5%
5611	5611	Office administrative services	1.5%
5171	517	Wired and wireless telecommunications (except satellite)	1.5%
5239	523	Other financial investment activities	1.4%
5222	5222	Non-depository credit intermediation	1.4%
5418	5418	Advertising, pr, and related services	1.2%
5182	5182	Data processing, hosting and related services	1.2%
5231	523	Securities, commodity contracts, investments	1.1%
3345	3345	Electronic instrument manufacturing	1.0%
5121	5121	Motion picture and video industries	1.0%
3344	3344	Semiconductor and electronic component mfg.	0.9%
5312	5312	Offices of real estate agents and brokers	0.9%
3391	3391	Medical equipment and supplies manufacturing	0.8%
5619	5619	Other support services	0.8%
6215	6215	Medical and diagnostic laboratories	0.8%
5223	5223	Activities related to credit intermediation	0.8%
5131	5111	Newspaper, periodical, book, and directory publishers	0.7%
5192	5191	Web search portals, libraries, archives, and other information services	0.4%
3341	3341	Computer and peripheral equipment mfg.	0.4%
5612	5612	Facilities support services	0.4%
5414	5414	Specialized design services	0.4%
3353	3353	Electrical equipment manufacturing	0.3%
5161	515	Broadcasting, except internet	0.3%
3342	3342	Communications equipment manufacturing	0.2%
5178	517	All other telecommunications	0.1%
5331	5331	Lessors of nonfinancial intangible assets	0.1%
5122	5122	Sound recording industries	0.1%
5259	5259	Other investment pools and funds	0.0%
5174	517	Satellite telecommunications	0.0%
5232	523	Securities and commodity exchanges	0.0%

Sources: BLS, Quarterly Census of Employment and Wages, Fourth Quarter 2022.

Table 2.4: Definition of Industries for Industrial (Business Park, Light Industrial) Prototype

NAICS Code (2022)	NAICS Code (2017)	Description	Percent Total Workers in Prototype
5613	5613	Employment services	7.1%
6211	6211	Offices of physicians	5.2%
5511	5511	Management of companies and enterprises	4.7%
5415	5415	Computer systems design and related services	4.6%
2382	2382	Building equipment contractors	4.4%
5617	5617	Services to buildings and dwellings	4.0%
5416	5416	Management and technical consulting services	3.4%
5221	5221	Depository credit intermediation	3.3%
5413	5413	Architectural and engineering services	3.0%
5242	5242	Insurance agencies and brokerages	2.4%
5241	5241	Insurance carriers	2.2%
5411	5411	Legal services	2.2%
5412	5412	Accounting and bookkeeping services	2.1%
6213	6213	Offices of other health practitioners	2.0%
6214	6214	Outpatient care centers	1.9%
6212	6212	Offices of dentists	1.9%
5616	5616	Investigation and security services	1.8%
2381	2381	Building foundation and exterior contractors	1.8%
2361	2361	Residential building construction	1.7%
5417	5417	Scientific research and development services	1.7%
5419	5419	Other professional and technical services	1.6%
2362	2362	Nonresidential building construction	1.6%
2383	2383	Building finishing contractors	1.5%
5313	5313	Activities related to real estate	1.5%
5614	5614	Business support services	1.4%
2389	2389	Other specialty trade contractors	1.4%
7223	7223	Special food services	1.3%
5132	5112	Software publishers	1.2%
5311	5311	Lessors of real estate	1.1%
5611	5611	Office administrative services	1.1%
5171	517	Telecommunications	1.1%
2371	2371	Utility system construction	1.0%
5222	5222	Nondepository credit intermediation	1.0%
3363	3363	Motor vehicle parts manufacturing	1.0%
3116	3116	Animal slaughtering and processing	1.0%
5418	5418	Advertising, pr, and related services	0.9%
5182	5182	Data processing, hosting and related services	0.9%
3345	3345	Electronic instrument manufacturing	0.8%
3323	3323	Architectural and structural metals mfg.	0.7%
3344	3344	Semiconductor and electronic component mfg.	0.7%
5312	5312	Offices of real estate agents and brokers	0.7%
3231	3231	Printing and related support activities	0.7%
2373	2373	Highway, street, and bridge construction	0.6%
3254	3254	Pharmaceutical and medicine manufacturing	0.6%
3327	3327	Machine shops and threaded product mfg.	0.6%
3391	3391	Medical equipment and supplies manufacturing	0.6%
3118	3118	Bakeries and tortilla manufacturing	0.6%

Sources: BLS, Quarterly Census of Employment and Wages, Fourth Quarter 2022.

Table 2.4: Definition of Industries for Industrial (Business Park, Light Industrial) Prototype Continued

NAICS Code (2022)	NAICS Code (2017)	Description	Percent Total Workers in Prototype
5619	5619	Other support services	0.6%
6215	6215	Medical and diagnostic laboratories	0.6%
3121	3121	Beverage manufacturing	0.6%
5223	5223	Activities related to credit intermediation	0.6%
5131	5111	Newspaper, book, and directory publishers	0.6%
3399	3399	Other miscellaneous manufacturing	0.5%
3339	3339	Other general purpose machinery manufacturing	0.5%
3329	3329	Other fabricated metal product manufacturing	0.5%
3119	3119	Other food manufacturing	0.5%
3219	3219	Other wood product manufacturing	0.5%
3371	3371	Household and institutional furniture mfg.	0.4%
5621	5621	Waste collection	0.4%
3273	3273	Cement and concrete product manufacturing	0.4%
5192	5191	Web search portals, libraries, archives, and other	0.3%
3114	3114	Fruit and vegetable preserving and specialty	0.3%
3335	3335	Metalworking machinery manufacturing	0.3%
3115	3115	Dairy product manufacturing	0.3%
3359	3359	Other electrical equipment and component mfg.	0.3%
5612	5612	Facilities support services	0.3%
5414	5414	Specialized design services	0.3%
3332	3332	Industrial machinery manufacturing	0.2%
2379	2379	Other heavy construction	0.2%
5161	515	Broadcasting, except internet	0.2%
3256	3256	Soap, cleaning compound, and toiletry mfg.	0.2%
3324	3324	Boiler, tank, and shipping container mfg.	0.2%
3211	3211	Sawmills and wood preservation	0.2%
3333	3333	Commercial and service industry machinery	0.2%
3212	3212	Plywood and engineered wood product mfg.	0.2%
3272	3272	Glass and glass product manufacturing	0.2%
3149	3149	Other textile product mills	0.1%
2213	2213	Water, sewage and other systems	0.1%
5178	517	All other telecommunications	0.1%
3141	3141	Textile furnishings mills	0.1%
3369	3369	Other transportation equipment manufacturing	0.1%
2372	2372	Land subdivision	0.1%
3322	3322	Cutlery and handtool manufacturing	0.1%
3271	3271	Clay product and refractory manufacturing	0.1%
3343	3343	Audio and video equipment manufacturing	0.0%
5174	517	Satellite telecommunications	0.0%

Sources: BLS, Quarterly Census of Employment and Wages, Fourth Quarter 2022.

Table 2.5: Definition of Industries for Hotel Prototype

NAICS Code (2017 and 2022)	Description	Percent Total Workers in Prototype
721	Accommodation	100.0%

Sources: BLS, Quarterly Census of Employment and Wages, Fourth Quarter 2022.

Occupations and Wages

The US Bureau of Labor Statistics, Industry-occupation matrix was used to identify the occupations associated with the industries that may be housed by each prototype in the preceding tables. Local wage data for Napa County provided by the California Employment Development Department (CA EDD) from the first quarter of 2023 was cross referenced with the identified occupations to estimate the average wages of each occupation associated with each prototype. **Table 2.6 through Table 2.9** identify the occupations and annual average wages for each occupation associated with the industries housed in each building prototype, respectively. Note that the occupations are listed because they are associated with an industry in the national data. This does not mean to imply that each occupation listed in these tables will be found in St. Helena.

Table 2.6: Occupation Mix and Averages for Commercial Prototype

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
11-1011	Chief Executives	0.0309%	\$ 280,501
11-1021	General and Operations Managers	2.4179%	151,214
11-2021	Marketing Managers	0.0281%	190,254
11-2022	Sales Managers	0.3207%	147,583
11-3012	Administrative Services Managers	0.0253%	117,406
11-3013	Facilities Managers	0.0111%	108,849
11-3021	Computer and Information Systems Managers	0.0158%	177,434
11-3031	Financial Managers	0.0752%	168,490
11-3051	Industrial Production Managers	0.0376%	153,050
11-3061	Purchasing Managers	0.0079%	130,256
11-3071	Transportation, Storage, and Distribution Managers	0.0451%	114,244
11-3121	Human Resources Managers	0.0107%	140,159
11-9041	Architectural and Engineering Managers	0.0127%	184,318
11-9051	Food Service Managers	0.6699%	83,363
11-9171	Funeral Home Managers	0.0507%	91,053
11-9179	Personal Service Managers, All Other	0.0178%	75,112
11-9199	Managers, All Other	0.0491%	152,458
13-1041	Compliance Officers	0.0115%	84,332
13-1051	Cost Estimators	0.0990%	99,079
13-1071	Human Resources Specialists	0.0899%	83,455
13-1081	Logisticians	0.0162%	87,320
13-1082	Project Management Specialists	0.0384%	104,117
13-1111	Management Analysts	0.0107%	94,775
13-1121	Meeting, Convention, and Event Planners	0.0352%	64,363
13-1151	Training and Development Specialists	0.1208%	73,511
13-1161	Market Research Analysts and Marketing Specialists	0.1386%	84,475
13-1199	Business Operations Specialists, All Other	0.1128%	76,397
13-2011	Accountants and Auditors	0.1722%	95,030
13-2051	Financial and Investment Analysts	0.0036%	116,172
13-2072	Loan Officers	0.0455%	88,738
13-2099	Financial Specialists, All Other	0.0202%	78,468
15-1211	Computer Systems Analysts	0.0095%	113,293
15-1231	Computer Network Support Specialists	0.0103%	87,114
15-1232	Computer User Support Specialists	0.0748%	79,285
15-1241	Computer Network Architects	0.0024%	122,473
15-1242	Database Administrators	0.0024%	104,872
15-1244	Network and Computer Systems Administrators	0.0214%	105,110
15-1251	Computer Programmers	0.0055%	127,375
15-1252	Software Developers	0.0317%	139,867
15-1253	Software Quality Assurance Analysts and Testers	0.0055%	142,982
15-1254	Web Developers	0.0083%	107,042
15-1255	Web and Digital Interface Designers	0.0087%	81,008
15-1299	Computer Occupations, All Other	0.0154%	104,269
15-2051	Data Scientists	0.0020%	117,001
17-2071	Electrical Engineers	0.0115%	156,741
17-2072	Electronics Engineers, Except Computer	0.0079%	143,938
17-2112	Industrial Engineers	0.0424%	120,407

Table 2.6: Occupation Mix and Averages for Commercial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
17-2141	Mechanical Engineers	0.0400%	113,678
17-2199	Engineers, All Other	0.0067%	104,550
17-3013	Mechanical Drafters	0.0079%	79,191
17-3023	Electrical and Electronic Engineering Technologists and Technicians	0.0059%	82,358
17-3026	Industrial Engineering Technologists and Technicians	0.0079%	80,084
17-3027	Mechanical Engineering Technologists and Technicians	0.0055%	77,353
23-2093	Title Examiners, Abstractors, and Searchers	0.0063%	90,977
25-3021	Self-Enrichment Teachers	0.0242%	58,100
27-1011	Art Directors	0.0036%	108,485
27-1022	Fashion Designers	0.0020%	96,678
27-1023	Floral Designers	0.1295%	44,071
27-1024	Graphic Designers	0.0281%	76,855
27-1025	Interior Designers	0.0463%	89,949
27-1026	Merchandise Displayers and Window Trimmers	0.2479%	46,397
27-3031	Public Relations Specialists	0.0226%	96,647
27-4021	Photographers	0.0075%	67,799
29-1041	Optometrists	0.0182%	149,825
29-1051	Pharmacists	0.6113%	172,006
29-1126	Respiratory Therapists	0.0059%	99,846
29-1141	Registered Nurses	0.0131%	152,027
29-1181	Audiologists	0.0059%	114,020
29-2052	Pharmacy Technicians	1.0536%	61,828
29-2057	Ophthalmic Medical Technicians	0.0083%	54,123
29-2081	Opticians, Dispensing	0.0717%	55,837
29-2091	Orthotists and Prosthetists	0.0055%	87,935
29-2092	Hearing Aid Specialists	0.0135%	66,148
31-9011	Massage Therapists	0.1714%	52,720
31-9095	Pharmacy Aides	0.1267%	59,577
31-9099	Healthcare Support Workers, All Other	0.0067%	52,992
33-9032	Security Guards	0.1540%	41,286
33-9099	Protective Service Workers, All Other	0.0083%	40,073
35-1011	Chefs and Head Cooks	0.3049%	77,586
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	3.5653%	51,215
35-2011	Cooks, Fast Food	3.1025%	38,087
35-2012	Cooks, Institution and Cafeteria	0.0253%	51,487
35-2014	Cooks, Restaurant	4.4550%	44,839
35-2015	Cooks, Short Order	0.4375%	42,435
35-2019	Cooks, All Other	0.0313%	41,547
35-2021	Food Preparation Workers	2.4096%	41,233
35-3011	Bartenders	1.4835%	39,885
35-3023	Fast Food and Counter Workers	11.1236%	37,648
35-3031	Waiters and Waitresses	6.5653%	41,202
35-3041	Food Servers, Nonrestaurant	0.0717%	44,317
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	0.9166%	37,000
35-9021	Dishwashers	1.2535%	38,662
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	1.2282%	38,307
35-9099	Food Preparation and Serving Related Workers, All Other	0.2245%	43,564
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundske	0.0107%	73,917
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	0.4438%	44,181
37-2012	Maids and Housekeeping Cleaners	0.0166%	42,352
37-3011	Landscaping and Groundskeeping Workers	0.1006%	47,118

Table 2.6: Occupation Mix and Averages for Commercial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
39-1022	First-Line Supervisors of Personal Service Workers	0.1520%	53,849
39-2011	Animal Trainers	0.0384%	48,320
39-2021	Animal Caretakers	0.5939%	39,958
39-3091	Amusement and Recreation Attendants	0.0103%	37,659
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	0.0075%	42,822
39-4011	Embalmers	0.0158%	59,462
39-4012	Crematory Operators	0.0075%	46,073
39-4021	Funeral Attendants	0.1299%	42,341
39-4031	Morticians, Undertakers, and Funeral Arrangers	0.0978%	55,626
39-5011	Barbers	0.0503%	48,205
39-5012	Hairdressers, Hairstylists, and Cosmetologists	1.0817%	43,355
39-5092	Manicurists and Pedicurists	0.4866%	36,154
39-5093	Shampooers	0.0392%	34,523
39-5094	Skincare Specialists	0.1588%	50,463
39-6012	Concierges	0.0218%	43,658
39-9011	Childcare Workers	0.0055%	41,192
39-9031	Exercise Trainers and Group Fitness Instructors	0.0269%	68,252
39-9099	Personal Care and Service Workers, All Other	0.0578%	39,990
41-1011	First-Line Supervisors of Retail Sales Workers	3.2719%	60,565
41-1012	First-Line Supervisors of Non-Retail Sales Workers	0.1544%	91,122
41-2011	Cashiers	10.2022%	37,787
41-2021	Counter and Rental Clerks	0.7273%	48,173
41-2022	Parts Salespersons	0.9011%	45,659
41-2031	Retail Salespersons	10.6738%	44,263
41-3021	Insurance Sales Agents	0.0150%	89,943
41-3031	Securities, Commodities, and Financial Services Sales Agents	0.0190%	81,440
41-3041	Travel Agents	0.1291%	54,359
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Fi	0.6046%	85,598
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and	0.0265%	107,455
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Techn	0.3753%	94,153
41-9011	Demonstrators and Product Promoters	0.0356%	46,921
41-9031	Sales Engineers	0.0079%	147,125
41-9041	Telemarketers	0.0115%	40,032
41-9099	Sales and Related Workers, All Other	0.1809%	71,302
43-1011	First-Line Supervisors of Office and Administrative Support Workers	0.4133%	74,744
43-2011	Switchboard Operators, Including Answering Service	0.0095%	48,962
43-3011	Bill and Account Collectors	0.0273%	58,444
43-3021	Billing and Posting Clerks	0.0582%	57,825
43-3031	Bookkeeping, Accounting, and Auditing Clerks	0.7281%	58,837
43-3051	Payroll and Timekeeping Clerks	0.0301%	62,969
43-3061	Procurement Clerks	0.0230%	51,834
43-4041	Credit Authorizers, Checkers, and Clerks	0.0055%	49,571
43-4051	Customer Service Representatives	1.4135%	47,454
43-4071	File Clerks	0.0162%	47,392
43-4151	Order Clerks	0.0443%	49,375
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	0.0158%	58,414
43-4171	Receptionists and Information Clerks	0.5096%	44,479
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	0.0519%	44,138
43-4199	Information and Record Clerks, All Other	0.0150%	58,197
43-5021	Couriers and Messengers	0.0063%	43,353

Table 2.6: Occupation Mix and Averages for Commercial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
43-5032	Dispatchers, Except Police, Fire, and Ambulance	0.0396%	51,937
43-5061	Production, Planning, and Expediting Clerks	0.0891%	61,450
43-5071	Shipping, Receiving, and Inventory Clerks	0.6212%	52,040
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	0.0190%	46,813
43-6011	Executive Secretaries and Executive Administrative Assistants	0.0483%	84,175
43-6013	Medical Secretaries and Administrative Assistants	0.0063%	54,499
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and	0.4011%	53,249
43-9021	Data Entry Keyers	0.0202%	43,715
43-9041	Insurance Claims and Policy Processing Clerks	0.0044%	50,542
43-9061	Office Clerks, General	1.0595%	50,078
43-9071	Office Machine Operators, Except Computer	0.0044%	46,576
43-9199	Office and Administrative Support Workers, All Other	0.0206%	58,166
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	0.0067%	65,514
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	0.0855%	41,090
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	0.0123%	97,987
47-2031	Carpenters	0.0269%	75,484
47-2041	Carpet Installers	0.0301%	55,141
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	0.0115%	60,937
47-2061	Construction Laborers	0.0135%	58,127
47-2111	Electricians	0.0115%	71,909
47-2121	Glaziers	0.0297%	79,028
47-2152	Plumbers, Pipefitters, and Steamfitters	0.0131%	81,022
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	0.4925%	98,474
49-2011	Computer, Automated Teller, and Office Machine Repairers	0.1635%	54,367
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	0.0099%	70,638
49-2022	Telecommunications Equipment Installers and Repairers, Except Lin	0.0210%	85,406
49-2092	Electric Motor, Power Tool, and Related Repairers	0.0150%	57,942
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equi	0.0210%	77,509
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles	0.0238%	40,915
49-2097	Audiovisual Equipment Installers and Repairers	0.0309%	60,533
49-3021	Automotive Body and Related Repairers	0.5365%	64,648
49-3022	Automotive Glass Installers and Repairers	0.0566%	49,869
49-3023	Automotive Service Technicians and Mechanics	2.2033%	62,140
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	0.2890%	72,669
49-3041	Farm Equipment Mechanics and Service Technicians	0.0119%	60,139
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	0.0321%	69,052
49-3051	Motorboat Mechanics and Service Technicians	0.0626%	58,865
49-3052	Motorcycle Mechanics	0.0578%	54,730
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	0.0645%	53,507
49-3091	Bicycle Repairers	0.0531%	42,739
49-3092	Recreational Vehicle Service Technicians	0.0606%	56,326
49-3093	Tire Repairers and Changers	0.3167%	41,288
49-9011	Mechanical Door Repairers	0.0166%	55,984
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	0.0059%	87,748
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	0.0392%	65,487
49-9031	Home Appliance Repairers	0.0879%	50,543
49-9041	Industrial Machinery Mechanics	0.2063%	72,286
49-9043	Maintenance Workers, Machinery	0.0146%	61,072
49-9044	Millwrights	0.0127%	69,529
49-9062	Medical Equipment Repairers	0.0527%	69,280

Table 2.6: Occupation Mix and Averages for Commercial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
49-9063	Musical Instrument Repairers and Tuners	0.0182%	49,413
49-9064	Watch and Clock Repairers	0.0075%	58,937
49-9069	Precision Instrument and Equipment Repairers, All Other	0.0162%	71,975
49-9071	Maintenance and Repair Workers, General	0.3310%	57,673
49-9081	Wind Turbine Service Technicians	0.0111%	71,736
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	0.0048%	54,056
49-9098	Helpers--Installation, Maintenance, and Repair Workers	0.0974%	43,993
49-9099	Installation, Maintenance, and Repair Workers, All Other	0.1231%	51,082
51-1011	First-Line Supervisors of Production and Operating Workers	0.2597%	82,224
51-2021	Coil Winders, Tapers, and Finishers	0.0055%	43,540
51-2041	Structural Metal Fabricators and Fitters	0.0146%	54,753
51-3011	Bakers	0.3825%	42,196
51-3021	Butchers and Meat Cutters	0.4613%	44,395
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	0.0697%	36,818
51-3023	Slaughterers and Meat Packers	0.0091%	35,599
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators	0.0107%	42,748
51-3092	Food Batchmakers	0.0487%	39,851
51-3093	Food Cooking Machine Operators and Tenders	0.0143%	40,122
51-3099	Food Processing Workers, All Other	0.0123%	36,943
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	0.0119%	43,227
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	0.0139%	56,775
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	0.0119%	51,325
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	0.1255%	45,999
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0396%	44,478
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0087%	54,878
51-4041	Machinists	0.1314%	58,151
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	0.0115%	44,655
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0511%	44,697
51-4111	Tool and Die Makers	0.0352%	71,552
51-4121	Welders, Cutters, Solderers, and Brazers	0.1734%	59,266
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders, Metal and Plastic	0.0123%	52,992
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	0.0063%	50,439
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	0.0055%	46,083
51-4194	Tool Grinders, Filers, and Sharpeners	0.0063%	48,136
51-5112	Printing Press Operators	0.0044%	52,450
51-6011	Laundry and Dry-Cleaning Workers	0.3231%	39,403
51-6021	Pressers, Textile, Garment, and Related Materials	0.1006%	37,141
51-6031	Sewing Machine Operators	0.0281%	37,673
51-6041	Shoe and Leather Workers and Repairers	0.0051%	43,530
51-6052	Tailors, Dressmakers, and Custom Sewers	0.0467%	47,844
51-6093	Upholsterers	0.0281%	44,989
51-7011	Cabinetmakers and Bench Carpenters	0.0067%	51,460
51-7021	Furniture Finishers	0.0131%	48,428
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders, Metal and Plastic	0.0162%	74,543
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	0.1318%	51,689
51-9071	Jewelers and Precious Stone and Metal Workers	0.0562%	50,970
51-9082	Medical Appliance Technicians	0.0063%	48,375
51-9083	Ophthalmic Laboratory Technicians	0.0154%	51,148
51-9111	Packaging and Filling Machine Operators and Tenders	0.0107%	48,730
51-9123	Painting, Coating, and Decorating Workers	0.0059%	52,502

Table 2.6: Occupation Mix and Averages for Commercial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Te	0.1378%	58,536
51-9151	Photographic Process Workers and Processing Machine Operators	0.0055%	47,333
51-9161	Computer Numerically Controlled Tool Operators	0.0610%	52,117
51-9162	Computer Numerically Controlled Tool Programmers	0.0083%	79,629
51-9194	Etchers and Engravers	0.0095%	43,905
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	0.0075%	49,032
51-9198	Helpers--Production Workers	0.0574%	46,989
51-9199	Production Workers, All Other	0.0277%	49,543
53-3031	Driver/Sales Workers	1.2286%	46,920
53-3032	Heavy and Tractor-Trailer Truck Drivers	0.2407%	60,073
53-3033	Light Truck Drivers	0.9277%	48,398
53-3053	Shuttle Drivers and Chauffeurs	0.0994%	41,842
53-6021	Parking Attendants	0.2688%	37,357
53-6031	Automotive and Watercraft Service Attendants	0.3397%	39,470
53-6051	Transportation Inspectors	0.0055%	75,651
53-6099	Transportation Workers, All Other	0.0075%	49,886
53-7051	Industrial Truck and Tractor Operators	0.0788%	50,573
53-7061	Cleaners of Vehicles and Equipment	1.0571%	40,094
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	0.8113%	43,809
53-7063	Machine Feeders and Offbearers	0.0067%	45,162
53-7064	Packers and Packagers, Hand	0.4490%	36,983
53-7065	Stockers and Order Fillers	3.5816%	42,217
53-7199	Material Moving Workers, All Other	0.0293%	49,761

Sources: CA EDD, Occupational Employment (May 2022) & Wage (2023 - 1st Quarter) Data.

Table 2.7: Occupation Mix and Averages for Office Prototype

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
11-1011	Chief Executives	0.2556%	\$ 280,501
11-1021	General and Operations Managers	2.8314%	151,214
11-2011	Advertising and Promotions Managers	0.0495%	183,247
11-2021	Marketing Managers	0.5210%	190,254
11-2022	Sales Managers	0.5315%	147,583
11-2032	Public Relations Managers	0.0764%	160,760
11-2033	Fundraising Managers	0.0071%	137,701
11-3012	Administrative Services Managers	0.2596%	117,406
11-3013	Facilities Managers	0.0801%	108,849
11-3021	Computer and Information Systems Managers	0.9955%	177,434
11-3031	Financial Managers	1.2535%	168,490
11-3051	Industrial Production Managers	0.0980%	153,050
11-3061	Purchasing Managers	0.0754%	130,256
11-3071	Transportation, Storage, and Distribution Managers	0.0619%	114,244
11-3111	Compensation and Benefits Managers	0.0271%	153,305
11-3121	Human Resources Managers	0.2445%	140,159
11-3131	Training and Development Managers	0.0511%	152,988
11-9013	Farmers, Ranchers, and Other Agricultural Managers	0.0013%	118,578
11-9021	Construction Managers	0.0751%	143,065
11-9031	Education and Childcare Administrators, Preschool and Daycare	0.0018%	71,992
11-9032	Education Administrators, Kindergarten through Secondary	0.0016%	132,693
11-9033	Education Administrators, Postsecondary	0.0003%	143,422
11-9039	Education Administrators, All Other	0.0040%	123,260
11-9041	Architectural and Engineering Managers	0.2941%	184,318
11-9051	Food Service Managers	0.0596%	83,363
11-9072	Entertainment and Recreation Managers, Except Gambling	0.0018%	89,003
11-9081	Lodging Managers	0.0055%	89,645
11-9111	Medical and Health Services Managers	0.4350%	138,476
11-9121	Natural Sciences Managers	0.1136%	207,245
11-9141	Property, Real Estate, and Community Association Managers	0.5663%	70,156
11-9151	Social and Community Service Managers	0.0414%	89,584
11-9161	Emergency Management Directors	0.0008%	124,820
11-9179	Personal Service Managers, All Other	0.0005%	75,112
11-9199	Managers, All Other	0.5823%	152,458
13-1011	Agents and Business Managers of Artists, Performers, and Athletes	0.0013%	143,606
13-1031	Claims Adjusters, Examiners, and Investigators	0.6266%	106,973
13-1032	Insurance Appraisers, Auto Damage	0.0335%	76,622
13-1041	Compliance Officers	0.3412%	84,332
13-1051	Cost Estimators	0.0530%	99,079
13-1071	Human Resources Specialists	1.0791%	83,455
13-1075	Labor Relations Specialists	0.0132%	102,781
13-1081	Logisticians	0.1842%	87,320
13-1082	Project Management Specialists	1.1217%	104,117
13-1111	Management Analysts	1.4453%	94,775
13-1121	Meeting, Convention, and Event Planners	0.0875%	64,363
13-1131	Fundraisers	0.0269%	65,036
13-1141	Compensation, Benefits, and Job Analysis Specialists	0.1423%	89,890
13-1151	Training and Development Specialists	0.3879%	73,511
13-1161	Market Research Analysts and Marketing Specialists	1.3022%	84,475

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
13-1199	Business Operations Specialists, All Other	1.0957%	76,397
13-2011	Accountants and Auditors	2.2337%	95,030
13-2031	Budget Analysts	0.0340%	99,293
13-2041	Credit Analysts	0.1665%	99,915
13-2051	Financial and Investment Analysts	0.6464%	116,172
13-2052	Personal Financial Advisors	0.6962%	142,066
13-2053	Insurance Underwriters	0.3146%	98,956
13-2054	Financial Risk Specialists	0.1325%	126,044
13-2061	Financial Examiners	0.1260%	105,422
13-2071	Credit Counselors	0.0366%	60,794
13-2072	Loan Officers	0.8435%	88,738
13-2082	Tax Preparers	0.2266%	58,336
13-2099	Financial Specialists, All Other	0.1742%	78,468
15-1211	Computer Systems Analysts	1.0258%	113,293
15-1212	Information Security Analysts	0.3689%	142,889
15-1221	Computer and Information Research Scientists	0.0495%	241,135
15-1231	Computer Network Support Specialists	0.3088%	87,114
15-1232	Computer User Support Specialists	1.1410%	79,285
15-1241	Computer Network Architects	0.3760%	122,473
15-1242	Database Administrators	0.1491%	104,872
15-1243	Database Architects	0.1133%	158,839
15-1244	Network and Computer Systems Administrators	0.5478%	105,110
15-1251	Computer Programmers	0.3162%	127,375
15-1252	Software Developers	3.2287%	139,867
15-1253	Software Quality Assurance Analysts and Testers	0.4590%	142,982
15-1254	Web Developers	0.1573%	107,042
15-1255	Web and Digital Interface Designers	0.1684%	81,008
15-1299	Computer Occupations, All Other	0.5871%	104,269
15-2011	Actuaries	0.0661%	131,570
15-2021	Mathematicians	0.0005%	131,445
15-2031	Operations Research Analysts	0.1979%	105,630
15-2041	Statisticians	0.0435%	141,445
15-2051	Data Scientists	0.2366%	117,001
15-2099	Mathematical Science Occupations, All Other	0.0047%	107,270
17-1011	Architects, Except Landscape and Naval	0.2456%	115,111
17-1012	Landscape Architects	0.0390%	119,680
17-1021	Cartographers and Photogrammetrists	0.0150%	100,168
17-1022	Surveyors	0.0970%	106,035
17-2011	Aerospace Engineers	0.0688%	145,215
17-2021	Agricultural Engineers	0.0008%	113,324
17-2031	Bioengineers and Biomedical Engineers	0.0287%	127,894
17-2041	Chemical Engineers	0.0240%	122,432
17-2051	Civil Engineers	0.4777%	112,514
17-2061	Computer Hardware Engineers	0.1655%	173,356
17-2071	Electrical Engineers	0.2901%	156,741
17-2072	Electronics Engineers, Except Computer	0.1876%	143,938
17-2081	Environmental Engineers	0.0632%	118,901
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspect	0.0211%	126,928
17-2112	Industrial Engineers	0.2888%	120,407
17-2121	Marine Engineers and Naval Architects	0.0058%	141,186

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
17-2131	Materials Engineers	0.0224%	118,029
17-2141	Mechanical Engineers	0.3452%	113,678
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	0.0092%	118,880
17-2161	Nuclear Engineers	0.0087%	160,843
17-2171	Petroleum Engineers	0.0211%	148,559
17-2199	Engineers, All Other	0.1929%	104,550
17-3011	Architectural and Civil Drafters	0.2053%	70,396
17-3012	Electrical and Electronics Drafters	0.0335%	79,918
17-3013	Mechanical Drafters	0.0509%	79,191
17-3019	Drafters, All Other	0.0169%	69,637
17-3021	Aerospace Engineering and Operations Technologists and Technicians	0.0132%	88,693
17-3022	Civil Engineering Technologists and Technicians	0.0788%	81,413
17-3023	Electrical and Electronic Engineering Technologists and Technicians	0.1497%	82,358
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	0.0140%	79,721
17-3025	Environmental Engineering Technologists and Technicians	0.0192%	74,612
17-3026	Industrial Engineering Technologists and Technicians	0.0669%	80,084
17-3027	Mechanical Engineering Technologists and Technicians	0.0519%	77,353
17-3028	Calibration Technologists and Technicians	0.0103%	66,906
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	0.0941%	73,106
19-1011	Animal Scientists	0.0021%	157,988
19-1012	Food Scientists and Technologists	0.0113%	72,909
19-1021	Biochemists and Biophysicists	0.0635%	140,417
19-1022	Microbiologists	0.0271%	109,098
19-1023	Zoologists and Wildlife Biologists	0.0058%	90,541
19-1029	Biological Scientists, All Other	0.0540%	117,603
19-1031	Conservation Scientists	0.0021%	85,442
19-1032	Foresters	0.0008%	75,235
19-1041	Epidemiologists	0.0021%	102,805
19-1042	Medical Scientists, Except Epidemiologists	0.1560%	128,818
19-1099	Life Scientists, All Other	0.0079%	134,322
19-2011	Astronomers	0.0024%	150,957
19-2012	Physicists	0.0298%	172,380
19-2021	Atmospheric and Space Scientists	0.0074%	108,527
19-2031	Chemists	0.0862%	80,001
19-2032	Materials Scientists	0.0108%	106,668
19-2041	Environmental Scientists and Specialists, Including Health	0.0862%	104,799
19-2042	Geoscientists, Except Hydrologists and Geographers	0.0385%	102,224
19-2043	Hydrologists	0.0061%	131,362
19-2099	Physical Scientists, All Other	0.0121%	139,036
19-3011	Economists	0.0150%	142,359
19-3022	Survey Researchers	0.0163%	82,244
19-3032	Industrial-Organizational Psychologists	0.0003%	130,085
19-3033	Clinical and Counseling Psychologists	0.0949%	132,068
19-3034	School Psychologists	0.0029%	126,762
19-3039	Psychologists, All Other	0.0063%	120,895
19-3041	Sociologists	0.0034%	112,110
19-3051	Urban and Regional Planners	0.0145%	114,872
19-3091	Anthropologists and Archeologists	0.0111%	78,381
19-3092	Geographers	0.0003%	97,312

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
19-3093	Historians	0.0018%	101,185
19-3094	Political Scientists	0.0024%	129,638
19-3099	Social Scientists and Related Workers, All Other	0.0145%	94,321
19-4012	Agricultural Technicians	0.0129%	60,219
19-4013	Food Science Technicians	0.0024%	52,680
19-4021	Biological Technicians	0.0906%	61,891
19-4031	Chemical Technicians	0.0617%	50,613
19-4042	Environmental Science and Protection Technicians, Including Health	0.0516%	65,806
19-4043	Geological Technicians, Except Hydrologic Technicians	0.0153%	67,280
19-4044	Hydrologic Technicians	0.0005%	76,169
19-4051	Nuclear Technicians	0.0013%	78,194
19-4061	Social Science Research Assistants	0.0248%	68,142
19-4071	Forest and Conservation Technicians	0.0021%	48,422
19-4092	Forensic Science Technicians	0.0026%	97,229
19-4099	Life, Physical, and Social Science Technicians, All Other	0.0756%	59,814
19-5011	Occupational Health and Safety Specialists	0.0706%	92,431
19-5012	Occupational Health and Safety Technicians	0.0184%	68,163
21-1012	Educational, Guidance, and Career Counselors and Advisors	0.0116%	96,045
21-1013	Marriage and Family Therapists	0.0638%	56,356
21-1015	Rehabilitation Counselors	0.0177%	53,251
21-1019	Counselors, All Other	0.0264%	45,940
21-1021	Child, Family, and School Social Workers	0.0445%	69,378
21-1022	Healthcare Social Workers	0.1038%	92,493
21-1023	Mental Health and Substance Abuse Social Workers	0.1014%	109,057
21-1029	Social Workers, All Other	0.0069%	79,233
21-1091	Health Education Specialists	0.0377%	66,605
21-1092	Probation Officers and Correctional Treatment Specialists	0.0024%	101,040
21-1093	Social and Human Service Assistants	0.1220%	53,542
21-1094	Community Health Workers	0.0506%	82,047
21-1099	Community and Social Service Specialists, All Other	0.0211%	57,592
21-2011	Clergy	0.0018%	72,036
21-2099	Religious Workers, All Other	0.0003%	54,964
23-1011	Lawyers	1.3660%	176,887
23-2011	Paralegals and Legal Assistants	0.7763%	72,317
23-2093	Title Examiners, Abstractors, and Searchers	0.1299%	90,977
23-2099	Legal Support Workers, All Other	0.0474%	68,163
25-1042	Biological Science Teachers, Postsecondary	0.0005%	127,229
25-1052	Chemistry Teachers, Postsecondary	0.0003%	124,394
25-1072	Nursing Instructors and Teachers, Postsecondary	0.0003%	108,153
25-1194	Career/Technical Education Teachers, Postsecondary	0.0013%	101,777
25-2011	Preschool Teachers, Except Special Education	0.0063%	47,519
25-2012	Kindergarten Teachers, Except Special Education	0.0003%	105,412
25-2021	Elementary School Teachers, Except Special Education	0.0011%	95,162
25-2031	Secondary School Teachers, Except Special and Career/Technical Educat	0.0024%	96,367
25-2051	Special Education Teachers, Preschool	0.0021%	78,516
25-2059	Special Education Teachers, All Other	0.0026%	84,716
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Sec	0.0011%	94,882
25-3021	Self-Enrichment Teachers	0.0034%	58,100
25-3031	Substitute Teachers, Short-Term	0.0335%	53,012

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
25-3041	Tutors	0.0047%	43,978
25-3099	Teachers and Instructors, All Other	0.0150%	101,808
25-4011	Archivists	0.0026%	74,518
25-4012	Curators	0.0005%	83,013
25-4022	Librarians and Media Collections Specialists	0.0232%	83,594
25-4031	Library Technicians	0.0137%	62,452
25-9031	Instructional Coordinators	0.0216%	112,099
25-9099	Educational Instruction and Library Workers, All Other	0.0013%	65,079
27-1011	Art Directors	0.0906%	108,485
27-1012	Craft Artists	0.0013%	96,554
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	0.0063%	82,628
27-1014	Special Effects Artists and Animators	0.0472%	140,002
27-1019	Artists and Related Workers, All Other	0.0008%	108,371
27-1021	Commercial and Industrial Designers	0.0324%	98,194
27-1022	Fashion Designers	0.0155%	96,678
27-1023	Floral Designers	0.0016%	44,071
27-1024	Graphic Designers	0.3096%	76,855
27-1025	Interior Designers	0.1043%	89,949
27-1026	Merchandise Displayers and Window Trimmers	0.0711%	46,397
27-1027	Set and Exhibit Designers	0.0090%	87,519
27-1029	Designers, All Other	0.0113%	91,860
27-2012	Producers and Directors	0.2140%	156,015
27-2022	Coaches and Scouts	0.0005%	60,520
27-2041	Music Directors and Composers	0.0008%	101,943
27-3031	Public Relations Specialists	0.2693%	96,647
27-3041	Editors	0.1887%	91,538
27-3042	Technical Writers	0.0943%	125,588
27-3043	Writers and Authors	0.0754%	134,311
27-3091	Interpreters and Translators	0.0709%	69,482
27-3092	Court Reporters and Simultaneous Captioners	0.0092%	101,985
27-3099	Media and Communication Workers, All Other	0.0198%	62,836
27-4011	Audio and Video Technicians	0.0469%	73,210
27-4014	Sound Engineering Technicians	0.0192%	92,867
27-4015	Lighting Technicians	0.0013%	96,751
27-4021	Photographers	0.0664%	67,799
27-4031	Camera Operators, Television, Video, and Film	0.0316%	82,701
27-4032	Film and Video Editors	0.0632%	95,879
27-4099	Media and Communication Equipment Workers, All Other	0.0221%	76,065
29-1011	Chiropractors	0.0951%	93,480
29-1021	Dentists, General	0.2788%	205,901
29-1022	Oral and Maxillofacial Surgeons	0.0132%	267,594
29-1031	Dietitians and Nutritionists	0.0559%	91,008
29-1041	Optometrists	0.0877%	149,825
29-1051	Pharmacists	0.0672%	172,006
29-1071	Physician Assistants	0.2308%	171,757
29-1081	Podiatrists	0.0198%	187,375
29-1122	Occupational Therapists	0.1146%	111,320
29-1123	Physical Therapists	0.2906%	130,698

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
29-1124	Radiation Therapists	0.0140%	147,364
29-1125	Recreational Therapists	0.0029%	81,195
29-1126	Respiratory Therapists	0.0224%	99,846
29-1127	Speech-Language Pathologists	0.1125%	122,722
29-1128	Exercise Physiologists	0.0034%	82,254
29-1131	Veterinarians	0.1931%	131,601
29-1141	Registered Nurses	1.4364%	152,027
29-1151	Nurse Anesthetists	0.0756%	255,985
29-1161	Nurse Midwives	0.0155%	176,046
29-1171	Nurse Practitioners	0.3945%	196,462
29-1181	Audiologists	0.0213%	114,020
29-1212	Cardiologists	0.0395%	345,716
29-1214	Emergency Medicine Physicians	0.0685%	236,608
29-1215	Family Medicine Physicians	0.2113%	279,869
29-1216	General Internal Medicine Physicians	0.1012%	264,126
29-1217	Neurologists	0.0116%	254,199
29-1221	Pediatricians, General	0.0682%	225,839
29-1222	Physicians, Pathologists	0.0198%	268,010
29-1223	Psychiatrists	0.0324%	337,699
29-1224	Radiologists	0.0627%	352,175
29-1249	Surgeons, All Other	0.0564%	297,076
29-1291	Acupuncturists	0.0174%	94,768
29-1292	Dental Hygienists	0.5494%	119,607
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	0.0116%	132,525
29-2031	Cardiovascular Technologists and Technicians	0.0253%	87,769
29-2032	Diagnostic Medical Sonographers	0.0817%	118,880
29-2033	Nuclear Medicine Technologists	0.0105%	133,854
29-2034	Radiologic Technologists and Technicians	0.2098%	103,511
29-2035	Magnetic Resonance Imaging Technologists	0.0387%	113,179
29-2036	Medical Dosimetrists	0.0018%	182,941
29-2042	Emergency Medical Technicians	0.0245%	47,373
29-2043	Paramedics	0.0142%	74,217
29-2051	Dietetic Technicians	0.0034%	46,034
29-2052	Pharmacy Technicians	0.0704%	61,828
29-2053	Psychiatric Technicians	0.0556%	77,145
29-2055	Surgical Technologists	0.0754%	86,024
29-2056	Veterinary Technologists and Technicians	0.2980%	47,924
29-2057	Ophthalmic Medical Technicians	0.1613%	54,123
29-2061	Licensed Practical and Licensed Vocational Nurses	0.4003%	79,305
29-2072	Medical Records Specialists	0.2580%	57,384
29-2081	Opticians, Dispensing	0.1086%	55,837
29-2091	Orthotists and Prosthetists	0.0179%	87,935
29-2092	Hearing Aid Specialists	0.0066%	66,148
29-2099	Health Technologists and Technicians, All Other	0.1939%	64,258
29-9021	Health Information Technologists and Medical Registrars	0.0377%	99,191
29-9091	Athletic Trainers	0.0187%	68,890
29-9092	Genetic Counselors	0.0024%	136,866
29-9093	Surgical Assistants	0.0242%	55,961

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
29-9099	Healthcare Practitioners and Technical Workers, All Other	0.0366%	85,671
31-1131	Nursing Assistants	0.2000%	46,177
31-1132	Orderlies	0.0087%	51,759
31-1133	Psychiatric Aides	0.0071%	52,104
31-2011	Occupational Therapy Assistants	0.0559%	84,317
31-2012	Occupational Therapy Aides	0.0034%	50,055
31-2021	Physical Therapist Assistants	0.1354%	82,488
31-2022	Physical Therapist Aides	0.0859%	38,631
31-9011	Massage Therapists	0.0809%	52,720
31-9091	Dental Assistants	0.9051%	55,689
31-9092	Medical Assistants	1.5394%	57,351
31-9093	Medical Equipment Preparers	0.0345%	65,900
31-9094	Medical Transcriptionists	0.1062%	39,237
31-9095	Pharmacy Aides	0.0113%	59,577
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	0.2493%	41,045
31-9097	Phlebotomists	0.1708%	52,752
31-9099	Healthcare Support Workers, All Other	0.0735%	52,992
33-1011	First-Line Supervisors of Correctional Officers	0.0037%	118,892
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	0.0076%	96,703
33-1091	First-Line Supervisors of Security Workers	0.0793%	63,768
33-1099	First-Line Supervisors of Protective Service Workers, All Other	0.0116%	77,356
33-2011	Firefighters	0.0493%	65,754
33-2021	Fire Inspectors and Investigators	0.0011%	96,347
33-3012	Correctional Officers and Jailers	0.0472%	88,341
33-9021	Private Detectives and Investigators	0.0477%	62,608
33-9032	Security Guards	1.9120%	41,286
33-9091	Crossing Guards and Flaggers	0.0917%	51,351
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	0.0040%	38,077
33-9094	School Bus Monitors	0.0003%	37,418
33-9099	Protective Service Workers, All Other	0.0337%	40,073
35-1011	Chefs and Head Cooks	0.0495%	77,586
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	0.1220%	51,215
35-2011	Cooks, Fast Food	0.0047%	38,087
35-2012	Cooks, Institution and Cafeteria	0.1689%	51,487
35-2014	Cooks, Restaurant	0.0740%	44,839
35-2015	Cooks, Short Order	0.0182%	42,435
35-2019	Cooks, All Other	0.0111%	41,547
35-2021	Food Preparation Workers	0.1368%	41,233
35-3011	Bartenders	0.0374%	39,885
35-3023	Fast Food and Counter Workers	0.3307%	37,648
35-3031	Waiters and Waitresses	0.1212%	41,202
35-3041	Food Servers, Nonrestaurant	0.0754%	44,317
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	0.0527%	37,000
35-9021	Dishwashers	0.0704%	38,662
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	0.0140%	38,307
35-9099	Food Preparation and Serving Related Workers, All Other	0.0192%	43,564
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	0.1866%	56,368
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping	0.2113%	73,917
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2.7676%	44,181
37-2012	Maids and Housekeeping Cleaners	0.4274%	42,352

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
37-2019	Building Cleaning Workers, All Other	0.0311%	45,811
37-2021	Pest Control Workers	0.2229%	51,539
37-3011	Landscaping and Groundskeeping Workers	1.5652%	47,118
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	0.0324%	47,003
37-3013	Tree Trimmers and Pruners	0.0951%	66,329
37-3019	Grounds Maintenance Workers, All Other	0.0174%	49,888
39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except C	0.0145%	53,243
39-1022	First-Line Supervisors of Personal Service Workers	0.0140%	53,849
39-2011	Animal Trainers	0.0011%	48,320
39-2021	Animal Caretakers	0.0988%	39,958
39-3021	Motion Picture Projectionists	0.0045%	55,960
39-3031	Ushers, Lobby Attendants, and Ticket Takers	0.0859%	36,990
39-3091	Amusement and Recreation Attendants	0.0082%	37,659
39-3092	Costume Attendants	0.0040%	62,399
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	0.0003%	42,822
39-5012	Hairdressers, Hairstylists, and Cosmetologists	0.0061%	43,355
39-5092	Manicurists and Pedicurists	0.0003%	36,154
39-5094	Skincare Specialists	0.0211%	50,463
39-6011	Baggage Porters and Bellhops	0.0071%	37,074
39-6012	Concierges	0.0340%	43,658
39-9011	Childcare Workers	0.0213%	41,192
39-9031	Exercise Trainers and Group Fitness Instructors	0.0174%	68,252
39-9032	Recreation Workers	0.0158%	38,547
39-9041	Residential Advisors	0.0113%	61,531
39-9099	Personal Care and Service Workers, All Other	0.0034%	39,990
41-1011	First-Line Supervisors of Retail Sales Workers	0.0791%	60,565
41-1012	First-Line Supervisors of Non-Retail Sales Workers	0.2983%	91,122
41-2011	Cashiers	0.1231%	37,787
41-2021	Counter and Rental Clerks	0.3362%	48,173
41-2022	Parts Salespersons	0.0045%	45,659
41-2031	Retail Salespersons	0.2327%	44,263
41-3011	Advertising Sales Agents	0.1881%	76,495
41-3021	Insurance Sales Agents	1.1536%	89,943
41-3031	Securities, Commodities, and Financial Services Sales Agents	1.1347%	81,440
41-3041	Travel Agents	0.0018%	54,359
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financi	1.5297%	85,598
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scier	0.2374%	107,455
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical a	0.2825%	94,153
41-9011	Demonstrators and Product Promoters	0.0350%	46,921
41-9022	Real Estate Sales Agents	0.4150%	95,446
41-9031	Sales Engineers	0.0877%	147,125
41-9041	Telemarketers	0.2617%	40,032
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Work	0.0121%	39,401
41-9099	Sales and Related Workers, All Other	0.1165%	71,302
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1.7926%	74,744
43-2011	Switchboard Operators, Including Answering Service	0.0572%	48,962
43-2021	Telephone Operators	0.0032%	55,077
43-3011	Bill and Account Collectors	0.4329%	58,444
43-3021	Billing and Posting Clerks	0.7539%	57,825

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1.7012%	58,837
43-3051	Payroll and Timekeeping Clerks	0.1800%	62,969
43-3061	Procurement Clerks	0.0285%	51,834
43-3071	Tellers	0.9895%	46,597
43-3099	Financial Clerks, All Other	0.0609%	55,046
43-4011	Brokerage Clerks	0.1049%	56,637
43-4021	Correspondence Clerks	0.0126%	50,470
43-4031	Court, Municipal, and License Clerks	0.0053%	56,978
43-4041	Credit Authorizers, Checkers, and Clerks	0.0306%	49,571
43-4051	Customer Service Representatives	4.0936%	47,454
43-4061	Eligibility Interviewers, Government Programs	0.0063%	68,464
43-4071	File Clerks	0.1178%	47,392
43-4081	Hotel, Motel, and Resort Desk Clerks	0.0256%	40,626
43-4111	Interviewers, Except Eligibility and Loan	0.1565%	55,645
43-4121	Library Assistants, Clerical	0.0200%	48,322
43-4131	Loan Interviewers and Clerks	0.6353%	51,565
43-4141	New Accounts Clerks	0.1059%	50,697
43-4151	Order Clerks	0.0440%	49,375
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	0.1070%	58,414
43-4171	Receptionists and Information Clerks	1.6024%	44,479
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	0.0037%	44,138
43-4199	Information and Record Clerks, All Other	0.0611%	58,197
43-5011	Cargo and Freight Agents	0.0087%	53,776
43-5021	Couriers and Messengers	0.0798%	43,353
43-5031	Public Safety Telecommunicators	0.0024%	63,113
43-5032	Dispatchers, Except Police, Fire, and Ambulance	0.0775%	51,937
43-5041	Meter Readers, Utilities	0.0103%	72,431
43-5061	Production, Planning, and Expediting Clerks	0.3004%	61,450
43-5071	Shipping, Receiving, and Inventory Clerks	0.2920%	52,040
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	0.0179%	46,813
43-6011	Executive Secretaries and Executive Administrative Assistants	0.5626%	84,175
43-6012	Legal Secretaries and Administrative Assistants	0.3578%	62,111
43-6013	Medical Secretaries and Administrative Assistants	1.1850%	54,499
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Ex	1.6730%	53,249
43-9021	Data Entry Keyers	0.2474%	43,715
43-9022	Word Processors and Typists	0.0134%	49,685
43-9031	Desktop Publishers	0.0119%	60,624
43-9041	Insurance Claims and Policy Processing Clerks	0.6266%	50,542
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	0.1238%	42,961
43-9061	Office Clerks, General	2.3189%	50,078
43-9071	Office Machine Operators, Except Computer	0.0548%	46,576
43-9081	Proofreaders and Copy Markers	0.0100%	62,483
43-9111	Statistical Assistants	0.0071%	64,415
43-9199	Office and Administrative Support Workers, All Other	0.1078%	58,166
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	0.0034%	65,514
45-2011	Agricultural Inspectors	0.0032%	55,802
45-2041	Graders and Sorters, Agricultural Products	0.0029%	35,149
45-2091	Agricultural Equipment Operators	0.0024%	47,960
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	0.0282%	41,090
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	0.0032%	44,179

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
45-2099	Agricultural Workers, All Other	0.0018%	48,776
45-4011	Forest and Conservation Workers	0.0005%	34,539
45-4021	Fallers	0.0026%	91,106
45-4022	Logging Equipment Operators	0.0034%	61,350
45-4023	Log Graders and Scalers	0.0008%	53,167
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	0.0535%	97,987
47-2011	Boilermakers	0.0016%	100,993
47-2022	Stonemasons	0.0013%	62,869
47-2031	Carpenters	0.0717%	75,484
47-2041	Carpet Installers	0.0003%	55,141
47-2043	Floor Sanders and Finishers	0.0003%	64,915
47-2044	Tile and Stone Setters	0.0003%	67,787
47-2051	Cement Masons and Concrete Finishers	0.0158%	68,882
47-2061	Construction Laborers	0.1921%	58,127
47-2071	Paving, Surfacing, and Tamping Equipment Operators	0.0016%	71,971
47-2073	Operating Engineers and Other Construction Equipment Operators	0.0300%	85,423
47-2081	Drywall and Ceiling Tile Installers	0.0026%	67,498
47-2111	Electricians	0.0959%	71,909
47-2121	Glaziers	0.0008%	79,028
47-2132	Insulation Workers, Mechanical	0.0003%	96,582
47-2141	Painters, Construction and Maintenance	0.0348%	59,005
47-2142	Paperhangers	0.0029%	52,609
47-2151	Pipelayers	0.0013%	61,732
47-2152	Plumbers, Pipefitters, and Steamfitters	0.0374%	81,022
47-2161	Plasterers and Stucco Masons	0.0003%	63,355
47-2171	Reinforcing Iron and Rebar Workers	0.0008%	62,580
47-2181	Roofers	0.0026%	68,148
47-2211	Sheet Metal Workers	0.0090%	83,347
47-2221	Structural Iron and Steel Workers	0.0058%	71,703
47-2231	Solar Photovoltaic Installers	0.0058%	55,471
47-3012	Helpers--Carpenters	0.0029%	56,742
47-3013	Helpers--Electricians	0.0032%	44,065
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	0.0008%	45,109
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	0.0011%	43,600
47-3019	Helpers, Construction Trades, All Other	0.0034%	46,400
47-4011	Construction and Building Inspectors	0.1331%	110,323
47-4021	Elevator and Escalator Installers and Repairers	0.0003%	120,655
47-4031	Fence Erectors	0.0016%	50,088
47-4041	Hazardous Materials Removal Workers	0.0026%	59,118
47-4051	Highway Maintenance Workers	0.0011%	66,402
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	0.0021%	52,196
47-5012	Rotary Drill Operators, Oil and Gas	0.0005%	80,009
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	0.0013%	75,753
47-5023	Earth Drillers, Except Oil and Gas	0.0040%	65,927
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters	0.0011%	69,688
47-5071	Roustabouts, Oil and Gas	0.0008%	66,433
47-5081	Helpers--Extraction Workers	0.0011%	55,730
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	0.2564%	98,474
49-2011	Computer, Automated Teller, and Office Machine Repairers	0.0366%	54,367
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	0.0129%	70,638

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Inst:	0.3402%	85,406
49-2091	Avionics Technicians	0.0055%	93,862
49-2092	Electric Motor, Power Tool, and Related Repairers	0.0021%	57,942
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipme	0.0003%	80,245
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	0.0285%	77,509
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	0.0026%	108,371
49-2097	Audiovisual Equipment Installers and Repairers	0.0053%	60,533
49-2098	Security and Fire Alarm Systems Installers	0.1320%	65,207
49-3011	Aircraft Mechanics and Service Technicians	0.0190%	79,892
49-3021	Automotive Body and Related Repairers	0.0016%	64,648
49-3022	Automotive Glass Installers and Repairers	0.0003%	49,869
49-3023	Automotive Service Technicians and Mechanics	0.0206%	62,140
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	0.0158%	72,669
49-3041	Farm Equipment Mechanics and Service Technicians	0.0013%	60,139
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	0.0126%	69,052
49-3051	Motorboat Mechanics and Service Technicians	0.0003%	58,865
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	0.0158%	53,507
49-3092	Recreational Vehicle Service Technicians	0.0003%	56,326
49-3093	Tire Repairers and Changers	0.0016%	41,288
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	0.0055%	87,748
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	0.0427%	65,487
49-9031	Home Appliance Repairers	0.0011%	50,543
49-9041	Industrial Machinery Mechanics	0.0656%	72,286
49-9043	Maintenance Workers, Machinery	0.0137%	61,072
49-9044	Millwrights	0.0058%	69,529
49-9051	Electrical Power-Line Installers and Repairers	0.0045%	108,485
49-9052	Telecommunications Line Installers and Repairers	0.1692%	78,193
49-9061	Camera and Photographic Equipment Repairers	0.0005%	44,138
49-9062	Medical Equipment Repairers	0.0148%	69,280
49-9069	Precision Instrument and Equipment Repairers, All Other	0.0026%	71,975
49-9071	Maintenance and Repair Workers, General	1.2622%	57,673
49-9081	Wind Turbine Service Technicians	0.0003%	71,736
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	0.0003%	54,056
49-9092	Commercial Divers	0.0040%	132,207
49-9094	Locksmiths and Safe Repairers	0.0292%	79,229
49-9096	Riggers	0.0032%	89,282
49-9098	Helpers--Installation, Maintenance, and Repair Workers	0.0148%	43,993
49-9099	Installation, Maintenance, and Repair Workers, All Other	0.0833%	51,082
51-1011	First-Line Supervisors of Production and Operating Workers	0.1768%	82,224
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	0.0092%	62,913
51-2021	Coil Winders, Tapers, and Finishers	0.0148%	43,540
51-2031	Engine and Other Machine Assemblers	0.0100%	51,721
51-2041	Structural Metal Fabricators and Fitters	0.0095%	54,753
51-2051	Fiberglass Laminators and Fabricators	0.0005%	47,698
51-3011	Bakers	0.0126%	42,196
51-3021	Butchers and Meat Cutters	0.0003%	44,395
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	0.0003%	36,818
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and T	0.0018%	42,748
51-3092	Food Batchmakers	0.0261%	39,851
51-3093	Food Cooking Machine Operators and Tenders	0.0032%	40,122

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
51-3099	Food Processing Workers, All Other	0.0129%	36,943
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal ar	0.0105%	43,227
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	0.0013%	56,775
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	0.0011%	51,325
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, M	0.0264%	45,999
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal a	0.0018%	51,043
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators,	0.0116%	44,478
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal ar	0.0032%	54,878
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and P	0.0024%	56,921
51-4041	Machinists	0.1181%	58,151
51-4051	Metal-Refining Furnace Operators and Tenders	0.0003%	48,824
51-4061	Model Makers, Metal and Plastic	0.0040%	76,867
51-4071	Foundry Mold and Coremakers	0.0008%	41,404
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tende	0.0503%	44,655
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0659%	44,697
51-4111	Tool and Die Makers	0.0119%	71,552
51-4121	Welders, Cutters, Solderers, and Brazers	0.0767%	59,266
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	0.0111%	52,992
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plas	0.0029%	50,439
51-4192	Layout Workers, Metal and Plastic	0.0008%	60,850
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	0.0095%	46,083
51-4194	Tool Grinders, Filers, and Sharpeners	0.0003%	48,136
51-4199	Metal Workers and Plastic Workers, All Other	0.0182%	45,270
51-5111	Prepress Technicians and Workers	0.0079%	50,887
51-5112	Printing Press Operators	0.0711%	52,450
51-5113	Print Binding and Finishing Workers	0.0119%	44,832
51-6011	Laundry and Dry-Cleaning Workers	0.0327%	39,403
51-6021	Pressers, Textile, Garment, and Related Materials	0.0003%	37,141
51-6031	Sewing Machine Operators	0.0213%	37,673
51-6042	Shoe Machine Operators and Tenders	0.0003%	43,686
51-6052	Tailors, Dressmakers, and Custom Sewers	0.0008%	47,844
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	0.0021%	39,517
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	0.0016%	38,976
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, a	0.0008%	36,683
51-6092	Fabric and Apparel Patternmakers	0.0021%	68,707
51-6093	Upholsterers	0.0026%	44,989
51-6099	Textile, Apparel, and Furnishings Workers, All Other	0.0050%	36,485
51-7011	Cabinetmakers and Bench Carpenters	0.0053%	51,460
51-7021	Furniture Finishers	0.0021%	48,428
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	0.0021%	46,302
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	0.0024%	48,834
51-7099	Woodworkers, All Other	0.0016%	42,560
51-8012	Power Distributors and Dispatchers	0.0029%	119,563
51-8013	Power Plant Operators	0.0013%	107,672
51-8021	Stationary Engineers and Boiler Operators	0.0079%	78,639
51-8031	Water and Wastewater Treatment Plant and System Operators	0.0047%	78,649
51-8091	Chemical Plant and System Operators	0.0008%	93,562
51-8092	Gas Plant Operators	0.0008%	108,986
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	0.0029%	101,117
51-8099	Plant and System Operators, All Other	0.0008%	73,960

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
51-9011	Chemical Equipment Operators and Tenders	0.0050%	54,045
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, O	0.0061%	74,543
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tender	0.0040%	46,052
51-9022	Grinding and Polishing Workers, Hand	0.0090%	51,043
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	0.0187%	54,482
51-9031	Cutters and Trimmers, Hand	0.0013%	37,600
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	0.0090%	47,021
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operator	0.0082%	46,562
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	0.0013%	45,968
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	0.4066%	51,689
51-9071	Jewelers and Precious Stone and Metal Workers	0.0011%	50,970
51-9081	Dental Laboratory Technicians	0.0896%	60,964
51-9082	Medical Appliance Technicians	0.0264%	48,375
51-9083	Ophthalmic Laboratory Technicians	0.0292%	51,148
51-9111	Packaging and Filling Machine Operators and Tenders	0.1186%	48,730
51-9123	Painting, Coating, and Decorating Workers	0.0026%	52,502
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	0.0229%	58,536
51-9141	Semiconductor Processing Technicians	0.0611%	53,826
51-9151	Photographic Process Workers and Processing Machine Operators	0.0069%	47,333
51-9161	Computer Numerically Controlled Tool Operators	0.0514%	52,117
51-9162	Computer Numerically Controlled Tool Programmers	0.0071%	79,629
51-9191	Adhesive Bonding Machine Operators and Tenders	0.0008%	47,625
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	0.0032%	46,927
51-9193	Cooling and Freezing Equipment Operators and Tenders	0.0003%	46,729
51-9194	Etchers and Engravers	0.0016%	43,905
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	0.0063%	49,032
51-9196	Paper Goods Machine Setters, Operators, and Tenders	0.0079%	49,084
51-9197	Tire Builders	0.0011%	46,729
51-9198	Helpers--Production Workers	0.1199%	46,989
51-9199	Production Workers, All Other	0.2348%	49,543
53-2011	Airline Pilots, Copilots, and Flight Engineers	0.0008%	262,343
53-2012	Commercial Pilots	0.0132%	148,128
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicia	0.0011%	39,366
53-3031	Driver/Sales Workers	0.0348%	46,920
53-3032	Heavy and Tractor-Trailer Truck Drivers	0.1689%	60,073
53-3033	Light Truck Drivers	0.1275%	48,398
53-3051	Bus Drivers, School	0.0008%	52,529
53-3052	Bus Drivers, Transit and Intercity	0.0011%	61,863
53-3053	Shuttle Drivers and Chauffeurs	0.0308%	41,842
53-3054	Taxi Drivers	0.0011%	37,617
53-5021	Captains, Mates, and Pilots of Water Vessels	0.0003%	113,029
53-6021	Parking Attendants	0.0190%	37,357
53-6031	Automotive and Watercraft Service Attendants	0.0013%	39,470
53-6041	Traffic Technicians	0.0021%	75,797
53-6051	Transportation Inspectors	0.0042%	75,651
53-6099	Transportation Workers, All Other	0.0040%	49,886
53-7011	Conveyor Operators and Tenders	0.0024%	42,477
53-7021	Crane and Tower Operators	0.0018%	65,276
53-7051	Industrial Truck and Tractor Operators	0.2374%	50,573

Table 2.7: Occupation Mix and Averages for Office Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
53-7061	Cleaners of Vehicles and Equipment	0.0495%	40,094
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1.7557%	43,809
53-7063	Machine Feeders and Offbearers	0.0171%	45,162
53-7064	Packers and Packagers, Hand	0.3939%	36,983
53-7065	Stockers and Order Fillers	0.3323%	42,217
53-7081	Refuse and Recyclable Material Collectors	0.0008%	64,465
53-7121	Tank Car, Truck, and Ship Loaders	0.0003%	58,044
53-7199	Material Moving Workers, All Other	0.0024%	49,761

Sources: CA EDD, Occupational Employment (May 2022) & Wage (2023 - 1st Quarter) Data.

Table 2.8: Occupation Mix and Averages for Industrial Prototype

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
11-1011	Chief Executives	0.2139%	\$ 280,501
11-1021	General and Operations Managers	2.7728%	151,214
11-2011	Advertising and Promotions Managers	0.0361%	183,247
11-2021	Marketing Managers	0.3957%	190,254
11-2022	Sales Managers	0.4401%	147,583
11-2032	Public Relations Managers	0.0571%	160,760
11-2033	Fundraising Managers	0.0062%	137,701
11-3012	Administrative Services Managers	0.2145%	117,406
11-3013	Facilities Managers	0.0718%	108,849
11-3021	Computer and Information Systems Managers	0.7446%	177,434
11-3031	Financial Managers	0.9248%	168,490
11-3051	Industrial Production Managers	0.2281%	153,050
11-3061	Purchasing Managers	0.0734%	130,256
11-3071	Transportation, Storage, and Distribution Managers	0.0664%	114,244
11-3111	Compensation and Benefits Managers	0.0204%	153,305
11-3121	Human Resources Managers	0.2021%	140,159
11-3131	Training and Development Managers	0.0389%	152,988
11-9013	Farmers, Ranchers, and Other Agricultural Managers	0.0014%	118,578
11-9021	Construction Managers	0.5236%	143,065
11-9031	Education and Childcare Administrators, Preschool and Daycare	0.0014%	71,992
11-9032	Education Administrators, Kindergarten through Secondary	0.0012%	132,693
11-9033	Education Administrators, Postsecondary	0.0002%	143,422
11-9039	Education Administrators, All Other	0.0030%	123,260
11-9041	Architectural and Engineering Managers	0.2642%	184,318
11-9051	Food Service Managers	0.0465%	83,363
11-9072	Entertainment and Recreation Managers, Except Gambling	0.0004%	89,003
11-9081	Lodging Managers	0.0042%	89,645
11-9111	Medical and Health Services Managers	0.3304%	138,476
11-9121	Natural Sciences Managers	0.0966%	207,245
11-9141	Property, Real Estate, and Community Association Managers	0.4372%	70,156
11-9151	Social and Community Service Managers	0.0313%	89,584
11-9161	Emergency Management Directors	0.0006%	124,820
11-9179	Personal Service Managers, All Other	0.0004%	75,112
11-9199	Managers, All Other	0.4920%	152,458
13-1031	Claims Adjusters, Examiners, and Investigators	0.4741%	106,973
13-1032	Insurance Appraisers, Auto Damage	0.0253%	76,622
13-1041	Compliance Officers	0.2716%	84,332
13-1051	Cost Estimators	0.3198%	99,079
13-1071	Human Resources Specialists	0.8847%	83,455
13-1075	Labor Relations Specialists	0.0100%	102,781
13-1081	Logisticians	0.1702%	87,320
13-1082	Project Management Specialists	1.1760%	104,117
13-1111	Management Analysts	1.0756%	94,775
13-1121	Meeting, Convention, and Event Planners	0.0676%	64,363
13-1131	Fundraisers	0.0219%	65,036
13-1141	Compensation, Benefits, and Job Analysis Specialists	0.1085%	89,890
13-1151	Training and Development Specialists	0.3160%	73,511
13-1161	Market Research Analysts and Marketing Specialists	1.0196%	84,475
13-1199	Business Operations Specialists, All Other	0.8703%	76,397
13-2011	Accountants and Auditors	1.7903%	95,030
13-2031	Budget Analysts	0.0267%	99,293
13-2041	Credit Analysts	0.1185%	99,915
13-2051	Financial and Investment Analysts	0.3454%	116,172
13-2052	Personal Financial Advisors	0.1395%	142,066
13-2053	Insurance Underwriters	0.2382%	98,956
13-2054	Financial Risk Specialists	0.0820%	126,044
13-2061	Financial Examiners	0.0774%	105,422
13-2071	Credit Counselors	0.0271%	60,794
13-2072	Loan Officers	0.6281%	88,738
13-2082	Tax Preparers	0.1712%	58,336
13-2099	Financial Specialists, All Other	0.1125%	78,468
15-1211	Computer Systems Analysts	0.7726%	113,293
15-1212	Information Security Analysts	0.2731%	142,889
15-1221	Computer and Information Research Scientists	0.0373%	241,135
15-1231	Computer Network Support Specialists	0.2404%	87,114

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
15-1232	Computer User Support Specialists	0.8823%	79,285
15-1241	Computer Network Architects	0.2785%	122,473
15-1242	Database Administrators	0.1111%	104,872
15-1243	Database Architects	0.0848%	158,839
15-1244	Network and Computer Systems Administrators	0.4262%	105,110
15-1251	Computer Programmers	0.2426%	127,375
15-1252	Software Developers	2.3656%	139,867
15-1253	Software Quality Assurance Analysts and Testers	0.3402%	142,982
15-1254	Web Developers	0.1205%	107,042
15-1255	Web and Digital Interface Designers	0.1269%	81,008
15-1299	Computer Occupations, All Other	0.4427%	104,269
15-2011	Actuaries	0.0501%	131,570
15-2021	Mathematicians	0.0004%	131,445
15-2031	Operations Research Analysts	0.1445%	105,630
15-2041	Statisticians	0.0337%	141,445
15-2051	Data Scientists	0.1752%	117,001
15-2099	Mathematical Science Occupations, All Other	0.0036%	107,270
17-1011	Architects, Except Landscape and Naval	0.1947%	115,111
17-1012	Landscape Architects	0.0301%	119,680
17-1021	Cartographers and Photogrammetrists	0.0114%	100,168
17-1022	Surveyors	0.0798%	106,035
17-2011	Aerospace Engineers	0.0517%	145,215
17-2021	Agricultural Engineers	0.0006%	113,324
17-2031	Bioengineers and Biomedical Engineers	0.0245%	127,894
17-2041	Chemical Engineers	0.0235%	122,432
17-2051	Civil Engineers	0.4386%	112,514
17-2061	Computer Hardware Engineers	0.1127%	173,356
17-2071	Electrical Engineers	0.2396%	156,741
17-2072	Electronics Engineers, Except Computer	0.1453%	143,938
17-2081	Environmental Engineers	0.0499%	118,901
17-2111	Health and Safety Engineers, Except Mining Safety Engineers and Inspec	0.0255%	126,928
17-2112	Industrial Engineers	0.3757%	120,407
17-2121	Marine Engineers and Naval Architects	0.0044%	141,186
17-2131	Materials Engineers	0.0219%	118,029
17-2141	Mechanical Engineers	0.3973%	113,678
17-2151	Mining and Geological Engineers, Including Mining Safety Engineers	0.0070%	118,880
17-2161	Nuclear Engineers	0.0066%	160,843
17-2171	Petroleum Engineers	0.0168%	148,559
17-2199	Engineers, All Other	0.1664%	104,550
17-3011	Architectural and Civil Drafters	0.1862%	70,396
17-3012	Electrical and Electronics Drafters	0.0311%	79,918
17-3013	Mechanical Drafters	0.0810%	79,191
17-3019	Drafters, All Other	0.0237%	69,637
17-3021	Aerospace Engineering and Operations Technologists and Technicians	0.0100%	88,693
17-3022	Civil Engineering Technologists and Technicians	0.0634%	81,413
17-3023	Electrical and Electronic Engineering Technologists and Technicians	0.1205%	82,358
17-3024	Electro-Mechanical and Mechatronics Technologists and Technicians	0.0148%	79,721
17-3025	Environmental Engineering Technologists and Technicians	0.0150%	74,612
17-3026	Industrial Engineering Technologists and Technicians	0.0844%	80,084
17-3027	Mechanical Engineering Technologists and Technicians	0.0541%	77,353
17-3028	Calibration Technologists and Technicians	0.0092%	66,906
17-3029	Engineering Technologists and Technicians, Except Drafters, All Other	0.0816%	73,106
19-1011	Animal Scientists	0.0020%	157,988
19-1012	Food Scientists and Technologists	0.0213%	72,909
19-1021	Biochemists and Biophysicists	0.0597%	140,417
19-1022	Microbiologists	0.0271%	109,098
19-1023	Zoologists and Wildlife Biologists	0.0044%	90,541
19-1029	Biological Scientists, All Other	0.0441%	117,603
19-1031	Conservation Scientists	0.0016%	85,442
19-1032	Foresters	0.0016%	75,235
19-1041	Epidemiologists	0.0016%	102,805
19-1042	Medical Scientists, Except Epidemiologists	0.1277%	128,818
19-1099	Life Scientists, All Other	0.0064%	134,322
19-2011	Astronomers	0.0018%	150,957

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
19-2012	Physicists	0.0227%	172,380
19-2021	Atmospheric and Space Scientists	0.0090%	108,527
19-2031	Chemists	0.1075%	80,001
19-2032	Materials Scientists	0.0096%	106,668
19-2041	Environmental Scientists and Specialists, Including Health	0.0656%	104,799
19-2042	Geoscientists, Except Hydrologists and Geographers	0.0291%	102,224
19-2043	Hydrologists	0.0046%	131,362
19-2099	Physical Scientists, All Other	0.0092%	139,036
19-3011	Economists	0.0108%	142,359
19-3022	Survey Researchers	0.0124%	82,244
19-3032	Industrial-Organizational Psychologists	0.0002%	130,085
19-3033	Clinical and Counseling Psychologists	0.0718%	132,068
19-3034	School Psychologists	0.0022%	126,762
19-3039	Psychologists, All Other	0.0048%	120,895
19-3041	Sociologists	0.0026%	112,110
19-3051	Urban and Regional Planners	0.0110%	114,872
19-3091	Anthropologists and Archeologists	0.0084%	78,381
19-3092	Geographers	0.0002%	97,312
19-3093	Historians	0.0014%	101,185
19-3094	Political Scientists	0.0018%	129,638
19-3099	Social Scientists and Related Workers, All Other	0.0110%	94,321
19-4012	Agricultural Technicians	0.0104%	60,219
19-4013	Food Science Technicians	0.0172%	52,680
19-4021	Biological Technicians	0.0812%	61,891
19-4031	Chemical Technicians	0.0708%	50,613
19-4042	Environmental Science and Protection Technicians, Including Health	0.0397%	65,806
19-4043	Geological Technicians, Except Hydrologic Technicians	0.0118%	67,280
19-4044	Hydrologic Technicians	0.0008%	76,169
19-4051	Nuclear Technicians	0.0010%	78,194
19-4061	Social Science Research Assistants	0.0188%	68,142
19-4071	Forest and Conservation Technicians	0.0016%	48,422
19-4092	Forensic Science Technicians	0.0020%	97,229
19-4099	Life, Physical, and Social Science Technicians, All Other	0.0609%	59,814
19-5011	Occupational Health and Safety Specialists	0.0980%	92,431
19-5012	Occupational Health and Safety Technicians	0.0233%	68,163
21-1012	Educational, Guidance, and Career Counselors and Advisors	0.0088%	96,045
21-1013	Marriage and Family Therapists	0.0483%	56,356
21-1015	Rehabilitation Counselors	0.0134%	53,251
21-1019	Counselors, All Other	0.0200%	45,940
21-1021	Child, Family, and School Social Workers	0.0337%	69,378
21-1022	Healthcare Social Workers	0.0786%	92,493
21-1023	Mental Health and Substance Abuse Social Workers	0.0768%	109,057
21-1029	Social Workers, All Other	0.0052%	79,233
21-1091	Health Education Specialists	0.0285%	66,605
21-1092	Probation Officers and Correctional Treatment Specialists	0.0018%	101,040
21-1093	Social and Human Service Assistants	0.0926%	53,542
21-1094	Community Health Workers	0.0383%	82,047
21-1099	Community and Social Service Specialists, All Other	0.0162%	57,592
21-2011	Clergy	0.0016%	72,036
21-2099	Religious Workers, All Other	0.0002%	54,964
23-1011	Lawyers	1.0222%	176,887
23-2011	Paralegals and Legal Assistants	0.5844%	72,317
23-2093	Title Examiners, Abstractors, and Searchers	0.0980%	90,977
23-2099	Legal Support Workers, All Other	0.0355%	68,163
25-1042	Biological Science Teachers, Postsecondary	0.0004%	127,229
25-1052	Chemistry Teachers, Postsecondary	0.0002%	124,394
25-1072	Nursing Instructors and Teachers, Postsecondary	0.0002%	108,153
25-1194	Career/Technical Education Teachers, Postsecondary	0.0010%	101,777
25-2011	Preschool Teachers, Except Special Education	0.0048%	47,519
25-2012	Kindergarten Teachers, Except Special Education	0.0002%	105,412
25-2021	Elementary School Teachers, Except Special Education	0.0008%	95,162
25-2031	Secondary School Teachers, Except Special and Career/Technical Educa	0.0018%	96,367
25-2051	Special Education Teachers, Preschool	0.0016%	78,516
25-2059	Special Education Teachers, All Other	0.0020%	84,716
25-3011	Adult Basic Education, Adult Secondary Education, and English as a Sec	0.0008%	94,882

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
25-3021	Self-Enrichment Teachers	0.0028%	58,100
25-3031	Substitute Teachers, Short-Term	0.0253%	53,012
25-3041	Tutors	0.0036%	43,978
25-3099	Teachers and Instructors, All Other	0.0114%	101,808
25-4011	Archivists	0.0022%	74,518
25-4012	Curators	0.0004%	83,013
25-4022	Librarians and Media Collections Specialists	0.0176%	83,594
25-4031	Library Technicians	0.0104%	62,452
25-9031	Instructional Coordinators	0.0162%	112,099
25-9099	Educational Instruction and Library Workers, All Other	0.0010%	65,079
27-1011	Art Directors	0.0621%	108,485
27-1012	Craft Artists	0.0016%	96,554
27-1013	Fine Artists, Including Painters, Sculptors, and Illustrators	0.0034%	82,628
27-1014	Special Effects Artists and Animators	0.0229%	140,002
27-1019	Artists and Related Workers, All Other	0.0008%	108,371
27-1021	Commercial and Industrial Designers	0.0363%	98,194
27-1022	Fashion Designers	0.0110%	96,678
27-1023	Floral Designers	0.0012%	44,071
27-1024	Graphic Designers	0.2620%	76,855
27-1025	Interior Designers	0.0904%	89,949
27-1026	Merchandise Displayers and Window Trimmers	0.0716%	46,397
27-1027	Set and Exhibit Designers	0.0016%	87,519
27-1029	Designers, All Other	0.0118%	91,860
27-2012	Producers and Directors	0.1191%	156,015
27-2022	Coaches and Scouts	0.0004%	60,520
27-2041	Music Directors and Composers	0.0002%	101,943
27-3031	Public Relations Specialists	0.2101%	96,647
27-3041	Editors	0.1415%	91,538
27-3042	Technical Writers	0.0738%	125,588
27-3043	Writers and Authors	0.0583%	134,311
27-3091	Interpreters and Translators	0.0541%	69,482
27-3092	Court Reporters and Simultaneous Captioners	0.0070%	101,985
27-3099	Media and Communication Workers, All Other	0.0086%	62,836
27-4011	Audio and Video Technicians	0.0257%	73,210
27-4014	Sound Engineering Technicians	0.0042%	92,867
27-4015	Lighting Technicians	0.0004%	96,751
27-4021	Photographers	0.0575%	67,799
27-4031	Camera Operators, Television, Video, and Film	0.0156%	82,701
27-4032	Film and Video Editors	0.0158%	95,879
27-4099	Media and Communication Equipment Workers, All Other	0.0044%	76,065
29-1011	Chiropractors	0.0720%	93,480
29-1021	Dentists, General	0.2111%	205,901
29-1022	Oral and Maxillofacial Surgeons	0.0100%	267,594
29-1031	Dietitians and Nutritionists	0.0423%	91,008
29-1041	Optometrists	0.0664%	149,825
29-1051	Pharmacists	0.0523%	172,006
29-1071	Physician Assistants	0.1748%	171,757
29-1081	Podiatrists	0.0150%	187,375
29-1122	Occupational Therapists	0.0868%	111,320
29-1123	Physical Therapists	0.2201%	130,698
29-1124	Radiation Therapists	0.0106%	147,364
29-1125	Recreational Therapists	0.0022%	81,195
29-1126	Respiratory Therapists	0.0170%	99,846
29-1127	Speech-Language Pathologists	0.0852%	122,722
29-1128	Exercise Physiologists	0.0026%	82,254
29-1131	Veterinarians	0.1463%	131,601
29-1141	Registered Nurses	1.0896%	152,027
29-1151	Nurse Anesthetists	0.0573%	255,985
29-1161	Nurse Midwives	0.0118%	176,046
29-1171	Nurse Practitioners	0.2987%	196,462
29-1181	Audiologists	0.0162%	114,020
29-1212	Cardiologists	0.0299%	345,716
29-1214	Emergency Medicine Physicians	0.0519%	236,608
29-1215	Family Medicine Physicians	0.1600%	279,869

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
29-1216	General Internal Medicine Physicians	0.0766%	264,126
29-1217	Neurologists	0.0088%	254,199
29-1221	Pediatricians, General	0.0517%	225,839
29-1222	Physicians, Pathologists	0.0150%	268,010
29-1223	Psychiatrists	0.0245%	337,699
29-1224	Radiologists	0.0475%	352,175
29-1249	Surgeons, All Other	0.0427%	297,076
29-1291	Acupuncturists	0.0132%	94,768
29-1292	Dental Hygienists	0.4160%	119,607
29-1299	Healthcare Diagnosing or Treating Practitioners, All Other	0.0088%	132,525
29-2031	Cardiovascular Technologists and Technicians	0.0192%	87,769
29-2032	Diagnostic Medical Sonographers	0.0619%	118,880
29-2033	Nuclear Medicine Technologists	0.0080%	133,854
29-2034	Radiologic Technologists and Technicians	0.1588%	103,511
29-2035	Magnetic Resonance Imaging Technologists	0.0293%	113,179
29-2036	Medical Dosimetrists	0.0014%	182,941
29-2042	Emergency Medical Technicians	0.0186%	47,373
29-2043	Paramedics	0.0108%	74,217
29-2051	Dietetic Technicians	0.0026%	46,034
29-2052	Pharmacy Technicians	0.0549%	61,828
29-2053	Psychiatric Technicians	0.0421%	77,145
29-2055	Surgical Technologists	0.0571%	86,024
29-2056	Veterinary Technologists and Technicians	0.2259%	47,924
29-2057	Ophthalmic Medical Technicians	0.1221%	54,123
29-2061	Licensed Practical and Licensed Vocational Nurses	0.3035%	79,305
29-2072	Medical Records Specialists	0.1953%	57,384
29-2081	Opticians, Dispensing	0.0822%	55,837
29-2091	Orthotists and Prosthetists	0.0136%	87,935
29-2092	Hearing Aid Specialists	0.0050%	66,148
29-2099	Health Technologists and Technicians, All Other	0.1468%	64,258
29-9021	Health Information Technologists and Medical Registrars	0.0285%	99,191
29-9091	Athletic Trainers	0.0142%	68,890
29-9092	Genetic Counselors	0.0018%	136,866
29-9093	Surgical Assistants	0.0184%	55,961
29-9099	Healthcare Practitioners and Technical Workers, All Other	0.0277%	85,671
31-1131	Nursing Assistants	0.1514%	46,177
31-1132	Orderlies	0.0066%	51,759
31-1133	Psychiatric Aides	0.0054%	52,104
31-2011	Occupational Therapy Assistants	0.0423%	84,317
31-2012	Occupational Therapy Aides	0.0026%	50,055
31-2021	Physical Therapist Assistants	0.1026%	82,488
31-2022	Physical Therapist Aides	0.0650%	38,631
31-9011	Massage Therapists	0.0613%	52,720
31-9091	Dental Assistants	0.6854%	55,689
31-9092	Medical Assistants	1.1656%	57,351
31-9093	Medical Equipment Preparers	0.0263%	65,900
31-9094	Medical Transcriptionists	0.0804%	39,237
31-9095	Pharmacy Aides	0.0086%	59,577
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	0.1893%	41,045
31-9097	Phlebotomists	0.1293%	52,752
31-9099	Healthcare Support Workers, All Other	0.0557%	52,992
33-1011	First-Line Supervisors of Correctional Officers	0.0028%	118,892
33-1021	First-Line Supervisors of Firefighting and Prevention Workers	0.0058%	96,703
33-1091	First-Line Supervisors of Security Workers	0.0601%	63,768
33-1099	First-Line Supervisors of Protective Service Workers, All Other	0.0092%	77,356
33-2011	Firefighters	0.0373%	65,754
33-2021	Fire Inspectors and Investigators	0.0010%	96,347
33-3012	Correctional Officers and Jailers	0.0357%	88,341
33-9021	Private Detectives and Investigators	0.0359%	62,608
33-9032	Security Guards	1.4575%	41,286
33-9091	Crossing Guards and Flaggers	0.0776%	51,351
33-9092	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	0.0030%	38,077
33-9094	School Bus Monitors	0.0002%	37,418
33-9099	Protective Service Workers, All Other	0.0257%	40,073

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
35-1011	Chefs and Head Cooks	0.0405%	77,586
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	0.1018%	51,215
35-2011	Cooks, Fast Food	0.0036%	38,087
35-2012	Cooks, Institution and Cafeteria	0.1283%	51,487
35-2014	Cooks, Restaurant	0.0706%	44,839
35-2015	Cooks, Short Order	0.0154%	42,435
35-2019	Cooks, All Other	0.0094%	41,547
35-2021	Food Preparation Workers	0.1299%	41,233
35-3011	Bartenders	0.0802%	39,885
35-3023	Fast Food and Counter Workers	0.2658%	37,648
35-3031	Waiters and Waitresses	0.1189%	41,202
35-3041	Food Servers, Nonrestaurant	0.0573%	44,317
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	0.0427%	37,000
35-9021	Dishwashers	0.0613%	38,662
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	0.0140%	38,307
35-9099	Food Preparation and Serving Related Workers, All Other	0.0148%	43,564
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	0.1443%	56,368
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping	0.1636%	73,917
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2.2237%	44,181
37-2012	Maids and Housekeeping Cleaners	0.3244%	42,352
37-2019	Building Cleaning Workers, All Other	0.0249%	45,811
37-2021	Pest Control Workers	0.1688%	51,539
37-3011	Landscaping and Groundskeeping Workers	1.2211%	47,118
37-3012	Pesticide Handlers, Sprayers, and Applicators, Vegetation	0.0245%	47,003
37-3013	Tree Trimmers and Pruners	0.0738%	66,329
37-3019	Grounds Maintenance Workers, All Other	0.0132%	49,888
39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except C	0.0016%	53,243
39-1022	First-Line Supervisors of Personal Service Workers	0.0058%	53,849
39-2011	Animal Trainers	0.0008%	48,320
39-2021	Animal Caretakers	0.0750%	39,958
39-3031	Ushers, Lobby Attendants, and Ticket Takers	0.0126%	36,990
39-3091	Amusement and Recreation Attendants	0.0064%	37,659
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	0.0002%	42,822
39-5012	Hairdressers, Hairstylists, and Cosmetologists	0.0028%	43,355
39-5091	Makeup Artists, Theatrical and Performance	0.0002%	106,726
39-5092	Manicurists and Pedicurists	0.0002%	36,154
39-5094	Skincare Specialists	0.0160%	50,463
39-6011	Baggage Porters and Bellhops	0.0054%	37,074
39-6012	Concierges	0.0257%	43,658
39-9011	Childcare Workers	0.0162%	41,192
39-9031	Exercise Trainers and Group Fitness Instructors	0.0132%	68,252
39-9032	Recreation Workers	0.0120%	38,547
39-9041	Residential Advisors	0.0086%	61,531
39-9099	Personal Care and Service Workers, All Other	0.0024%	39,990
41-1011	First-Line Supervisors of Retail Sales Workers	0.0686%	60,565
41-1012	First-Line Supervisors of Non-Retail Sales Workers	0.2422%	91,122
41-2011	Cashiers	0.1297%	37,787
41-2021	Counter and Rental Clerks	0.2570%	48,173
41-2022	Parts Salespersons	0.0064%	45,659
41-2031	Retail Salespersons	0.2536%	44,263
41-3011	Advertising Sales Agents	0.1810%	76,495
41-3021	Insurance Sales Agents	0.8707%	89,943
41-3031	Securities, Commodities, and Financial Services Sales Agents	0.5519%	81,440
41-3041	Travel Agents	0.0014%	54,359
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Financi	1.3691%	85,598
41-4011	Sales Representatives, Wholesale and Manufacturing, Technical and Scie	0.1820%	107,455
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical a	0.5325%	94,153
41-9011	Demonstrators and Product Promoters	0.0491%	46,921
41-9022	Real Estate Sales Agents	0.3360%	95,446
41-9031	Sales Engineers	0.0716%	147,125
41-9041	Telemarketers	0.2011%	40,032
41-9091	Door-to-Door Sales Workers, News and Street Vendors, and Related Wor	0.0114%	39,401
41-9099	Sales and Related Workers, All Other	0.0936%	71,302
43-1011	First-Line Supervisors of Office and Administrative Support Workers	1.4831%	74,744
43-2011	Switchboard Operators, Including Answering Service	0.0439%	48,962

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
43-2021	Telephone Operators	0.0024%	55,077
43-3011	Bill and Account Collectors	0.3328%	58,444
43-3021	Billing and Posting Clerks	0.6018%	57,825
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1.6187%	58,837
43-3051	Payroll and Timekeeping Clerks	0.1698%	62,969
43-3061	Procurement Clerks	0.0343%	51,834
43-3071	Tellers	0.7414%	46,597
43-3099	Financial Clerks, All Other	0.0437%	55,046
43-4011	Brokerage Clerks	0.0249%	56,637
43-4021	Correspondence Clerks	0.0094%	50,470
43-4031	Court, Municipal, and License Clerks	0.0040%	56,978
43-4041	Credit Authorizers, Checkers, and Clerks	0.0233%	49,571
43-4051	Customer Service Representatives	3.2205%	47,454
43-4061	Eligibility Interviewers, Government Programs	0.0048%	68,464
43-4071	File Clerks	0.0938%	47,392
43-4081	Hotel, Motel, and Resort Desk Clerks	0.0194%	40,626
43-4111	Interviewers, Except Eligibility and Loan	0.1185%	55,645
43-4121	Library Assistants, Clerical	0.0152%	48,322
43-4131	Loan Interviewers and Clerks	0.4775%	51,565
43-4141	New Accounts Clerks	0.0792%	50,697
43-4151	Order Clerks	0.0513%	49,375
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	0.0912%	58,414
43-4171	Receptionists and Information Clerks	1.2590%	44,479
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	0.0028%	44,138
43-4199	Information and Record Clerks, All Other	0.0483%	58,197
43-5011	Cargo and Freight Agents	0.0066%	53,776
43-5021	Couriers and Messengers	0.0617%	43,353
43-5031	Public Safety Telecommunicators	0.0018%	63,113
43-5032	Dispatchers, Except Police, Fire, and Ambulance	0.1059%	51,937
43-5041	Meter Readers, Utilities	0.0110%	72,431
43-5061	Production, Planning, and Expediting Clerks	0.3575%	61,450
43-5071	Shipping, Receiving, and Inventory Clerks	0.4725%	52,040
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	0.0301%	46,813
43-6011	Executive Secretaries and Executive Administrative Assistants	0.4194%	84,175
43-6012	Legal Secretaries and Administrative Assistants	0.2702%	62,111
43-6013	Medical Secretaries and Administrative Assistants	0.8973%	54,499
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Ex	1.5407%	53,249
43-9021	Data Entry Keyers	0.1951%	43,715
43-9022	Word Processors and Typists	0.0102%	49,685
43-9031	Desktop Publishers	0.0090%	60,624
43-9041	Insurance Claims and Policy Processing Clerks	0.4741%	50,542
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	0.0934%	42,961
43-9061	Office Clerks, General	2.3953%	50,078
43-9071	Office Machine Operators, Except Computer	0.0415%	46,576
43-9081	Proofreaders and Copy Markers	0.0076%	62,483
43-9111	Statistical Assistants	0.0050%	64,415
43-9199	Office and Administrative Support Workers, All Other	0.0864%	58,166
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	0.0054%	65,514
45-2011	Agricultural Inspectors	0.0046%	55,802
45-2041	Graders and Sorters, Agricultural Products	0.0204%	35,149
45-2091	Agricultural Equipment Operators	0.0022%	47,960
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	0.0375%	41,090
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	0.0082%	44,179
45-2099	Agricultural Workers, All Other	0.0018%	48,776
45-4011	Forest and Conservation Workers	0.0004%	34,539
45-4021	Fallers	0.0024%	91,106
45-4022	Logging Equipment Operators	0.0110%	61,350
45-4023	Log Graders and Scalers	0.0062%	53,167
45-4029	Logging Workers, All Other	0.0002%	51,339
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	1.0918%	97,987
47-2011	Boilermakers	0.0208%	100,993
47-2021	Brickmasons and Blockmasons	0.1044%	70,318
47-2022	Stonemasons	0.0170%	62,869
47-2031	Carpenters	1.2594%	75,484
47-2041	Carpet Installers	0.0204%	55,141
47-2042	Floor Layers, Except Carpet, Wood, and Hard Tiles	0.0293%	60,937

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
47-2043	Floor Sanders and Finishers	0.0080%	64,915
47-2044	Tile and Stone Setters	0.0720%	67,787
47-2051	Cement Masons and Concrete Finishers	0.3607%	68,882
47-2053	Terrazzo Workers and Finishers	0.0050%	62,972
47-2061	Construction Laborers	1.8131%	58,127
47-2071	Paving, Surfacing, and Tamping Equipment Operators	0.0700%	71,971
47-2072	Pile Driver Operators	0.0070%	99,495
47-2073	Operating Engineers and Other Construction Equipment Operators	0.5493%	85,423
47-2081	Drywall and Ceiling Tile Installers	0.1953%	67,498
47-2082	Tapers	0.0289%	63,613
47-2111	Electricians	1.1301%	71,909
47-2121	Glaziers	0.0868%	79,028
47-2131	Insulation Workers, Floor, Ceiling, and Wall	0.0577%	63,499
47-2132	Insulation Workers, Mechanical	0.0523%	96,582
47-2141	Painters, Construction and Maintenance	0.3763%	59,005
47-2142	Paperhangers	0.0040%	52,609
47-2151	Pipelayers	0.0499%	61,732
47-2152	Plumbers, Pipefitters, and Steamfitters	0.7448%	81,022
47-2161	Plasterers and Stucco Masons	0.0491%	63,355
47-2171	Reinforcing Iron and Rebar Workers	0.0299%	62,580
47-2181	Roofers	0.2582%	68,148
47-2211	Sheet Metal Workers	0.2127%	83,347
47-2221	Structural Iron and Steel Workers	0.1295%	71,703
47-2231	Solar Photovoltaic Installers	0.0273%	55,471
47-3011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble	0.0355%	48,373
47-3012	Helpers--Carpenters	0.0539%	56,742
47-3013	Helpers--Electricians	0.1365%	44,065
47-3014	Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	0.0148%	45,109
47-3015	Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	0.0894%	43,600
47-3016	Helpers--Roofers	0.0130%	47,681
47-3019	Helpers, Construction Trades, All Other	0.0483%	46,400
47-4011	Construction and Building Inspectors	0.1167%	110,323
47-4021	Elevator and Escalator Installers and Repairers	0.0411%	120,655
47-4031	Fence Erectors	0.0457%	50,088
47-4041	Hazardous Materials Removal Workers	0.0108%	59,118
47-4051	Highway Maintenance Workers	0.0118%	66,402
47-4061	Rail-Track Laying and Maintenance Equipment Operators	0.0048%	74,430
47-4071	Septic Tank Servicers and Sewer Pipe Cleaners	0.0092%	52,196
47-5012	Rotary Drill Operators, Oil and Gas	0.0006%	80,009
47-5013	Service Unit Operators, Oil and Gas	0.0012%	63,427
47-5022	Excavating and Loading Machine and Dragline Operators, Surface Mining	0.0293%	75,753
47-5023	Earth Drillers, Except Oil and Gas	0.0217%	65,927
47-5032	Explosives Workers, Ordnance Handling Experts, and Blasters	0.0024%	69,688
47-5041	Continuous Mining Machine Operators	0.0004%	70,959
47-5044	Loading and Moving Machine Operators, Underground Mining	0.0002%	55,192
47-5051	Rock Splitters, Quarry	0.0028%	59,563
47-5071	Roustabouts, Oil and Gas	0.0054%	66,433
47-5081	Helpers--Extraction Workers	0.0048%	55,730
47-5099	Extraction Workers, All Other	0.0012%	55,141
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	0.3699%	98,474
49-2011	Computer, Automated Teller, and Office Machine Repairers	0.0289%	54,367
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairers	0.0136%	70,638
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Inst	0.3125%	85,406
49-2091	Avionics Technicians	0.0042%	93,862
49-2092	Electric Motor, Power Tool, and Related Repairers	0.0022%	57,942
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipm	0.0008%	80,245
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipmen	0.0321%	77,509
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	0.0042%	108,371
49-2097	Audiovisual Equipment Installers and Repairers	0.0182%	60,533
49-2098	Security and Fire Alarm Systems Installers	0.1415%	65,207
49-3011	Aircraft Mechanics and Service Technicians	0.0146%	79,892
49-3021	Automotive Body and Related Repairers	0.0014%	64,648
49-3022	Automotive Glass Installers and Repairers	0.0012%	49,869
49-3023	Automotive Service Technicians and Mechanics	0.0265%	62,140
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	0.0660%	72,669
49-3041	Farm Equipment Mechanics and Service Technicians	0.0032%	60,139

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	0.0902%	69,052
49-3051	Motorboat Mechanics and Service Technicians	0.0002%	58,865
49-3052	Motorcycle Mechanics	0.0002%	54,730
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	0.0124%	53,507
49-3092	Recreational Vehicle Service Technicians	0.0002%	56,326
49-3093	Tire Repairers and Changers	0.0018%	41,288
49-9011	Mechanical Door Repairers	0.0347%	55,984
49-9012	Control and Valve Installers and Repairers, Except Mechanical Door	0.0128%	87,748
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	0.5906%	65,487
49-9031	Home Appliance Repairers	0.0044%	50,543
49-9041	Industrial Machinery Mechanics	0.2825%	72,286
49-9043	Maintenance Workers, Machinery	0.0525%	61,072
49-9044	Millwrights	0.0553%	69,529
49-9051	Electrical Power-Line Installers and Repairers	0.0914%	108,485
49-9052	Telecommunications Line Installers and Repairers	0.1917%	78,193
49-9061	Camera and Photographic Equipment Repairers	0.0004%	44,138
49-9062	Medical Equipment Repairers	0.0112%	69,280
49-9063	Musical Instrument Repairers and Tuners	0.0012%	49,413
49-9069	Precision Instrument and Equipment Repairers, All Other	0.0026%	71,975
49-9071	Maintenance and Repair Workers, General	1.2434%	57,673
49-9081	Wind Turbine Service Technicians	0.0050%	71,736
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	0.0052%	54,056
49-9092	Commercial Divers	0.0046%	132,207
49-9094	Locksmiths and Safe Repairers	0.0223%	79,229
49-9096	Riggers	0.0148%	89,282
49-9098	Helpers--Installation, Maintenance, and Repair Workers	0.0808%	43,993
49-9099	Installation, Maintenance, and Repair Workers, All Other	0.1361%	51,082
51-1011	First-Line Supervisors of Production and Operating Workers	0.6692%	82,224
51-2011	Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	0.0070%	62,913
51-2021	Coil Winders, Tapers, and Finishers	0.0100%	43,540
51-2031	Engine and Other Machine Assemblers	0.0672%	51,721
51-2041	Structural Metal Fabricators and Fitters	0.0922%	54,753
51-2051	Fiberglass Laminators and Fabricators	0.0054%	47,698
51-3011	Bakers	0.1419%	42,196
51-3021	Butchers and Meat Cutters	0.0231%	44,395
51-3022	Meat, Poultry, and Fish Cutters and Trimmers	0.1943%	36,818
51-3023	Slaughterers and Meat Packers	0.1590%	35,599
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	0.0261%	42,748
51-3092	Food Batchmakers	0.2326%	39,851
51-3093	Food Cooking Machine Operators and Tenders	0.0395%	40,122
51-3099	Food Processing Workers, All Other	0.0571%	36,943
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	0.0295%	43,227
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	0.0154%	56,775
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	0.0174%	51,325
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	0.2512%	45,999
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0096%	51,043
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0798%	44,478
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.0299%	54,878
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	0.0146%	56,921
51-4041	Machinists	0.4852%	58,151
51-4051	Metal-Refining Furnace Operators and Tenders	0.0038%	48,824
51-4052	Pourers and Casters, Metal	0.0012%	40,247
51-4061	Model Makers, Metal and Plastic	0.0054%	76,867
51-4062	Patternmakers, Metal and Plastic	0.0012%	68,551
51-4071	Foundry Mold and Coremakers	0.0050%	41,404
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	0.1057%	44,655
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0.1752%	44,697
51-4111	Tool and Die Makers	0.0936%	71,552
51-4121	Welders, Cutters, Solderers, and Brazers	0.5487%	59,266
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	0.0447%	52,992
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	0.0108%	50,439
51-4192	Layout Workers, Metal and Plastic	0.0028%	60,850
51-4193	Plating Machine Setters, Operators, and Tenders, Metal and Plastic	0.0186%	46,083
51-4194	Tool Grinders, Filers, and Sharpeners	0.0068%	48,136
51-4199	Metal Workers and Plastic Workers, All Other	0.0231%	45,270
51-5111	Prepress Technicians and Workers	0.0058%	50,887

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
51-5112	Printing Press Operators	0.0652%	52,450
51-5113	Print Binding and Finishing Workers	0.0090%	44,832
51-6011	Laundry and Dry-Cleaning Workers	0.0251%	39,403
51-6021	Pressers, Textile, Garment, and Related Materials	0.0006%	37,141
51-6031	Sewing Machine Operators	0.1040%	37,673
51-6042	Shoe Machine Operators and Tenders	0.0002%	43,686
51-6051	Sewers, Hand	0.0010%	35,443
51-6052	Tailors, Dressmakers, and Custom Sewers	0.0018%	47,844
51-6061	Textile Bleaching and Dyeing Machine Operators and Tenders	0.0118%	36,964
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	0.0142%	39,517
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	0.0289%	38,976
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	0.0429%	36,683
51-6091	Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic	0.0164%	52,992
51-6092	Fabric and Apparel Patternmakers	0.0020%	68,707
51-6093	Upholsterers	0.0355%	44,989
51-6099	Textile, Apparel, and Furnishings Workers, All Other	0.0138%	36,485
51-7011	Cabinetmakers and Bench Carpenters	0.1730%	51,460
51-7021	Furniture Finishers	0.0243%	48,428
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	0.0798%	46,302
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	0.1263%	48,834
51-7099	Woodworkers, All Other	0.0116%	42,560
51-8012	Power Distributors and Dispatchers	0.0022%	119,563
51-8013	Power Plant Operators	0.0012%	107,672
51-8021	Stationary Engineers and Boiler Operators	0.0122%	78,639
51-8031	Water and Wastewater Treatment Plant and System Operators	0.0385%	78,649
51-8091	Chemical Plant and System Operators	0.0072%	93,562
51-8092	Gas Plant Operators	0.0006%	108,986
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	0.0022%	101,117
51-8099	Plant and System Operators, All Other	0.0054%	73,960
51-9011	Chemical Equipment Operators and Tenders	0.0874%	54,045
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	0.0684%	74,543
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	0.0275%	46,052
51-9022	Grinding and Polishing Workers, Hand	0.0215%	51,043
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	0.1213%	54,482
51-9031	Cutters and Trimmers, Hand	0.0060%	37,600
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	0.0577%	47,021
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	0.0477%	46,562
51-9051	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	0.0190%	45,968
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	0.6680%	51,689
51-9071	Jewelers and Precious Stone and Metal Workers	0.0126%	50,970
51-9081	Dental Laboratory Technicians	0.0678%	60,964
51-9082	Medical Appliance Technicians	0.0200%	48,375
51-9083	Ophthalmic Laboratory Technicians	0.0273%	51,148
51-9111	Packaging and Filling Machine Operators and Tenders	0.5487%	48,730
51-9123	Painting, Coating, and Decorating Workers	0.0130%	52,502
51-9124	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	0.1193%	58,536
51-9141	Semiconductor Processing Technicians	0.0467%	53,826
51-9151	Photographic Process Workers and Processing Machine Operators	0.0052%	47,333
51-9161	Computer Numerically Controlled Tool Operators	0.2416%	52,117
51-9162	Computer Numerically Controlled Tool Programmers	0.0387%	79,629
51-9191	Adhesive Bonding Machine Operators and Tenders	0.0068%	47,625
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	0.0168%	46,927
51-9193	Cooling and Freezing Equipment Operators and Tenders	0.0122%	46,729
51-9194	Etchers and Engravers	0.0046%	43,905
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	0.0621%	49,032
51-9196	Paper Goods Machine Setters, Operators, and Tenders	0.0088%	49,084
51-9197	Tire Builders	0.0008%	46,729
51-9198	Helpers--Production Workers	0.2650%	46,989
51-9199	Production Workers, All Other	0.2700%	49,543
53-2011	Airline Pilots, Copilots, and Flight Engineers	0.0006%	262,343
53-2012	Commercial Pilots	0.0104%	148,128
53-3011	Ambulance Drivers and Attendants, Except Emergency Medical Technicians	0.0008%	39,366
53-3031	Driver/Sales Workers	0.0595%	46,920
53-3032	Heavy and Tractor-Trailer Truck Drivers	0.6862%	60,073
53-3033	Light Truck Drivers	0.1872%	48,398
53-3051	Bus Drivers, School	0.0006%	52,529

Table 2.8: Occupation Mix and Averages for Industrial Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
53-3052	Bus Drivers, Transit and Intercity	0.0008%	61,863
53-3053	Shuttle Drivers and Chauffeurs	0.0225%	41,842
53-3054	Taxi Drivers	0.0008%	37,617
53-5011	Sailors and Marine Oilers	0.0022%	64,610
53-5021	Captains, Mates, and Pilots of Water Vessels	0.0028%	113,029
53-5022	Motorboat Operators	0.0010%	65,724
53-5031	Ship Engineers	0.0004%	164,861
53-6011	Bridge and Lock Tenders	0.0002%	62,092
53-6021	Parking Attendants	0.0134%	37,357
53-6031	Automotive and Watercraft Service Attendants	0.0012%	39,470
53-6041	Traffic Technicians	0.0018%	75,797
53-6051	Transportation Inspectors	0.0032%	75,651
53-6099	Transportation Workers, All Other	0.0030%	49,886
53-7011	Conveyor Operators and Tenders	0.0088%	42,477
53-7021	Crane and Tower Operators	0.0439%	65,276
53-7031	Dredge Operators	0.0018%	71,770
53-7041	Hoist and Winch Operators	0.0006%	51,468
53-7051	Industrial Truck and Tractor Operators	0.4206%	50,573
53-7061	Cleaners of Vehicles and Equipment	0.0896%	40,094
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1.9198%	43,809
53-7063	Machine Feeders and Offbearers	0.0549%	45,162
53-7064	Packers and Packagers, Hand	0.4733%	36,983
53-7065	Stockers and Order Fillers	0.3575%	42,217
53-7072	Pump Operators, Except Wellhead Pumpers	0.0046%	58,408
53-7081	Refuse and Recyclable Material Collectors	0.1279%	64,465
53-7121	Tank Car, Truck, and Ship Loaders	0.0014%	58,044
53-7199	Material Moving Workers, All Other	0.0080%	49,761

Sources: CA EDD, Occupational Employment (May 2022) & Wage (2023 - 1st Quarter) Data.

Table 2.9: Occupation Mix and Averages for Hotel Prototype

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
11-1011	Chief Executives	0.041096%	\$ 280,501
11-1021	General and Operations Managers	1.917808%	151,214
11-2011	Advertising and Promotions Managers	0.006849%	183,247
11-2021	Marketing Managers	0.102740%	190,254
11-2022	Sales Managers	0.493151%	147,583
11-2032	Public Relations Managers	0.013699%	160,760
11-3012	Administrative Services Managers	0.089041%	117,406
11-3013	Facilities Managers	0.321918%	108,849
11-3021	Computer and Information Systems Managers	0.041096%	177,434
11-3031	Financial Managers	0.328767%	168,490
11-3061	Purchasing Managers	0.020548%	130,256
11-3071	Transportation, Storage, and Distribution Managers	0.006849%	114,244
11-3111	Compensation and Benefits Managers	0.006849%	153,305
11-3121	Human Resources Managers	0.136986%	140,159
11-3131	Training and Development Managers	0.006849%	152,988
11-9021	Construction Managers	0.006849%	143,065
11-9051	Food Service Managers	0.404110%	83,363
11-9071	Gambling Managers	0.061644%	110,838
11-9072	Entertainment and Recreation Managers, Except Gambling	0.068493%	89,003
11-9081	Lodging Managers	2.424658%	89,645
11-9141	Property, Real Estate, and Community Association Managers	0.082192%	70,156
11-9151	Social and Community Service Managers	0.006849%	89,584
11-9179	Personal Service Managers, All Other	0.020548%	75,112
11-9199	Managers, All Other	0.178082%	152,458
13-1041	Compliance Officers	0.020548%	84,332
13-1071	Human Resources Specialists	0.376712%	83,455
13-1082	Project Management Specialists	0.034247%	104,117
13-1111	Management Analysts	0.027397%	94,775
13-1121	Meeting, Convention, and Event Planners	0.383562%	64,363
13-1131	Fundraisers	0.027397%	65,036
13-1141	Compensation, Benefits, and Job Analysis Specialists	0.013699%	89,890
13-1151	Training and Development Specialists	0.041096%	73,511
13-1161	Market Research Analysts and Marketing Specialists	0.246575%	84,475
13-1199	Business Operations Specialists, All Other	0.253425%	76,397
13-2011	Accountants and Auditors	0.602740%	95,030
13-2031	Budget Analysts	0.041096%	99,293
13-2041	Credit Analysts	0.006849%	99,915
13-2051	Financial and Investment Analysts	0.027397%	116,172
13-2099	Financial Specialists, All Other	0.006849%	78,468
15-1211	Computer Systems Analysts	0.047945%	113,293
15-1212	Information Security Analysts	0.006849%	142,889
15-1231	Computer Network Support Specialists	0.013699%	87,114
15-1232	Computer User Support Specialists	0.075342%	79,285
15-1242	Database Administrators	0.006849%	104,872
15-1244	Network and Computer Systems Administrators	0.047945%	105,110
15-1252	Software Developers	0.006849%	139,867
15-1254	Web Developers	0.006849%	107,042
15-1299	Computer Occupations, All Other	0.020548%	104,269
17-2051	Civil Engineers	0.013699%	112,514

Table 2.9: Occupation Mix and Averages for Hotel Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
17-2199	Engineers, All Other	0.006849%	104,550
19-5011	Occupational Health and Safety Specialists	0.006849%	92,431
25-3021	Self-Enrichment Teachers	0.061644%	58,100
25-9031	Instructional Coordinators	0.006849%	112,099
27-1023	Floral Designers	0.006849%	44,071
27-1024	Graphic Designers	0.020548%	76,855
27-1025	Interior Designers	0.006849%	89,949
27-2012	Producers and Directors	0.013699%	156,015
27-2022	Coaches and Scouts	0.054795%	60,520
27-3031	Public Relations Specialists	0.054795%	96,647
27-4011	Audio and Video Technicians	0.041096%	73,210
27-4015	Lighting Technicians	0.041096%	96,751
29-1141	Registered Nurses	0.006849%	152,027
29-2042	Emergency Medical Technicians	0.013699%	47,373
31-9011	Massage Therapists	0.335616%	52,720
33-1091	First-Line Supervisors of Security Workers	0.226027%	63,768
33-1099	First-Line Supervisors of Protective Service Workers, All Other	0.041096%	77,356
33-9031	Gambling Surveillance Officers and Gambling Investigators	0.102740%	39,195
33-9032	Security Guards	1.965753%	41,286
35-1011	Chefs and Head Cooks	0.698630%	77,586
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	1.191781%	51,215
35-2011	Cooks, Fast Food	0.027397%	38,087
35-2012	Cooks, Institution and Cafeteria	0.246575%	51,487
35-2014	Cooks, Restaurant	2.986301%	44,839
35-2015	Cooks, Short Order	0.130137%	42,435
35-2019	Cooks, All Other	0.061644%	41,547
35-2021	Food Preparation Workers	0.602740%	41,233
35-3011	Bartenders	1.821918%	39,885
35-3023	Fast Food and Counter Workers	0.767123%	37,648
35-3031	Waiters and Waitresses	4.890411%	41,202
35-3041	Food Servers, Nonrestaurant	0.856164%	44,317
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	1.993151%	37,000
35-9021	Dishwashers	0.863014%	38,662
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	0.773973%	38,307
35-9099	Food Preparation and Serving Related Workers, All Other	0.232877%	43,564
37-1011	First-Line Supervisors of Housekeeping and Janitorial Workers	2.136986%	56,368
37-1012	First-Line Supervisors of Landscaping, Lawn Service, and Groundskeepir	0.102740%	73,917
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2.363014%	44,181
37-2012	Maids and Housekeeping Cleaners	22.856164%	42,352
37-2019	Building Cleaning Workers, All Other	0.054795%	45,811
37-3011	Landscaping and Groundskeeping Workers	0.993151%	47,118
37-3019	Grounds Maintenance Workers, All Other	0.047945%	49,888
39-1013	First-Line Supervisors of Gambling Services Workers	0.513699%	64,134
39-1014	First-Line Supervisors of Entertainment and Recreation Workers, Except	0.150685%	53,243
39-1022	First-Line Supervisors of Personal Service Workers	0.136986%	53,849
39-2021	Animal Caretakers	0.034247%	39,958
39-3011	Gambling Dealers	1.904110%	38,694
39-3012	Gambling and Sports Book Writers and Runners	0.041096%	37,481
39-3019	Gambling Service Workers, All Other	0.157534%	43,355
39-3031	Ushers, Lobby Attendants, and Ticket Takers	0.089041%	36,990

Table 2.9: Occupation Mix and Averages for Hotel Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
39-3091	Amusement and Recreation Attendants	0.671233%	37,659
39-3092	Costume Attendants	0.006849%	62,399
39-3093	Locker Room, Coatroom, and Dressing Room Attendants	0.102740%	42,822
39-3099	Entertainment Attendants and Related Workers, All Other	0.027397%	39,174
39-5012	Hairdressers, Hairstylists, and Cosmetologists	0.041096%	43,355
39-5092	Manicurists and Pedicurists	0.054795%	36,154
39-5094	Skincare Specialists	0.089041%	50,463
39-6011	Baggage Porters and Bellhops	0.753425%	37,074
39-6012	Concierges	0.404110%	43,658
39-9011	Childcare Workers	0.034247%	41,192
39-9031	Exercise Trainers and Group Fitness Instructors	0.075342%	68,252
39-9032	Recreation Workers	0.582192%	38,547
39-9041	Residential Advisors	0.068493%	61,531
39-9099	Personal Care and Service Workers, All Other	0.130137%	39,990
41-1011	First-Line Supervisors of Retail Sales Workers	0.130137%	60,565
41-1012	First-Line Supervisors of Non-Retail Sales Workers	0.095890%	91,122
41-2011	Cashiers	0.582192%	37,787
41-2012	Gambling Change Persons and Booth Cashiers	0.178082%	36,236
41-2021	Counter and Rental Clerks	0.102740%	48,173
41-2031	Retail Salespersons	0.315068%	44,263
41-3011	Advertising Sales Agents	0.006849%	76,495
41-3041	Travel Agents	0.013699%	54,359
41-3091	Sales Representatives of Services, Except Advertising, Insurance, Finan	1.205479%	85,598
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical	0.027397%	94,153
41-9022	Real Estate Sales Agents	0.006849%	95,446
41-9041	Telemarketers	0.041096%	40,032
41-9099	Sales and Related Workers, All Other	0.047945%	71,302
43-1011	First-Line Supervisors of Office and Administrative Support Workers	2.287671%	74,744
43-2011	Switchboard Operators, Including Answering Service	0.116438%	48,962
43-2021	Telephone Operators	0.034247%	55,077
43-3011	Bill and Account Collectors	0.006849%	58,444
43-3021	Billing and Posting Clerks	0.013699%	57,825
43-3031	Bookkeeping, Accounting, and Auditing Clerks	1.308219%	58,837
43-3041	Gambling Cage Workers	0.178082%	37,796
43-3051	Payroll and Timekeeping Clerks	0.075342%	62,969
43-3061	Procurement Clerks	0.020548%	51,834
43-3099	Financial Clerks, All Other	0.013699%	55,046
43-4041	Credit Authorizers, Checkers, and Clerks	0.006849%	49,571
43-4051	Customer Service Representatives	0.342466%	47,454
43-4081	Hotel, Motel, and Resort Desk Clerks	15.123288%	40,626
43-4151	Order Clerks	0.006849%	49,375
43-4161	Human Resources Assistants, Except Payroll and Timekeeping	0.041096%	58,414
43-4171	Receptionists and Information Clerks	0.287671%	44,479
43-4181	Reservation and Transportation Ticket Agents and Travel Clerks	0.321918%	44,138
43-5021	Couriers and Messengers	0.006849%	43,353
43-5032	Dispatchers, Except Police, Fire, and Ambulance	0.054795%	51,937
43-5061	Production, Planning, and Expediting Clerks	0.034247%	61,450
43-5071	Shipping, Receiving, and Inventory Clerks	0.102740%	52,040
43-5111	Weighers, Measurers, Checkers, and Samplers, Recordkeeping	0.006849%	46,813
43-6011	Executive Secretaries and Executive Administrative Assistants	0.095890%	84,175

Table 2.9: Occupation Mix and Averages for Hotel Prototype Continued

SOC Code	Occupation Name	Percent of Total	Average Annual Wage
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and E	0.452055%	53,249
43-9021	Data Entry Keyers	0.006849%	43,715
43-9051	Mail Clerks and Mail Machine Operators, Except Postal Service	0.013699%	42,961
43-9061	Office Clerks, General	0.657534%	50,078
43-9199	Office and Administrative Support Workers, All Other	0.020548%	58,166
45-1011	First-Line Supervisors of Farming, Fishing, and Forestry Workers	0.013699%	65,514
45-2092	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	0.006849%	41,090
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	0.061644%	44,179
47-1011	First-Line Supervisors of Construction Trades and Extraction Workers	0.013699%	97,987
47-2031	Carpenters	0.061644%	75,484
47-2041	Carpet Installers	0.006849%	55,141
47-2061	Construction Laborers	0.006849%	58,127
47-2073	Operating Engineers and Other Construction Equipment Operators	0.006849%	85,423
47-2111	Electricians	0.034247%	71,909
47-2141	Painters, Construction and Maintenance	0.102740%	59,005
47-2152	Plumbers, Pipefitters, and Steamfitters	0.020548%	81,022
49-1011	First-Line Supervisors of Mechanics, Installers, and Repairers	0.623288%	98,474
49-3023	Automotive Service Technicians and Mechanics	0.020548%	62,140
49-3042	Mobile Heavy Equipment Mechanics, Except Engines	0.006849%	69,052
49-3051	Motorboat Mechanics and Service Technicians	0.006849%	58,865
49-3053	Outdoor Power Equipment and Other Small Engine Mechanics	0.020548%	53,507
49-9021	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	0.047945%	65,487
49-9041	Industrial Machinery Mechanics	0.041096%	72,286
49-9043	Maintenance Workers, Machinery	0.006849%	61,072
49-9071	Maintenance and Repair Workers, General	6.342466%	57,673
49-9091	Coin, Vending, and Amusement Machine Servicers and Repairers	0.116438%	54,056
49-9094	Locksmiths and Safe Repairers	0.006849%	79,229
49-9098	Helpers—Installation, Maintenance, and Repair Workers	0.020548%	43,993
49-9099	Installation, Maintenance, and Repair Workers, All Other	0.027397%	51,082
51-1011	First-Line Supervisors of Production and Operating Workers	0.041096%	82,224
51-3011	Bakers	0.089041%	42,196
51-3021	Butchers and Meat Cutters	0.006849%	44,395
51-6011	Laundry and Dry-Cleaning Workers	1.883562%	39,403
51-6021	Pressers, Textile, Garment, and Related Materials	0.006849%	37,141
51-6031	Sewing Machine Operators	0.006849%	37,673
51-6052	Tailors, Dressmakers, and Custom Sewers	0.006849%	47,844
51-6093	Upholsterers	0.006849%	44,989
51-8021	Stationary Engineers and Boiler Operators	0.089041%	78,639
51-8031	Water and Wastewater Treatment Plant and System Operators	0.006849%	78,649
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	0.027397%	51,689
53-3033	Light Truck Drivers	0.020548%	48,398
53-3053	Shuttle Drivers and Chauffeurs	0.335616%	41,842
53-5021	Captains, Mates, and Pilots of Water Vessels	0.006849%	113,029
53-6021	Parking Attendants	0.260274%	37,357
53-6031	Automotive and Watercraft Service Attendants	0.006849%	39,470
53-7061	Cleaners of Vehicles and Equipment	0.006849%	40,094
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	0.116438%	43,809
53-7065	Stockers and Order Fillers	0.000890411	42,217

Sources: CA EDD, Occupational Employment (May 2022) & Wage (2023 - 1st Quarter) Data.

Worker Households by Income Category

Table 2.10 summarizes the number of new workers living in St. Helena by income category. Data from the prior four tables was examined to identify the number of workers employed within each

prototype whose household income falls within each income category. The worker households that fall into moderate or below area median income categories drive the calculation of the commercial linkage fee for each prototype.

Table 2.10: Number of Worker Households by Income Category

	3 Person Household Income Limits	Number of Employee Households			
		Commercial	Office	Industrial	Hotel
Extremely Low	36,050	-	-	-	-
Very Low Income	60,100	13.273	7.807	2.772	6.836
Low Income	96,050	3.509	8.312	3.710	1.804
Moderate Income	139,950	0.754	7.995	2.604	0.694
Above Moderate		2.945	7.381	2.122	0.327

Sources: Tables 1.1, 2.6, 2.7, 2.8 and 2.9; Willdan Financial Services.

Affordability Gap

The affordability gap analysis from **Table 1.11** in Chapter 2 is also used in the calculation of the commercial linkage fee. The units demanded for each prototype are multiplied by the financing gap per affordable unit and summarized across all income levels to determine the total financing gap per prototype.

Table 2.11: Financing Gap per Prototype

	Extremely Low Income (up to 30% AMI)	Very Low Income (31-50% AMI)	Low Income (51-80% AMI)	Moderate Income (81-120% AMI)	Total
Financing Gap per Affordable Unit	898,323	834,062	738,005	620,705	
<u>Commercial Prototype</u>					
Units Demanded	-	13.273	3.509	0.754	17.536
Total Financing Gap	\$ -	\$ 11,070,844	\$ 2,589,522	\$ 468,154	\$ 14,128,520
<u>Office Prototype</u>					
Units Demanded	-	7.807	8.312	7.995	24.114
Total Financing Gap	\$ -	\$ 6,511,699	\$ 6,134,268	\$ 4,962,295	\$ 17,608,262
<u>Industrial Prototype</u>					
Units Demanded	-	2.772	3.710	2.604	9.085
Total Financing Gap	\$ -	\$ 2,311,978	\$ 2,737,705	\$ 1,616,097	\$ 6,665,780
<u>Hotel Prototype</u>					
Units Demanded	-	6.836	1.804	0.694	9.334
Total Financing Gap	\$ -	\$ 5,701,231	\$ 1,331,724	\$ 430,855	\$ 7,463,811

Sources: Tables 1.11 and 2.10, Willdan Financial Services.

Maximum Justified Commercial Linkage Fee Schedule

The affordability gap from Table 2.11 is divided by the square footage of each prototype to determine the maximum justified commercial linkage fee per square foot for each land use category. The fee schedule is shown below in **Table 2.12**.

Table 2.12: Maximum Justified Commercial Linkage Fee Schedule

Land Use	Affordability Gap for All New Worker Households	Size of Prototype (Sq. Ft.)	Maximum Fee per Sq. Ft.	Current Fee per Sq. Ft.
Commercial	\$ 14,128,520	100,000	\$ 141.29	\$ 5.21
Office	17,608,262	100,000	176.08	4.11
Industrial	6,665,780	100,000	66.66	1.26
Hotel	7,463,811	100,000	74.64	3.80

Source: Table 2.11, Willdan Financial Services.

Table 2.13 compares the City's current and maximum justified fees to the fees from Yountville and Sonoma.

Table 2.13: Commercial Linkage Fee Comparison

Land Use	St. Helena - Maximum	St. Helena - Current	Units	Yountville	Units	Sonoma	Units
Commercial	\$ 141.29	\$ 5.21	Sq. Ft.	\$ 23.60	Sq. Ft.	\$ 4.00	Sq. Ft.
Office	176.08	4.11	Sq. Ft.	23.60	Sq. Ft.	4.00	Sq. Ft.
Industrial	66.66	1.26	Sq. Ft.	23.60	Sq. Ft.	4.00	Sq. Ft.
Hotel	74.64	3.80	Sq. Ft.	11,801.15	Room	15.00	Sq. Ft.

Appendix

Appendix Table A.1: Current Rental Listings in St. Helea

Address	City	State / Zip	Listed On:	Rent per Month	Bedrooms	Baths	Square Feet
610 Harvest Ln	St. Helena	CA 94574	Apartments.com; Zillow.com	9,000	5	4	2,626
516 Meadowood Ln	St. Helena	CA 94574	Apartments.com; Zillow.com	8,500	4	3.5	3,173
(undisclosed Address)	St. Helena	CA 94574	Apartments.com	8,000	3	3	2,200
915 Valley View Ct	St. Helena	CA 94574	Apartments.com	7,100	3	3.5	2,700
1451 Spring St	St. Helena	CA 94574	Apartments.com; Zillow.com	7,000	3	1.5	1,230
1340 Pine St	St. Helena	CA 94574	Apartments.com; Zillow.com	6,000	3	2	1,426
1220 Peppertree Cir	St. Helena	CA 94574	Apartments.com	5,875	3	2	1,450
1384 Magnolia Ave	St. Helena	CA 94574	Apartments.com	5,750	3	2	2,063
338 Glass Mountain Rd	St. Helena	CA 94574	Apartments.com	5,600	3	2	2,114
1745 Oak Ave	St. Helena	CA 94574	Apartments.com	5,500	3	1	1,834
1091 Mariposa Ln	St. Helena	CA 94574	Apartments.com	5,000	3	2	1,316
1325 Pine St	St. Helena	CA 94574	Apartments.com	4,495	3	1	1,300
1350 St James Ct	St. Helena	CA 94574	Apartments.com; Zillow.com	3,500	3	2	1,281
3251 St Helena Hwy	St. Helena	CA 94574	Apartments.com; Zillow.com	5,975	2	1.5	1,636
1413 Tainter St	St. Helena	CA 94574	Apartments.com	4,750	2	1	1,223
1220 Madrona Ave	St. Helena	CA 94574	Apartments.com; Zillow.com	4,600	2	1	1,392
789 Stralla Ct	St. Helena	CA 94574	Apartments.com; Zillow.com	3,200	2	1.5	1,156
1141-1161 Oak Avenue	St. Helena	CA 94574	Apartments.com	3,100	2	1.5	n/a
620 McCorkle Avenue	St. Helena	CA 94574	Apartments.com	2,900	2	2	n/a
83C W Zinfandel Ln	St. Helena	CA 94574	Apartments.com	2,500	2	1	1,000
1103 Pope St #C	St. Helena	CA 94574	Apartments.com	2,350	2	1	1,250
1971 Vallejo St	St. Helena	CA 94574	Apartments.com	4,800	1	1	600
842 Hunt Ave #842	St. Helena	CA 94574	Apartments.com	3,500	1	1	627
3600 Spring Mountain Rd Unit 2	St. Helena	CA 94574	Apartments.com; Zillow.com	1,750	1	1	700

Note: Excludes properties with monthly rents above \$10,000.

Sources: Apartments.com; Zillow.com; October, 2023.

Appendix Table A.2: Recently Sold Homes in St. Helena

Property Link	Sales Price	Type	Sale Date	Bedrooms	Bathrooms	Year Built	Square Feet
https://www.mlslistings.com/property/ba323019719/1545-madrona-ave-saint-helena-ca-94574/15926110	1,950,000	Single Family Residence	Sep 14, 2023	3	2	1932	1,598
https://www.mlslistings.com/property/ba323010164/3851-spring-mountain-rd-saint-helena-ca-94574/15878397	2,895,000	Single Family Residence	Sep 7, 2023	3	2	1995	2,126
https://www.mlslistings.com/property/ba323044227/5486-chiles-pope-valley-rd-saint-helena-ca-94574/16051619	859,000	Single Family Residence	Sep 1, 2023	3	2	1967	1,481
https://www.mlslistings.com/property/ba323028887/1103-brittany-ln-saint-helena-ca-94574/15974961	3,200,000	Single Family Residence	Sep 1, 2023	4	4	1990	4,367
https://www.mlslistings.com/property/ba323027612/1626-tanier-st-saint-helena-ca-94574/15965732	1,625,000	Single Family Residence	Aug 30, 2023	2	2	1948	1,758
https://www.mlslistings.com/property/ba322046304/1832-park-st-saint-helena-ca-94574/15564611	840,000	Single Family Residence	Aug 28, 2023	3	1/1	1910	1,800
https://www.mlslistings.com/property/ba323021550/26-san-juan-ct-saint-helena-ca-94574/15935375	418,000	Manufactured In Park	Aug 25, 2023	2	2	1987	1,856
https://www.mlslistings.com/property/ba323039293/46-laguna-seca-ct-saint-helena-ca-94574/16028337	339,500	Manufactured In Park	Aug 23, 2023	2	2	1986	1,440
https://www.mlslistings.com/property/ba323005608/25-redondo-ct-saint-helena-ca-94574/15854983	245,000	Manufactured In Park	Aug 21, 2023	2	2	1986	1,344
https://www.mlslistings.com/property/ba323044948/1370-hasty-ct-saint-helena-ca-94574/16049263	1,150,000	Condominium	Aug 16, 2023	3	2	1983	1,606
https://www.mlslistings.com/property/ba323039062/1171-garden-ave-saint-helena-ca-94574/16019211	959,000	Single Family Residence	Aug 16, 2023	3	2	1961	1,346
https://www.mlslistings.com/property/ba323047978/1330-madrona-ave-saint-helena-ca-94574/16070116	2,500,000	Single Family Residence	Aug 8, 2023	3	2	1955	1,672
https://www.mlslistings.com/property/ba323041595/1550-sulphur-springs-ave-saint-helena-ca-94574/16032624	3,550,000	Single Family Residence	Aug 4, 2023	2	2/1	1950	2,438
https://www.mlslistings.com/property/ba323026300/1005-valley-view-st-2-saint-helena-ca-94574/15957450	300,000	Residential	Aug 1, 2023	2	2/1	1963	1,100
https://www.mlslistings.com/property/ba323028100/339-crystal-springs-rd-saint-helena-ca-94574/15995917	4,800,000	Single Family Residence	Jul 31, 2023	2	2/1	1993	3,791
https://www.mlslistings.com/property/ba323004554/1855-spring-mountain-rd-saint-helena-ca-94574/15954861	2,550,000	Single Family Residence	Jul 28, 2023	4	3/1	1952	2,765
https://www.mlslistings.com/property/ba323004187/650-sunnyside-rd-saint-helena-ca-94574/15851186	1,100,000	Single Family Residence	Jul 26, 2023	2	2	2023	1,350
https://www.mlslistings.com/property/ba323010066/1005-valley-view-st-saint-helena-ca-94574/15877124	310,000	Residential	Jul 18, 2023	2	2/1	1963	1,100
https://www.mlslistings.com/property/ba323030303/250-fawn-park-rd-saint-helena-ca-94574/15981492	1,075,000	Single Family Residence	Jul 17, 2023	3	2	1966	1,705
https://www.mlslistings.com/property/ba323039390/1629-hillview-pl-saint-helena-ca-94574/16020901	480,000	Residential	Jul 17, 2023	3	2	1966	1,818
https://www.mlslistings.com/property/ba323030848/922-mariposa-ln-saint-helena-ca-94574/15980589	800,000	Condominium	Jul 14, 2023	2	2	1975	1,160
https://www.mlslistings.com/property/ba323038082/943-mariposa-ln-saint-helena-ca-94574/16015941	527,000	Condominium	Jun 29, 2023	2	1/1	1975	1,156
https://www.mlslistings.com/property/ba323017916/1015-pratt-ave-saint-helena-ca-94574/15926796	2,475,000	Single Family Residence	Jun 29, 2023	4	3/1	2001	2,876
https://www.mlslistings.com/property/ba323010978/18-laguna-seca-ct-saint-helena-ca-94574/15881860	225,000	Manufactured In Park	Jun 23, 2023	2	2	1986	1,344

Source: mlslistings.com, September 2023.

APPENDIX

CITY OF ST HELENA

AFFORDABLE HOUSING DEVELOPMENT IMPACT FEE FINANCIAL FEASIBILITY ANALYSIS

SEPTEMBER 4, 2024



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Executive Summary

The primary purpose of this report is to estimate the impact on development financial feasibility of the imposition of an affordable housing fee by the City of St. Helena. The analysis examines the economics of six prototypes:

Table 1
Development Prototypes
St. Helena Feasibility Analysis

	SF Residential	MF Residential	Office	Retail	Industrial/ Warehouse	Hotel
Density (FAR)	0.29	0.76	0.28	0.33	0.17	0.13
Density (Units/Acre)		33				
Form Factor	single	3-5 stories	1 story	1 story	1 story	Multi
Residential Units/Rooms	1	33				65
Unit/Room Size	3,780	1,000				500
Residential SF	3,780	33,000				32,500
Commercial SF			3,597	2,847	1,500	21,097
parcel size (acres)	0.3	1	0.30	0.2	0.2	9.72

Willdan Financial Services, 2024

In a nexus study, dated May 22, 2024, Willdan has calculated the maximum justified for each development type and included them in the pro forma analysis contained in this report. These fees are detailed in the tables below. The table includes both the maximum justified fees as well as two alternatives of reduced fees presented earlier to accommodate project feasibility.

Table 2
Proposed Fees (per square foot)
St. Helena Feasibility Analysis

	Maximum Justified	Max Estimated Feasibility (1)	15% of Max	10% of Max
<i>Residential</i>				
Rental Unit	\$135	NA	\$20	\$14
For Sale Unit	\$196	\$168	\$29	\$20
<i>Non-Residential</i>				
Hotel	\$75	\$75	\$11	\$8
Commercial	\$141	\$20	\$21	\$14
Office	\$176	NA	\$26	\$18
Industrial	\$67	NA	\$10	\$7

(1) Max Estimated Fee at \$1.1 million per acre residual value.

Willdan, 2024

Methodology Overview

The financial feasibility analysis uses a pro forma approach to calculate the projected return that the six development prototypes are likely to generate. Each prototype's pro forma estimates the residual land value, a method of estimating the value of land for a project that calculates the total revenue generated by a project (either in the form of sales price or the present value of projected lease income) and subtracts the costs of developer and operations (as applicable) to arrive at a net amount that is attributable to the land under the project. The analysis assumes that all development prototypes are rental or lease property, except for the single-family prototype.

The analysis assumes that if a residual land value is negative, the project is not feasible. A low land value means a project is challenging to develop and may not be feasible. Willdan and staff have reviewed transactions in St. Helena in the past ten years and estimate that a value below \$25 per square foot (psf), or \$1.1 million per acre, indicates a low feasibility and low probability of completion for the prototype development in question. This number can vary by land entitlement, with generally higher valuations for single family land and downtown parcels, and lower values for industrial and other less intensive uses.

As shown in Table 3 below, considering the \$1.1 million benchmark described above, the analysis finds that single family residential, hotel and retail development appear feasible in current market conditions, and multifamily and office development are near the threshold of feasibility. Industrial uses appear infeasible, although industrial may in fact be feasible given that it typically has lower land valuations to meet. It is important to note that this feasibility analysis reflects current market conditions, and especially the historic increases in construction costs during and after the COVID epidemic. Willdan expects that market factors will return to a more historic balance in the future and that other development types will become feasible. It is also important to note that this analysis reflects a very generalized example, and that individual projects have their own economics and may in fact be feasible even in current market conditions.

Table 3 also shows the per acre cost of the 10%, 15% and 100% affordable housing fee alternatives to evaluate their effect on feasibility. It appears that the affordable housing fee would make little difference to feasibility for single family development but could pose a significant burden to the feasibility of retail. Office, MF residential and Industrial would be rendered even more infeasible, although the relative burden on industrial is small enough that it might make little material difference. For each development category the analysis has also calculated the maximum fee per acre, given the threshold value of \$1.1 million.

Table 3
Residual Value Summary
St. Helena Feasibility Analysis

Item	SF Residential	MF Residential	Office	Retail	Industrial/ Warehouse	Hotel
Residual Land Value Per Acre	3,213,756	928,200	893,627	1,386,326	568,714	1,713,457
Residual Land Value Per land SF	\$74	\$21	\$21	\$32	\$13	\$39
<i>Porential Fees</i>						
10% Fee Per Acre	\$246,960	\$646,800	\$211,024	\$200,714	\$50,250	\$56,250
15% Fee Per Acre	\$370,440	\$970,200	\$316,536	\$301,070	\$75,375	\$84,375
100% Fee Per Acre	\$2,469,600	\$6,468,000	\$2,110,240	\$2,007,135	\$502,500	\$562,500
Max Fee at Threshold	\$2,113,756	NA	NA	\$286,326	NA	\$613,457

Willdan, 2024

The residual land values are affected by each of the inputs and assumptions contained in the pro formas and are particularly sensitive to capitalization rates, parking requirements, construction costs, and lease rates. The analysis identified reasonable ranges for these factors, given current market conditions, and tested the sensitivity to the factors to financial feasibility for each of the prototypes.

Willdan believes it is important to consider that the impact fees are a cost recovery mechanism, not an assessment or tax. The impact fees are a calculation of the costs incurred by the City to provide affordable housing in connection with development. At the full calculated fee, the City “breaks even” on the revenue received and the costs of new facilities needed to serve development. Any reduction of the fees results in the need to outside revenues to make up the difference or a reduction in the provision of affordable housing. This analysis examines the proposed fees in comparison to estimated project feasibility, but that does not mean that the fees are responsible for the feasibility of projects, or that they should be set at a level that assists project feasibility. This is a policy judgement to be made by elected officials, with the input of members of the community and other stakeholders.

1. Introduction

Purpose

The primary purpose of this report is to analyze the effect on financial feasibility of the proposed updated impact fees on six residential and commercial prototypes. These prototypes are summarized in Table 1, below:

- Residential: For-Sale Townhomes/Single-Family Detached
- Multifamily: Multifamily Residential/3-5 Story Building
- Office/single story building
- Retail / single story building
- Industrial (warehouse)/Single Story Building
- Hotel (65 room resort hotel)

The Nexus Study calculates the maximum justified fee that will be considered by the City Council. The nexus study documents the necessary data and calculations to establish nexus and proportionality.

Assumptions

The financial feasibility analysis assumes all development prototypes are rentals or leases, except for single-family residential. The analysis includes other assumptions about the development prototypes which are documented in Table 4 and individual pro formas in the Appendices.

2. Feasibility Analysis

The feasibility analysis of St. Helena's proposed development impact fees uses a pro forma approach to calculate the projected financial return that six development prototypes are likely to generate for developers. The analysis assumes a standard set of assumptions and then estimate potential revenues, costs and a net financial return for the real estate developer.

Feasibility Analysis Methods

In classical real estate economics, development value is created when existing land or buildings can be improved by the investment of financial capital. Two main types of financial calculations are used by developers and policy makers to understand the financial feasibility of a particular development concept or project. The first and simplest type of financial feasibility analysis can be expressed by this basic equation:

$$\text{Development Value} - (\text{Development Costs} + \text{Land}) = \text{Profit}$$

In this case profit can be expressed as total dollars or more typically as a percent return on money invested or costs. Assuming a positive return, this percent return is then compared to typical returns in the marketplace to assess the viability of a particular development versus other potential investment and development opportunities.

The second type of financial feasibility analysis is called a "land residual method" and can be expressed by the following simple equation:

$$\text{Development Value} - (\text{Development Costs} + \text{Profit}) = \text{Land Residual}$$

This type of analysis is often preferred by urban economists as a means of clarifying the value generate by a proposed project under different planning and development scenarios and with validated cost and revenue assumptions. Assuming that the land residual is positive, the land value created by a development is compared to recent land sales for comparable parcels of land to further evaluate the relative feasibility of the development concept compared to other opportunities in the marketplace. Effectively, the land residual is the amount the developer can afford to pay for the land. If this amount is above prevailing land costs, the project is generally feasible.

This analysis uses the land residual method for determining financial feasibility.

Land Residual Analysis

As a policy tool for helping to understand the potential for value capture related to new zoning and/or planning permissions in each area, a land residual methodology is often a

preferable approach for illustration the potential increase in underlying land values associated with different policy interventions. This report uses a land residual analysis to estimate the value of land for each of the six development prototypes that relies on the net operating income and value of improvements.

Structure and Inputs

Table 4 details the key assumptions used as inputs into the pro forma model, as well as a summary of calculated residual land values.

Table 4
Feasibility Model Assumptions
St. Helena Feasibility Analysis

	SF Residential	MF Residential	Office	Retail	Industrial	Hotel
<u>Development/Construction Costs (\$/sf)</u>						
Residential Construction Costs	240	310				
Commercial Construction Costs			250	250	125	650
Commercial Tenant Improvements (PSF) Landlord Allowance			50	75	0	0
<u>Soft Costs</u>						
Soft Costs (% of hard costs)	25.00%	25.00%	25.00%	25.00%	25.00%	25.00%
Developer Profit	12.00%	12.00%	12.00%	12.00%	12.00%	12.00%
<u>Vacancy Rate</u>						
Residential Vacancy	NA	5.00%				
Commercial Vacancy			5.00%	2.50%	5.00%	20.00%
<u>Operating Expenses (% of revenue)</u>						
Residential Operating Expenses	NA	25.00%				
Commercial Operating Expenses			20.00%	20.00%	15.00%	25.00%
<u>Financing</u>						
% of Construction Cost	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
<u>Revenue</u>						
Residential Lease Rate (psf)		\$2.60				
Commercial Lease Rate (psf)			\$3.30	\$3.40	\$2.00	
For Sale Market Rate Residential Price Per Unit	\$2,457,000					
Commercial Cap Rate			7.00%	7.00%	7.00%	8.00%
Residential Cap Rate		5.50%				
Hotel ADR						\$1,000
hotel occupancy						80%
hotel revpar						\$800
<u>Results: Residual Land Values (per acre)</u>						
Residual Land Values	\$3,213,756	\$928,200	\$893,627	\$1,386,326	\$568,714	\$1,713,457

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3. Impact on Land Value

The residual land values are affected by each of the inputs and assumptions contained in the pro formas, and are particularly sensitive to capitalization rates, parking requirements, construction costs, and lease rates. However, in all cases the impact fees charged by the City do not have a major effect on feasibility, and in no case do they transform a prototype project from feasible to infeasible.

Factors Affecting Feasibility

If a residual land value is negative, the project is not feasible. Alternatively, low land values indicate a low feasibility for a project. Willdan estimates that generally land values below \$25 per square foot indicate a low feasibility and low probability of completion for the prototype developments.

A developer's selection of real estate product type and location depends on various factors. The past, current, and projected future demand for a certain prototype in the area are weighed against the existing and projected future supply of these development types in the local and surrounding areas.

Potential factors affecting financial feasibility include the following:

- Capitalization rate – lower capitalization rates increase financial feasibility. Based on current and anticipated market conditions and assessment of relative market risk associated with St. Helena, this analysis assumes capitalization rates of 7.0 percent for non-residential development and 5.5 percent for multifamily residential development.
- Construction costs – lower construction costs increase financial feasibility. Based on current market conditions, this analysis assumes base construction costs of \$250 per square foot for retail and office development, \$240 per square foot for residential development, \$310 per square foot for multifamily development, and \$125 per square foot for industrial developments.
- Operating expenses – operating costs include utilities, common area maintenance, security, and property taxes. The financial feasibility analysis uses 25% of revenue for multifamily residential and 15 to 20% for commercial prototypes.
- Lease rates – higher lease rates and dependent on building features and market conditions but increase financial feasibility. Based on current and expected market conditions, this analysis assumes a lease rate of between \$2.60 per square foot for residential development, \$3.30 per square foot for office development, \$3.40 per square foot for retail development, and \$2.00 per square foot for industrial development.
- Tenant improvement costs – passing improvement costs to tenants or amortizing costs increase financial feasibility. This analysis assumes a commercial tenant improvement landlord allowance of \$50 psf for office and \$75 psf for retail developments.
- Profit margin – lower profit margins return less to developers but increase apparent financial feasibility of a project. This analysis assumes a developer profit of 12 percent (of costs) on each development project.
- Density – the floor area ratio (FAR) of a development project affords financial feasibility because it allows for a higher number of square feet of development on a given parcel. There is a tradeoff, however, in that a higher FAR can result in a change in construction type which can lead to higher costs per square foot. The analysis assumes varying FARs to explore this dynamic.

Refer to Table 4 for a master list of pro forma inputs and assumptions.

Feasibility Results

The residual land values are affected by each of the inputs and assumptions contained in the pro forma and are particularly sensitive to capitalization rates, parking requirements, construction costs, and lease rates. The analysis identified reasonable ranges for these factors, given current and likely market conditions, and tested the sensitivity of the factors of financial feasibility for each of the six development prototypes.

As shown in Table 3, above, initial results indicate that some of the development types are feasible under current market conditions, and that single family development, retail development and hotel development appear able to bear the burden of an affordable housing impact fee to varying degrees.

4. Appendix

The appendix provides detailed and supporting tables for the summary analysis described above.

Appendix A: Proposed Affordable Housing Impact Fees

The following tables detail the maximum justified fees for the City calculated in the recent Nexus Study, dated May 22, 2024.

Table A.1
Proposed Fees (per square foot)
St. Helena Feasibility Analysis

	Maximum Justified	Max Estimated Feasibility (1)	15% of Max	10% of Max
<i>Residential</i>				
Rental Unit	\$135	NA	\$20	\$14
For Sale Unit	\$196	\$168	\$29	\$20
<i>Non-Residential</i>				
Hotel	\$75	\$75	\$11	\$8
Commercial	\$141	\$20	\$21	\$14
Office	\$176	NA	\$26	\$18
Industrial	\$67	NA	\$10	\$7

(1) Max Estimated Fee at \$1.1 million per acre residual value.

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Appendix B: Development Prototype Pro Formas

Single Family

DEVELOPMENT PROGRAM ASSUMPTIONS	ASSUMPTION/FACTOR	TOTAL
Development Site (Square Feet)	0.3 Acres	13,068
Dwelling Units	3.3 DU/Acre	1
Gross Building Area (Square Feet)	3,780 GBA/DU	3,780
Net Habitable Square Feet	100%	3,780

BUILDING INCOME AND VALUE	ASSUMPTION/FACTOR	PER GBA	TOTAL
Net Operating Income (NOI)		\$0	\$0
Project Market Value	\$2,457,000 per DU	\$650	\$2,457,000
Project Sale Cost	7.0% Value	46	171,990
Net Project Value		\$605	\$2,285,010

PROJECT DEVELOPMENT COSTS	ASSUMPTION/FACTOR	PER GBA	TOTAL
Construction Cost			
Building Direct Cost (includes site development)	\$240 Cost/SF (GBA)	\$240	\$907,200
<i>Total Construction Cost</i>		\$240	\$907,200
Soft Costs			
Financing	5% of Construction Costs	\$12	\$45,360
Other Soft Costs	25% of Construction Costs	60	226,800
<i>Total Soft Costs</i>		\$72	\$272,160
Other Project Costs			
Developer Return on Investment	12% of Construction & Soft Costs		\$141,523
Residual Land Value	Model Output/Supportable Land Cost		964,127
<i>Total Other Costs</i>			\$1,105,650
Total Project Cost (including land)			\$2,285,010
Residual Land Value			\$964,127
Per Acre			\$3,213,756
10% Affordable Housing Fee	\$20 psf		\$74,088
per acre			\$246,960

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City of St. Helena

Development Impact Fee Feasibility Study

Multifamily

DEVELOPMENT PROGRAM ASSUMPTIONS	ASSUMPTION/FACTOR	TOTAL
Development Site (Square Feet)	1 Acres	43,560
Dwelling Units	33 DU/Acre	33
Gross Building Area (Square Feet)	1,000 GBA/DU	33,000
Net Rentable Square Feet	85%	28,050

BUILDING INCOME AND VALUE	ASSUMPTION/FACTOR	PER GBA	TOTAL
Gross Potential Rent	\$2.60 per SF/Month	\$27	875,160
Gross Potential Parking Income	0 per Space/Month		
Losses to Vacancy	5% of Gross Income	(\$1)	<u>(43,758)</u>
Gross Residential Revenue			831,402
Basic Operating Expenses	25% of Gross Potential Rent	(\$7)	(218,790)
Total Operating Expenses			(218,790)
Net Operating Income (NOI)		\$19	\$612,612
Project Market Value	5.50% Cap Rate	\$0	\$11,138,400
Project Leasing Cost (included in operating costs)	0.0% Value	\$0	<u>\$0.0</u>
Net Project Value		\$0	\$11,138,400

PROJECT DEVELOPMENT COSTS	ASSUMPTION/FACTOR	PER GBA	TOTAL
Construction Cost			
Building Direct Cost (includes site development)	\$250 Cost/SF (leaseable area)	\$213	\$7,012,500
Total Construction Cost		\$213	\$7,012,500
Soft Costs			
Financing	5% of Construction Costs	\$11	\$350,625
Other Soft Costs	25% of Construction Costs	<u>\$53</u>	<u>\$1,753,125</u>
Total Soft Costs		\$64	\$2,103,750
Other Project Costs			
Developer Return on Investment	12% of Construction & Soft Costs		\$1,093,950
Residual Land Value	Model Output/Supportable Land Cost		<u>\$928,200</u>
Total Other Costs			\$2,022,150
Total Project Cost (including land)			\$11,138,400

Residual Land Value		\$928,200
per acre		\$928,200
10% affordable housing fee	\$20	\$646,800
per acre		\$646,800

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City of St. Helena

Development Impact Fee Feasibility Study

Retail

DEVELOPMENT PROGRAM ASSUMPTIONS	ASSUMPTION/FACTOR	TOTAL
Development Site (Square Feet)	0.20 Acres	8,712
FAR	0.33	
Gross Building Area (Square Feet)	14,235 GBA/Acre	2,847
Net Leaseable Square Feet	100%	2,847

BUILDING INCOME AND VALUE	ASSUMPTION/FACTOR	PER GBA	TOTAL
NNN Potential Rent	\$3.40 per SF/Month	\$41	\$116,158
Losses to Vacancy	3% of Gross Income	(\$1)	<u>(\$2,904)</u>
NNN Commercial Revenue			\$113,254
Basic Operating Expenses	0% of Gross Potential Rent	\$0	\$0
Additional Operating Expenses (TDM)	0 Per Year	0	0
Total Operating Expenses			\$0
Net Operating Income (NOI)		\$40	\$113,254
Project Market Value	7.00% Cap Rate	\$0	\$1,617,909
Project Leasing Cost	6.0% Value	<u>\$0.0</u>	<u>\$97,075</u>
Net Project Value		\$0	\$1,520,835

PROJECT DEVELOPMENT COSTS	ASSUMPTION/FACTOR	PER GBA	TOTAL
Construction Cost			
Building Direct Cost (includes site development)	\$250 Cost/SF (leaseable)	\$250	\$711,750
Tenant Improvements	\$50 cost/sf (leaseable sf)	\$50	\$142,350
Total Construction Cost		\$300	\$854,100
Soft Costs			
Financing	5% of Construction Costs	\$15	\$42,705
Other Soft Costs	25% of Construction Costs	<u>\$75</u>	<u>\$213,525</u>
Total Soft Costs		\$90	\$256,230
Other Project Costs			
Developer Return on Investment	12% of Construction & Soft Costs		\$133,240
Residual Land Value	Model Output/Supportable Land Cost		<u>\$277,265</u>
Total Other Costs			410,505
Total Project Cost (including land)			1,520,835

Residual Land Value		277,265
per acre		\$1,386,326
10% affordable housing fee	\$14	\$40,143
per acre		\$200,714

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City of St. Helena

Development Impact Fee Feasibility Study

Industrial

DEVELOPMENT PROGRAM ASSUMPTIONS	ASSUMPTION/FACTOR	TOTAL
Development Site (Square Feet)	0.2 Acres	8,712
FAR	0.17	
Gross Building Area (Square Feet)	7,500 GBA/Acre	1,500
Net Leaseable Square Feet	100%	1,500

BUILDING INCOME AND VALUE	ASSUMPTION/FACTOR	PER GBA	TOTAL
Gross Potential Rent	\$2.00 per SF/Month	\$24	\$36,000
Losses to Vacancy	5% of Gross Income	(\$1)	(\$1,800)
Gross Residential Revenue			\$34,200
Basic Operating Expenses	15% of Gross Potential Rent	-\$4	-\$5,400
Total Operating Expenses			-\$5,400
Net Operating Income (NOI)		\$19	\$28,800
Project Market Value	7.00% Cap Rate	\$0	\$411,429
Project Sale Cost	6.0% Value	<u>\$0.0</u>	<u>\$24,685.7</u>
Net Project Value		\$0	\$386,743

PROJECT DEVELOPMENT COSTS	ASSUMPTION/FACTOR	PER GBA	TOTAL
Construction Cost			
Building Direct Cost (includes site development)	\$125 Cost/SF (leaseable area)	\$125	\$187,500
Tenant Improvements	\$0 cost/sf (leaseable sf)	\$0	\$0
Total Construction Cost		\$125	\$187,500
Soft Costs			
Financing	5% of Construction Costs (incl.	\$6	\$9,375
Other Soft Costs	25% of Construction Costs (excl.	<u>\$31</u>	<u>\$46,875</u>
Total Soft Costs		\$38	\$56,250
Other Project Costs			
Developer Return on Investment	12% of Construction & Soft Costs		\$29,250
Residual Land Value	Model Output/Supportable Land Cost		<u>\$113,743</u>
Total Other Costs			\$142,993
Total Project Cost (including land)			\$386,743

Residual Land Value		\$113,743
per acre		\$568,714
10% Affordable Housing Fee	\$7	\$10,050
per acre		\$50,250

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City of St. Helena

Development Impact Fee Feasibility Study

Hotel

DEVELOPMENT PROGRAM ASSUMPTIONS	ASSUMPTION/FACTOR			TOTAL
Development Site (Square Feet)	9.72 Acres			423,403
FAR	0.13			
Rooms	65.00			
Gross Building Area (Square Feet)	5,514 GBA/Acre			53,597
Net Leaseable Square Feet	100%			53,597
BUILDING INCOME AND VALUE	ASSUMPTION/FACTOR	REFERENCE		TOTAL
ADR	\$1,000 /night			
Occupancy	80%			
Gross Potential Room Revenue	\$18,980,000 monthly		\$18,980,000	\$18,980,000
Ancillary Income	80.00% % of Room Revenue			15,184,000
Gross Revenue				\$34,164,000
Overall Exp.	62.0% of Gross Revenue			\$21,181,680
Room Operations	18.0% of Room Revenue			\$3,416,400
Other Op Exp	27.5% of Ancillary Revenue			\$4,175,600
Total Operating Expenses				\$28,773,680
Net Operating Income (NOI)				\$5,390,320
Project Market Value	8.00% Cap Rate		\$0	\$67,379,000
Net Project Value			\$0	\$67,379,000
PROJECT DEVELOPMENT COSTS	ASSUMPTION/FACTOR	REFERENCE	PER GBA	TOTAL
Construction Cost				
Building Direct Cost (includes site development and improvements)	\$650 Cost/SF		\$650	\$34,838,050
Total Construction Cost			\$650	\$34,838,050
Soft Costs				
Financing	5% of Construction Costs (incl. site)		\$33	\$1,741,903
Other Soft Costs	25% of Construction Costs (excl. site)		\$163	\$8,709,513
Total Soft Costs			\$195	\$10,451,415
Other Project Costs				
Developer Return on Investment	12% of Construction & Soft Costs			\$5,434,736
Residual Land Value	Model Output/Supportable Land Cost			\$16,654,799
Total Other Costs				\$22,089,535
Total Project Cost (including land)				\$67,379,000
Residual Land Value				\$16,654,799
per acre				\$1,713,457
100% Affordable Housing Fee	\$75			\$4,019,775
per acre				\$562,500

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AFFORDABLE
HOUSING IN-LIEU
FEES AND
NONRESIDENTIAL
COMMERCIAL
LINKAGE FEES



September 12, 2024
Study Session

In-Lieu Fees and Affordable Housing



SHMC zoning ordinance 17.30.030



In-lieu Fee Exemption



Fractional unit created by the 20%
Inclusionary requirement

Definitions



Maximum Justified Fee – The fee level sufficient to mitigate the impact of new residential or commercial development on the affordable housing.

Maximum Feasibility – The highest fee that can be charged without negatively impacting the financial viability of a project or development.

Proposed Fees (per square foot)
St. Helena Feasibility Analysis

	Maximum Justified	Max Estimated Feasibility (1)	15% of Max	10% of Max
<i>Residential</i>				
Rental Unit	\$135	NA	\$20	\$14
For Sale Unit	\$196	\$168	\$29	\$20
<i>Non-Residential</i>				
Hotel	\$75	\$75	\$11	\$8
Commercial	\$141	\$20	\$21	\$14
Office	\$176	NA	\$26	\$18
Industrial	\$67	NA	\$10	\$7

(1) Max Estimated Fee at \$1.1 million per acre residual value.

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Additional Discussion



- Consistent practice is 10% to 15% of Maximum Justified Fee
- Under current market conditions, Rental Housing, Office, and Industrial are not feasible even without the fee
- Feasibility analysis is based on current market conditions, which will fluctuate as the market changes

NEXT STEPS



Residual Value Summary
St. Helena Feasibility Analysis

Item	SF Residential	MF Residential	Office	Retail	Industrial/ Warehouse	Hotel
Residual Land Value Per Acre	3,213,756	928,200	893,627	1,386,326	568,714	1,713,457
Residual Land Value Per land SF	\$74	\$21	\$21	\$32	\$13	\$39
<i>Potential Fees</i>						
10% Fee Per Acre	\$246,960	\$646,800	\$211,024	\$200,714	\$50,250	\$56,250
15% Fee Per Acre	\$370,440	\$970,200	\$316,536	\$301,070	\$75,375	\$84,375
100% Fee Per Acre	\$2,469,600	\$6,468,000	\$2,110,240	\$2,007,135	\$502,500	\$562,500
Max Fee at Threshold	\$2,113,756	NA	NA	\$286,326	NA	\$613,457

Willdan, 2024

Thoughts on the City of St Helena's Opportunity to Optimize Housing Impact Fees & Commercial Linkage Fees to Actually Build Housing

Submitted by Mary Stephenson

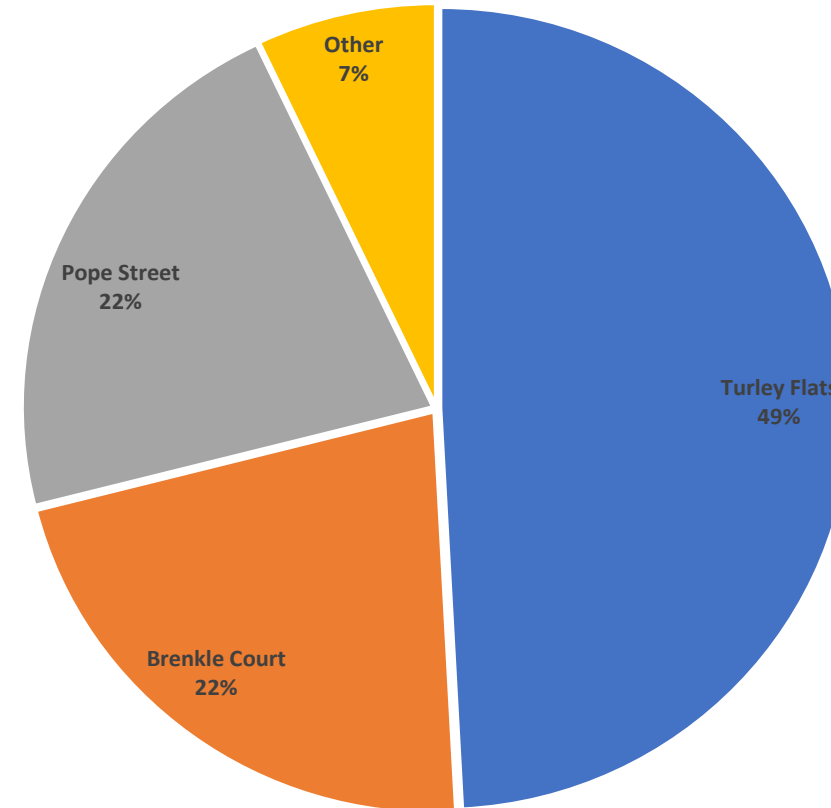
9/10/24

For Context:

10-Year Housing Impact Fee Revenue & Expenses

FY 13/14	\$	884,027
FY 14/15	\$	257,649
FY 15/16	\$	427,649
FY 16/17	\$	235,122
FY 17/18	\$	80,340
FY 18/19	\$	176,224
FY 19/20	\$	317,631
FY 20/21	\$	106,784
FY 21/22	\$	226
FY 22/23	\$	212,358
		\$ 2,698,010

Annual Average \$ 269,801



FOR CONTEXT: ESTIMATE RHNA STATUS 9/2024

7/1/24	Very Low <50%	Low (50- 80%)	Moderate (80-120%)	Above Moderate >120%	Total Housing Units		
RHNA - thru 2031	104	59	26	67	256		
Pipeline							
Pope Street		8	2			OTSH	
Fountain	15	25				OTSH	
	15	33	2	0	50		
Potential							
Hunter	5		20			Approved	
Railroad	15	15				GUESS	
Noble House	10	10	20	10		GUESS	
	30	25	40	10	105		
Remainder by 2031	59	1	-16	57			
(seven years remaining)							

Use Impact Fees to Influence Type of Housing Built

- Biggest Need: Multi-unit Development
 - Cost effective given scarcity/cost of land
 - For sale and for rent
 - From VL to High Market Rate for full-time residents
- Current Forecast from Development Impact Fees Approved 12/2023
 - Total of 243 housing units thru 2040 (RHNA requires 256 by 2031)
 - 172 single family homes
 - 71 multi-unit buildings
 - Exact opposite of what is needed for a sustainable economy

NEW HOTEL: Possible Scenario to House 50% of incremental Hotel Employee

FEE STRUCTURE COMPARISON	
For Hotel Category	Maximum
Est. Fee per Sq Ft	\$ 75
Hotel Sq Ft	53,597
Housing Impact Fee	\$ 4,019,775

ESTIMATED COST OF BUILDING HOUSING WITH MAX IMPACT FEE LEVEL	
Number of Rooms	65
1.5 Employees per Room	98
1.18 Per Housing Unit	83 total units needed
50% Live Local Units	41 units in SH
cost per unit	\$500,000 hard cost only
Total Cost	\$20,656,780 50 worker living locally
Max. Hotel Impact Fee	\$ 4,019,775
AHFT % of Cost at Max Fee	19%
Shorfall	\$ (16,637,005)

CLIMATE IMPACT at 50% Goal	
Additional Commuters	49

- 65 Rooms
- 98 Employees
- 50% Housed Locally
- 41 Units @ \$500K

Cost: \$20,000,000

Fee: \$ 4,000,000

Shortfall: \$16,000,000

Commuting Workers: 49

POTENTIAL CITY CONTRIBUTION TO BUILD ADDITIONAL VL AMI UNITS

60

Excludes current and potential developments and potential hotels.

60 Very Low Units		Per Unit	Total		(Rough Cost Estimates)		
Hard cost		\$ 500,000	\$	30,000,000			
Soft cost		\$ 100,000	\$	6,000,000			
Land		\$ 100,000	\$	6,000,000			
Total Cost		\$ 700,000	\$	42,000,000			
				Over 7 Years	Revenue Projected from Current Impact Fee Recommendation	Additional Needed Annually	% Additional
		10%	\$ 4,200,000	\$ 600,000	\$ 600,000	0	0
City Role		20%	\$ 8,400,000	\$ 1,200,000	\$ 600,000	\$ 600,000	100%
		30%	\$ 12,600,000	\$ 1,800,000	\$ 600,000	\$ 1,200,000	200%

Potential Sources for 60 New VL Income Units

ROUGH LIST OF SOURCES - amounts for example only

City	\$	8,000,000	(\$1.2M average impact fees over 7 years)
County	\$	6,000,000	(currently \$50K per door - requires negotiation)
Federal	\$	14,000,000	
Grants/Mortgage	\$	14,000,000	
	\$	42,000,000	

POSSIBLE NEXT STEPS

- Approve hotel Commercial Linkage Fee at maximum level
- Acknowledge need for average of \$1,200,000 (estimate) in AHTF fund generation in next 7 years
- Reassess all other development categories to maximum fees while not discourage development
- Develop incentives for developers to build housing instead of pay in lieu fees
- Develop incentives for developers to build VL income units as part of inclusionary

Longer Term: Provide Incentives to Build Multi-Unit

- Waive all housing impact fees
 - On multi-unit rentals and for-sale with deed restrictions up to 150% AMI
- Full or partial waiver of all city impact fees for VL inclusionary
- Realistic in lieu fees (\$500K per unit?)
 - Provide developers incentive to include RHNA units in their design
- Provide a site for a larger VL housing project
 - Developers can contribute their per unit in lieu fees to an existing project

Latest Studies (not cited in this document)

Generation Housing – 2024 Napa Valley Housing Needs Assessment

Innovative assessment of what needs to happen next. - [Generationhousing.org](https://generationhousing.org)

NORTH BAY HOUSING SOLUTIONS SUMMIT – Friday, October 11, Sheraton Petaluma 9:00-5:00pm

Napa County 2024 Affordable Housing Needs Report

California Housing Partnership [chpc.net/Housing Needs](https://chpc.net/HousingNeeds)

2024 Napa County Farmworker Housing Needs & Impacts Assessment

Presented to the Board of Supervisors in July 2024 countyofnapa.org