

The Economics of Land Use



Draft Report

Fiscal Analysis of the City of Palo Alto 2030 Comprehensive Plan

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February 17, 2017

EPS #151010

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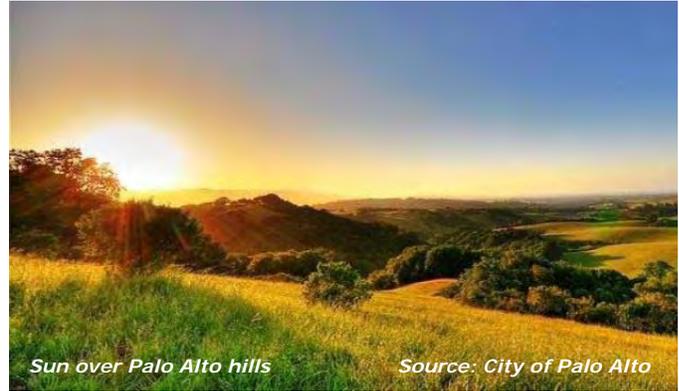
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1. INTRODUCTION AND SCOPE

Introduction

This Fiscal Impact Analysis (“fiscal analysis”) report documents a study of the City of Palo Alto General Fund revenues and costs that are attributable to alternative land use scenarios being considered through the Comprehensive Plan Update process. The fiscal analysis is tied to the City’s Fiscal Year 2015 adopted budget but also considers a 15-year historical review of General Fund revenue and cost trends. Furthermore, it incorporates analytical inputs from key City departments which inform 15-year forecasts of fiscal outcomes, under the year 2030 Comprehensive Plan alternative scenarios.¹



The Comprehensive Plan 2030 fiscal analysis assesses the effect of future residential and employment-supporting (non-residential) development on the City of Palo Alto General Fund. The objective of the analysis is to estimate whether anticipated population growth, economic expansion, and real estate development will generate adequate revenues to cover the costs of providing City General Fund operations and maintenance services. That is, the analysis seeks to identify what effect growth will have on the financial well-being of the City General Fund. Consistent with the Comprehensive Plan Update, the study period for the fiscal projections covers the period from 2015 to 2030. The fiscal analysis does not reflect the potential for the Comprehensive Plan to have quality of life effects that may result from growth, nor does it include costs associated with the major capital investments in infrastructure contemplated by the Comprehensive Plan Update.

The Comprehensive Plan is the primary tool for guiding future development in the City of Palo Alto. The Plan is the framework for making choices about growth, housing, transportation, neighborhood improvement, and service delivery. It is intended to build on shared community values and aspirations to guide preservation and to manage growth and change. The Plan sets out long-term goals for the City’s future as well as policies concerning public service delivery and land use.

The Palo Alto 2030 Comprehensive Plan Update will address changing demographic, economic, and environmental conditions in Palo Alto.² The Comprehensive Plan was last updated between

¹ FY2015 data were current when the Fiscal Impact Analysis commenced. Since then, General Fund revenue has increased notably, but expenditures also have similarly increased. The 2015 data are believed to be sufficiently representative of current revenue and cost factors for land use planning.

² The Housing Element was updated separately to meet a deadline set by the State.

1998 and 2002, with the intent of being re-examined by 2010. City Staff and consultants started work on the current Comprehensive Plan with the Planning and Transportation Commission (PTC) during 2008. Since then, the scope of the Update has grown to include a broad reorganization of the Comprehensive Plan. The technical process of gathering and analyzing data to support the Plan's goals, policies, and programs also has intensified.

This fiscal analysis assesses several scenarios that have been developed to capture the range of possible outcomes of the Comprehensive Plan Update process. The study is intended to inform decision makers about the potential fiscal impacts of the policy choices inherent in the Comprehensive Plan scenarios, recognizing that it is unlikely that the final Comprehensive Plan Update will exactly match any one of these scenarios, and more likely will include blend of all of them. This fiscal analysis is one of several analyses, including a Transportation Impact Analysis and an Environmental Impact Report, that are being prepared to inform a full understanding of the potential outcomes of the six land use scenarios, before a direction is set for the future of Palo Alto.

Comprehensive Plan Scenarios Overview

The City and the Comprehensive Plan Update consultant team have prepared six alternative scenarios that represent a range of land use and growth patterns that could be pursued in the coming years. Each of the scenarios is presented for planning purposes, and the scenarios are not meant to represent mutually exclusive options or final scenarios from which to choose. The scenarios illustrate several ways in which the City can address important issues that Palo Alto is facing, and it is expected that the City Council ultimately will adopt a Comprehensive Plan that represents a combination of the scenarios. By definition, these scenarios explore a range of factors that represent potential changes in direction from existing City policy or past practice. However, each of the scenarios is considered feasible and implementable. For the purposes of the fiscal analysis, it is assumed that the quality of services provided by the City is the same across the scenarios.



- **Scenario 1** represents “business as usual” under the existing Comprehensive Plan land use designations.
- **Scenario 2** tests concepts designed to slow the pace of job growth in the City and to ensure that the modest amount of housing growth that is expected would consist of small units and other housing types appropriate for seniors and the Palo Alto workforce. Under this scenario, existing Comprehensive Plan land use designations remain unchanged.
- **Scenario 3** tests strategies designed to slow the pace of job growth and would replace or supplement the current citywide “cap” on new non-residential square footage with an annual limit on office and R&D development. In Scenario 3, the annual growth cap focuses on the areas of the City that are experiencing the most rapid change, including Downtown, the California Avenue Area, and the El Camino Corridor. This scenario also discourages new

multi-family housing along South El Camino Real and San Antonio Avenue and adopts policies and zoning regulations to shift new housing to transit-rich areas with ample neighborhood services. Under this scenario, Comprehensive Plan land use designations would remain unchanged.

- **Scenario 4** tests strategies to concentrate growth in transit-rich areas of the City, where there are ample neighborhood services, and seeks to address the impacts of employment growth rather than slowing or controlling the rate of growth. As a result, this scenario includes the most job and residential growth of the six scenarios. However, growth only would be allowed on the condition that it (individually or collectively) incorporates stringent performance standards intended to achieve significant sustainability improvements. One of these standards would include “no net new car trips” as a result of any new office development.
- **Scenario 5** tests strategies designed to slow the pace of job growth and replaces or supplements the current citywide “cap” on new nonresidential square footage in “monitored areas” with a permanent annual limit on office and R&D development. This scenario includes the same number of housing units as Scenario 3 but fewer jobs than Scenarios 1 through 4.
- **Scenario 6** tests strategies designed to slow the pace of job growth and includes more housing units than any of the other scenarios. This scenario also lowers job growth to below current projections and allows a robust increase in housing in an effort to address issues of housing affordability and supply in the city and improve the city’s jobs-to-employed-residents ratio.

Based on the scenarios described above, the City and the Comprehensive Plan consultant team established estimates of net new real estate development in the City. **Figure 1** presents a summary of the Comprehensive Plan scenarios, including population, households, employment, and employment workspace growth by 2030. Workspace densities vary by scenario.

Figure 1 2030 Comprehensive Plan Scenarios

Socio-Economic Factor	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Population Growth	6,600	6,600	8,435	10,455	8,435	14,080
<i>Percent Growth</i>	10%	10%	13%	16%	13%	21%
Housing Unit Growth	2,720	2,720	3,545	4,420	3,545	6,000
<i>Percent Growth</i>	10%	10%	12%	15%	12%	21%
Employee Growth	15,480	9,850	12,755	15,480	8,865	8,865
<i>Percent Growth</i>	16%	10%	13%	16%	9%	9%
Employment Workspace Growth (Square Feet)	3,300,000	3,000,000	3,500,000	4,000,000	2,400,000	2,400,000
<i>Percent Growth</i>	12%	11%	13%	15%	9%	9%

Methodology Overview

This fiscal analysis of 2030 Comprehensive Plan scenarios focuses specifically on the effect that population and employment growth will have on the City's \$171.1 million 2015 Adopted General Fund Operating Expenditure Budget.³ The Fiscal Impact Model developed for this study effort assesses revenue and cost effects attributable to growth on a revenue-line-item and department-by-department cost basis. The model holds current operations factors constant, including tax rates, organizational structures, and governance policies. While these and other factors will change over time, this analytical approach seeks to isolate the fiscal impact attributable to residents, workers, and visitors, as well as fiscal impacts attributable to specific land use categories. The analysis presents year 2030 results in constant 2015 dollars.

The fiscal analysis forecasts the net impact (i.e., revenues less costs) for each of the Comprehensive Plan scenarios. The attribution of revenues and costs to specific types of growth provides potentially useful information to decision makers considering alternative paths of growth for the City.

Study Caveats

- **The fiscal analysis does not recommend changes to City budgeting.** The analysis is not intended to support departmental funding decisions. This fiscal analysis specifically seeks to identify General Fund revenue and cost effects attributable to new resident and worker populations in the City. The analysis does not address baseline cost trends (e.g., healthcare or pension costs) or other external factors that may affect the General Fund in the future. The City's Long Range Financial Forecast, Comprehensive Annual Financial Report, and City budget reports support City decisions regarding the allocation of revenue resources.
- **The fiscal analysis does not recommend changes to the levels service achieved by City departments.** The fiscal analysis is not intended to inform decisions concerning the adequacy of City service delivery. Rather, the analysis assumes that current service levels and standards are maintained in the future, under all growth scenarios. Similarly, this study does not evaluate major new capital facilities improvements that may be needed to serve new populations or support new development. Apart from planned infrastructure projects, minimal capital investment in new facilities will be required as a result of the growth anticipated by the Comprehensive Plan Scenarios, and what investment is needed likely would be covered by the general fund expenditures estimated as part of this analysis as well as through development impact fee revenues and other available capital investment sources.
- **The fiscal analysis does not speculate or make projections concerning external factors that may influence growth, City responses to growth, and cost effects in the future.** External factors that are beyond the control of the City and its departments may act to magnify or reduce department costs over time. Examples of such external factors include regional growth, technological advancements, State and federal policies, and environmental factors.

³ The General Fund is a subcomponent of the City's total Fiscal Year 2015 expenditure budget of \$470.3 million.

2. SUMMARY OF ANALYTICAL RESULTS

This fiscal analysis finds that the growth envisioned in all six Comprehensive Plan scenarios likely will generate net revenue for the City of Palo Alto General Fund. The results range from an annual net effect (i.e., additional General Fund revenues minus costs) of roughly \$5.0 million to \$7.4 million by 2030 (in 2015 dollars). These fiscal effects reflect annual per-capita fiscal net benefits of about \$240 to \$320 per net new person (including new residents and workers), with each new resident generating about \$340 to \$360 and each new employee generating about \$190 to \$280.

These findings suggest that the City's General Fund is likely to benefit financially from growth, including both residential and commercial development. That is, each new resident and worker generates more in tax revenue accruing to the City General Fund than his or her cost to the General Fund, on average. Accordingly, this analysis finds that the most significant growth scenarios (Scenario 4 and Scenario 6) will generate the greatest financial gain for the General Fund. **Figure 2** and **Figure 3** present aggregate and per-capita fiscal analysis results, respectively. **Figure 4** presents additional detail concerning per-capita revenues and costs attributable to local residents and workers.

It is important to recognize that despite being positive, the net fiscal impacts calculated by this analysis are quite modest relative to the total City General Fund budget. The greatest net fiscal impact identified, \$7.4 million under Scenario 4, represents about four percent of the Fiscal Year 2015 General Fund expenditure budget.

It also is important to note that there are likely to be a variety of effects from growth that are not reflected in the City fiscal impacts calculated by this analysis. For example, the analysis does not estimate quality of life impacts that result from growth, such as changes in traffic congestion, parking supply, or other positive or negative factors related to increased land use density. The Environmental Impact Report (EIR) concerning the Comprehensive Plan provides a thorough assessment of such impacts. Furthermore, it is important to note that this fiscal analysis provides a view of operational revenues and costs accruing to the General Fund and does not reflect the costs associated with the major infrastructure investments contemplated by the Comprehensive Plan scenarios.

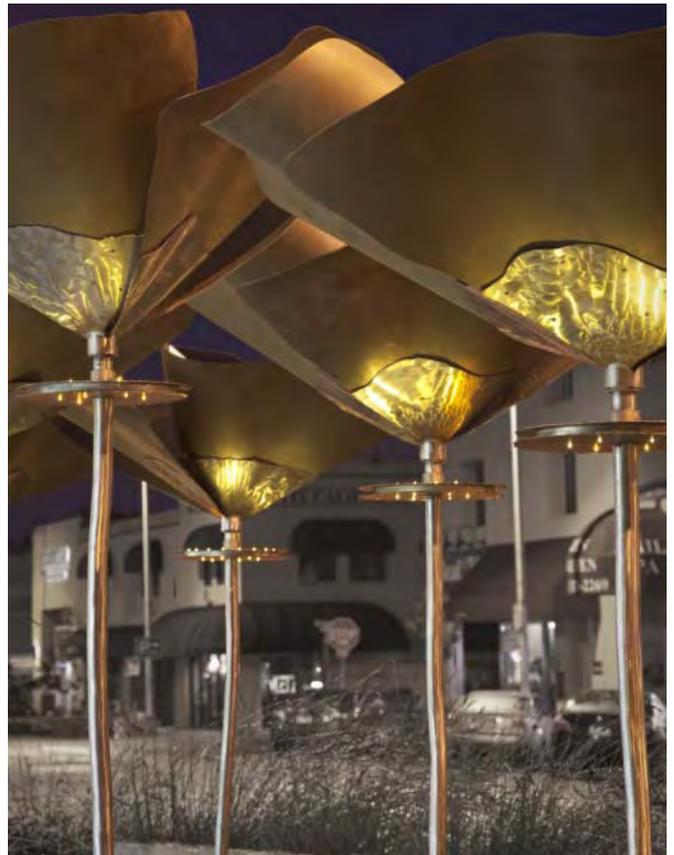


Figure 2 Estimated Annual Net Fiscal Effect on General Fund in 2030 (2015\$, '000s)

Fiscal Effect	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Revenues	\$11,732	\$10,109	\$12,723	\$15,405	\$10,709	\$14,989
Costs	<u>\$6,527</u>	<u>\$5,071</u>	<u>\$6,525</u>	<u>\$8,002</u>	<u>\$5,519</u>	<u>\$7,676</u>
Total Net Effect	\$5,205	\$5,038	\$6,198	\$7,404	\$5,190	\$7,313
<i>Percentage of 2015 General Fund</i>	3.0%	2.9%	3.6%	4.3%	3.0%	4.3%
<u>Total Net Effect by Use Category</u>						
Residential Uses	\$2,238	\$2,238	\$2,973	\$3,722	\$2,973	\$5,096
Employment Uses	\$2,967	\$2,799	\$3,225	\$3,681	\$2,217	\$2,217

Figure 3 Estimated Per-Capita Net Fiscal Effect on General Fund in 2030 (2015\$)

Fiscal Effect	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Overall Per Capita (Residents and Workers)	\$236	\$306	\$292	\$285	\$300	\$319
Per Resident	\$339	\$339	\$352	\$356	\$352	\$362
Per Household	\$823	\$823	\$838	\$843	\$838	\$849
Per Job	\$192	\$284	\$253	\$238	\$250	\$250

Figure 4 Estimated Per-Capita Revenue and Cost on General Fund in 2030 (2015\$)

Fiscal Effect	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<u>Per Resident</u>						
Revenue	\$721	\$721	\$735	\$738	\$735	\$744
Cost	<u>\$382</u>	<u>\$382</u>	<u>\$382</u>	<u>\$382</u>	<u>\$382</u>	<u>\$382</u>
Net Effect	\$339	\$339	\$352	\$356	\$352	\$362
<u>Per Job</u>						
Revenue	\$450	\$543	\$512	\$497	\$509	\$509
Cost	<u>\$259</u>	<u>\$259</u>	<u>\$259</u>	<u>\$259</u>	<u>\$259</u>	<u>\$259</u>
Net Effect	\$192	\$284	\$253	\$238	\$250	\$250

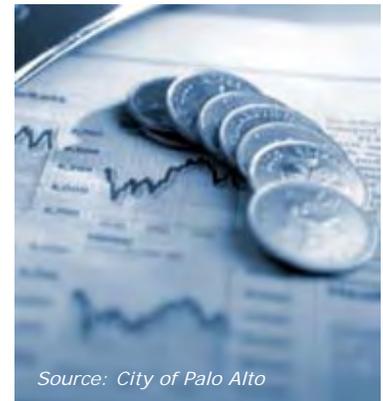
Key Findings

- **The net revenue generated for the General Fund under the Comprehensive Plan Update scenarios result from robust revenue generating potential and modest cost implications attributable to growth.** On the revenue side, property tax-related City income is anticipated to be strong, given the high value of real estate in Palo Alto. In addition, this analysis projects significant sales tax revenue will be generated by new residents and workers. On the cost side, the City is well positioned to expand to meet marginal increases in demand for City services without dramatic increases in operational cost.
- **Though the Comprehensive Plan Update scenarios are likely to generate net revenue for the General Fund, it is notable that even the most aggressive growth forecast will have a relatively modest net effect on the General Fund.** Overall, this fiscal analysis finds that growth scenarios might net the City \$5.0 million to \$7.4 million (2015\$) by 2030, or about 2.9 percent to 4.3 percent of the 2015 General Fund expenditure budget. A variety of factors external to this analysis could have more dramatic effects on the General Fund. For example, retail sales and transient occupancy attributable to regional growth (particularly in nearby cities), turnover of local real estate assets with deeply suppressed assessed value and property tax potential, and regional demographic shifts could affect the General Fund over the next 15 years.
- **The expected fiscal benefit of a new resident in Palo Alto is greater than the expected fiscal benefit of a new employee in the City.** This result is attributable to the greater revenue potential of residents. In particular, property tax revenue from residential uses is two to three times that of employment uses on a per-capita basis (reflective of value, space efficiency, and turnover). This residential property-related revenue outweighs the higher per-capita sales tax revenue and transient occupancy tax revenue generated by local employment. However, new residents are expected to generate a higher marginal cost burden for the City General Fund, as compared with local workers. Overall, though, residents' greater revenue potential relative to workers outweighs the cost of services differential between residents and workers, resulting in greater per-capita net benefits attributable to new residents.

3. FISCAL TRENDS AND ANALYTICAL FRAMEWORK

The City of Palo's budget, as approved by the City Council, reflects resource allocations consistent with the City policies, goals, and priorities. It also communicates to citizens and staff an action plan for the upcoming fiscal year, including program goals and the standards by which the delivery of services to the public will be measured.

For the purposes of this fiscal analysis, the General Fund component of the Fiscal Year 2015 City Budget is the primary basis from which fiscal effects are measured. This section reviews the General Fund in detail, including both revenues and expenditures.



Economic and Budgetary Environment

The General Fund at a Glance

The General Fund is the primary fund used to account for all general revenues of the City (e.g., property tax revenue, sales tax revenue). In general, these funds are allocated at the discretion of the City Council. Revenue is used to support citywide services such as public safety, community services, planning and community environment, and administrative support services. The Fiscal Year 2015 Adopted General Fund Expenditure budget of \$171.1 million is balanced with \$169.4 million in revenues and \$1.7 million Fiscal Year 2014 budget surplus funds.

Primary Revenue Sources Affected by Growth

The General Fund revenue sources discussed below are anticipated to increase with new resident and employment growth in the City.

Property Tax

The City of Palo Alto receives an approximately 9.0 percent apportionment of the base 1.0 percent statewide real property tax rate. The City of Palo Alto's Fiscal Year 2015 revenue projection was about \$32 million.

Sales Tax

The City of Palo Alto receives a 1.0 percent tax rate on taxable retail sales within the City. The City's Fiscal Year 2015 revenue projection was approximately \$26 million.

Transient Occupancy Tax

The Transient Occupancy Tax rate in Palo Alto is 14 percent, which is applied to the daily room rate at local lodging establishments. The tax applies to stays of 30 days or less. The Fiscal Year 2015 revenue projection was \$14.2 million.

Utility Users Tax

A Utility Users Tax is charged to all local consumers of electricity, gas, water, and telephone services at a rate of 4.75 to 5.0 percent.⁴ The Fiscal Year 2015 revenue projection was \$11.3 million.

Documentary Transfer Tax

The Documentary Transfer Tax is levied when real property is sold. In Palo Alto, the real property transfer tax is \$3.30 for each \$1,000 of property value. The Fiscal Year 2015 revenue projection was \$7.5 million.

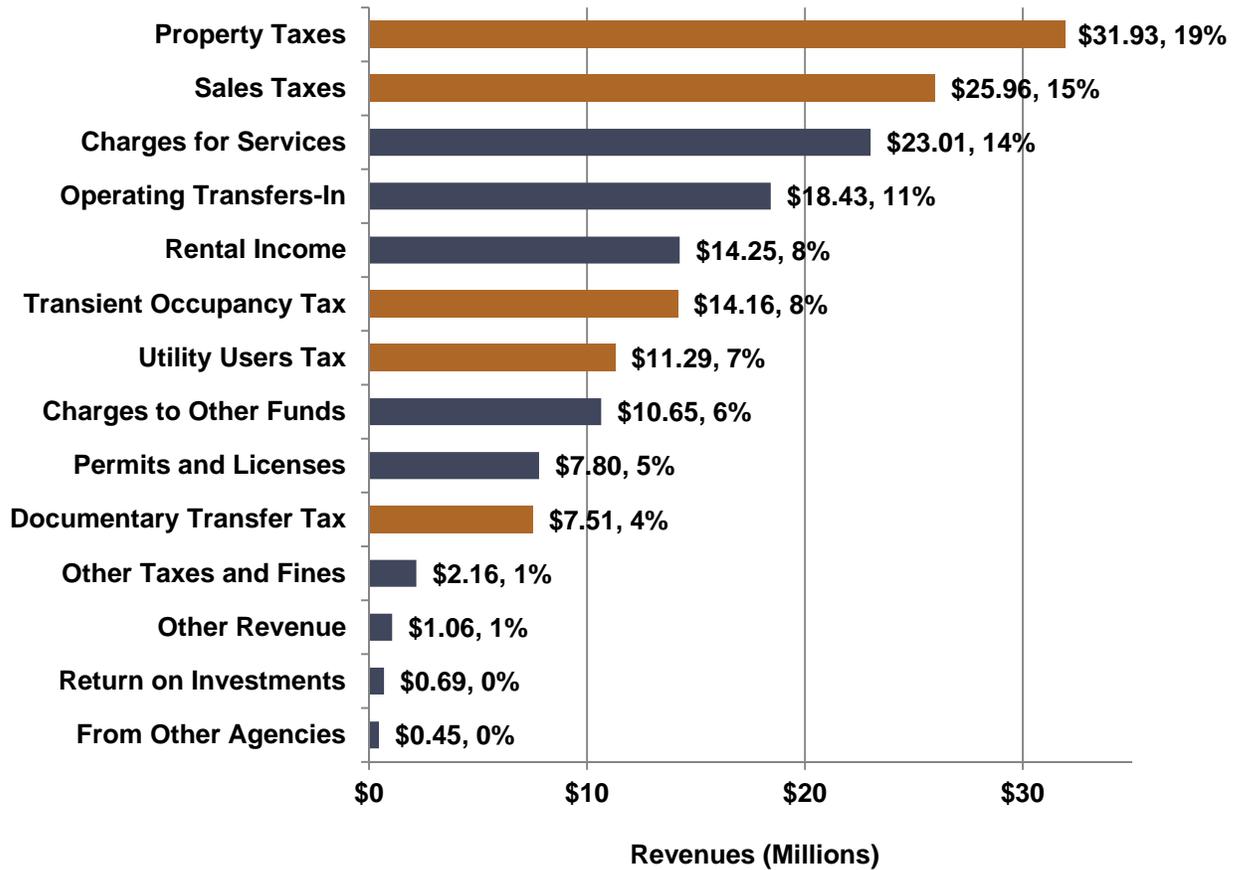
Figure 5 presents a summary of all 2015 General Fund revenue sources, including a number of sources which are not anticipated to be directly or significantly affected by population and employment growth in the City.⁵ In addition, some categories of revenue shown in **Figure 5** are removed from the analysis on both the revenue and cost side of the fiscal accounting ledger, the assumption being that the City will maintain current cost recovery performance.⁶

⁴ Measure C, passed by voters in 2014, modernizes the City's utility users tax to reflect changes in federal law as well as the shift from landline telephones to digital communication technologies. It reduces the telecommunications tax rate from 5 to 4.75 percent and eliminates a discount that applies to a small number of customers who large volumes of gas, water and electricity. For purposes of analysis, this study applies a 5 percent tax rate to all estimated utility charges.

⁵ Operating transfers, rental income, charges to other funds, other revenue, return on investments and funds from other agencies are unlikely to be directly affected by growth.

⁶ Charges for service, permits and licenses, and other taxes and fines.

Figure 5 2015 General Fund Revenue Sources *



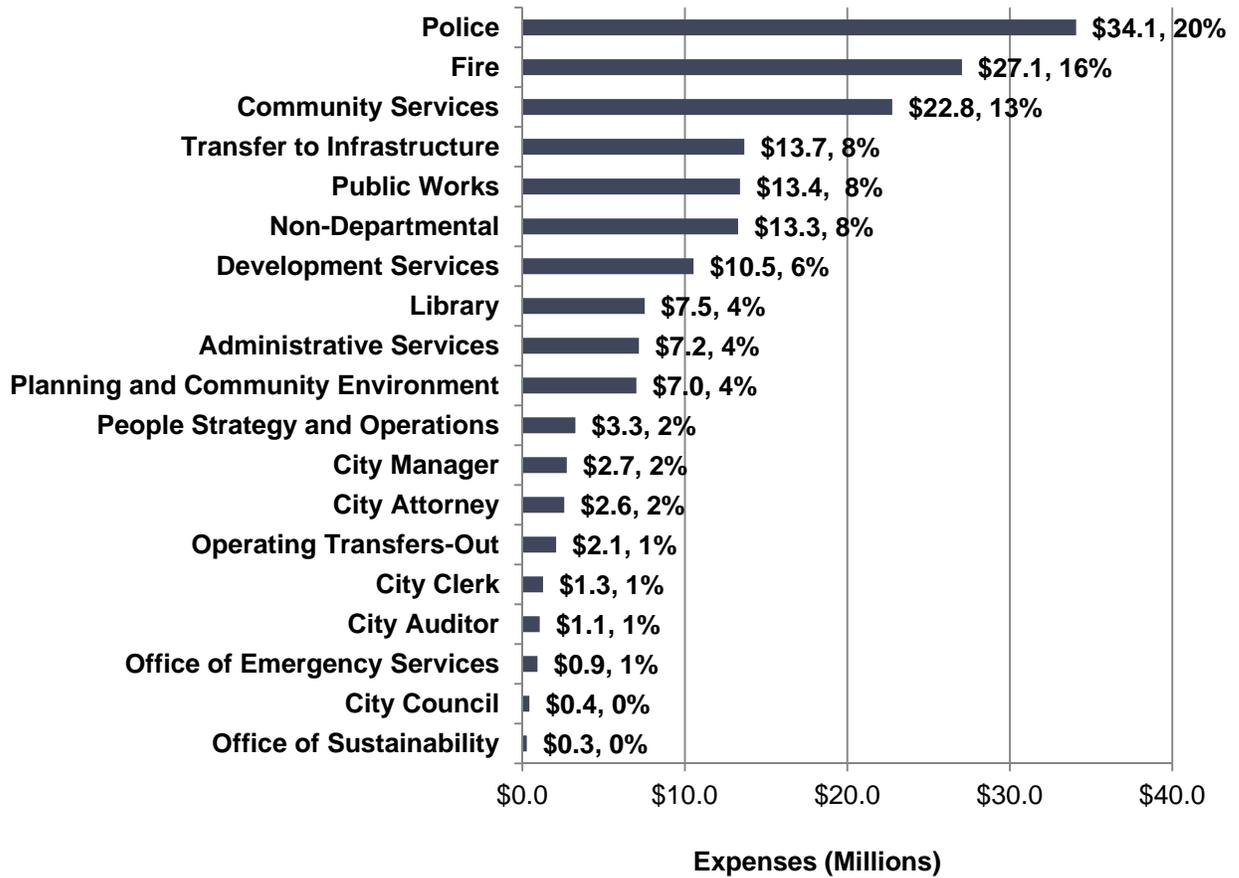
Source: City of Palo Alto Adopted Operating Budget Fiscal Year 2015

* Revenue sources not affected by growth or excluded because of cost recovery are presented in blue.

General Fund Expenditure Budget

City departments that draw heavily on the General Fund include Police (20 percent), Fire (16 percent), Community Services (13 percent), and Public Works (8 percent). **Figure 6** presents the relative size of expenditure budgets for City of Palo Alto departments. Budget trends, including detailed analysis of the trends and cost drivers influencing the operational costs of key departments, are discussed below and in detail in the General Fund Costs section of this report.

Figure 6 Adopted 2015 General Fund Expenditure Budget

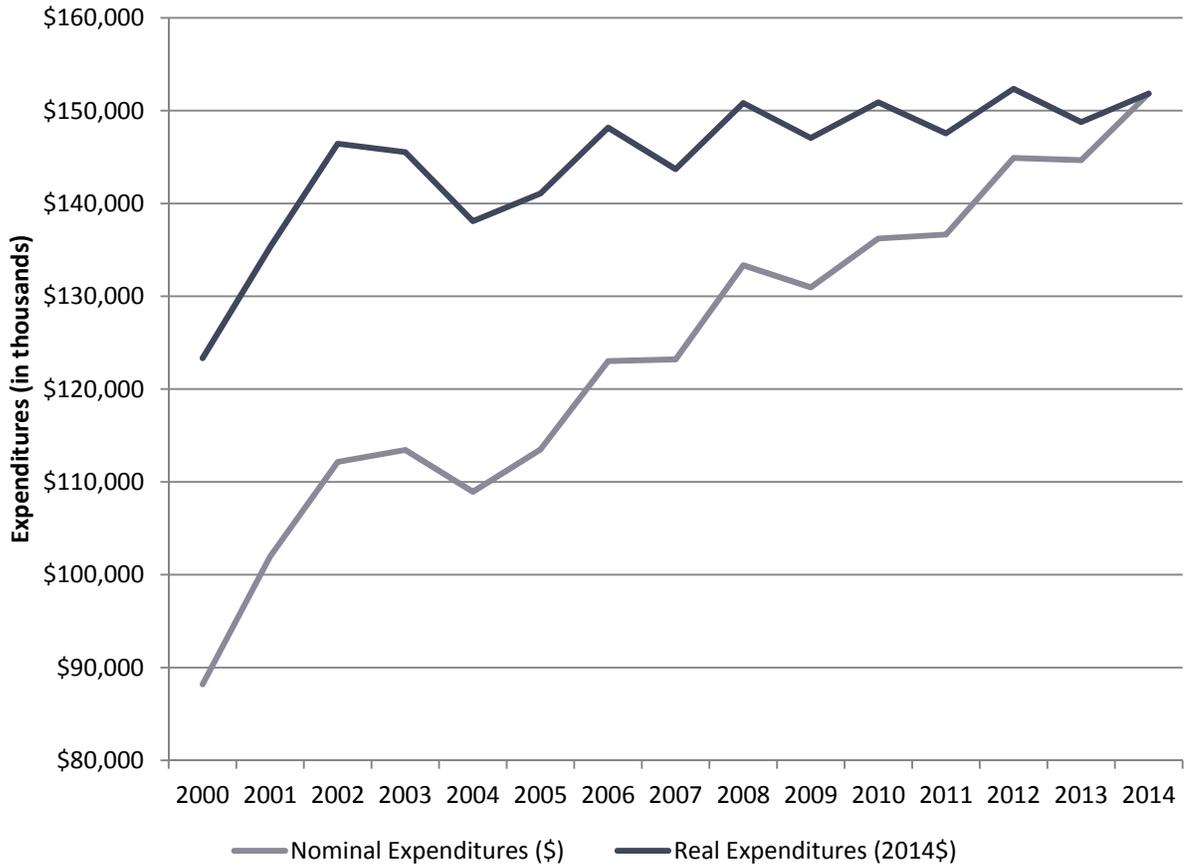


Source: City of Palo Alto Adopted Operating Budget Fiscal Year 2015

Budget Trends

Over the past 15 years, the City of Palo Alto's General Fund expenditures have grown at the modest rate of about 4.0 percent per year on average. Adjusting for inflation, General Fund expenditures have increased by just 1.5 percent per year on average. **Figure 7** presents the budget trend, excluding transfers, since 2000. The figure presents expenditure data compiled from the City's Comprehensive Annual Financial Reports which reflect all General Fund expenditures, less transfers out.

Figure 7 City of Palo Alto General Fund Expenditure Trend



Note: "Nominal Expenditures" reflects City's budget as recorded in each year. "Real Expenditures" are nominal expenditures adjusted for inflation to reflect constant 2014 dollars.

Analytical Approach and Key Assumptions

The Comprehensive Plan 2030 fiscal analysis assesses the effect of future residential and employment-supporting (non-residential) development on the City of Palo Alto General Fund. The objective of the analysis is to estimate whether anticipated population growth, economic expansion, and real estate development will generate adequate revenues to cover the costs of providing City General Fund operations and maintenance services. That is, the analysis seeks to identify what effect growth will have on the financial well-being of the City General Fund. Consistent with the Comprehensive Plan Update, the study period for the fiscal projections covers the period from 2015 to 2030.

Economic & Planning Systems (EPS) has developed a spreadsheet-based fiscal model that relies primarily on the City's Fiscal Year 2015 Adopted Budget, data and qualitative information provided by key City departments, Planning and Community Environment staff guidance, and firm experience conducting fiscal analysis in California. The model calculates revenues and costs attributable to growth using a range of approaches to revenue and cost estimation.

- **Revenue Analysis** - For revenue sources including property tax, sales tax, and transient occupancy tax (i.e., those sources for which revenue generation can be simulated), the model seeks to forecast the marginal contribution of these sources to revenue, based on the range of growth described by the Comprehensive Plan scenarios. For other sources of General Fund revenue, such as the Utility Users Tax, the model calculates revenue estimates based on the current average revenue per household and employee.
- **Cost Analysis** – The model relies on a marginal cost methodology to estimate future City expenditures. These marginal costs are lower than average costs, since a portion of the City's general fund expenditures are fixed (i.e., do not increase with population growth). For departments with relatively large operating budgets, the analysis relies on more detailed data inputs from department representatives to estimate the marginal cost to provide services to increasing numbers of residents and local employees.

The Comprehensive Plan 2030 fiscal analysis is sensitive to the local drivers of fiscal revenues and fiscal costs, and the model takes extraordinary steps to attribute revenues and costs to local residents versus workers.

- **Revenue Attribution** - The analysis attributes revenues to residents based on their local real estate value, their local spending, and spending on lodging by visiting friends and relatives. Similarly, the analysis attributes revenues to employees based on employment-supporting real estate value, business and employee spending, taxable business-to-business sales, and business travel spending in Palo Alto.
- **Cost Attribution** - The analysis uses a “service population” methodology to attribute costs to local populations. For key departments, the study relies on data and qualitative information to assess costs attributable to residents versus workers in Palo Alto. For those departments that have relatively less influence on the cost of services, the analysis defines the service population as the resident population plus one-half of citywide employees (i.e., using this method, the service burden of a local worker is weighted at 50 percent of a local resident).

4. GENERAL FUND REVENUES

Summary of Revenues

The Comprehensive Plan 2030 fiscal analysis estimates City General Fund revenue in 2030 for each of the planning scenarios. Overall, the scenarios generate between \$10.1 million and \$15.4 million in new revenue in 2030 (2015\$). Property tax revenue alone accounts for between 50 percent and 61 percent of total revenue, depending on the scenario. **Figure 8** presents a summary of General Fund revenues by type for each scenario. This section of the report describes the data, assumptions, and calculations used to generate revenue estimates.

Figure 8 Revenue by Comprehensive Plan Scenario in 2030 (2015\$, '000s)

Department	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Property Taxes	\$5,900	\$5,679	\$7,051	\$8,506	\$6,176	\$9,141
Residential Uses	\$3,286	\$3,286	\$4,284	\$5,337	\$4,284	\$7,249
Employment Uses	\$2,614	\$2,393	\$2,768	\$3,169	\$1,892	\$1,892
Property Transfer Tax	\$982	\$957	\$1,214	\$1,481	\$1,114	\$1,751
Residential Uses	\$706	\$706	\$920	\$1,147	\$920	\$1,557
Employment Uses	\$276	\$251	\$294	\$334	\$193	\$193
Sales Taxes	\$1,794	\$1,357	\$1,714	\$2,061	\$1,296	\$1,534
Residential Uses	\$264	\$264	\$344	\$429	\$344	\$583
Employment Uses	\$1,530	\$1,093	\$1,370	\$1,632	\$951	\$951
Transient Occupancy Tax	\$1,569	\$1,058	\$1,372	\$1,672	\$1,019	\$1,167
Residential Uses	\$164	\$164	\$214	\$267	\$214	\$363
Employment Uses	\$1,271	\$796	\$1,038	\$1,271	\$740	\$740
Utility Users Tax	\$1,621	\$1,155	\$1,491	\$1,820	\$1,169	\$1,460
Residential Uses	\$340	\$340	\$435	\$539	\$435	\$726
Employment Uses	\$1,281	\$815	\$1,056	\$1,281	\$734	\$734
Total Revenues	\$11,732	\$10,109	\$12,723	\$15,405	\$10,709	\$14,989
Residential Uses	\$4,760	\$4,760	\$6,198	\$7,719	\$6,198	\$10,477
Employment Uses	\$6,972	\$5,348	\$6,525	\$7,686	\$4,511	\$4,511

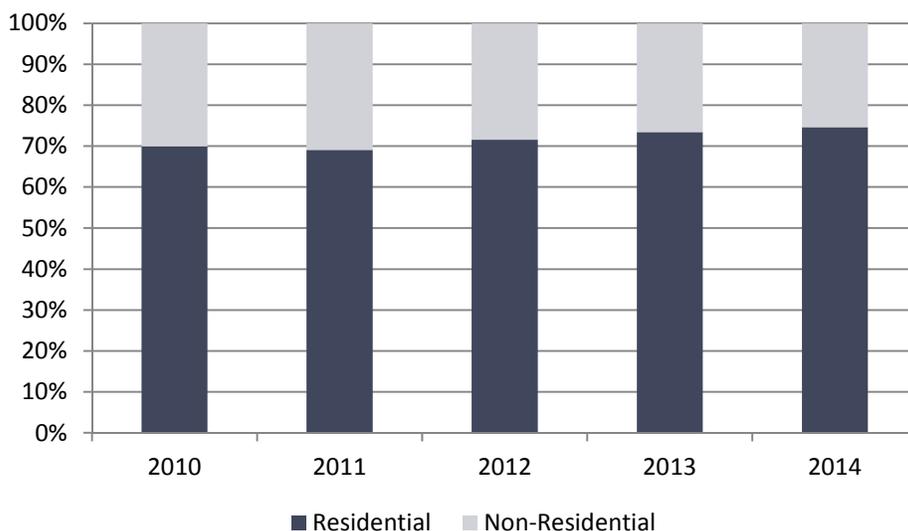
Property Tax Revenue

Property Tax Current Conditions and Trends

At nearly \$32 million, property tax revenue comprises approximately 19 percent of Fiscal Year 2015 General Fund projected revenue, by far the most significant source. Data from the City's Comprehensive Annual Financial Report (CAFR) indicate that in 2014 the residential land uses in Palo Alto accounted for approximately three times the assessed value of commercial land uses and likely a similarly greater amount of property tax revenue. Residential uses' share of total assessed value has trended upward in recent years. Looking back to 2010, residential assessed value was about 2.5 times the commercial assessed value. **Figure 9** presents the trend in residential versus commercial assessed value in the Palo Alto between 2010 and 2014.



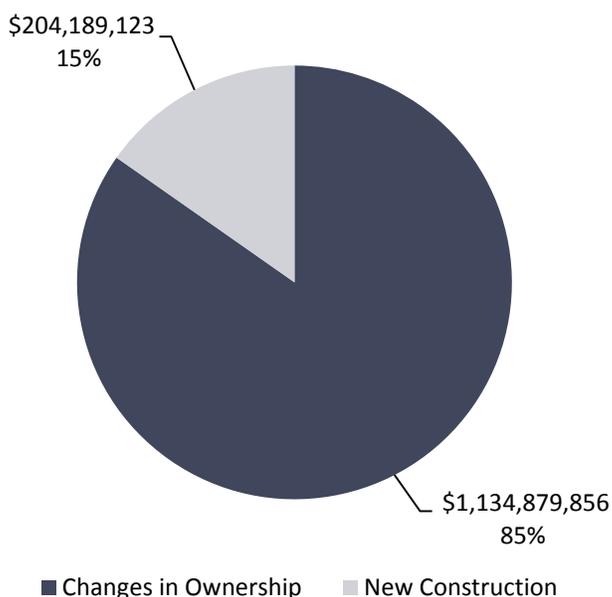
Figure 9 Residential Versus Commercial Assessed Value Trend



Source: City of Palo Alto Comprehensive Annual Financial Report

Increases in assessed value are largely attributable to the turnover of existing real estate in Palo Alto, as compared with new construction. Data from the Santa Clara County Assessor reveal that during 2014-15, only 15 percent of the City's increase in assessed value (about \$200 million) over the prior year was attributable to new construction. Over \$1 billion in assessed value, which accounted for 85 percent of total growth over the prior year, was attributable to changes in property ownership that result in the reassessment of property to current market value. The chart shown in **Figure 10** depicts Palo Alto's year-over-year change in the assessed value split between new construction and changes in ownership.

Figure 10 Added Assessed Value in Palo Alto (2013-14 vs. 2014-15)



Source: Assessor's Annual Report 2014-2015.

These data concerning the creation of new assessed value in Palo Alto suggest that changes in the ownership of existing properties likely is the driving factor behind the overall shift in assessed value toward residential uses. In California, Proposition 13 restricts the assessed value of property to 2.0 percent annual appreciation when ownership remains unchanged. When long-held properties are sold, the assessed value can reset to a market level that is many multiples its prior assessed value. With residential properties being more numerous, more valuable in aggregate, and turning over more frequently in Palo Alto, it is probable that residential turnover in Palo Alto is adding assessed value to the City roll at a greater rate than commercial turnover. And while new construction does contribute to increases in assessed value, the contribution of these new developments is relatively modest and unlikely to dramatically affect aggregate assessed value. For these reasons, it is likely that the baseline condition (i.e., the outcome in the absence of growth envisioned by the Comprehensive Plan scenarios) is that residential uses will continue to increase as a share of total assessed value and property tax revenue in Palo Alto.

Property Tax Revenue Forecast

Property tax will be the most significant source of General Fund revenue attributable to the Comprehensive Plan Update 2030 growth scenarios. The fiscal analysis relies on a variety of data and assumptions to establish the property tax revenue forecasts, including market value assumptions and the anticipated land use mix (i.e., distribution of residential and commercial use types). The analysis assumes that the current taxation framework (e.g., the property tax In Lieu of Vehicle License Fee swap) and tax rates remain unchanged.

Assessed Value

To establish property value assumptions, EPS reviewed a variety of sources, including residential sales data from Zillow, multifamily rental building sales data from RealAnswers, and commercial

real estate transaction data from CoStar Group, all well-respected suppliers of real estate data. In addition, the analysis considers data concerning area median income and follows guidelines from the US Department of Housing and Urban Development (HUD) to establish appropriate market values for Below Market Rate (BMR) housing.

The real estate data considered are specific to real estate transactions in Palo Alto. While there are likely to be transactions that occur both above and below the assumed market valuation levels, the model assumptions are believed to be a good representation of average value citywide over the coming years. **Figure 11** presents the real estate value assumptions relied on by the Comprehensive Plan Update fiscal analysis.

Figure 11 Property Value Assumptions (2015\$) *

Land Use	Market Value	
Residential Uses		
For-Sale Residential	\$1,190,000	Per Unit
For-Sale BMR	\$380,000	Per Unit
Rental Residential	\$750,000	Per Unit
Rental BMR	\$260,000	Per Unit
Employment Uses		
Retail	\$600	Per Square Foot
Office	\$700	Per Square Foot
Industrial	\$400	Per Square Foot
Other	\$700	Per Square Foot

* "Other" land uses include a range of specialty uses, including hospitality, education, and health care uses.

The mix of uses assumed by this analysis reflects the housing units and jobs described by each Comprehensive Plan Scenario (see **Figure 1**). The analysis makes additional assumptions concerning the types of residential and commercial uses that will be developed in the City. **Figure 12** presents detailed land use program assumptions for each Comprehensive Plan scenario.

- Housing** - This analysis assumes that future housing development will be in multifamily developments, including rental apartments and for-sale condominiums. The share of units that will be offered as BMR units reflects City's goal of 15 percent. According to data from the City, currently about seven percent of citywide units are BMR, with about one percent of all units characterized as for-sale BMR units and six percent characterized as rental BMR units. The analysis assumes that the current mix of for-sale and rental BMR continues into the future, but that BMR constitutes a greater share of new housing than existing housing.
- Employment Space** - To establish the mix of employment (non-residential) space development that might occur under the Comprehensive Plan scenarios, the analysis evaluates the detailed job growth projections associated with each of the growth scenarios,

considers potential employment densities by industry, and establishes workspace distributions that reflect these factors. The space distributions are applied to net new development targets established in collaboration with City staff and the consultant team.

Figure 12 Land Use Program by Scenario

Land Uses	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Residential Uses (Dwelling Units)						
For-Sale Residential	1,281	1,281	1,670	2,080	1,670	2,825
For-Sale BMR	47	47	61	76	61	103
Rental Residential	1,031	1,031	1,344	1,675	1,344	2,275
Rental BMR	361	361	471	587	471	797
Employment Uses (Square Feet, '000s)						
Retail	440	490	510	540	260	260
Office	1,160	930	1,210	1,400	810	810
Industrial	330	350	380	410	220	220
Other	1,360	1,280	1,400	1,650	1,120	1,120

Market Appreciation

The fiscal analysis acknowledges the potential for real estate to increase in value at a rate that is greater than overall price inflation in the economy (i.e., “real” price appreciation), while also recognizing that property tax assessments typically lag market appreciation. California’s Proposition 13 limits annual increases in property assessments until the sale of a property resets the property’s assessed value to the current market level. This fiscal analysis takes into account anticipated price increases (i.e., “market appreciation”) and property resale rates (i.e., “turnover”) to estimate assessed property value in 2030, using 2015 dollars.

The analysis assumes market value appreciation and turnover rates for each land use type, shown in **Figure 13**, and calculates assessed value in 2030 to reflect market-based increases in assessed value that register when a property sale occurs. To incorporate real increases in assessed value, the analysis computes adjustment factors which reflect the estimated change in assessed value from current market value. The adjustment provides an improved estimate of real assessed value in 2030.

Figure 13 presents assumptions concerning property turnover and market appreciation for new development.⁷ For below-market rate (BMR) uses, price restrictions are anticipated to keep

⁷ See **Appendix B** for a sensitivity analysis of turnover assumptions.

appreciation at a level that is below than inflation, and thus the adjustment factor reduces the real value in 2030. For other uses, market appreciation is anticipated to exceed inflation to varying degrees, and thus the real value in 2030 is adjusted upward (i.e., adjustment factors are greater than 100 percent). The analysis does not account for turnover in the existing building stock in Palo Alto, since this market activity would occur in the absence of the potential growth considered by the Comprehensive Plan Update scenarios.

Figure 13 Property Turnover and Market Appreciation Assumptions

Land Use	Turnover Rate	Annual Market Appreciation (nominal)	Market Appreciation Adjustment Factor
For-Sale Residential	8%	7%	139%
For-Sale BMR	4%	2%	87%
Rental Residential	4%	7%	132%
Rental BMR	4%	2%	87%
Retail	4%	7%	132%
Office	4%	7%	132%
Industrial	4%	7%	132%
Other	2%	4%	102%

Property Tax In Lieu of Vehicle License Fees

In 2004, the State Legislature cut funding to cities and counties from the State Vehicle License Fee (VLF) and in return began to provide additional property tax revenue. Under this revenue swap, property tax in lieu of VLF increases in proportion to gross assessed value.⁸ Currently, the City of Palo Alto receives an amount equivalent to approximately 25 percent of citywide property tax as a VLF in-lieu payment from the State. The fiscal analysis assumes that these payments grow over time to maintain the 25 percent relationship to property tax revenue.

Exemptions

Currently and in the future, a portion of the real estate in Palo Alto will be exempted from property tax. Data from the Santa Clara County Assessor reveal that about nine percent of Palo Alto's total assessed value is exempt from property tax.⁹ Notable property tax exemptions

⁸ Revenue and Taxation Code Section (c)(1)(B)(i).

⁹ Assessor's Annual Report 2014-2015 (<https://www.sccassessor.org/>).

include the homeowner's exemption and exemptions for properties owned by charitable or nonprofit organizations, religious institutions, and private and non-profit colleges.

Property Tax Revenue Summary

The City of Palo Alto's General Fund receives approximately 9.0 percent of the statewide 1.0 percent base property tax rate. Relying on the data and assumptions presented above, this analysis finds that annual property tax revenue accruing to the City will total between about \$5.7 million and \$9.1 million in 2030 (2015\$), including property tax in lieu of VLF. Detailed calculations for each scenario are provided in the **Appendix A** to this report.

Figure 14 Property Tax Revenue in 2030 (2015\$)

Land Use	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Residential Uses						
For-Sale Residential	\$1,902	\$1,902	\$2,480	\$3,089	\$2,480	\$4,196
For-Sale BMR	\$14	\$14	\$18	\$23	\$18	\$31
Rental Residential	\$922	\$922	\$1,202	\$1,497	\$1,202	\$2,034
Rental BMR	\$74	\$74	\$96	\$120	\$96	\$163
Employment Uses						
Retail	\$317	\$353	\$366	\$385	\$183	\$183
Office	\$967	\$779	\$1,009	\$1,172	\$674	\$674
Industrial	\$159	\$167	\$180	\$193	\$105	\$105
Other	\$873	\$821	\$898	\$1,058	\$716	\$716
Total	\$5,228	\$5,032	\$6,248	\$7,537	\$5,472	\$8,100
In-Lieu VLF Revenue	\$1,285	\$1,237	\$1,536	\$1,852	\$1,345	\$1,991
<i>Property Tax Exemptions</i>	9%	9%	9%	9%	9%	9%
Total Property Tax Revenue	\$5,900	\$5,679	\$7,051	\$8,506	\$6,176	\$9,141
Residential Uses	\$3,286	\$3,286	\$4,284	\$5,337	\$4,284	\$7,249
Employment Uses	\$2,614	\$2,393	\$2,768	\$3,169	\$1,892	\$1,892

Property Transfer Tax Revenue

In addition to annual property tax revenues, the City of Palo Alto receives revenues from property transfer taxes (documentary transfer tax) that are incurred when real property changes hands. The City's municipal code authorizes a Real Property transfer tax of \$3.30 for each \$1,000 of property value (0.33 percent).¹⁰ The fiscal analysis applies this tax rate to the

¹⁰ Ordinance 4073.

anticipated value of property turnover in 2030 (2015\$). **Figure 13** presents turnover rates for each land use type. **Figure 15** summarizes the estimates of property transfer tax revenue.

Figure 15 Property Transfer Tax Revenue in 2030 (2015\$)

Land Use	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Residential Uses						
For-Sale Residential	\$557,893	\$557,893	\$727,325	\$906,192	\$727,325	\$1,230,799
For-Sale BMR	\$2,044	\$2,044	\$2,665	\$3,320	\$2,665	\$4,509
Rental Residential	\$135,202	\$135,202	\$176,262	\$219,610	\$176,262	\$298,276
Rental BMR	\$10,816	\$10,816	\$14,100	\$17,568	\$14,100	\$23,861
Employment Uses						
Retail	\$46,534	\$51,750	\$53,629	\$56,405	\$26,793	\$26,793
Office	\$141,757	\$114,293	\$147,931	\$171,826	\$98,796	\$98,796
Industrial	\$23,393	\$24,479	\$26,357	\$28,355	\$15,359	\$15,359
Other	\$64,025	\$60,242	\$65,880	\$77,606	\$52,481	\$52,481
Total	\$981,663	\$956,717	\$1,214,149	\$1,480,881	\$1,113,781	\$1,750,874
Residential Uses	\$705,954	\$705,954	\$920,352	\$1,146,689	\$920,352	\$1,557,445
Employment Uses	\$275,709	\$250,763	\$293,797	\$334,192	\$193,429	\$193,429

Sales and Use Tax Revenue

Sales and Use Tax Forecast

This section estimates sales and use tax revenue accruing to the City General Fund that is attributable to the new households and employees in Palo Alto. Sales tax revenue attributable to new households reflects household spending on taxable items within the City. Sales tax revenue attributable to employment includes workers spending locally, local business spending on retail items, and taxable business-to-business spending.



Household Spending

The fiscal analysis relies on data from the U.S. Bureau of Labor Statistics Consumer Expenditure Survey to establish the retail spending pattern of households. The spending patterns, while not specific to Palo Alto, reflect household consumer behavior observed nationally for households with annual income greater than \$150,000.¹¹ To identify taxable retail expenditures made by Palo Alto households, this analysis identifies and isolates taxable retail spending from total household spending. The analysis estimates that approximately 16 percent of gross household income is spent on taxable purchases. In Palo Alto, where the average annual household income is about \$207,000, this equates to about \$32,400 per year.

Assuming that about 30 percent of this taxable spending occurs within the City of Palo Alto (a fair-share capture rate based on retail offerings within five miles of the City), an average household will generate about \$9,700 in taxable spending in the City each year. The City tax rate on retail sales is 1.0 percent. Therefore, each local household generates about \$97 annually in sales and use tax revenue for the City General Fund (2015\$). **Figure 16** summarizes the aggregate annual sales tax revenue for each Comprehensive Plan scenario.

Figure 16 Sales Tax Revenues from Households in 2030 (2015\$)

Retail Spending	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Taxable Household Spending	\$32,378	\$32,378	\$32,378	\$32,378	\$32,378	\$32,378
Unique Households	\$2,720	\$2,720	\$3,546	\$4,418	\$3,546	\$6,000
Local Sales Capture Rate	<u>30%</u>	<u>30%</u>	<u>30%</u>	<u>30%</u>	<u>30%</u>	<u>30%</u>
Total Taxable Spending ('000s)	\$26,419	\$26,419	\$34,442	\$42,912	\$34,442	\$58,284
Total Local Sales Tax Revenue	\$264,187	\$264,187	\$344,421	\$429,122	\$344,421	\$582,838

The sales and use tax revenue attributable to employment in Palo Alto includes three distinct spending types. Worker spending, business spending, and business-to-business sales each generate sales and use tax revenue for the City.

Worker Spending

This analysis estimates worker spending based on spending patterns reported in the well-regarded study *Office-Worker Retail Spending in a Digital Age*, a research publication from the

¹¹ The American Community Survey reports 2014 median household income in Palo Alto was approximately \$151,000 per year, while average household income is about \$207,000 per year.

International Council of Shopping Centers (ICSC).¹² Similar to household spending data, these survey data were reviewed to identify taxable spending.¹³ The analysis estimates that each worker in Palo Alto spends about \$9,300 annually on taxable sales in the vicinity of their workplace. Because this spending is known to be near work, this analysis assumes that 80 percent of the taxable spending by Palo Alto workers occurs within the City's boundary. The taxable spending captured in Palo Alto is multiplied by the number of workers who commute in to Palo Alto (about 92 percent of employees), since spending by resident workers already is captured by the household spending estimate described above.¹⁴

Business Spending

There are two types of business spending considered by this analysis, business-to-business spending and business spending on local retail. Business-to-business spending is a major category of sales and use tax revenue in the City of Palo Alto. As part of this analysis, EPS reviewed recent City sales and use tax revenue records and determined that business-to-business sales tax revenues have fluctuated in the range of 8 percent to 21 percent of total sales tax revenue in recent years.¹⁵ Using these data, in combination with information from CoStar Group concerning the existing commercial building stock in the City, this analysis estimates that office and industrial land uses generate an average of roughly \$20 per square foot in business-to-business sales, which translates to \$0.20 per square foot in sales tax revenue. In addition, businesses spend at local retail establishments on office supplies and personnel perks. This analysis assumes \$500 in local, taxable business spending per employee, which equates to sales of about \$2 per square foot of workspace and \$0.02 per square foot in sales tax revenue.

Figure 17 summarizes sales and use tax revenues estimates attributable to employment. Detailed calculations for each scenario are provided in the **Appendix A** to this report.

¹² Michael P. Niemira and John Connolly, International Council of Shopping Centers. "Office-Worker Retail Spending in a Digital Age," 2012. Accessed online at: https://www.downtowndevelopment.com/pdf/icsc-report_office-worker-spending.pdf

¹³ See **Appendix B** for a sensitivity analysis of worker spending.

¹⁴ According to LEHD Census data accessed through OnTheMap (www.onthemap.ces.census.gov), 92.3 percent of those employed in Palo Alto live outside of Palo Alto.

¹⁵ City of Palo Alto Sales Tax Digest Summaries from 2013 and 2014.

Figure 17 Sales Tax Revenues from Businesses in 2030 (2015\$)

Retail Spending	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Taxable Spending Per Worker	\$9,270	\$9,270	\$9,270	\$9,270	\$9,270	\$9,270
Unique Workers	\$14,182	\$9,026	\$11,687	\$14,182	\$8,124	\$8,124
Local Sales Capture Rate	<u>80%</u>	<u>80%</u>	<u>80%</u>	<u>80%</u>	<u>80%</u>	<u>80%</u>
Total Taxable Retail Spending by Workers ('000s)	\$105,173	\$66,935	\$86,670	\$105,176	\$60,248	\$60,248
Business-to-Business Taxable Sales ('000s)	\$4,349	\$3,851	\$4,575	\$5,272	\$3,172	\$3,172
Business Spending at Retail Establishments ('000s)	<u>\$4,349</u>	<u>\$3,851</u>	<u>\$4,575</u>	<u>\$5,272</u>	<u>\$3,172</u>	<u>\$3,172</u>
Total Taxable Spending ('000s)	\$153,016	\$109,296	\$136,990	\$163,167	\$95,136	\$95,136
Total Local Sales Tax Revenue	\$1,530	\$1,093	\$1,370	\$1,632	\$951	\$951

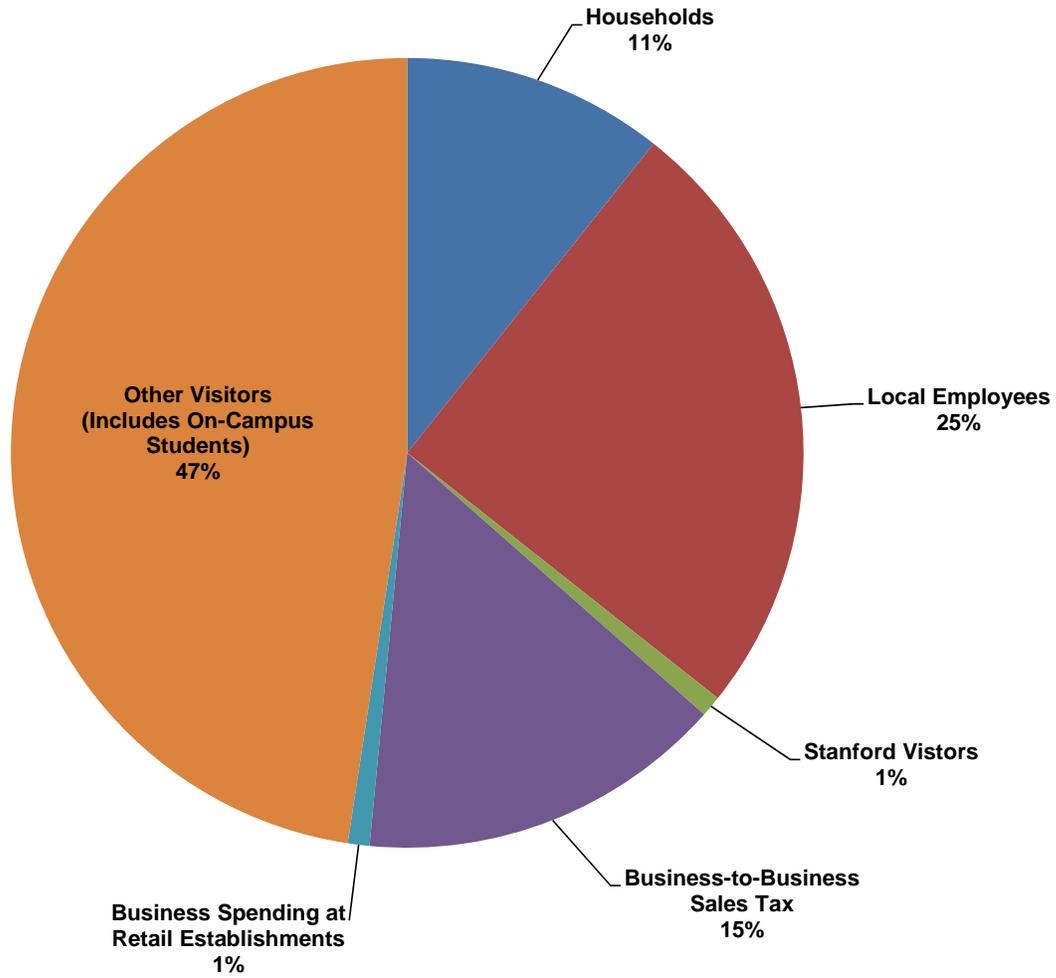
Sales and Use Tax Current Conditions Estimate

Based on the data and assumptions relied upon to estimate Sales and Use Tax revenue under each Comprehensive Plan scenario, a current snapshot of sales tax generation by source is provided for reference in **Figure 17**. The purpose of the current conditions estimate is to illustrate the outputs of the fiscal model in the context of Palo Alto today. This illustration is intended to help with model interpretation and to provide another lens through which model assumptions may be evaluated.

The current conditions estimate relies on current household counts, employment counts, business-to-business sales tax revenue data, and an economic impact analysis from Stanford University to illustrate current retail spending and tax revenues.¹⁶ In this estimate of current conditions, "other visitors" are estimated as a residual retail sales generator. That is, after quantifiable sources of demand have been accounted for, the remainder is attributed to other visitors. The estimate indicates that in 2015 about 11 percent of the City's sales tax revenue is attributable to resident households, while about 41 percent of sales tax revenue is attributable to local businesses. The remaining 48 percent of sales tax revenue is attributable to visitors, including those who come to the City for shopping and leisure, students attending Stanford University who live outside of the City, and visitors to Stanford.

¹⁶ Stanford University Economic Impact Study, 2008. Prepared by The Pacific partners Consulting Group, Inc. Published by Stanford University Office of Public Affairs. Accessible online at: <http://web.stanford.edu/dept/govcr/documents/economic-impact-study.pdf>

Figure 18 **Estimated Sales Tax Generation by Spending Source 2015**



Source: Economic & Planning Systems, Inc.

Transient Occupancy Tax

Transient Occupancy Tax Forecast

Hotels in Palo Alto generate significant revenue for the City's General Fund through the local Transient Occupancy Tax (TOT), which is a 14 percent tax on local hotel room revenue. Rather than attribute all of the TOT revenue to employment uses, this analysis seeks to identify the demand driver that stimulates the need for local lodging. The analysis relies on relevant hospitality literature and recently-collected primary data from Menlo Park.

For residential demand, the analysis assumes that each residential unit in the City will generate demand for two room nights per year. This assumption is generally consistent with literature on visiting friends and relatives (VFR) which indicates that nationally about 12 percent of hotel demand is attributable to VFR.¹⁷ In Palo Alto, where Stanford University is a significant driver of hotel demand, household-generated might be a somewhat lesser share of total demand. While 12 percent of hotel demand in Palo Alto equates to approximately 70,000 room nights generated by the City's nearly 29,000 households, this analysis estimates that about 60,000 room nights are attributable to Palo Alto households.

The analysis estimates commercial demand for hotel rooms using a factor of three room nights per year per local employee. This factor is consistent with informal survey data collected from Menlo Park hotel entities by the Stanford University Office of Land, Buildings, and Real Estate. The analysis also assumes that 90 percent of the locally-generated hospitality demand is supplied locally in Palo Alto.

Figure 19 presents estimates of room night demand and TOT revenue. Detailed calculations for each scenario are provided in the **Appendix A** to this report.

¹⁷ Braunlich, C. and N. Nadkarni, The Importance of the VFR Market to the Hotel Industry, The Journal of Tourism Studies Vol. 6, No. 1, May 1995.

Figure 19 Annual Room Night Demand and Transient Occupancy Tax Revenue

Land Use	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
<u>Room Night Demand</u>						
Residential Uses						
Dwelling Units	2,720	2,720	3,546	4,418	3,546	6,000
Room Night Demand	5,440	5,440	7,092	8,836	7,092	12,001
Employment Uses						
Employment	15,482	9,853	12,758	15,482	8,869	8,869
Room Night Demand	46,446	29,560	38,275	46,446	26,607	26,607
Total Room Night Demand	51,886	34,999	45,366	55,282	33,698	38,607
Palo Alto Capture	46,697	31,499	40,830	49,754	30,328	34,746
<u>Room Revenue and TOT ('000s)</u>						
Annual Revenue	\$11,207	\$7,560	\$9,799	\$11,941	\$7,279	\$8,339
Total TOT Revenue	\$1,569	\$1,058	\$1,372	\$1,672	\$1,019	\$1,167
Residential	\$164	\$164	\$214	\$267	\$214	\$363
Non-Residential	\$1,271	\$796	\$1,038	\$1,271	\$740	\$740

Transient Occupancy Tax Current Conditions Estimate

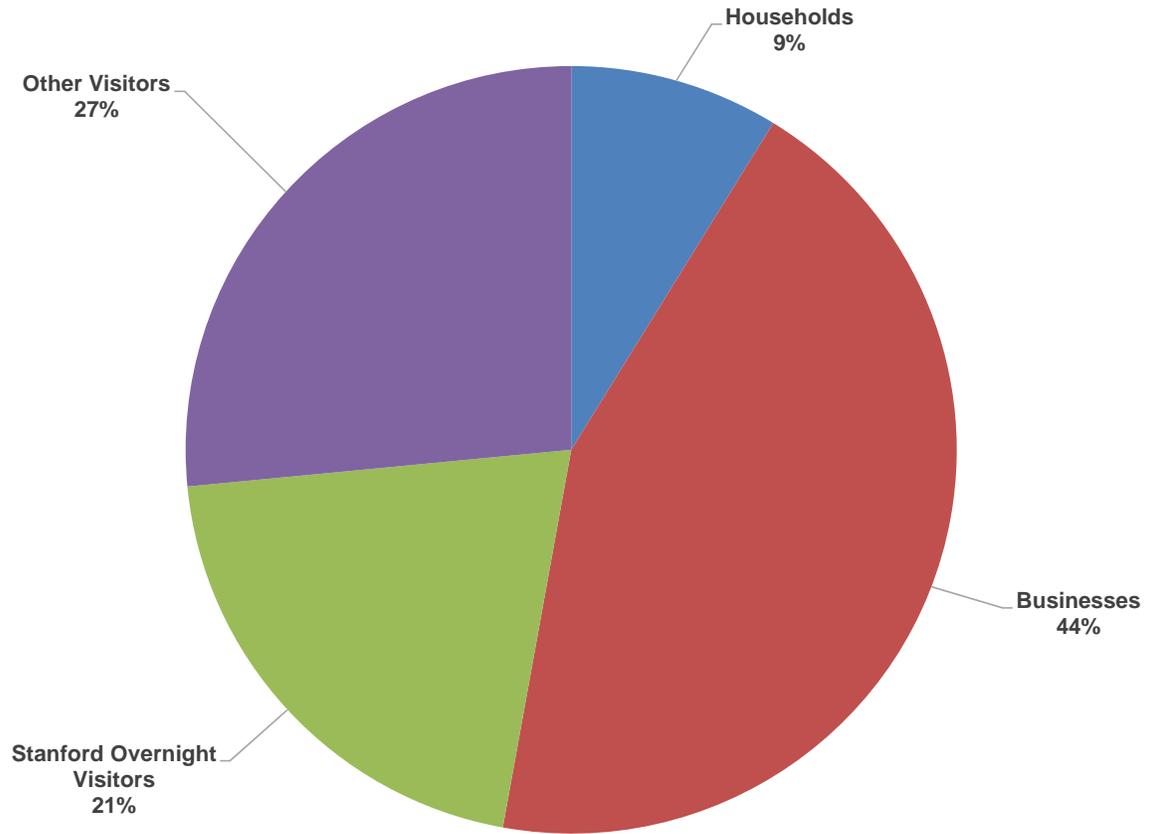
Similar to the Sales and Use Tax snapshot presented above, this analysis provides a current conditions estimate of transient occupancy tax generation by source. The purpose of the current conditions estimate is to illustrate the outputs of the fiscal model in the context of Palo Alto today.

The current conditions estimate relies on current household counts, employment counts, and an economic impact analysis from Stanford University to illustrate current retail spending and tax revenues.¹⁸ In this estimate of current conditions, "other visitors" are estimated as the residual TOT generator. That is, after quantifiable sources of demand have been accounted for the remainder is attributed to other visitors.

The current conditions estimate indicates that in 2015 about nine percent of the City's transient occupancy tax revenue is attributable to resident households, while about 44 percent is attributable to local businesses. The remaining 47 percent of transient occupancy tax revenue is attributable to visitors to the region, including those who come for leisure but are not visiting friends and relatives and visitors to Stanford University.

¹⁸ Stanford University Economic Impact Study 2008
(<http://web.stanford.edu/dept/govcr/documents/economic-impact-study.pdf>)

Figure 20 **Estimated Transient Occupancy Tax Generation by Demand Source 2015**



Utility Users Tax

The fiscal analysis uses an average revenue approach to estimate per-capita Utility Users Tax revenue. The analysis applies average revenue generation factors to future residents and employees to project tax revenues under each of the Comprehensive Plan scenarios.

The Fiscal Year 2015 City General Fund revenue forecast put the Utility Users Tax revenue at about \$11.3 million. Data from City of Palo Alto Utilities indicates that during Fiscal Year 2015, approximately 70 percent of Utility Users Tax revenue was attributable to commercial and industrial uses, while the remainder was attributable to residential uses. Based on these data, as well as current population and employment inputs, this analysis establishes that average per-capita tax revenues are about \$52 per resident and \$83 per employee.



Figure 21 presents estimates of Utility Users Tax revenue. Detailed calculations for each scenario are provided in the **Appendix A** to this report.

Figure 21 Utility Users Tax Revenue

Land Use	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Total	\$1,621	\$1,155	\$1,491	\$1,820	\$1,169	\$1,460
Residential Uses	\$340	\$340	\$435	\$539	\$435	\$726
Employment Uses	\$1,281	\$815	\$1,056	\$1,281	\$734	\$734

5. GENERAL FUND COSTS

Summary of Costs

This fiscal analysis estimates City General Fund costs in 2030 for each of the planning scenarios. The scenarios generate between \$5.1 and \$8.0 million in new cost by 2030 (2015\$). The bulk of the increased cost is attributable to public safety services. **Figure 22** summarizes General Fund costs by departmental category for each scenario. This section of the report describes the data, assumptions, and calculations used to generate these cost estimates.

Figure 22 Summary of Costs by Comprehensive Plan Scenario in 2030 (2015\$, '000s)

City Function/ Department	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
City Administration¹	\$575	\$462	\$594	\$729	\$516	\$742
Residential	\$264	\$264	\$338	\$419	\$338	\$564
Non-Residential	\$310	\$197	\$256	\$310	\$178	\$178
Community Services	\$847	\$804	\$1,029	\$1,273	\$1,000	\$1,623
Residential	\$729	\$729	\$932	\$1,155	\$932	\$1,556
Non-Residential	\$118	\$75	\$97	\$118	\$67	\$67
Library	\$120	\$110	\$141	\$175	\$135	\$215
Residential	\$94	\$94	\$120	\$148	\$120	\$199
Non-Residential	\$27	\$17	\$22	\$27	\$15	\$15
Planning and Community Environment	\$364	\$292	\$376	\$461	\$326	\$469
Residential	\$167	\$167	\$214	\$265	\$214	\$357
Non-Residential	\$196	\$125	\$162	\$196	\$112	\$112
Public Safety²	\$4,446	\$3,270	\$4,214	\$5,153	\$3,400	\$4,435
Residential	\$1,210	\$1,210	\$1,546	\$1,917	\$1,546	\$2,581
Non-Residential	\$3,237	\$2,060	\$2,667	\$3,237	\$1,854	\$1,854
Public Works	\$176	\$133	\$171	\$210	\$142	\$191
Residential	\$58	\$58	\$74	\$92	\$74	\$124
Non-Residential	\$118	\$75	\$97	\$118	\$67	\$67
Total Cost Estimate	\$6,527	\$5,071	\$6,525	\$8,002	\$5,519	\$7,676
Residential	\$2,522	\$2,522	\$3,224	\$3,996	\$3,224	\$5,381
Non-Residential	\$4,005	\$2,549	\$3,300	\$4,005	\$2,294	\$2,294

[1] Includes Administrative Services; City Attorney; City Auditor; City Clerk; City Council; City Manager; Non-Departmental; Office of Sustainability; and People, Strategy and Operations

[2] Includes Fire; Police; and Office of Emergency Services

Responses to Growth

The fiscal analysis estimates the costs attributable to population and employment growth in the City of Palo Alto by characterizing how expenses will change for each department. For some departments, population and employment growth in the City will not dramatically alter operations. For example, administrative functions in the City are not likely to scale up significantly to accommodate the roughly 10 to 16 percent growth that is contemplated by the Comprehensive Plan scenarios. Alternatively, departments that provide services directly to residents and businesses likely will increase their operations and costs to accommodate new populations.

It is important to note that a range of external factors may influence responses to growth and cost effects in the future. Examples of factors that are beyond the control of the City and its departments that may act to magnify or reduce department costs over time include:

- Regional growth;
- Technology;
- State and federal policies; and
- Environmental factors.

This study does not speculate regarding the potential effects of such exogenous influences on the general fund expense budget. It focuses only on those factors attributable directly to the population growth, employment growth, and land use changes inherent in the six scenarios.

The fiscal analysis model relies on characterization of the likely budgetary response to population and employment growth for each department. For major City departments (discussed in detail below), the analysis uses department self-assessments to establish their likely response to growth. For other departments, EPS relies on professional experience and input from City staff to establish analytical assumptions. The anticipated response to growth is expressed for fiscal modeling purposes in terms of “fixed expenses” and “variable expenses” within the department budget.

The fixed expenses are the portion of a City department’s budget which is not affected by population and employment growth. Even a department which is anticipated to grow largely in step with the City’s populations likely would have some fixed cost. For example, in most cases each department has only one director position, which is a fixed expense for the department. While the department may increase staffing to accommodate growth, the department will not add another director.

The variable expenses of a department are those that do increase with growth. As the City grows, increased demand for services requires some departments to scale up operations to meet new demand. The portion of a department’s budget that scales up is identified as the variable share of the budget. **Figure 23** presents the categorization of each major City department by expense variability. As shown, it is anticipated that for most departments costs are largely fixed, and thus the cost effects from growth will be relatively modest.

Figure 23 Expense Variability by Department

Low Expense Variability 10% - 25% *	Medium Expense Variability 25% - 75% *	High Expense Variability >75% *
Administrative Services	Community Services	Police Department
City Attorney	Development Services	Emergency Services
City Auditor	Planning & Community Environment	
City Clerk	Fire Department	
City Council		
City Manager		
Library		
Office of Sustainability		
People, Strategy and Operations		
Public Works		
Non-Departmental		

* Percentages refer to the portion of the General Fund expenditure budget that is anticipated to be affected by growth in the City.

Cost Recovery

To the degree possible, using readily available data from the Fiscal Year 2015 Budget, this analysis removes revenues for services provided and other revenues generated by each department. Known as “cost recovery,” department revenues from charges for service, taxes and fines, and permits and licenses are likely to grow with city population and employment. By removing department cost recovery revenue from the analysis, this study focuses on the net effect of each department on the General Fund. This approach reduces the potential to overestimate the cost burden attributable to new residents and employees in Palo Alto.

Cost Burden Allocations

An essential element of this fiscal analysis is the consideration of the relative effects of residential versus business growth on the City’s General Fund. To establish the cost burden of residents and employees on department expenses, this study employs a two-tiered approach. For those City departments with significant general fund expenses, including Police, Fire, Community Services, Public Works, and Library, the study effort included department interviews

and department-specific data analyses to determine service population cost burden characteristics. For departments with less significant general fund expenses, this analysis uses an industry-standard service population analysis that weights the cost burden of a local employee at 50 percent of one resident. **Figure 24** presents the assumptions regarding cost burdens that are applied in this fiscal analysis. A detailed discussion of the department-specific cost factors and the service population calculation is described later in this section of the report.

Figure 24 Cost Burden Allocations by Department

Department	Cost Burden	
	Residential Uses	Employment Uses
Community Services	87.1%	12.9%
Library	85.0%	15.0%
Public Safety - Fire	63.7%	36.3%
Public Safety - Police	30.0%	70.0%
Public Works	44.4%	55.6%
All Other Departments	57.9%	42.1%
Total	56.4%	43.6%

Estimated Cost Burdens

Relying on the variable cost estimates and residential versus employment cost burden split, this analysis calculates per-resident and per-employee marginal costs. These per-capita cost burdens represent the additional cost that each new resident and each new worker in Palo Alto will generate for each department. The analysis applies these per-capita cost estimates to the Comprehensive Plan scenarios to estimate the aggregate cost burden in 2030. The per-resident cost burdens range from \$0.36 per person per year to pay for additional costs borne by the Office of Sustainability to almost \$112 per person per year to pay for additional costs borne by the Police Department. The per-employee cost burdens range from \$0.18 per employee per year for the Office of Sustainability to over \$180 per employee per year for Police Services. **Figure 25** presents the per-resident and per-employee cost burdens relied upon by the fiscal analysis. Detailed calculations are provided in **Appendix A**.

Figure 25 Estimated Marginal Cost Burden on City General Fund (2015\$)

Item	Per-Resident	Per-Employee
Administrative Services	\$8.73	\$4.36
City Attorney	\$2.94	\$1.47
City Auditor	\$1.31	\$0.66
City Clerk	\$1.50	\$0.75
City Council	\$0.53	\$0.26
City Manager	\$3.16	\$1.58
Community Services	\$110.50	\$7.60
Library	\$14.17	\$1.72
Non-Departmental	\$17.56	\$8.78
Office of Sustainability	\$0.36	\$0.18
People Strategy and Operations	\$3.99	\$1.99
Planning and Community Environment	\$25.36	\$12.68
Public Safety - Fire	\$64.36	\$25.28
Public Safety - Police	\$112.43	\$180.51
Public Safety - Office of Emergency Services	\$6.54	\$3.27
Public Works	<u>\$8.81</u>	<u>\$7.60</u>
Total	\$382.24	\$258.69

Departmental Trends and Analytical Assumptions

For key City departments, including Police, Fire, Community Services, Public Works, and Library, this analysis estimates department-specific cost increases associated with resident and employment growth by evaluating historical cost budget trends, cost variability factors, the relative cost of residents versus employees, and potential future changes in department operations. EPS obtained quantitative and qualitative inputs from each of the key departments during in-person interviews and through follow-up activities including data requests and conference calls. This section describes in detail the basis for the cost assumptions relied on by the fiscal analysis.

EPS commenced research on department costs by reviewing historical data from City of Palo Alto Adopted Budget documents and City of Palo Alto Comprehensive Annual Financial Reports (CAFRs) from 2000 to 2015. The City CAFRs contain information on actual Fiscal Year expenditures, department operating indicators, and employment (in Full Time Equivalents, "FTEs"). EPS charted these factors for the largest city departments to understand the relationship between staffing and other operational factors and department costs.

After reviewing readily available data, EPS conducted interviews with the five key departments.¹⁹ The department interviews sought to gather information about how operating costs likely would be affected by service population growth. Interview topic areas included:

- Overview of department expenditure trends;
- Key factors driving departmental costs;
- Fixed versus variable department costs (i.e., which costs are likely to increase with growth);
- Attribution of cost burden to residential land uses versus employment land uses; and
- Potential changes to department cost structure (i.e., are current operations representative of future operations).

Interviews resulted in both qualitative and quantitative information concerning department costs. This analysis uses information from the departments coupled with EPS experience in fiscal analysis to make informed assumptions concerning each department's cost response to growth, including both residential and employment increases in Palo Alto.

Police Department

Police Department expenditures have risen steadily since 2000, with modest spikes in 2008 and 2012. Adjusted for inflation, 2014 expenditures were approximately 39 percent higher than 2000 expenditures, with an average annual growth rate of



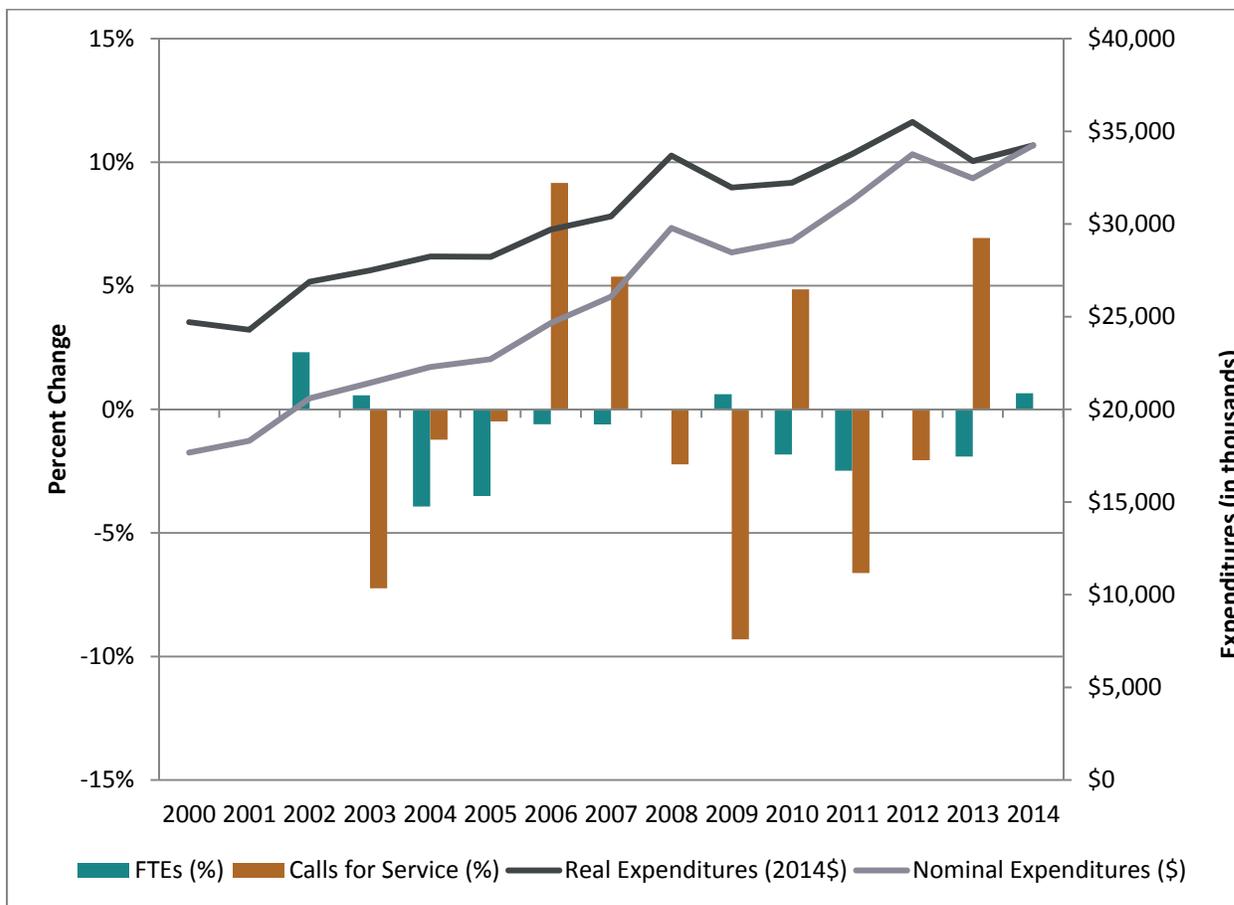
Source: City of Palo Alto

¹⁹ EPS interviewed Ian Hagerman, Senior Administrator for the Police Department; Eric Nickel, Fire Chief, Catherine Capriles, Fire Captain, and Amber Cameron, Fire Department Strategic Operations Manager; Monique leConge Ziesenhenné, Library Director; Rob de Geus, Director of Community Services, Daren Anderson, Open Space, Parks and Golf Division Manager, and Lam Do, Community Services Senior Management Analyst; and Mike Sartor, Director of Public Works.

approximately 3 percent. FTEs dropped from 173 FTEs in 2000 to 155 FTEs in 2014. As shown in **Figure 26**, expenditure increases are not clearly tied to increases in FTEs or calls for service.

From the interview with the Police Department, EPS understands that FTEs fluctuate for various reasons, including due to time lag that can occur between an officer’s retirement and the hire of a new officer. The department also indicated during the interview that while calls for service are related to department efforts and associated service costs, calls for service may fluctuate over time due to external factors, including police response policies.

Figure 26 Police Expenditures and Operating Indicators



Variable Costs

Police Department operating expenses are highly variable. With growth in the City’s service population, staffing below the rank of Captain would increase to accommodate the need for additional service. Some overhead costs, such as the dispatch services provided by the Police Department to other departments (Fire, Public Works, Utilities, Animal Services, Parking) and for Stanford are likely to be fixed costs. Aside from high-ranking police officers and fixed overhead and facilities costs, the department is likely to grow to accommodate the need for police services attributable to new populations. This analysis assumes that 80 percent of police operating costs are variable.

Resident versus Employee Costs

The Police Department indicates that the majority of calls for service are related to activity occurring within Palo Alto's Downtown area, peaking on weekend evenings.²⁰ According to the Police Department, the driver of Downtown activity and the calls for service there is commercial activity. The retail, restaurants, and office uses Downtown support a vibrant urban center, which is attractive to criminals. For example, auto burglary is a significant issue in commercial areas such as Downtown, owing to the presence of retail shoppers and business travelers who leave items in their cars.

The Police Department analyzed crime data to estimate cost burdens attributable to residential and employment land uses. For each category of crime recorded by the Department, the Police Department identified whether the type of crime is primarily attributable to residential- or employment-related land uses, with employment-related crime including those likely to occur in commercial areas of the City.²¹ Based on the data review, the Police Department indicates that approximately 70 percent of variable department costs are attributable to employment land uses, while 30 percent are attributable to residential land uses.

Police Department Operating Structure

The City is moving forward with plans for a new Police Station. The new station is not anticipated to have an impact on the operational structure of the Department. The Police Department did note that the new station could involve a potential reorganization of the Department's information technology (IT) services, but this modification is unlikely to have significant cost implications.

²⁰ Though a commercial area, California Avenue has significantly lower levels of calls for service than the Downtown Core. In addition, Stanford is not a driver of crime in Palo Alto.

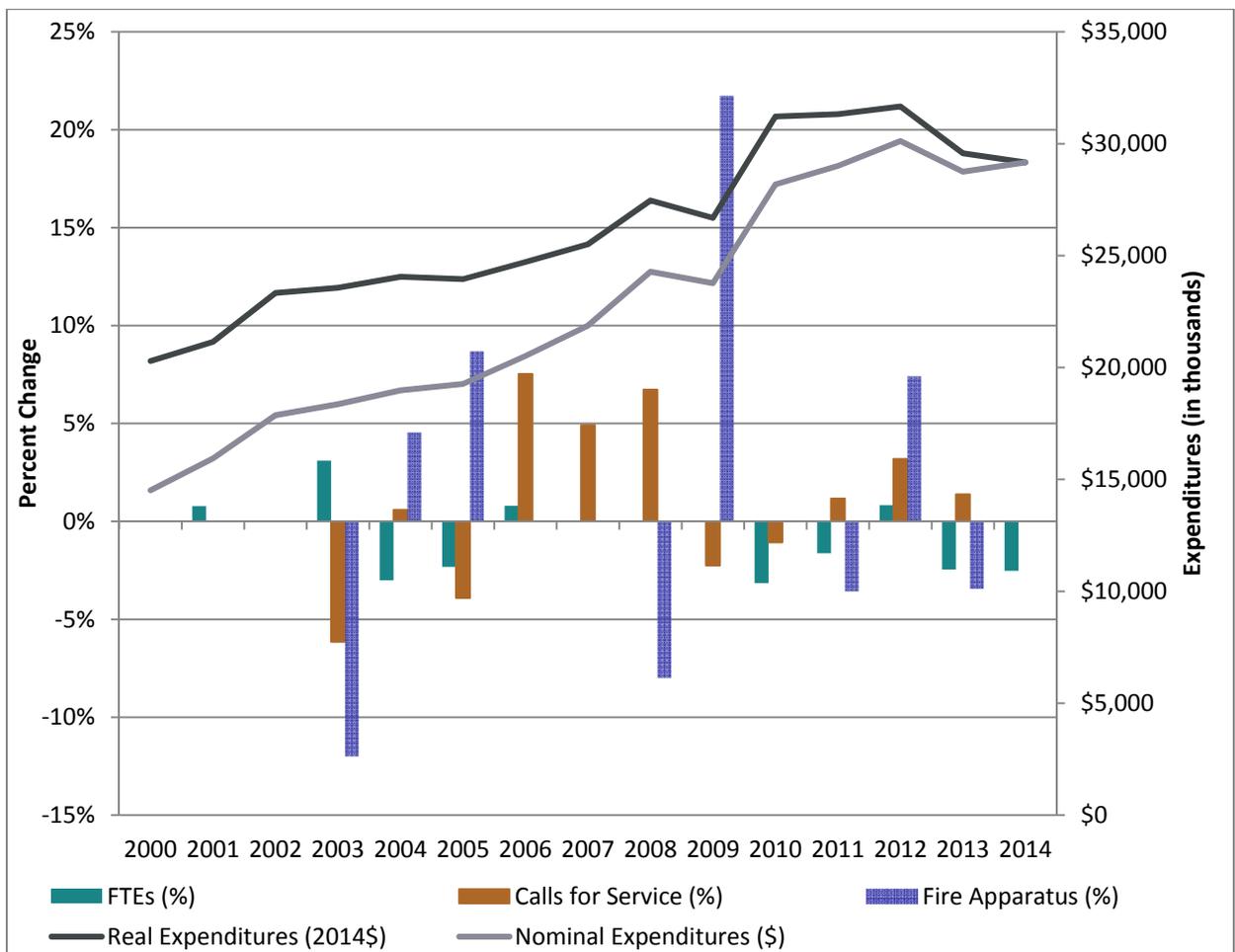
²¹ Employment land use-related crime includes all crimes in employment areas, regardless of perpetrator or victim residential/workplace status.

Fire Department

Fire Department inflation-adjusted expenditures have risen 44 percent since 2000, an average annual growth rate of approximately two percent. During the same period, Fire Department FTEs decreased by about nine percent. Most of the staffing reductions have occurred in recent years, with the Fire Department cutting seven FTEs between 2009 and 2014. This reduction in staff is primarily attributable to the closure of the SLAC National Accelerator Laboratory and operational adjustments. The trend in calls for service has been irregular, but overall call volume has increased at an average rate of one percent per year. **Figure 27** presents department operations trends.



Figure 27 Fire Expenditures and Operating Indicators



Variable Costs

In recent years, the primary services provided by the Fire Department have shifted toward emergency medical services (EMS). With increased fire safety (e.g., mandatory building sprinklers) and education programs, the risk of building fires has decreased dramatically. Out of approximately 100 to 200 fire calls (150 budgeted for Fiscal Year 2015), there are only about ten

fires per year, including only one or two severe fires. Accordingly, traditional firefighting is increasingly a small share of the department's overall efforts. EMS, educational outreach, and technical rescue have become the Fire Department's main focus areas. With population growth and an aging population, the Department expects to see increasing costs due to increasing demand for EMS.

While Department costs will grow with population growth, there is a significant amount of cost recovery from EMS transport fees. EMS revenue has been responsible for most of the Department's revenue growth in recent years. The fiscal analysis assumes that cost recovery continues in future years.

Similar to the Police Department, Fire Department operating expenses are likely to be somewhat variable. Based on input from the Fire Department, this study estimates that about 41 percent of operating costs are variable, and will increase with growth in the service population.

Resident versus Employee Costs

The Fire Department analyzed calls for service data to establish the relative cost burdens of residential and employment land uses. The Department's analysis, based on data from 2014, reveals that approximately 3,300 calls for service were attributable to local residences, while 1,900 calls for service were attributable to businesses. Based on these data, this analysis assumes that 64 percent of Department costs are attributable to residents and 36 percent of costs are attributable to employees in Palo Alto.²²

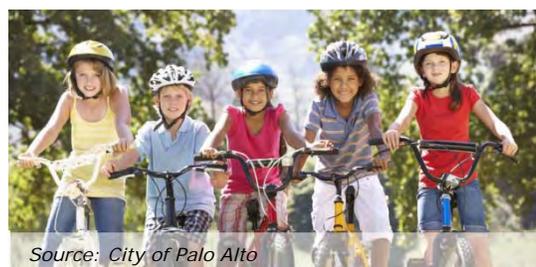
Future Considerations

The outcome of the City of Palo Alto Fire Department's bid to continue the provision of fire services to Stanford University is unknown at this time. Accordingly, this analysis assumes that the Fire Department's current operations and associated cost structure, which reflect the current agreement with Stanford, is an appropriate basis for the projection of future operations under the Comprehensive Plan Scenarios.

Community Services Department Costs

The Community Services Department (CSD) offers a wide range of recreation and leisure services to Palo Alto residents, workers, and visitors. CSD is organized into divisions, including:

- Open Space, Parks, and Golf – operating open space preserves, parks and fields, and the City golf course;
- Recreation – operating three community centers, classes and activities, and team programs;
- Arts and Sciences – operating the Children's Theatre, Palo Alto Art Center, Junior Museum & Zoo; and

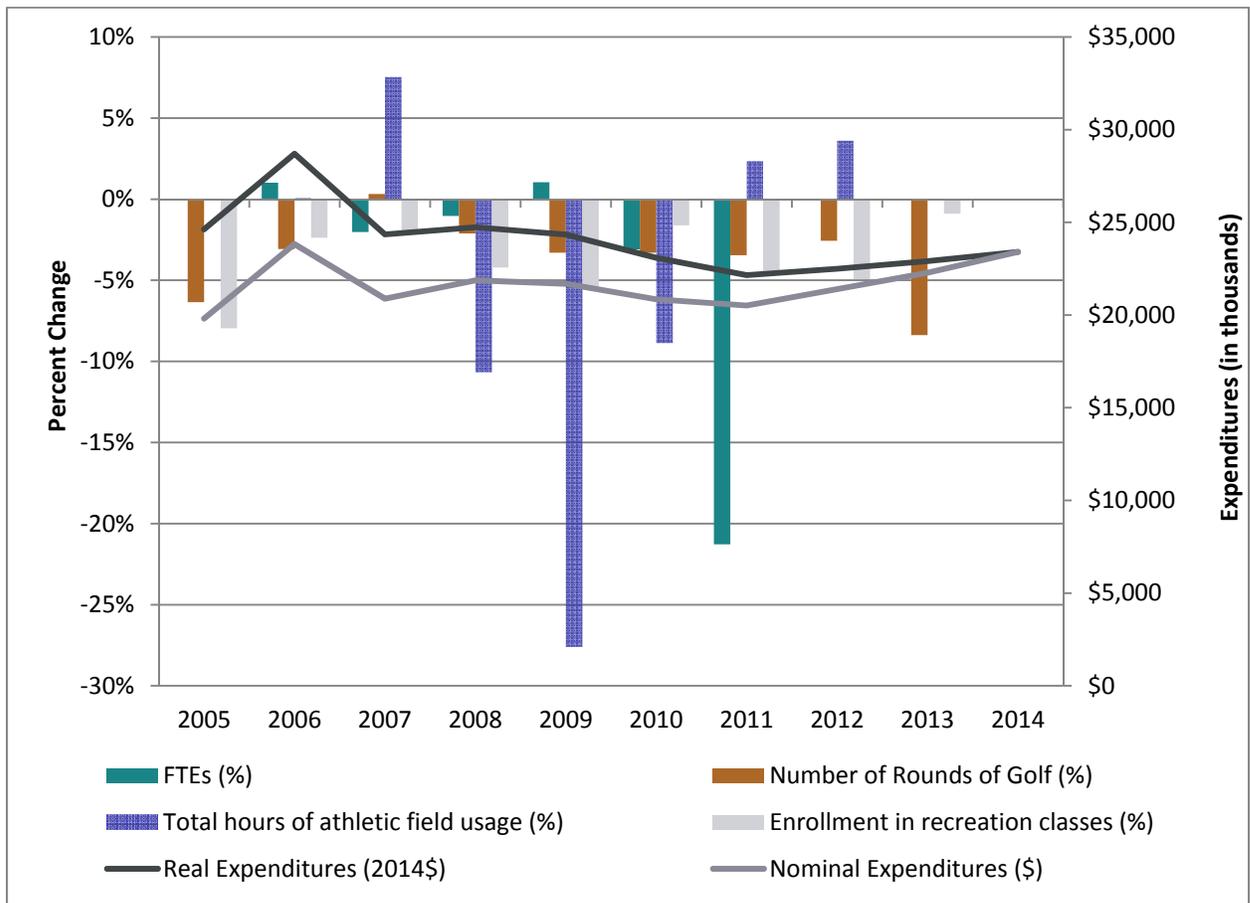


²² See **Appendix B** for additional information from a follow-up interview with Fire Department representatives.

- Administration and Human Services – providing social services including homeless services.

CSD expenditures have remained relatively flat over the past fifteen years, decreasing slightly during the 2008-09 recession but rebounding more recently. Enrollment in recreation classes and the usage of the golf course has declined steadily. However, the total hours of athletic field usage increased in 2011 and 2012 after decreases during the recession. CSD cut a significant number of FTEs in 2010, and while CAFR-reported FTEs have remained unchanged since that time CSD increasingly has relied on temporary employees to provide services.

Figure 28 Community Services Expenditures and Operating Indicators



Variable Costs

A cost analysis conducted by CSD indicates that the Department’s costs are likely to be moderately variable with future growth in the city. Parks and open spaces require some increased operations and maintenance activity as usage increases. In addition, increased park usage causes facilities to deteriorate faster, increasing department costs. CSD estimates that roughly 40 percent of its costs are variable.

Many CSD classes and workshops are fee-based. However, fee revenue generated by these programs does not fully recover costs, so a portion of CSD costs have the potential to be influenced by future demand for services from new residents and workers.

Resident versus Employee Costs

CSD considered the range of facilities and programs offered by their divisions separately in their determination of cost attribution to residents and workers. For Parks and Recreation, the allocation relies on survey data collected during the Department's Nexus Study for Development Impact fees.²³ These assets and programs largely are used by residents, particularly so for youth and teen programs. Open space and parks costs are assigned 45 percent to residents, 18 percent to workers, and the remainder to visitors, according to survey data. Recreation costs are assigned 73 percent to residents, seven percent to workers, and the remainder to visitors, based on survey data.

For other CSD functions, staff provided guidance concerning the allocation of costs to employees and residents. Human services costs are assigned entirely to the residential population, since these programs are specifically for Palo Alto residents. Arts and Sciences costs are assigned largely to residents, based on data from CSD. Arts and Sciences, specifically the Palo Alto Art Center and Junior Museum & Zoo are regional destinations that attract large numbers of non-residents. However, nonresidents are believed to be largely visitors rather than workers, due to the nature of the programming. Just five percent of the Arts and Sciences program cost burden is assigned to local employees, because the programs largely are geared toward youth.

Future Considerations

Palo Alto is undertaking golf course improvements which are slated to begin in 2016. The course currently is open but demand is down because the course has been altered in advance of construction and there is a misconception that the course already is closed for renovation. When the golf course is fully operational it runs like an enterprise and is expected to be fully cost recovering. This analysis adjusts the CSD budget, including both costs and revenues, to remove the effect of the golf course from the analysis.

Because Palo Alto is largely built-out, there are few if any opportunities to increase the open space managed by CSD. However, CSD currently is completing a Parks and Recreation Master Plan that will inform possible future use of reprogrammed land near the Golf Course. The need for the reprogrammed parkland is generated by citywide demand, and is not considered to be attributable to new growth in the City.

In an interview with CSD, Department staff expressed concern that the Fiscal Year 2015 expenditure budget is insufficient. For this reason, staff recommended that this analysis rely on the proposed Fiscal Year 2016 budget, which it does.

²³ DMG-Maximus, City of Palo Alto – Parks and Community Facilities Impact Fees, 2001.

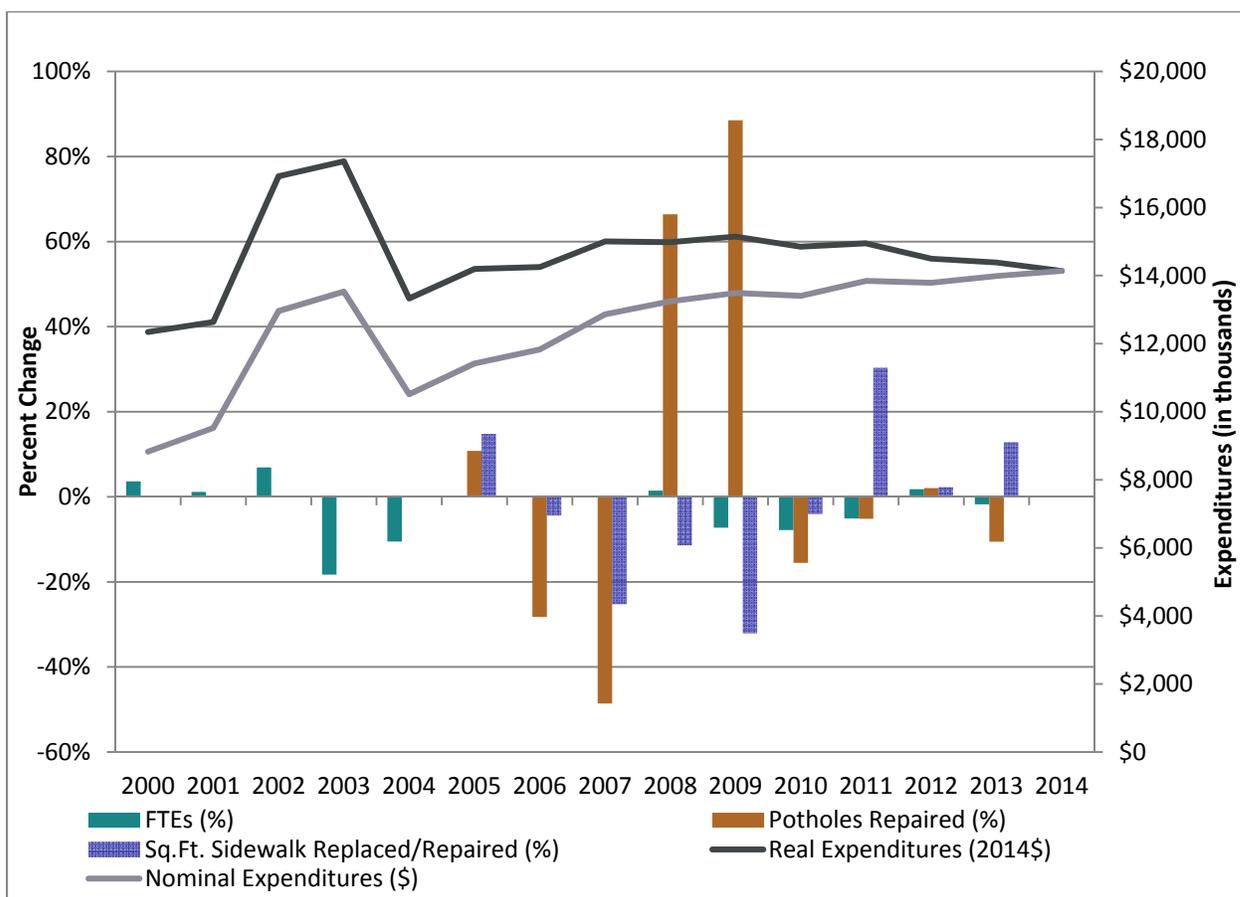
Public Works Department

Public Works Department expenditures increased overall between 2000 and 2007, and then leveled off. In real terms, Public Works expenditures declined slightly between 2009 and 2014. Since 2000, FTEs declined from 83 to 56 in 2014, a 33 percent drop. Operating cost indicators include potholes repaired and square feet of sidewalk replaced/repaired. In an interview, Department staff explained that these indicators are driven by resource availability, more so than need or service population.



Source: City of Palo Alto

Figure 29 Public Works Expenditures and Operating Indicators



Variable Costs

Public Works maintains the City's existing public buildings, streets, and sidewalk facilities. Department operating costs could increase with population and employment growth if new City buildings and/or street/sidewalk facilities (including trees) are required to accommodate that growth. Under the Comprehensive Plan Update scenarios, it is not anticipated that the street network or public facilities would change substantially. That is, future growth is anticipated to be supported by existing Public Works-maintained infrastructure and facilities.

While new growth will not require new public infrastructure and facilities, increases in population and employment likely will lead to more intensive use of existing infrastructure and facilities. The effect of this intensification is accelerated depreciation, which has implications for the Public Works Department's streets maintenance and repair budget.

To estimate the cost of increased street usage, this analysis calculates the marginal cost of a new roadway user to the system. It is assumed that a new user will have a marginal cost of 50 percent of the department's current per-capita street maintenance cost. The department's streets budget comprises 22 percent of the total department budget. This analysis assumes that half of that budget, or 11 percent of the total budget, is variable cost that will increase with the addition of residents and employees.

Cost Attribution

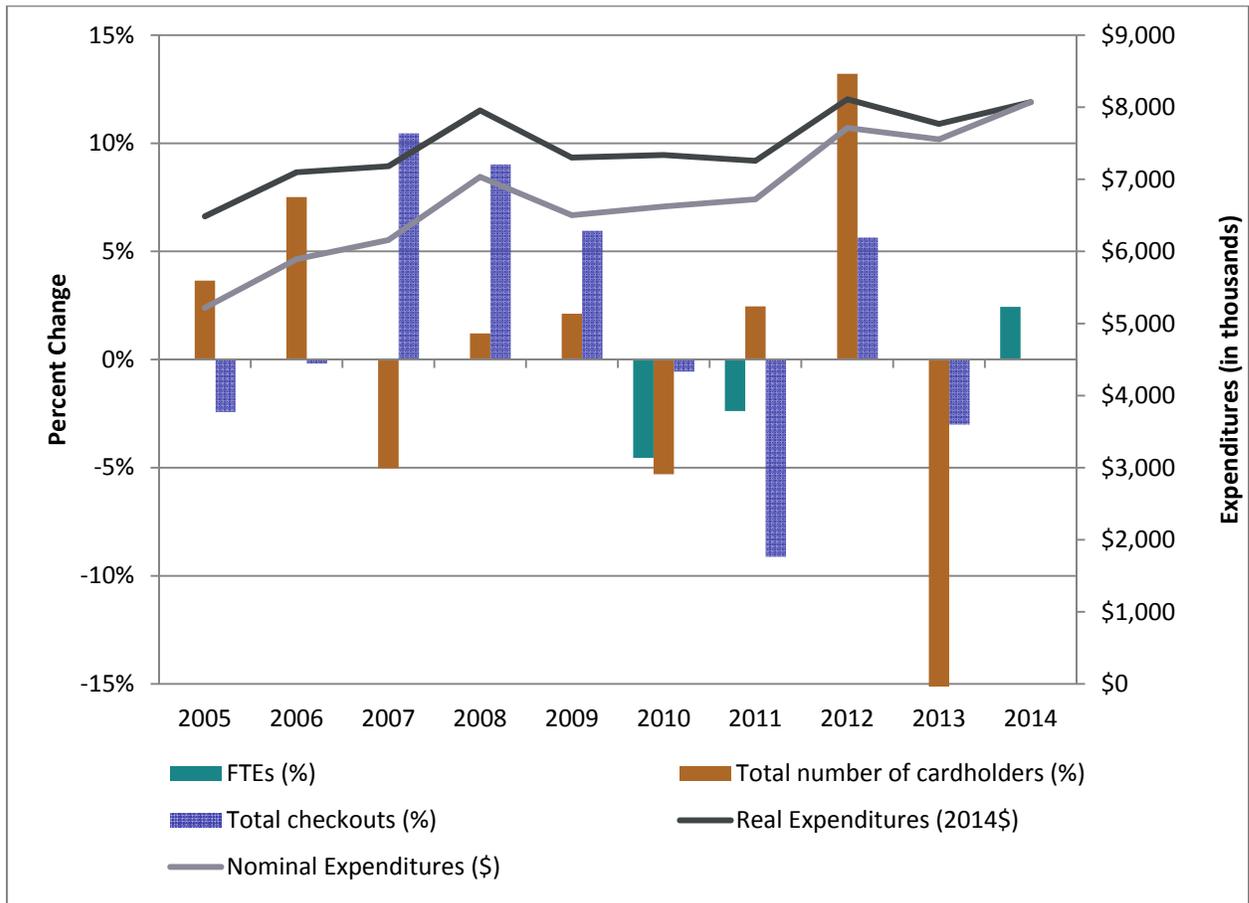
Since the Public Works Department's variable costs relate specifically to increased street usage, cost attribution assumptions for the Department are based on trip generation rates provided by the City's Environmental Impact Review consultant (Hexagon Transportation Consultants, Inc.). Household and employee trips per day (8 and 3, respectively) are weighted by the current number of household and workers in Palo Alto to determine cost attribution. Based on these data, household automobile trips account for 44 percent of total annual automobile trips, while worker trips account for 56 percent of total trips generated. Accordingly, this analysis allocates 44 percent of Public Works variable costs to residential uses and 56 percent to employment land uses.

Library Department

The Palo Alto library system offers five library branches, all of which have been constructed or renovated in the past ten years. This boom in facility renovation puts the City libraries in a good position to serve current and future residents, employees, and visitors in Palo Alto. Total circulations and library cardholders vary from year to year, but overall, circulations have increased 15 percent since 2004. Inflation-adjusted expenditures have increased 24 percent since 2005.



Figure 30 Library Expenditures and Operating Indicators



Variable Costs

According to Library staff, if new growth necessitated extending Library hours to meet new demand then staffing and associated costs would increase. However, increases in circulation and/or cardholders that occur without an increase in hours would not increase staffing needs or costs. A substantial increase in circulations and/or cardholders may necessitate a change in classification of workers rather than an increase in the number of workers. Library operations are largely fixed and can scale up services with minimal staff or service cost increases. Library staff notes that if growth in circulation occurs in e-books, then department costs would be higher as e-books are more labor intensive to teach cardholders to use. However, e-books remain a small

percentage of total circulation. Based on discussions with Library staff, this analysis assumes that 15 percent of Library operating costs is variable while 85 percent are fixed.

Cost Attribution

Palo Alto library services are available to any resident of California. Staff indicates that Palo Alto libraries serve residents, workers, and visitors from throughout the Bay Area. Data from March 2015 indicate that 80 percent of active cardholders live in Palo Alto, and 86 percent of circulations are attributable to Palo Alto residents. Based on these data, this analysis assumes that 85 percent of Library costs are attributable to residents and 15 percent are attributable to employees.

Future Considerations

With new facilities recently completed, the Library is unlikely to require new spaces or facilities improvements to accommodate the new growth. The current operating budget is representative of future operations.

Other Departments

For departments that were not interviewed as part of the fiscal analysis process, the analysis relies on service population methodology to apportion costs to residents and employees. It is typical in fiscal analysis to assume that the service population includes residents and workers, and that a local worker creates 50 percent of the cost burden of a local resident. In Palo Alto, this methodological approach results in allocation of 58 percent of costs to residents and 42 percent of costs to employees.²⁴

²⁴ Residents (65,686)/(Residents + Weighted Employment (95,458 * 50%)) = 58%.

APPENDIX A
Baseline Scenarios



Figure A-1 Scenario 1: Appreciation-Adjusted Property Values and Tax Revenue

Land Use	Aggregate Assessed Value	Local Tax Revenue
Residential Uses		
For-Sale Residential	\$2,113,231,740	\$1,901,909
For-Sale BMR	\$15,483,569	\$13,935
Rental Residential	\$1,024,256,037	\$921,830
Rental BMR	\$81,936,037	\$73,742
Employment Uses		
Retail	\$352,531,140	\$317,278
Office	\$1,073,914,589	\$966,523
Industrial	\$177,220,399	\$159,498
Other	\$970,070,619	\$873,064
Total	\$5,808,644,130	\$5,227,780
In-Lieu VLF Revenue	\$1,011,798	\$1,284,832
<i>Property Tax Exemptions</i>	9%	9%
Total Property Tax Revenue	\$4,646,058	\$5,899,797
Residential Uses	\$2,446,813	\$3,285,672
Employment Uses	\$2,199,246	\$2,614,125

Figure A-2 Scenario 2: Appreciation-Adjusted Property Values and Tax Revenue

Land Use	Aggregate Assessed Value	Local Tax Revenue
Residential Uses		
For-Sale Residential	\$2,113,231,740	\$1,901,909
For-Sale BMR	\$15,483,569	\$13,935
Rental Residential	\$1,024,256,037	\$921,830
Rental BMR	\$81,936,037	\$73,742
Employment Uses		
Retail	\$392,044,976	\$352,840
Office	\$865,853,817	\$779,268
Industrial	\$185,444,169	\$166,900
Other	\$912,751,579	\$821,476
Total	\$5,591,001,923	\$5,031,902
In-Lieu VLF Revenue	\$972,547	\$1,236,691
<i>Property Tax Exemptions</i>	9%	9%
Total Property Tax Revenue	\$4,465,823	\$5,678,739
Residential Uses	\$2,446,813	\$3,285,672
Employment Uses	\$2,019,010	\$2,393,068

Figure A-3 Scenario 3: Appreciation-Adjusted Property Values and Tax Revenue

Land Use	Aggregate Assessed Value	Local Tax Revenue
Residential Uses		
For-Sale Residential	\$2,755,017,686	\$2,479,516
For-Sale BMR	\$20,185,911	\$18,167
Rental Residential	\$1,335,321,368	\$1,201,789
Rental BMR	\$106,819,913	\$96,138
Employment Uses		
Retail	\$406,278,804	\$365,651
Office	\$1,120,691,310	\$1,008,622
Industrial	\$199,672,125	\$179,705
Other	\$998,186,738	\$898,368
Total	\$6,942,173,855	\$6,247,956
In-Lieu VLF Revenue	\$1,200,284	\$1,535,561
<i>Property Tax Exemptions</i>	9%	9%
Total Property Tax Revenue	\$5,511,564	\$7,051,115
Residential Uses	\$3,189,907	\$4,283,526
Employment Uses	\$2,321,657	\$2,767,589

Figure A-4 Scenario 4: Appreciation-Adjusted Property Values and Tax Revenue

Land Use	Aggregate Assessed Value	Local Tax Revenue
Residential Uses		
For-Sale Residential	\$3,432,544,738	\$3,089,290
For-Sale BMR	\$25,150,126	\$22,635
Rental Residential	\$1,663,709,949	\$1,497,339
Rental BMR	\$133,089,574	\$119,781
Employment Uses		
Retail	\$427,310,472	\$384,579
Office	\$1,301,714,654	\$1,171,543
Industrial	\$214,812,605	\$193,331
Other	\$1,175,843,174	\$1,058,259
Total	\$8,374,175,293	\$7,536,758
In-Lieu VLF Revenue	\$1,446,060	\$1,852,310
<i>Property Tax Exemptions</i>	9%	9%
Total Property Tax Revenue	\$6,640,136	\$8,505,588
Residential Uses	\$3,974,384	\$5,336,951
Employment Uses	\$2,665,752	\$3,168,637

Figure A-5 Scenario 5: Appreciation-Adjusted Property Values and Tax Revenue

Land Use	Aggregate Assessed Value	Local Tax Revenue
Residential Uses		
For-Sale Residential	\$2,755,017,686	\$2,479,516
For-Sale BMR	\$20,185,911	\$18,167
Rental Residential	\$1,335,321,368	\$1,201,789
Rental BMR	\$106,819,913	\$96,138
Employment Uses		
Retail	\$202,978,577	\$182,681
Office	\$748,452,309	\$673,607
Industrial	\$116,354,967	\$104,719
Other	\$795,172,796	\$715,656
Total	\$6,080,303,527	\$5,472,273
In-Lieu VLF Revenue	\$1,046,062	\$1,344,921
<i>Property Tax Exemptions</i>	9%	9%
Total Property Tax Revenue	\$4,803,394	\$6,175,719
Residential Uses	\$3,189,907	\$4,283,526
Employment Uses	\$1,613,487	\$1,892,193

Figure A-6 Scenario 6: Appreciation-Adjusted Property Values and Tax Revenue

Land Use	Aggregate Assessed Value	Local Tax Revenue
Residential Uses		
For-Sale Residential	\$4,662,116,482	\$4,195,905
For-Sale BMR	\$34,159,152	\$30,743
Rental Residential	\$2,259,667,438	\$2,033,701
Rental BMR	\$180,763,587	\$162,687
Employment Uses		
Retail	\$202,978,577	\$182,681
Office	\$748,452,309	\$673,607
Industrial	\$116,354,967	\$104,719
Other	\$795,172,796	\$715,656
Total	\$8,999,665,308	\$8,099,699
In-Lieu VLF Revenue	\$1,526,941	\$1,990,664
<i>Property Tax Exemptions</i>	<i>9%</i>	<i>9%</i>
Total Property Tax Revenue	\$7,011,535	\$9,140,894
Residential Uses	\$5,398,048	\$7,248,700
Employment Uses	\$1,613,487	\$1,892,193

Figure A-7 Scenario 1: Annual Property Transfer Tax Revenue

Documentary Transfer Tax	Adjusted Aggregate Market Value	Annual Transaction Value	Documentary Transfer Tax Revenue
Residential Uses			
For-Sale Residential	\$2,113,231,740	\$169,058,539	\$557,893
For-Sale BMR	\$15,483,569	\$619,343	\$2,044
Rental Residential	\$1,024,256,037	\$40,970,241	\$135,202
Rental BMR	\$81,936,037	\$3,277,441	\$10,816
Employment Uses			
Retail	\$352,531,140	\$14,101,246	\$46,534
Office	\$1,073,914,589	\$42,956,584	\$141,757
Industrial	\$177,220,399	\$7,088,816	\$23,393
Other	\$970,070,619	\$19,401,412	\$64,025
Total	\$5,808,644,130	\$297,473,622	\$981,663
Residential Uses	\$3,234,907,383	\$213,925,565	\$705,954
Employment Uses	\$2,573,736,747	\$83,548,057	\$275,709

Figure A-8 Scenario 2: Annual Property Transfer Tax Revenue

Documentary Transfer Tax	Adjusted Aggregate Market Value	Annual Transaction Value	Documentary Transfer Tax Revenue
Residential Uses			
For-Sale Residential	\$2,113,231,740	\$169,058,539	\$557,893
For-Sale BMR	\$15,483,569	\$619,343	\$2,044
Rental Residential	\$1,024,256,037	\$40,970,241	\$135,202
Rental BMR	\$81,936,037	\$3,277,441	\$10,816
Employment Uses			
Retail	\$392,044,976	\$15,681,799	\$51,750
Office	\$865,853,817	\$34,634,153	\$114,293
Industrial	\$185,444,169	\$7,417,767	\$24,479
Other	\$912,751,579	\$18,255,032	\$60,242
Total	\$5,591,001,923	\$289,914,315	\$956,717
Residential Uses	\$3,234,907,383	\$213,925,565	\$705,954
Employment Uses	\$2,356,094,540	\$75,988,750	\$250,763

Figure A-9 Scenario 3: Annual Property Transfer Tax Revenue

Documentary Transfer Tax	Adjusted Aggregate Market Value	Annual Transaction Value	Documentary Transfer Tax Revenue
Residential Uses			
For-Sale Residential	\$2,755,017,686	\$220,401,415	\$727,325
For-Sale BMR	\$20,185,911	\$807,436	\$2,665
Rental Residential	\$1,335,321,368	\$53,412,855	\$176,262
Rental BMR	\$106,819,913	\$4,272,797	\$14,100
Employment Uses			
Retail	\$406,278,804	\$16,251,152	\$53,629
Office	\$1,120,691,310	\$44,827,652	\$147,931
Industrial	\$199,672,125	\$7,986,885	\$26,357
Other	\$998,186,738	\$19,963,735	\$65,880
Total	\$6,942,173,855	\$367,923,927	\$1,214,149
Residential Uses	\$4,217,344,878	\$278,894,503	\$920,352
Employment Uses	\$2,724,828,977	\$89,029,424	\$293,797

Figure A-10 Scenario 4: Annual Property Transfer Tax Revenue

Documentary Transfer Tax	Adjusted Aggregate Market Value	Annual Transaction Value	Documentary Transfer Tax Revenue
Residential Uses			
For-Sale Residential	\$3,432,544,738	\$274,603,579	\$906,192
For-Sale BMR	\$25,150,126	\$1,006,005	\$3,320
Rental Residential	\$1,663,709,949	\$66,548,398	\$219,610
Rental BMR	\$133,089,574	\$5,323,583	\$17,568
Employment Uses			
Retail	\$427,310,472	\$17,092,419	\$56,405
Office	\$1,301,714,654	\$52,068,586	\$171,826
Industrial	\$214,812,605	\$8,592,504	\$28,355
Other	\$1,175,843,174	\$23,516,863	\$77,606
Total	\$8,374,175,293	\$448,751,938	\$1,480,881
Residential Uses	\$5,254,494,388	\$347,481,565	\$1,146,689
Employment Uses	\$3,119,680,905	\$101,270,373	\$334,192

Figure A-11 Scenario 5: Annual Property Transfer Tax Revenue

Documentary Transfer Tax	Adjusted Aggregate Market Value	Annual Transaction Value	Documentary Transfer Tax Revenue
Residential Uses			
For-Sale Residential	\$2,755,017,686	\$220,401,415	\$727,325
For-Sale BMR	\$20,185,911	\$807,436	\$2,665
Rental Residential	\$1,335,321,368	\$53,412,855	\$176,262
Rental BMR	\$106,819,913	\$4,272,797	\$14,100
Employment Uses			
Retail	\$202,978,577	\$8,119,143	\$26,793
Office	\$748,452,309	\$29,938,092	\$98,796
Industrial	\$116,354,967	\$4,654,199	\$15,359
Other	\$795,172,796	\$15,903,456	\$52,481
Total	\$6,080,303,527	\$337,509,393	\$1,113,781
Residential Uses	\$4,217,344,878	\$278,894,503	\$920,352
Employment Uses	\$1,862,958,650	\$58,614,890	\$193,429

Figure A-12 Scenario 6: Annual Property Transfer Tax Revenue

Documentary Transfer Tax	Adjusted Aggregate Market Value	Annual Transaction Value	Documentary Transfer Tax Revenue
Residential Uses			
For-Sale Residential	\$4,662,116,482	\$372,969,319	\$1,230,799
For-Sale BMR	\$34,159,152	\$1,366,366	\$4,509
Rental Residential	\$2,259,667,438	\$90,386,698	\$298,276
Rental BMR	\$180,763,587	\$7,230,543	\$23,861
Employment Uses			
Retail	\$202,978,577	\$8,119,143	\$26,793
Office	\$748,452,309	\$29,938,092	\$98,796
Industrial	\$116,354,967	\$4,654,199	\$15,359
Other	\$795,172,796	\$15,903,456	\$52,481
Total	\$8,999,665,308	\$530,567,816	\$1,750,874
Residential Uses	\$7,136,706,658	\$471,952,926	\$1,557,445
Employment Uses	\$1,862,958,650	\$58,614,890	\$193,429

Figure A-13 Scenario 1: Annual Sales and Use Tax Revenue

Retail Spending	Residential Uses	Employment Uses
Taxable Spending	\$32,378	\$9,270
Unique Households & Workers	2,720	14,182
Local Sales Capture Rate	<u>30%</u>	<u>80%</u>
Total Taxable Retail Spending	\$26,418,718	\$105,172,993
Business-to-Business Taxable Sales	N/A	\$43,493,544
Business Spending at Retail Establishments	<u>N/A</u>	<u>\$4,349,354</u>
Total Taxable Spending	\$26,418,718	\$153,015,891
Total Local Sales Tax Revenue	\$264,187	\$1,530,159

Figure A-14 Scenario 2: Annual Sales and Use Tax Revenue

Retail Spending	Residential Uses	Employment Uses
Taxable Spending	\$32,378	\$9,270
Unique Households & Workers	2,720	9,026
Local Sales Capture Rate	<u>30%</u>	<u>80%</u>
Total Taxable Retail Spending	\$26,418,718	\$66,935,191
Business-to-Business Taxable Sales	N/A	\$38,509,646
Business Spending at Retail Establishments	<u>N/A</u>	<u>\$3,850,965</u>
Total Taxable Spending	\$26,418,718	\$109,295,802
Total Local Sales Tax Revenue	\$264,187	\$1,092,958

Figure A-15 Scenario 3: Annual Sales and Use Tax Revenue

Retail Spending	Residential Uses	Employment Uses
Taxable Spending	\$32,378	\$9,270
Unique Households & Workers	3,546	11,687
Local Sales Capture Rate	<u>30%</u>	<u>80%</u>
Total Taxable Retail Spending	\$34,442,051	\$86,669,572
Business-to-Business Taxable Sales	N/A	\$45,745,554
Business Spending at Retail Establishments	<u>N/A</u>	<u>\$4,574,555</u>
Total Taxable Spending	\$34,442,051	\$136,989,681
Total Local Sales Tax Revenue	\$344,421	\$1,369,897

Figure A-16 Scenario 4: Annual Sales and Use Tax Revenue

Retail Spending	Residential Uses	Employment Uses
Taxable Spending	\$32,378	\$9,270
Unique Households & Workers	4,418	14,182
Local Sales Capture Rate	<u>30%</u>	<u>80%</u>
Total Taxable Retail Spending	\$42,912,204	\$105,176,053
Business-to-Business Taxable Sales	N/A	\$52,719,447
Business Spending at Retail Establishments	<u>N/A</u>	<u>\$5,271,945</u>
Total Taxable Spending	\$42,912,204	\$163,167,445
Total Local Sales Tax Revenue	\$429,122	\$1,631,674

Figure A-17 Scenario 5: Annual Sales and Use Tax Revenue

Retail Spending	Residential Uses	Employment Uses
Taxable Spending	\$32,378	\$9,270
Unique Households & Workers	3,546	8,124
Local Sales Capture Rate	<u>30%</u>	<u>80%</u>
Total Taxable Retail Spending	\$34,442,051	\$60,248,407
Business-to-Business Taxable Sales	N/A	\$31,715,815
Business Spending at Retail Establishments	<u>N/A</u>	<u>\$3,171,581</u>
Total Taxable Spending	\$34,442,051	\$95,135,804
Total Local Sales Tax Revenue	\$344,421	\$951,358

Figure A-18 Scenario 6: Annual Sales and Use Tax Revenue

Retail Spending	Residential Uses	Employment Uses
Taxable Spending	\$32,378	\$9,270
Unique Households & Workers	6,000	8,124
Local Sales Capture Rate	<u>30%</u>	<u>80%</u>
Total Taxable Retail Spending	\$58,283,783	\$60,248,407
Business-to-Business Taxable Sales	N/A	\$31,715,815
Business Spending at Retail Establishments	<u>N/A</u>	<u>\$3,171,581</u>
Total Taxable Spending	\$58,283,783	\$95,135,804
Total Local Sales Tax Revenue	\$582,838	\$951,358

Figure A-19 Scenario 1 - Hotel Night Demand Generated by New Development

Item	New Development	Hotel Demand Factors	Room Night Demand
<u>Room Night Demand</u>			
Residential Uses			
Dwelling Units	2,720	2 room nights / DU	5,440
Employment Uses			
Agriculture and Natural Resource	6	3 room nights / employee	17
Manufacturing, Wholesale, Transportation	1,471	3 room nights / employee	4,412
Retail	1,017	3 room nights / employee	3,051
Finance and Professional Services	5,001	3 room nights / employee	15,002
Health/Edu and Recreation	6,744	3 room nights / employee	20,231
Other	1,245	3 room nights / employee	3,734
Total			51,886
Palo Alto Capture Rate		90%	46,697
<u>Room Revenue and TOT</u>			
Annual Revenue		\$240 Average Daily Rate	\$11,207,354
Total TOT Revenue		14% Tax Rate	\$1,569,030
Residential			\$164,494
Non-Residential			\$1,270,626

Figure A-20 Scenario 2: Hotel Night Demand Generated by New Development

Item	New Development	Hotel Demand Factors	Room Night Demand
<u>Room Night Demand</u>			
Residential Uses			
Dwelling Units	2,720	2 room nights / DU	5,440
Employment Uses			
Agriculture and Natural Resource	6	3 room nights / employee	17
Manufacturing, Wholesale, Transportation	1,071	3 room nights / employee	3,214
Retail	1,017	3 room nights / employee	3,051
Finance and Professional Services	2,048	3 room nights / employee	6,145
Health/Edu and Recreation	4,466	3 room nights / employee	13,399
Other	1,245	3 room nights / employee	3,734
Total			34,999
Palo Alto Capture Rate		90%	31,499
<u>Room Revenue and TOT</u>			
Annual Revenue		\$240 Average Daily Rate	\$7,559,828
Total TOT Revenue		14% Tax Rate	\$1,058,376
Residential			\$164,494
Non-Residential			\$796,189

Figure A-21 Scenario 3: Hotel Night Demand Generated by New Development

Item	New Development	Hotel Demand Factors	Room Night Demand
<u>Room Night Demand</u>			
Residential Uses			
Dwelling Units	3,546	2 room nights / DU	7,092
Employment Uses			
Agriculture and Natural Resource	6	3 room nights / employee	17
Manufacturing, Wholesale, Transportation	1,308	3 room nights / employee	3,924
Retail	1,017	3 room nights / employee	3,051
Finance and Professional Services	3,889	3 room nights / employee	11,666
Health/Edu and Recreation	5,295	3 room nights / employee	15,884
Other	1,245	3 room nights / employee	3,734
Total			45,366
Palo Alto Capture Rate		90%	40,830
<u>Room Revenue and TOT</u>			
Annual Revenue		\$240 Average Daily Rate	\$9,799,101
Total TOT Revenue		14% Tax Rate	\$1,371,874
Residential			\$214,450
Non-Residential			\$1,038,266

Figure A-22 Scenario 4: Hotel Night Demand Generated by New Development

Item	New Development	Hotel Demand Factors	Room Night Demand
<u>Room Night Demand</u>			
Residential Uses			
Dwelling Units	4,418	2 room nights / DU	8,836
Employment Uses			
Agriculture and Natural Resource	6	3 room nights / employee	17
Manufacturing, Wholesale, Transportation	1,471	3 room nights / employee	4,412
Retail	1,017	3 room nights / employee	3,051
Finance and Professional Services	5,001	3 room nights / employee	15,002
Health/Edu and Recreation	6,744	3 room nights / employee	20,231
Other	1,245	3 room nights / employee	3,734
Total			55,282
Palo Alto Capture Rate		90%	49,754
<u>Room Revenue and TOT</u>			
Annual Revenue		\$240 Average Daily Rate	\$11,940,890
Total TOT Revenue		14% Tax Rate	\$1,671,725
Residential			\$267,189
Non-Residential			\$1,270,626

Figure A-23 Scenario 5: Hotel Night Demand Generated by New Development

Item	New Development	Hotel Demand Factors	Room Night Demand
<u>Room Night Demand</u>			
Residential Uses			
Dwelling Units	3,546	2 room nights / DU	7,092
Employment Uses			
Agriculture and Natural Resource	0	3 room nights / employee	1
Manufacturing, Wholesale, Transportation	710	3 room nights / employee	2,129
Retail	337	3 room nights / employee	1,011
Finance and Professional Services	2,548	3 room nights / employee	7,643
Health/Edu and Recreation	4,562	3 room nights / employee	13,687
Other	712	3 room nights / employee	2,136
Total			33,698
Palo Alto Capture Rate		90%	30,328
<u>Room Revenue and TOT</u>			
Annual Revenue		\$240 Average Daily Rate	\$7,278,815
Total TOT Revenue		14% Tax Rate	\$1,019,034
Residential			\$214,450
Non-Residential			\$740,175

Figure A-24 Scenario 6: Hotel Night Demand Generated by New Development

Item	New Development	Hotel Demand Factors	Room Night Demand
<u>Room Night Demand</u>			
Residential Uses			
Dwelling Units	6,000	2 room nights / DU	12,001
Employment Uses			
Agriculture and Natural Resource	0	3 room nights / employee	1
Manufacturing, Wholesale, Transportation	710	3 room nights / employee	2,129
Retail	337	3 room nights / employee	1,011
Finance and Professional Services	2,548	3 room nights / employee	7,643
Health/Edu and Recreation	4,562	3 room nights / employee	13,687
Other	712	3 room nights / employee	2,136
Total			38,607
Palo Alto Capture Rate		90%	34,746
<u>Room Revenue and TOT</u>			
Annual Revenue		\$240 Average Daily Rate	\$8,339,159
Total TOT Revenue		14% Tax Rate	\$1,167,482
Residential			\$362,898
Non-Residential			\$740,175

Figure A-25 Scenario 1 - Utility Users Tax Revenue Estimate

Item	Revenue Allocation ¹	2014-15 Revenue	Per Capita Revenue	Utility Users Tax Revenue ²
Total	100%	\$11,285,000		\$1,621,290
Residential Uses	30%	\$3,385,500	\$51.54	\$340,098
Employment Uses	70%	\$7,899,500	\$82.75	\$1,281,192

(1) Allocation data provided by City of Palo Alto Utilities.

(2) Based on the City's 5% tax rate for electricity, gas, water, and telephone services

Figure A-26 Scenario 2: Utility Users Tax Revenue Estimate

Item	Revenue Allocation ¹	2014-15 Revenue	Per Capita Revenue	Utility Users Tax Revenue ²
Total	100%	\$11,285,000		\$1,155,486
Residential Uses	30%	\$3,385,500	\$51.54	\$340,098
Employment Uses	70%	\$7,899,500	\$82.75	\$815,389

(1) Allocation data provided by City of Palo Alto Utilities.

(2) Based on the City's 5% tax rate for electricity, gas, water, and telephone services

Figure A-27 Scenario 3: Utility Users Tax Revenue Estimate

Item	Revenue Allocation ¹	2014-15 Revenue	Per Capita Revenue	Utility Users Tax Revenue ²
Total	100%	\$11,285,000		\$1,490,573
Residential Uses	30%	\$3,385,500	\$51.54	\$434,785
Employment Uses	70%	\$7,899,500	\$82.75	\$1,055,788

(1) Allocation data provided by City of Palo Alto Utilities.

(2) Based on the City's 5% tax rate for electricity, gas, water, and telephone services

Figure A-28 Scenario 4: Utility Users Tax Revenue Estimate

Item	Revenue Allocation ¹	2014-15 Revenue	Per Capita Revenue	Utility Users Tax Revenue ²
Total	100%	\$11,285,000		\$1,820,105
Residential Uses	30%	\$3,385,500	\$51.54	\$538,876
Employment Uses	70%	\$7,899,500	\$82.75	\$1,281,230

(1) Allocation data provided by City of Palo Alto Utilities.

(2) Based on the City's 5% tax rate for electricity, gas, water, and telephone services

Figure A-29 Scenario 5: Utility Users Tax Revenue Estimate

Item	Revenue Allocation ¹	2014-15 Revenue	Per Capita Revenue	Utility Users Tax Revenue ²
Total	100%	\$11,285,000		\$1,168,707
Residential Uses	30%	\$3,385,500	\$51.54	\$434,775
Employment Uses	70%	\$7,899,500	\$82.75	\$733,932

(1) Allocation data provided by City of Palo Alto Utilities.

(2) Based on the City's 5% tax rate for electricity, gas, water, and telephone services

Figure A-30 Scenario 6: Utility Users Tax Revenue Estimate

Item	Revenue Allocation ¹	2014-15 Revenue	Per Capita Revenue	Utility Users Tax Revenue ²
Total	100%	\$11,285,000		\$1,459,536
Residential Uses	30%	\$3,385,500	\$51.54	\$725,604
Employment Uses	70%	\$7,899,500	\$82.75	\$733,932

(1) Allocation data provided by City of Palo Alto Utilities.

(2) Based on the City's 5% tax rate for electricity, gas, water, and telephone services

Figure A-31 Cost Burdens by Department

Item	Cost Allocation	Adopted General Fund (FY2015)	Net Effect on General Fund ¹	Percent Variable	Annual Variable Expenses	Service Population	Per Capita General Fund Expense
Administrative Services		\$7,175,000	\$6,599,441		\$989,916		
Residential Uses	58%	\$4,155,508.97	\$3,822,165	15%	\$573,325	65,686 Residents	\$8.73
Employment Uses	42%	\$3,019,491.03	\$2,777,275	15%	\$416,591	95,458 Workers	\$4.36
City Attorney		\$2,578,000	\$2,225,190		\$333,779		
Residential Uses	58%	\$1,493,087.40	\$1,288,752	15%	\$193,313	65,686 Residents	\$2.94
Employment Uses	42%	\$1,084,912.60	\$936,438	15%	\$140,466	95,458 Workers	\$1.47
City Auditor		\$1,065,000	\$991,480		\$148,722		
Residential Uses	58%	\$616,811	\$574,230	15%	\$86,135	65,686 Residents	\$1.31
Employment Uses	42%	\$448,189	\$417,249	15%	\$62,587	95,458 Workers	\$0.66
City Clerk		\$1,276,000	\$1,134,309		\$170,146		
Residential Uses	58%	\$739,015	\$656,952	15%	\$98,543	65,686 Residents	\$1.50
Employment Uses	42%	\$536,985	\$477,357	15%	\$71,604	95,458 Workers	\$0.75
City Council		\$432,000	\$399,781		\$59,967		
Residential Uses	58%	\$250,199	\$231,539	15%	\$34,731	65,686 Residents	\$0.53
Employment Uses	42%	\$181,801	\$168,242	15%	\$25,236	95,458 Workers	\$0.26
City Manager		\$2,728,000	\$2,389,993		\$358,499		
Residential Uses	58%	\$1,579,962	\$1,384,200	15%	\$207,630	65,686 Residents	\$3.16
Employment Uses	42%	\$1,148,038	\$1,005,793	15%	\$150,869	95,458 Workers	\$1.58
Community Services		\$17,902,937	\$14,302,228		\$7,983,951		
Residential Uses	87%	\$15,600,094	\$12,531,105	58%	\$7,258,487	65,686 Residents	\$110.50
Employment Uses	13%	\$2,302,842	\$2,302,842	32%	\$725,464	95,458 Workers	\$7.60
Development Services		\$10,535,000	\$0		\$0		
Residential Uses	58%	\$6,101,503	\$0	50%	\$0	65,686 Residents	\$0.00
Employment Uses	42%	\$4,433,497	\$0	50%	\$0	95,458 Workers	\$0.00
Library		\$7,521,000	\$7,300,350		\$1,095,053		
Residential Uses	85%	\$6,392,850	\$6,205,298	15%	\$930,795	65,686 Residents	\$14.17
Employment Uses	15%	\$1,128,150	\$1,095,053	15%	\$164,258	95,458 Workers	\$1.72
Non-Departmental		\$13,274,000	\$13,274,000		\$1,991,100		
Residential Uses	58%	\$7,687,836	\$7,687,836	15%	\$1,153,175	65,686 Residents	\$17.56
Employment Uses	42%	\$5,586,164	\$5,586,164	15%	\$837,925	95,458 Workers	\$8.78
Office of Sustainability		\$273,000	\$273,000		\$40,950		
Residential Uses	58%	\$158,112	\$158,112	15%	\$23,717	65,686 Residents	\$0.36
Employment Uses	42%	\$114,888	\$114,888	15%	\$17,233	95,458 Workers	\$0.18
People Strategy and Operations		\$3,264,000	\$3,016,738		\$452,511		
Residential Uses	58%	\$1,890,395	\$1,747,189	15%	\$262,078	65,686 Residents	\$3.99
Employment Uses	42%	\$1,373,605	\$1,269,549	15%	\$190,432	95,458 Workers	\$1.99
Planning and Community Environment		\$7,016,000	\$5,752,200		\$2,876,100		
Residential Uses	58%	\$4,063,422	\$3,331,473	50%	\$1,665,737	65,686 Residents	\$25.36
Employment Uses	42%	\$2,952,578	\$2,420,727	50%	\$1,210,364	95,458 Workers	\$12.68
Public Safety - Fire		\$27,050,633	\$15,900,049		\$6,640,243		
Residential Uses	64%	\$17,221,548	\$10,122,627	42%	\$4,227,452	65,686 Residents	\$64.36
Employment Uses	36%	\$9,829,085	\$5,777,422	42%	\$2,412,791	95,458 Workers	\$25.28
Public Safety - Police		\$34,076,421	\$30,770,127		\$24,616,102		
Residential Uses	30%	\$10,222,926	\$9,231,038	80%	\$7,384,830	65,686 Residents	\$112.43
Employment Uses	70%	\$23,853,495	\$21,539,089	80%	\$17,231,271	95,458 Workers	\$180.51
Public Safety - Office of Emergency Services		\$926,521	\$926,521		\$741,217		
Residential Uses	58%	\$536,609	\$536,609	80%	\$429,287	65,686 Residents	\$6.54
Employment Uses	42%	\$389,912	\$389,912	80%	\$311,930	95,458 Workers	\$3.27
Public Works		\$13,397,000	\$12,252,916		\$1,303,934		
Residential Uses	44%	\$5,943,650	\$5,436,071	11%	\$578,497	65,686 Residents	\$8.81
Employment Uses	56%	\$7,453,350	\$6,816,845	11%	\$725,437	95,458 Workers	\$7.60
Operating Transfers Out		\$2,076,000	\$2,076,000		\$0		
Residential Uses	58%	\$1,202,347	\$1,202,347	0%	\$0	65,686 Residents	\$0.00
Employment Uses	42%	\$873,653	\$873,653	0%	\$0	95,458 Workers	\$0.00
Transfers to Infrastructure		\$13,659,000	\$13,659,000		\$0		
Residential Uses	58%	\$7,910,815	\$7,910,815	0%	\$0	65,686 Residents	\$0.00
Employment Uses	42%	\$5,748,185	\$5,748,185	0%	\$0	95,458 Workers	\$0.00
Total Expenditures		\$166,225,512	\$133,243,323		\$49,802,188		
Residential	56.4%	\$93,766,690	\$74,058,358		\$25,107,731	65,686 Residents	\$382.24
Non-Residential	43.6%	\$72,458,822	\$59,716,684		\$24,694,457	95,458 Workers	\$258.69

APPENDIX B

Follow-Up Research and Sensitivity Analysis



APPENDIX B: FOLLOW-UP RESEARCH AND SENSITIVITY ANALYSIS

On January 15, 2016, EPS published the Draft Fiscal Analysis of the City of Palo Alto 2030 Comprehensive Plan. On March 15, 2016, EPS presented the analysis, participated in discussion, and took comments concerning the analysis from the City's Finance Committee. Based on comments received on the draft analysis EPS undertook a number of steps to augment the fiscal analysis.

Additional Research Concerning Fire Department Service Burden

EPS re-engaged with the City's Fire Department to review service burden data and assess potential fiscal impacts attributable to Comprehensive Plan scenarios. In an interview with Fire Department representatives, it was reconfirmed that the Department's efforts are increasingly focused on emergency medical services and that the primary land use driver for these services is residential development. Representatives stated that the top three call-for-service types are (1) heart attack, (2) stroke, and (3) slip and fall. Reasons for the intensity of service calls in the downtown was attributed to the density of residential downtown, the presence of senior housing downtown and, the homeless population downtown. In particular, representatives noted that approximately 60 percent of calls received are from seniors and that senior facilities are a major source of department service need.

Additional Research Concerning Worker Spending

EPS conducted interviews with local business entities to take comments on the fiscal analysis and specifically to better characterize local worker spending in the community. EPS spoke with Russ Cohen (Executive Director, Palo Alto Downtown Business and Professional Association); Judith Kleinberg (President and CEO of the Palo Alto Chamber of Commerce); and Tiffany Griego (Managing Director, Stanford Research Park Stanford Business Park. Interviewees each independently expressed concern that highly restrictive growth policies have potential negative economic development ramifications which are not considered in the Comprehensive Plan analysis. None of the interviewees sought to provide alternative data or assumptions on worker spending, though interviewees mentioned that local employers may have collected some relevant data. One interviewee suggested that the City consider funding a local study of worker spending.

Sensitivity Analysis

EPS evaluated the sensitivity of net fiscal impact estimates to potential variation in specific model assumptions. Specifically, EPS tested "base" model assumptions concerning (1) worker spending and (2) real estate turnover (i.e., sales rates) based on comments made by members of the City's Finance Committee.

The sensitivity analysis tests a range of inputs for worker spending and real estate property turnover rates. Base scenario inputs for worker spending and property turnover rates are both reduced and increased by 25 percent and 50 percent, generating a total of eight sensitivity tests. For example, the base scenario reflects a total of \$9,270 in taxable retail worker spending. Sensitivity runs consider a reduction and increase of this assumed spending level by 50 percent, to test worker spending at \$4,635 and \$13,905. This same approach is used to test the sensitivity of model findings to property turnover rate assumptions.

Overall, EPS finds that the fiscal impact model is sensitive to these analytical inputs, but that significant changes to these assumptions do not fundamentally alter the conclusion of the study that growth in residential and commercial development is likely to generate a fiscal surplus for the City's General Fund. **Figure B-1** presents the baseline scenario and **Figure B-2** and **Figure B-3** present findings from the sensitivity analysis.

Figure B-1 Baseline Fiscal Results

Baseline Fiscal Results	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Total Effect (2015\$, '000s)	\$5,205	\$5,038	\$6,198	\$7,404	\$5,190	\$7,313
<i>Percentage of 2015 General Fund</i>	3.0%	2.9%	3.6%	4.3%	3.0%	4.3%
Residential Uses (2015\$, '000s)	\$2,238	\$2,238	\$2,973	\$3,722	\$2,973	\$5,096
Employment Uses (2015\$, '000s)	\$2,967	\$2,799	\$3,225	\$3,681	\$2,217	\$2,217

Figure B-2 Sensitivity of Results to Worker Spending Assumptions

Sensitivity Test	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Worker Spending is 25% Below Base Estimate						
Change in Net Fiscal Impact	-5.1%	-3.3%	-3.5%	-3.6%	-2.9%	-2.1%
Absolute Change (2015\$, '000s)	-\$262.9	-\$167.3	-\$216.7	-\$262.9	-\$150.6	-\$150.6
Net Fiscal Impact Estimate (2015\$, '000s)	\$4,942	\$4,870	\$5,981	\$7,141	\$5,039	\$7,162
Worker Spending is 50% Below Base Estimate						
Change in Net Fiscal Impact	-10.1%	-6.6%	-7.0%	-7.1%	-5.8%	-4.1%
Absolute Change (2015\$, '000s)	-\$525.9	-\$334.7	-\$433.3	-\$525.9	-\$301.2	-\$301.2
Net Fiscal Impact Estimate (2015\$, '000s)	\$4,679	\$4,703	\$5,765	\$6,878	\$4,889	\$7,012
Worker Spending is 25% Above Base Estimate						
Change in Net Fiscal Impact	5.1%	3.3%	3.5%	3.6%	2.9%	2.1%
Absolute Change (2015\$, '000s)	\$262.9	\$167.3	\$216.7	\$262.9	\$150.6	\$150.6
Net Fiscal Impact Estimate (2015\$, '000s)	\$5,468	\$5,205	\$6,415	\$7,666	\$5,341	\$7,464
Worker Spending is 50% Above Base Estimate						
Change in Net Fiscal Impact	10.1%	6.6%	7.0%	7.1%	5.8%	4.1%
Absolute Change (2015\$, '000s)	\$525.9	\$334.7	\$433.3	\$525.9	\$301.2	\$301.2
Net Fiscal Impact Estimate (2015\$, '000s)	\$5,731	\$5,372	\$6,631	\$7,929	\$5,491	\$7,614

Figure B-3 Sensitivity of Results to Real Estate Turnover Assumptions

Sensitivity Test	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Turnover is 25% Below Base Estimate						
Change in Net Fiscal Impact	-6.6%	-6.6%	-6.8%	-7.0%	-7.5%	-8.4%
Absolute Change (2015\$, '000s)	-\$342.9	-\$334.0	-\$424.2	-\$517.2	-\$388.5	-\$610.9
Net Fiscal Impact Estimate (2015\$, '000s)	\$4,862	\$4,704	\$5,774	\$6,886	\$4,801	\$6,702
Turnover is 50% Below Base Estimate						
Change in Net Fiscal Impact	-13.2%	-13.3%	-13.7%	-14.0%	-15.0%	-16.7%
Absolute Change (2015\$, '000s)	-\$686.0	-\$668.3	-\$848.8	-\$1,034.8	-\$777.3	-\$1,222.3
Net Fiscal Impact Estimate (2015\$, '000s)	\$4,519	\$4,369	\$5,349	\$6,369	\$4,413	\$6,091
Turnover is 25% Above Base Estimate						
Change in Net Fiscal Impact	6.6%	6.6%	6.8%	7.0%	7.5%	8.3%
Absolute Change (2015\$, '000s)	\$342.5	\$333.7	\$423.7	\$516.6	\$388.0	\$610.1
Net Fiscal Impact Estimate (2015\$, '000s)	\$5,547	\$5,371	\$6,622	\$7,920	\$5,578	\$7,923
Turnover is 50% Above Base Estimate						
Change in Net Fiscal Impact	13.2%	13.2%	13.7%	13.9%	14.9%	16.7%
Absolute Change (2015\$, '000s)	\$684.5	\$666.8	\$846.7	\$1,032.3	\$775.2	\$1,218.8
Net Fiscal Impact Estimate (2015\$, '000s)	\$5,889	\$5,704	\$7,045	\$8,436	\$5,965	\$8,532