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Final Report

Projection of Jobs, Population and Employed Residents to 2040

For the City of San Jose

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Director

Introduction

The Center for Continuing Study of the California Economy (CCSCE) prepared projections of jobs, population, households and employed residents for the City of San Jose in 2008. In 2015 CCSCE was asked to review these projections and update them where appropriate. The 2015 work did not include new projections of households or detailed demographic projections.

The work was organized around five tasks

- 1) Review the 2008 projections and those used in the 2013 Plan Bay Area.
- 2) Revise and update the projections to reflect recent trends in the nation, state, region and local area.
- 3) Prepare detailed industry job projections for use in the land use analysis.
- 4) Update projections of population sufficient to project the number of employed residents.
- 5) Develop projections for 2025 and 2040. Toward the end of the project work, the City requested projections, where possible, for 2035.

This report summarizes the methodology and results.

Task 1 Results and Development of Methodology

Between 2008 and 2015 the nation, state and region experienced a deep recession and, after 2010, a strong recovery in the region and Santa Clara County. The projections in Plan Bay Area were developed in early 2012 and are being revised this year by the Association of Bay Area Governments (ABAG). The new ABAG projections for the region, counties and City of San Jose will not be adopted until after this project is completed.

As a result, CCSCE developed a new set of regional, San Jose metro area and City of San Jose job projections. These projections were developed by separately projecting jobs for each individual industry used in the land use analysis and combining the industry projections to develop projections of total jobs. The individual industries were those used in the 2008 analysis.

The historical jobs data came from three sources. The wage and salary job estimates were taken from California Employment Development (EDD) estimates. Estimates for self employed residents were taken from American Community Survey (ACS) estimates. Estimates of household workers were provided by EDD for metro areas. EDD also provided wage and salary job

estimates to the City of San Jose for citywide jobs by industry. All of the projections were developed by CCSCE.

A more detailed description of the methodology is shown below in this report.

Task 2.a Results of Regional Job Projections

Table 1 below shows the projections of total jobs that were presented in the 2008 analysis, the 2013 Plan Bay Area projection and CCSCE's 2015 projection. CCSCE's 2008 and 2015 projection of total jobs for the region are similar though the 2015 projections were developed using the latest data through 2014 and a new industry share analysis. The ABAG 2013 projections are in the process of being revised by ABAG staff and the new regional 2040 job projection will be higher than the ABAG 2013 projection shown in the table.

Table 1

Bay Area Total Jobs					
Millions					
	ABAG 2007	ABAG 2009 preliminary	CCSCE 2008	ABAG 2013	CCSCE 2015
2035	5.248	5.107	4.690		
2040			4.878	4.505	4.957

The average annual growth rate for total regional jobs is less than 1% per year in both the 2008 and 2015 projections. The nation, state and region are about to begin a period of significant slowing of labor force and job growth as baby boomers retire in greater numbers. The Bay Area is projected to have a modestly higher share of national jobs in 2040 compared to 2015.

Table 2

Bay Area Average Annual Job Growth Rate				
CCSCE 2008 and 2015 Projections				
	Total Jobs (Millions)			Average Annual Growth Rate
	2005	2015	2040	
CCSCE 2008	3.569		4.878	0.9%
CCSCE 2015		4.057	4.957	0.8%

Source: CCSCE estimates and projections

Task 2.b CCSCE Prepared a Range of City of San Jose Job Projections

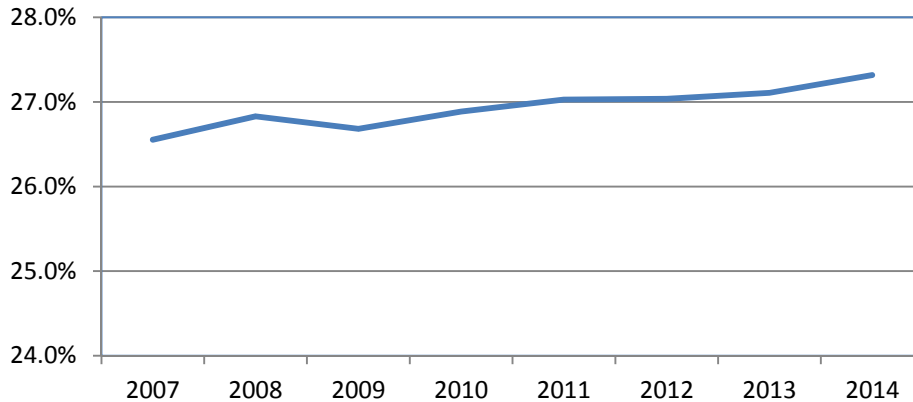
The job projections for the City of San Jose were prepared in two steps. First job projections by industry were developed for the San Jose metro area (Santa Clara and San Benito counties) and then projections were developed for the City in relation to the metro area projections. As a final check the ratios of City jobs to regional jobs were analyzed. (Note: Santa Clara County accounts for over 98% of the jobs in the metro area.)

San Jose Metro Area Job Projections

Since adoption of the Envision 2040 General Plan, the metro area saw a small increase in the metro area's share of regional jobs from 2007 through 2014 as a result of strong job growth in the tech sector. The metro area share increased from 26.6% of the region in 2007 to 27.3% in 2014 as shown in Figure 1.

Figure 1

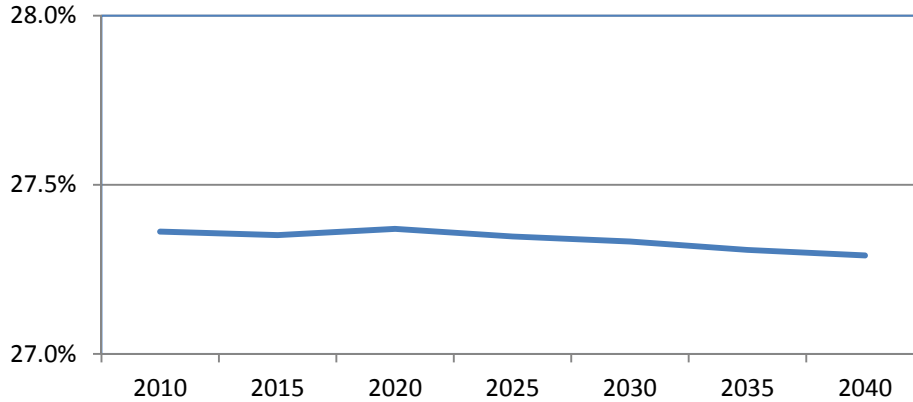
San Jose Metro Area Share of Bay Area Jobs 2007-2014



In the ABAG 2013 projections the metro area was projected to maintain a relatively constant share of regional jobs. The ABAG 2013 projections had the San Jose metro area share of regional jobs go from 27.4% in 2010 to 27.3% in 2040 as shown below in Figure 2.

Figure 2

San Jose Metro Area Projected Share of Regional Jobs--ABAG 2013



Two alternative sets of San Jose metro area job projections were developed by CCSCE and shown below in Table 3.

San Jose Metro Area Alternative 1: The first set maintained the 2014 metro area/region job shares by industry to 2025 and 2040.

San Jose Metro Area Alternative 2: The second set adjusted the projection of total jobs by assuming that the metro area would get 1% more of the regional jobs in 2040 than assumed in the ABAG 2013 projections.

Table 3

	San Jose Metro Area		
	Jobs (Millions)		
	2014	2040 Alt 1	2040 Alt 2
Jobs	1.070	1.338	1.388
Share of Region	27.3%	27.3%	28.3%

Source: Estimates--EDD, ACS and CCSCE, Projections--CCSCE

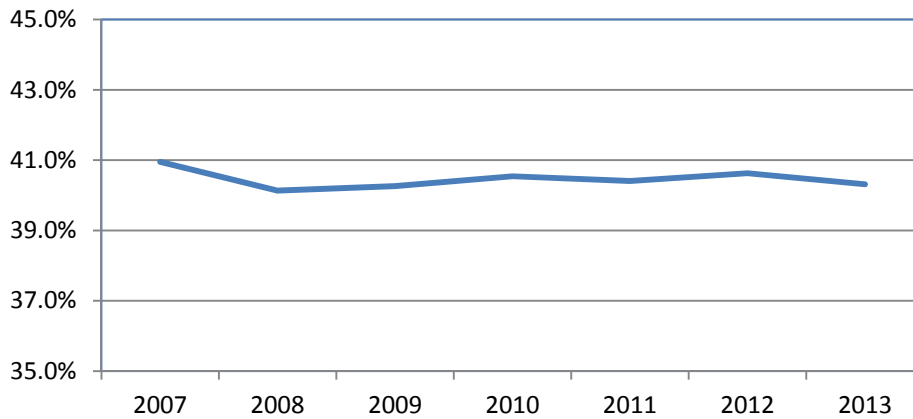
City of San Jose Job Projections

Three sets of City of San Jose job projections were prepared. The assumptions for each alternative are described below. Some background data is presented

first related to the City share of San Jose metro area jobs. The City had a relatively constant share (39%-41%) of metro area jobs from 2007 through 2013 as shown below in Figure 3. The 2014 data was not used in the analysis as explained below.

Figure 3

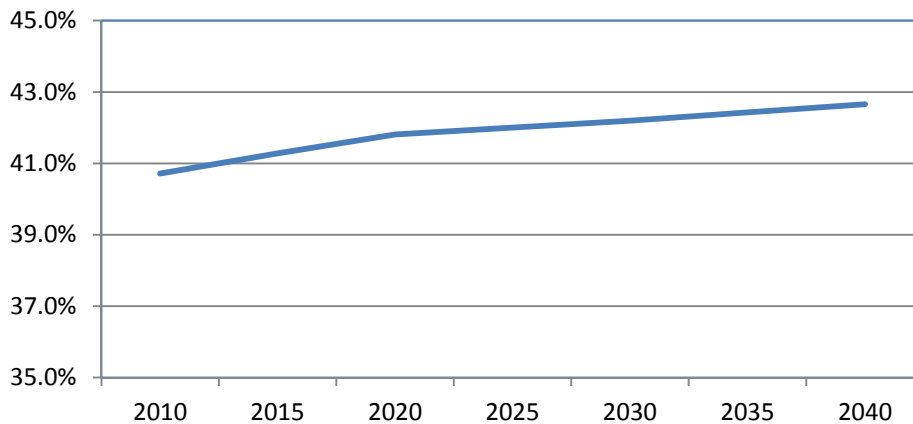
San Jose Share of Metro Area Jobs 2007--2013



The ABAG 2013 projections showed an increase in the City's share of metro area jobs from 40.7% in 2010 to 42.7% in 2040 as shown below in Figure 4.

Figure 4

San Jose Projected Share of Metro Area Jobs--ABAG 2013



City of San Jose Alternative 1: The 2013 City shares of metro area jobs and the metro area shares of regional jobs were maintained by industry to 2025 and 2040. The 2013 (higher) shares for the City of San Jose were used instead of 2014 as the 2014 City estimates used partial year data and seemed low given the strong job growth in the metro area in 2014. The 2013 City/metro area shares were combined with the metro area alternative 1 (lower) projection to develop the City alternative 1 projections.

City of San Jose Alternative 2: The ABAG 2013 projection that the City would capture 42.7% of metro area jobs in 2040 was used along with the metro area alternative 1 projections.

City of San Jose Alternative 3: The ABAG 2013 projection that the City would capture 42.7% of metro area jobs was used in combination with metro area alternative 2 (higher) projections.

The projections of total jobs for the City of San Jose in 2040 are shown below in Table 4 for the three alternatives.

Table 4

		City of San Jose			
		Total Jobs (Thousands)			
		2040			
		2013	Alt 1	Alt 2	Alt 3
Jobs		413.5	530.4	571.6	597.6
Growth per Year			0.9%	1.2%	1.4%
Bay Area Regional Growth per Year			1.0%	1.0%	1.0%

Source: 2013--EDD, 2040--CCSCE

In alternative 1, the lowest job growth alternative, job growth in San Jose continues at a slightly slower pace than in the region—0.9% per year on average for the City compared to 1.0% per year for the region. Note that these growth rates are calculated on a 2013 base year and are higher than the rates shown on page 3 that were calculated on a 2015 base year that included two years of strong job growth after 2013.

Table 5 compares the 2015 CCSCE projections with those prepared in 2008 by CCSCE and adopted in 2009 by the City. The 2015 alternative 1 projection is lower than the CCSCE projection of total jobs in 2040 prepared in 2008. Alternative 1 reflects the history that the City did not increase its share of metro area or regional jobs after 2007.

Table 5

City of San Jose				
Projections of Total Jobs in 2040 (Thousands)				
2008	2009	2015		
CCSCE	City	Alt 1	Alt 2	Alt 3
570.0	677.2	530.4	571.6	597.6

Source: CCSCE and City of San Jose 2009

Alternative 2, which assumes an increase in the City’s share of metro area jobs based on the ABAG 2013 projections, results in a projection of total jobs for 2040 that is nearly identical to the CCSCE 2008 projection. Alternative 3, which also includes an increase in the metro area share of regional jobs, results in a projection that is 28,300 jobs higher than the CCSCE 2008 projection.

The adopted City projection of 677,200 jobs in 2040 would now represent an average annual job growth from 2013 of 1.8% per year, substantially higher than the City job growth rate in any of the 2015 alternatives shown below in Table 6.

Table 6

City of San Jose				
Jobs in 2040 (Thousands)				
Average Annual Growth Rate from 2013				
2008	2015			
City	Alt 1	Alt 2	Alt 3	
677.2	530.4	571.6	597.6	
Growth per year	1.8%	0.9%	1.2%	1.4%

Source: CCSCE

Task 3 Detailed Industry Projections

These results are described in a separate report.

Task 4 Projections of Population and Employed Residents

CCSCE was asked to update the 2008 comparison of projected jobs and projected employed residents for the City of San Jose. This analysis requires developing a new projection of employed residents, which in turn requires a new

projection of City population, a projection of the share of the population of working age (16 and above) and a projection of labor force participation and unemployment rates.

Methodology for Developing a 2040 Population Projection for San Jose

The most recent population projections for the City of San Jose were produced as part of the regional projections to 2040 developed by ABAG for Plan Bay Area.

The Plan Bay Area 2040 population projection for San Jose was 1,334,100. At that time the regional population projection was 9,286,700 and San Jose's share of the regional total was 14.4%.

Preliminary discussions with ABAG indicate a revised regional total of approximately 9,600,000 in 2040. If San Jose has the same share as in the Plan Bay Area 2013 projections, the San Jose population projection for 2040 would be 1,379,108 or 3.4% above the Plan Bay Area 2013 projection.

Methodology for Developing a 2040 Projection of Employed Residents

The number of employed residents depends on 1) the population of working age (16 and above), 2) the labor force participation rate and 3) the unemployment rate.

The California Department of Finance (DOF) has projected Santa Clara County population for 2040 and 82.3% of the population is aged 16 and above. If the City has the same share of working age residents, the projected 2040 population in San Jose would have 1,134,994 residents aged 16 and above.

San Jose's labor force participation rate for population 16 and above was 0.5% above the county rate on average between 2009 and 2013 based on U.S. Census Bureau American Community Survey estimates. The new preliminary ABAG projections project a south Bay Area labor force participation rate in 2040 of 61.2%. If San Jose's rate is 0.5% higher, the city's labor force participation rate would be 61.7%.

A 2040 population of 1,134,984 residents 16 and above and a labor force participation rate of 61.7% produces a 2040 city labor force of 700,291.

The final step is to project the unemployment rate. For this round a 5.0% unemployment rate was used. That results in 665,277 employed residents.

The projected ratio of employed residents and jobs are shown below in Table 7 for each 2040 City job projection alternative.

Table 7

		City of San Jose			
		Comparison of Jobs and Employed Residents in 2040			
2040 San Jose Job Projection		Alt 1	Alt 2		Alt 3
Jobs		530,905	571,544		597,595
Employed Residents/Job		1.25	1.16		1.11
Jobs/Employed Residents		0.80	0.86		0.90

Source: CCSCE

Task 5 Projections for the City of San Jose in 2025, 2035 and 2040

Table 8 shows the projected total jobs for the City of San Jose for 2025, 2035 and 2040. The projections for 2025 were developed at the same time as the 2040 projections described in section Task 2.b and Table 4. Projections were developed for each industry. The industry projections are presented in a separate memo and were developed with the methodology described above in Task 2.b.

Table 8

		City of San Jose		
		Total Jobs (Thousands)		
	2013	2025	2035	2040
Alt 1	413.5	494.7	517.8	530.9
Alt 2	413.5	518.2	552.3	571.6
Alt 3	413.5	535.8	575.3	597.6

Source: CCSCE 2025-2040; EDD 2013

The projections for 2035 were developed by calculating the industry growth rates between 2025 and 2040 and using these growth rates for each industry for the ten years between 2025 and 2035 to develop 2035 projections.

The average annual growth rates for total jobs for each time period is shown below in Table 9.

Table 9

		City of San Jose		
		Total Jobs		
		Average Annual Growth Rate		
		2013-2025	2025-2040	2013-2040
Alt 1		1.5%	0.5%	0.9%
Alt 2		1.9%	0.7%	1.2%
Alt 3		2.2%	0.7%	1.4%

Source: CCSCE