

CENTER FOR CONTINUING STUDY OF THE CALIFORNIA ECONOMY

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DATE: June 1, 2017
TO: **SACOG Expert Panel Members**
FROM: Stephen Levy
SUBJECT: Expert Panel Meeting

CCSCE has been asked by SACOG to prepare a range of regional growth projections as an input into their 2020 MTP/SCS (Metropolitan Transportation Plan/Sustainable Communities Strategy). Our meeting will review an initial set of projections of jobs, population and household growth to 2050. Your input will help us refine this set of projections and develop a range of projection sets, as well as identify issues affecting the growth of the region.

The SACOG region projections are developed in the context of expected national and state job and population growth. While most of the focus of our meeting will be on trends and issues affecting growth in the region, CCSCE's SACOG region projections do reflect national and state trends and projections summarized below. These national and state projections have been reviewed by two expert panel discussions in the SCAG (Los Angeles) region and found appropriate, including the comments noted in the following sections.

CCSCE is working simultaneously with SACOG and SCAG and the two agencies are sharing parts of our work to the technical and budget benefit of both agencies. In particular the state job projections were prepared first for SACOG and the national projections used small portions of the national REMI forecast provided by SCAG.

National Outlook

CCSCE used the REMI forecast national total population and total job forecasts. The REMI U.S. long-term population forecast is slightly lower than the published 2012 and 2014 Census Bureau projections. This is the result of using lower birth forecasts but matching the Census Bureau's slow upward forecast of foreign immigration levels. It should be noted that without immigration U.S. population growth slows to less than 0.1% annually and labor force growth likely turns negative after 2040. Below are the population and

immigration projections from the Census Bureau in 2012, the Census Bureau in 2014 and REMI in 2017 for the years 2020, 30, 40 and 50.

Table 1 U.S. Demographic Projections (Millions)

Population	2020	2030	2040	2050
2012 Census	336.4	358.5	380.0	399.8
2014 Census	334.5	359.4	380.2	398.2
2017 REMI	332.6	356.0	376.4	392.6
Immigration				
2012 Census	0.91	1.14	1.17	1.20
2014 Census	1.27	1.35	1.43	1.47
2017 REMI	1.03	1.35	1.42	1.47

Population and Labor Force, Total Jobs

Trends in fertility and immigration levels are key assumptions in projecting U.S. population growth. The national projections used by CCSCE include a continuation of the lower fertility rates recently seen, particularly for the Hispanic population, a slow increase in immigration levels for the next few years but growing immigration levels after 2025.

The SCAG expert panels thought these were a reasonable starting point with views that birth rates could rebound by 2050 and immigration could be higher or lower than forecast depending on whether the nation adopts a skills need based immigration policy at some point in the future.

REMI forecasts a higher labor force participation rate in 2050 compared to 2016. Participation rates decline to 2030 as boomers retire but are forecast to rise between 2030 and 2040 and rise even more between 2040 and 2050.

National population and job growth rates slow to 2050. Jobs grow slightly more slowly than population to 2025 as baby boomers retire but grow slightly faster than population between 2025 and 2050 as a result of rising labor force participation rates and an increase in working age population. Still, all future national growth rates are well below 1% per year and would be even lower if immigration levels decline.

Table 2 United States (Millions)

	1990	2016	2025	2050	Average Annual Growth Rate		
					1990-2016	2016-2025	2025-2050
Population	249.6	321.9	344.4	393.6	1.0%	0.8%	0.5%
Jobs	121.5	156.2	166.2	192.2	1.0%	0.7%	0.6%

Questions on the National Projections

The expert panel will discuss the national immigration, fertility rate and labor force participation rate assumptions. With skill shortages and business support for skill based immigration, is it likely that immigration levels will remain low as more baby boomers retire?

Could fertility rates go even lower (they are currently around 1.7, well below replacement levels) or is a rebound likely at some point?

With nothing known about what will happen with the administration's agenda on immigration, trade, taxes and the budget, does it make sense to modify the national growth outlook to 2050 at this point in the project work?

California Job Projections

California is in the midst of a steady increase in the state's share of national jobs, driven mostly by a favorable composition of national industry trends. California posted a record high 11.8% of U.S. jobs in 2016, up from 11.4% in 2012. The CCSCE job projections have the state gaining shares in some key basic industry sectors to 2025 continuing recent trends in software, pharmaceuticals, motion pictures and some professional service sectors.

Basic industries sell most goods and service to customers outside the region, have broader location choices and their growth rates are principal determinants of the relative growth of state and regional economies.

California has recorded share gains in total basic jobs and several key growth sectors since 2007 as shown on the following page. The state has a favorable industry composition with basic industry jobs concentrated in information and professional services, tourism and entertainment and foreign trade related activities.

California's favorable basic industry composition (an above average share of fast growing industries), combined with share increases in some sectors, has and will continue to increase the state's share of national basic industry jobs. California is projected to capture 13.3% of U.S. basic jobs in 2040 and 2050 up from 13.1% in 2025, 12.8% in 2016 and 12.6% in 2007. After 2025, CCSCE held individual sector shares constant. Overall basic industry share increases after 2025 reflect a favorable industry composition.

CA Share of Selected Basic Industries

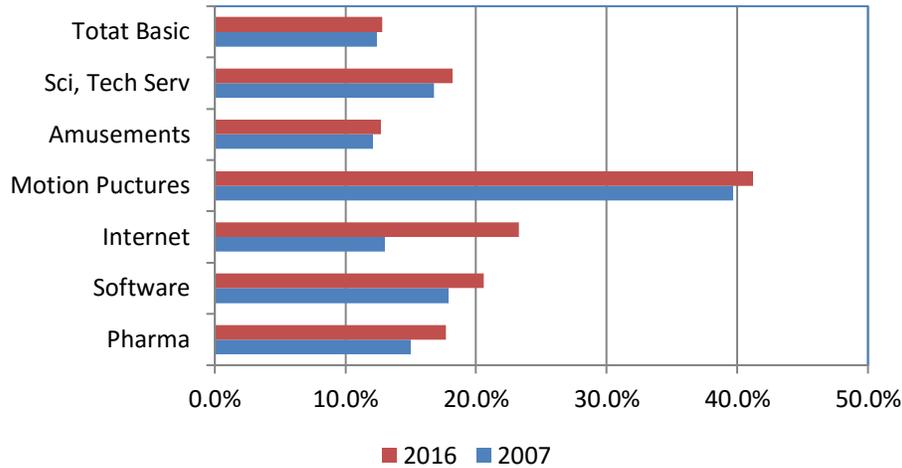


Figure 1

Table 3 California Share of Basic Industry Clusters

	2007	2016	2025	2040	2040
High Technology Manufacturing	20.5%	21.9%	21.8%	21.9%	22.0%
Diversified Manufacturing	9.4%	8.4%	8.4%	8.6%	8.7%
Transportation & Wholesale Trade	11.7%	12.2%	12.6%	12.6%	12.6%
Info, Professional, Management Services	13.1%	13.5%	13.9%	14.0%	14.0%
Tourism & Entertainment	14.5%	15.2%	15.5%	16.5%	16.8%
Government	9.0%	8.6%	8.6%	8.6%	8.6%
Resource Based	17.6%	17.1%	16.5%	15.9%	15.1%
Total Basic Jobs	12.6%	12.8%	13.1%	13.3%	13.3%

Based on the state's basic industry job growth, the share of total U.S. jobs is projected to continue increasing after 2016. The favorable composition of national job growth pushes the state share higher. The state share is projected to increase to 12.1% in 2025, 12.2% in 2040 and 12.3% in 2050. Essentially the state is projected to see a share increase to 2050 comparable to that achieved in the past 4 years given growth projections for information and professional services, trade and tourism.

CA Share of U.S. Jobs

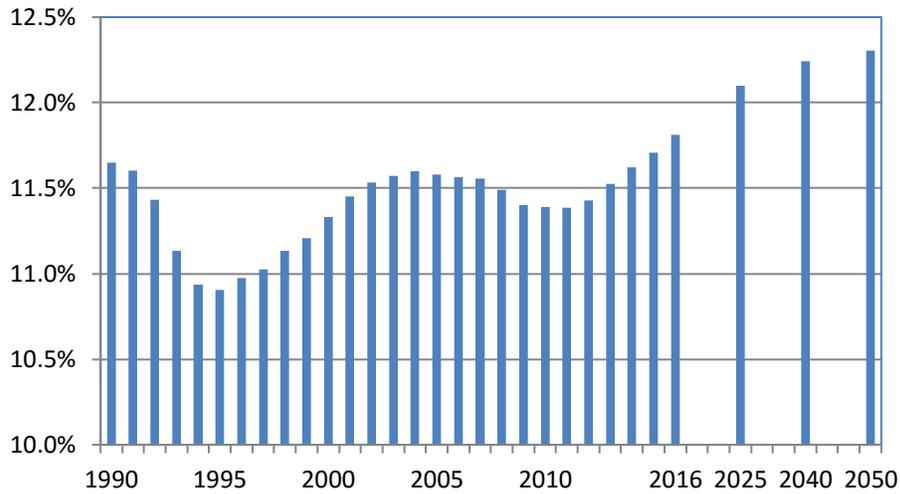


Figure 2

California is projected to outpace the nation in job growth to 2025 continuing the recent surge in basic industry job growth and then slightly outpace the nation between 2025 and 2050 though all job growth rates after 2025 are well below 1% per year.

Table 4 California and U.S. Jobs

	1990	2016	2025	2050	Average Annual Growth Rate		
					1990-2016	2016-2025	2025-2050
California	14.1	18.4	20.1	23.7	1.0%	1.0%	0.7%
U.S.	121.5	156.2	166.2	192.2	1.0%	0.7%	0.6%

Questions on the State Job Projections

Next, the SACOG expert panel will review the state projections. The SCAG expert panels agreed that the state has a favorable industry composition related to where future U.S. job growth will occur and that the state should grow slightly faster than the nation to 2050. Do you agree?

What policies or other factors will affect the state’s share of U.S. jobs?

Why are the State Job Projections Relevant to the SACOG Growth Outlook?

There are three principal reasons:

- 1) the region has some connection to overall state job growth
- 2) faster state job growth could increase demand for state government and education services—the region’s principal basic industry cluster.
- 3) projected state growth is focused on sectors that have recently pushed Bay Area job growth much faster than the state average. The possibility of increasing connection between the two regions could increase the region’s share of key industries and overall job growth.

Recent SACOG Region Job Trends

The first step in the growth forecast is the forecast of basic industry jobs. These industries primarily serve markets outside the region and are not tied to the regional population for their location. Basic industries are found primarily in agriculture, mining, manufacturing, wholesale trade, major portions of information and professional services and state government. Non-basic or population serving sectors primarily include industries in construction, retail trade, finance, educational, health and personal services and local government.

The Sacramento regional economy has a unique basic industry structure with a heavy concentration in state government jobs.

Table 5 Structure of SACOG and CA Economic Base
(Percent of Jobs by Major Category)
2016

	SACOG	CA
High Tech Manufacturing	2.1%	6.0%
Diversified. Manufacturing.	7.9%	12.8%
Wholesale Trade & Transp.	14.6%	18.6%
Professional & Info Services	27.9%	33.3%
Tourism & Entertainment	7.2%	10.4%
Basic Government	36.0%	11.5%
Resource Based	4.3%	7.5%
Total Basic Jobs	100.0%	100.0%

Source: EDD and CCSCE

More than 1/3 of the region’s economic base is in state government and education jobs with a small contribution from federal government jobs. The region’s 36.0% share is more than triple the state average—11.5% of basic jobs. As a result, the region has a smaller share of jobs in each of the other categories of basic industry jobs used by CCSCE and shown above. In addition, a share of the professional, business and information service jobs relate to state government activities. Trends in these two categories will strongly affect regional growth trends.

Between 1990 and 2007 the region posted an increase in the share of state basic industry jobs led by growth in state government, and share growth professional services and high tech jobs. Between 2007 and 2016 the region’s share of basic industry jobs fell led by declines in state government and high tech jobs and very slow growth in professional and information services.

SACOG Region Share of Basic Jobs Initial Baseline Projection

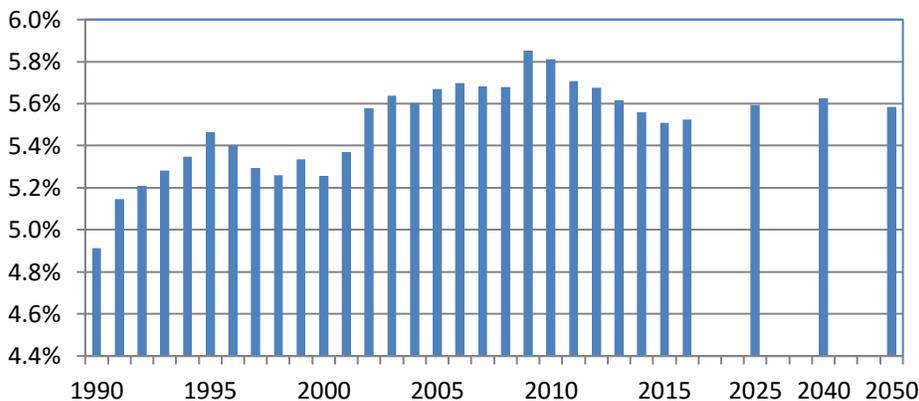


Figure 3

The region’s share of basic industry jobs in the baseline forecast is forecast to rebound slightly but not back to the highest share in 2009. The region has a below average share of slow growing sectors like manufacturing and there is sufficient job growth in professional services and state government forecast for the state to support the slight increase in the regional share of state basic industry jobs.

Total Job Trends

The share and structure of jobs in population serving sectors does not vary much among regions so the trends in basic industry job growth translate into trends in the share of total jobs. Given the current composition of the region’s economic

base and state job trends, the region should keep pace with state job growth but not regain the peak share of state jobs from before the recession.

SACOG Region Share of CA Jobs Initial Baseline Projections

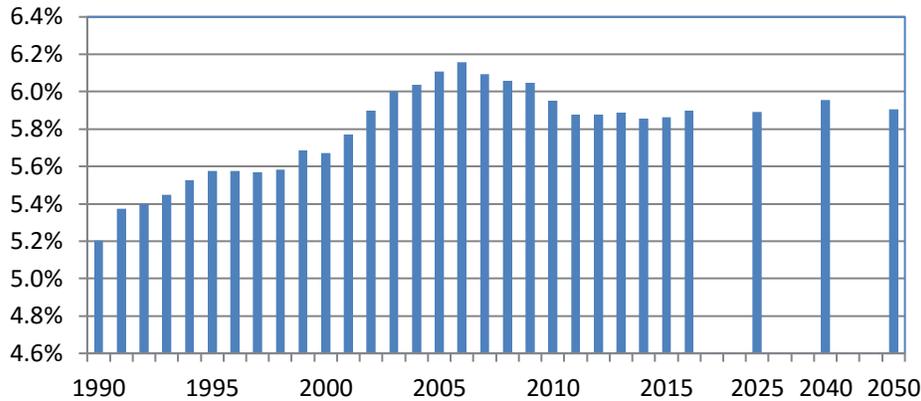


Figure 4

The rate of job growth will slow in the nation, state and region for 2016-2050 compared to the job growth rates for 1990-2016. Between 1990 and 2016, the region grew much faster than the state and nation, a result not forecast in the initial projections to continue in the period to 2050. Future job growth rates everywhere are heavily affected by declining birth rates, the retirement of the baby boom generation and the lack of an immediate increase in the level of immigration.

Job growth rates in the region are projected to slightly outpace the nation but be well below 1% and below growth rates since 1990.

Table 6 Total Jobs

	(Thousands)			Average Annual Growth Rate	
	1990	2016	2050	1990-2016	2016-2050
SACOG	736.2	1,087.8	1,380.1	1.51%	0.70%
CA	14,147.8	18,445.2	23,652.2	1.03%	0.73%
US	121,453.2	156,178.5	192,209.6	0.97%	0.61%

Questions Related for Modifying the Regional Job Projection

The expert panel will be asked to weigh in on the initial baseline projections for the SACOG region. Changes in the size and structure of national and state job trends will affect the regional forecast but this section focuses on what the region can do.

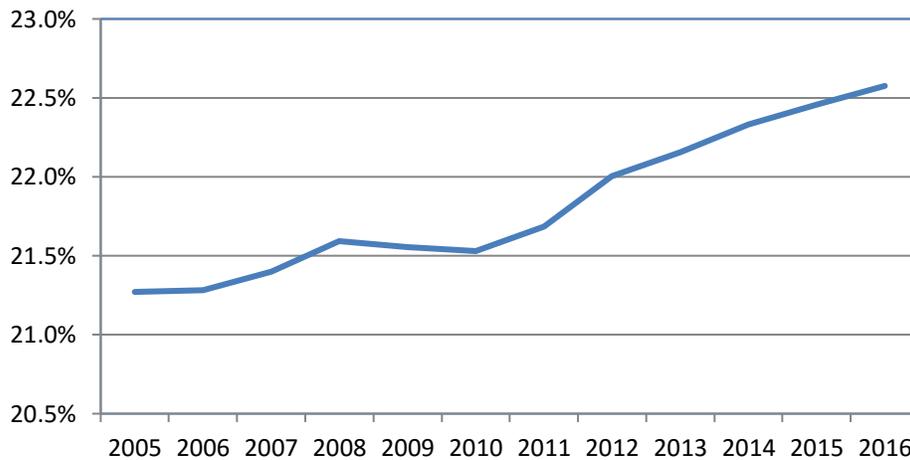
The regional share and job forecast could be higher if the region captures a larger share of large basic industries or state government jobs grow faster than projected at the state level. And the region could add jobs if the commuter base grows with people living in the region and, perhaps, working in the Bay Area.

Since 2005 the Bay Area has added jobs at twice the pace of the state and shown a steady increase in the region's share of state jobs. The Bay Area faces a serious housing supply and cost potential constraint to future job growth, though companies want to be close to the region's large skilled workforce. Could this be an opportunity for the SACOG region?

The Bay Area Council Economic Institute studied the mega region that includes the Bay Area, parts of the SACOG region and adjacent Valley counties. Jeff Bellisario, who was the principal author of the study, will be with us on June 8 to explore the possibilities for the SACOG region to connect with the Bay Area to maximize joint competitiveness. The report can be downloaded from the BACEI website.

http://www.bayareaeconomy.org/files/pdf/The_Northern_California_Megaregion_2016c.pdf.

Recent Bay Area Share of CA Jobs

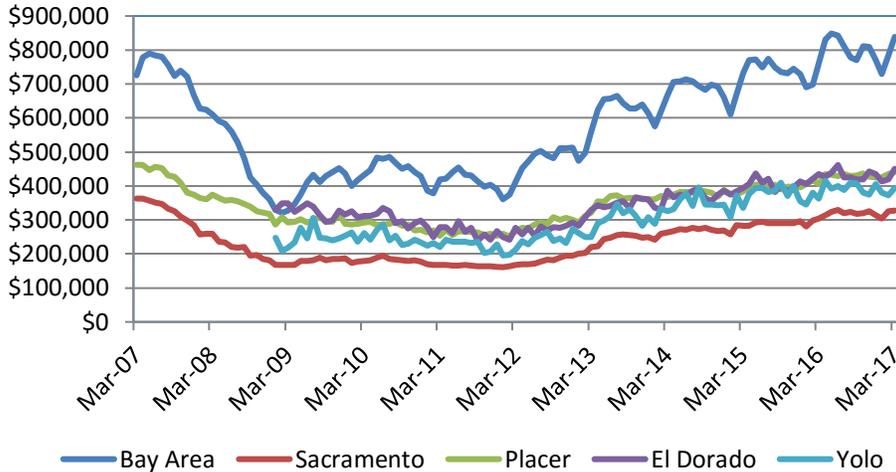


The Bay Area housing shortage and now increasing price differential between the SACOG and Bay Area regions could lead to more housing in the SACOG

region for commuters, particularly if Capitol Corridor commute service is expanded, which could help both regions.

What do you think about the mega region potential for increasing regional job growth? What other options are possible and is it likely that the region can add jobs faster than the state given the composition of future state jobs?

Median Resale Home Prices



Population Trends and Projections

The SACOG region share of state population growth is expected to remain near 2016 levels (6.2%) to 2050. Following the job projections, the population share increases slightly to 2040. The population projection is based on the jobs forecast and maintains the current relationship between jobs and population relative to national trends, which means that the population/jobs ratio in the region changes by the same percentage as in the national forecast. The ratio could vary if commuting increases or decreases or if there is reason to believe that birth rate trends will differ between the region, state and nation.

SACOG Share of CA Population Initial Baseline Projections

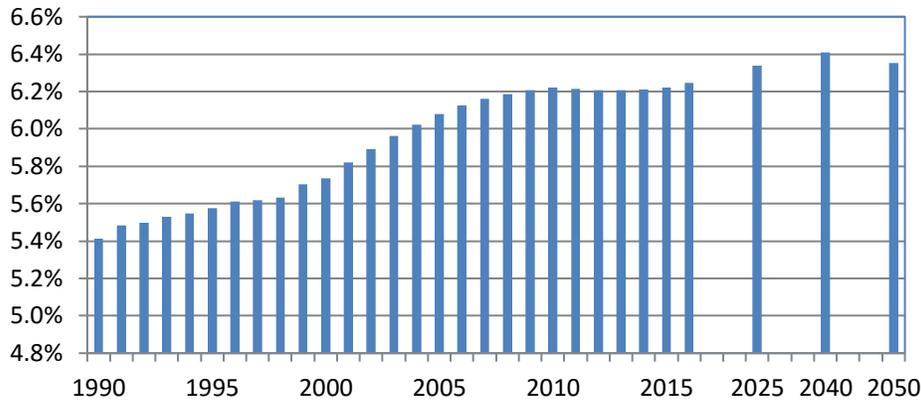


Figure 5

The population level and share forecast is lower than the recent DOF population projections for the region and state. DOF has the region’s population growing faster than the state population between 2016 and 2050. This requires some combination of 1) higher SACOG region job growth, 2) increased housing for commuters and 3) higher birth rates than forecast by DOF. Increasing the region’s share of state population from 6.2% toward 7.0% would require a substantial shift in current trends.

Table 7 SACOG Region Population

	(Thousands)			Share of State		
	2025	2040	2050	2025	2040	2050
CCSCE	2,732.8	3,056.4	3,184.9	6.3%	6.4%	6.4%
DOF	2,726.4	3,182.7	3,450.9	6.4%	6.8%	7.0%

Population growth rates are forecast to slow to 2050 in the region, state and nation compared to the 1990-2016 growth rates. And Hispanic and Multiracial population groups are projected to lead the region’s growth according to DOF.

Table 8 Population Trends and Projections

	(Thousands)			Average Annual Growth Rate	
	1990	2016	2050	1990-2016	2016-2050
SACOG	1,614.3	2,458.1	3,184.9	1.6%	0.8%
CA	29,828.0	39,354.4	50,131.0	1.1%	0.7%
US	249,620.0	321,930.0	393,586.3	1.0%	0.6%

Table 9 SACOG Region Population by Ethnic Group (Thousands)

	2015	2025	2040	2050	% Change 2015-2050
Total	2,429.7	2,664.9	3,182.7	3,450.9	42.0%
White, Non-Hispanic	1,316.5	1,455.5	1,560.3	1,631.1	23.9%
Black, Non-Hispanic	162.8	227.2	214.9	229.6	41.0%
Multiracial, Non-Hispanic	321.0	361.1	409.1	431.5	34.4%
Hispanic	102.5	136.2	212.0	270.3	163.7%
Hispanic	526.9	606.0	786.4	888.4	68.6%
% white, Non-Hispanic	54.2%	54.6%	49.0%	47.3%	

Source: DOF

DOF projects that the region will have a favorable age distribution of labor force growth, with a large share of population growth in working age groups after baby boomers retire.

Table 10 SACOG Population by Age Group (Thousands)

	2015	2025	2040	2050	2015-25	2025-40	2040-50
0-14	471.6	459.4	514.8	538.8	-12.2	55.4	24.0
15-24	375.1	390.2	404.1	429.1	15.1	13.9	25.1
25-54	937.8	1,011.3	1,217.5	1,308.3	73.5	206.1	90.8
55-64	300.8	305.8	350.5	384.2	5.0	44.7	33.7
65-74	199.6	274.1	298.3	341.6	74.4	24.2	43.3
75+	144.8	224.1	397.6	448.9	79.3	173.5	51.3
Total	2,429.7	2,664.9	3,182.7	3,450.9	235.2	517.8	268.2

Source: DOF

Questions about Regional Population Projections

CCSCE plans to use the DOF age and ethnic growth projections and adjust them to the regional population totals suggested by projected job growth. This incorporates the DOF fertility and mortality rates, which is their expertise, plus their projection of ethnic population changes? Does this seem like a reasonable approach?

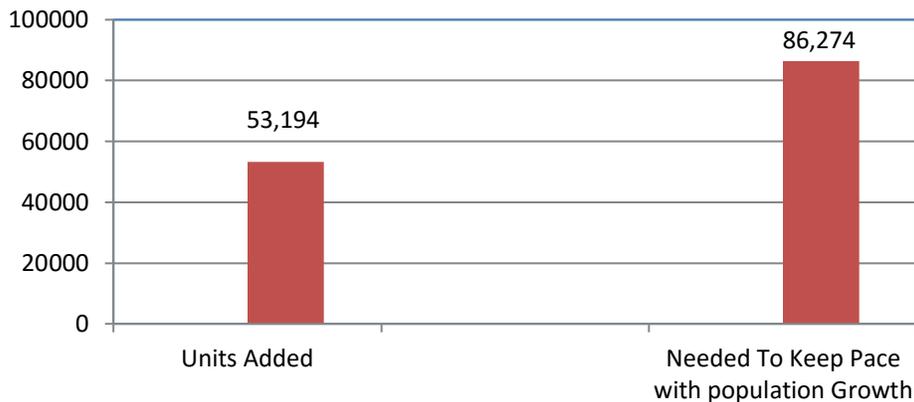
There is generational progress in Hispanic and, probably, Multiracial population groups—better language capabilities, higher high school graduation and college attendance rates and better occupational and income patterns.

How should region decision makers view the changing ethnic composition over the next 35 years?

Household and Housing Growth

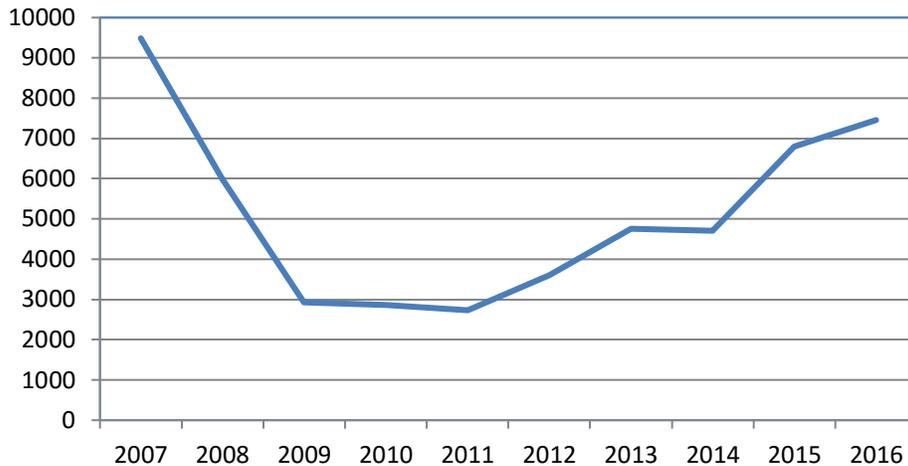
The SACOG region, like other regions, has experienced a shortage of new housing compared to population growth in the last decade. The region added 53,194 units from 2007 through 2016, though 86,274 housing units would have been needed to keep pace with population growth and maintain the 2007 average household size. But household size should have declined based on demographic factors including lower birth rates and older (and smaller) households.

A Housing Shortage in the SACOG Region 2007-2016



The level of residential building permits in the region has been increasing toward, but not yet up to, levels that keep pace with growth and dig into the shortages created in past decades.

Building Permits in SACOG Region



The housing shortages have led to more young adults living with their parents and more households combining to save on rent. So household size has been increasing from 2.71 in 2007 to 2.78 in 2017 when demographic factors should have led to a decline in average household size.

DOF is working to provide the project with two sets of household formation (headship) rates by age and ethnicity for the region. More material and a preliminary set of household forecasts will be discussed at our meeting.

One set of headship rate projections was developed to be consistent with the HCD housing strategy goal of 180,000 additional units per year in the state to 2025. These headship rates are higher than the recent rates and reflect the goal of “catching up” for the units that have not been built in recent years to keep up with population growth.

DOF has a lower set of headship rates but these also will produce more household growth than in recent years.

At the meeting we will discuss the technical and policy issues related to household and housing growth in the region.