



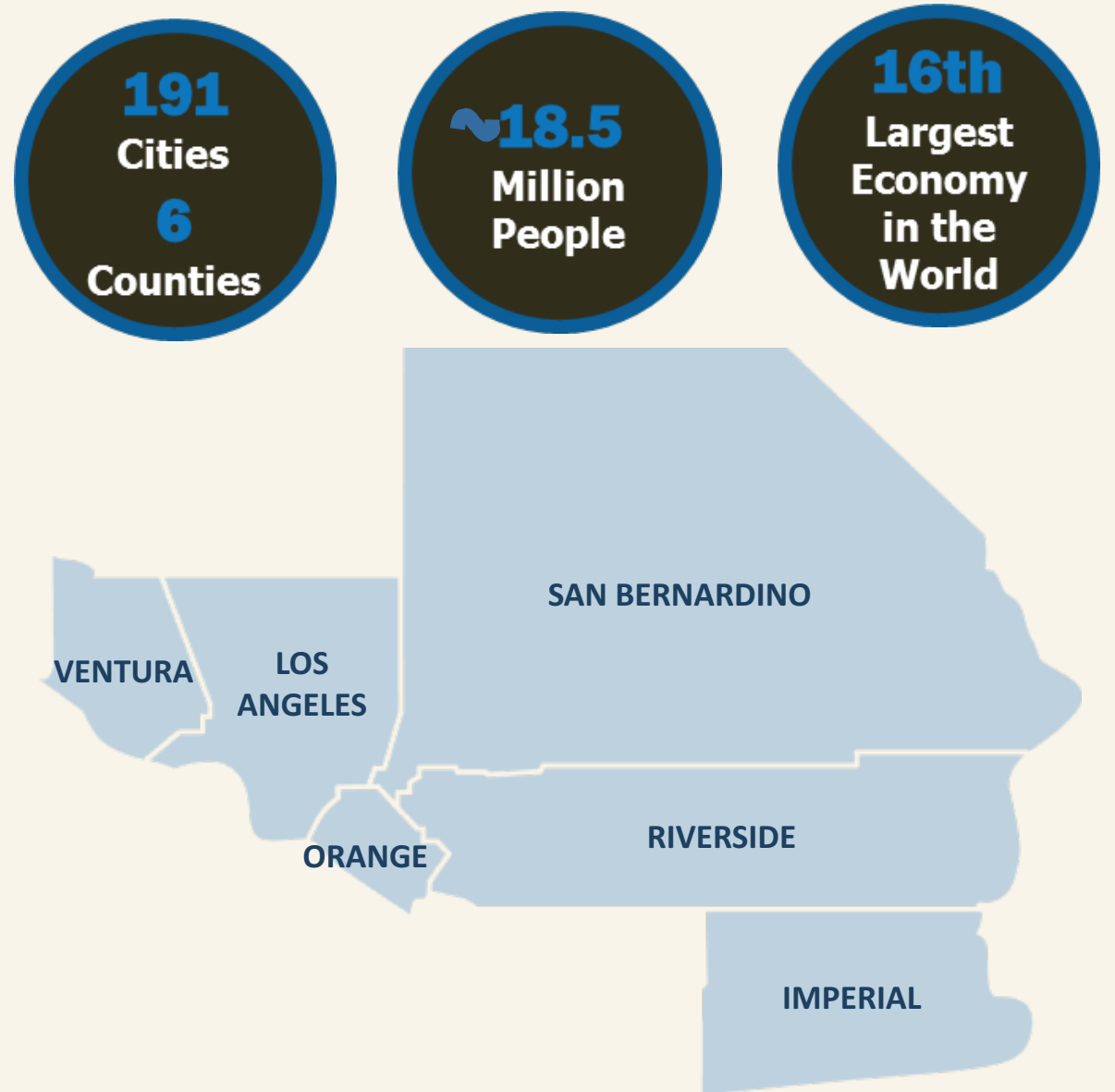
California's Transportation System in a New Political Era

March 18, 2017

Yosemite Policymakers Conference
Hasan Ikhrata, Executive Director

The SCAG Region

- Nation's Largest Metropolitan Planning Organization (MPO)
- 38,000 Square Miles
- Nation's Global Gateway for Trade
- Develops the Region's Long-Range Transportation Plan (RTP/SCS)



RTP/SCS Highlights

- Fix it First—Focus on O & M
- Strategic Investments to Relieve Congestion
- Rail Expansion
- Goods Movement/Logistics Industry Investment
- Increased Active Transportation Options
- Strengthens the Health of Our Communities
- Economic Development (Jobs)



2016 RTP/SCS Financial Plan

\$556.5 Billion (in nominal dollars)

Key Strategy: Revenue Neutral Mileage (VMT) Based User Fee



\$254.7
Core Local

\$64.2
Additional Local
(e.g. Highway, Tolls, Ventura County Sales Tax Measure)

\$37.7
Core Federal

\$70.8
Additional Federal
(e.g. Federal Portion of Mileage-Based User Fee, National Freight Program)

\$63.8
Core State

\$65.4
Additional State
(e.g. State Portion of Mileage-Based User Fee)



\$250.9
Capital Projects

\$156.7
O&M State Highways

\$65.3
O&M State Highways

\$37.1
O&M Regionally Significant Local Streets & Roads

\$30.7
Debt Service

\$15.7
O&M Passenger Rail

Note: Numbers may not sum to total due to rounding

SCAG Regional Issues



TRANSPORTATION



GOODS MOVEMENT



HOUSING



AIR QUALITY



SCS/LAND USE



FUNDING



LONG TERM GROWTH FORECAST



WATER



Regional Housing Challenges

Causes

Lack of fiscal incentives to increase housing :

- Lack of redevelopment funds
- Shy away from general obligation bonds

Regulatory and other barriers to development:

- Adds costs
- Uncertainty

Community opposition to development:

- Fear of change
- False concerns about traffic and safety

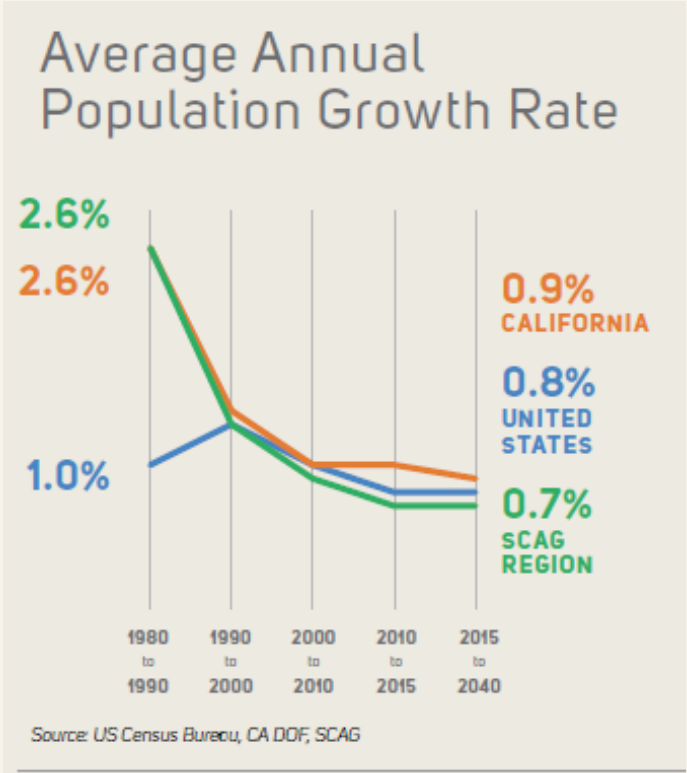
Impacts First Time Home Buyers...



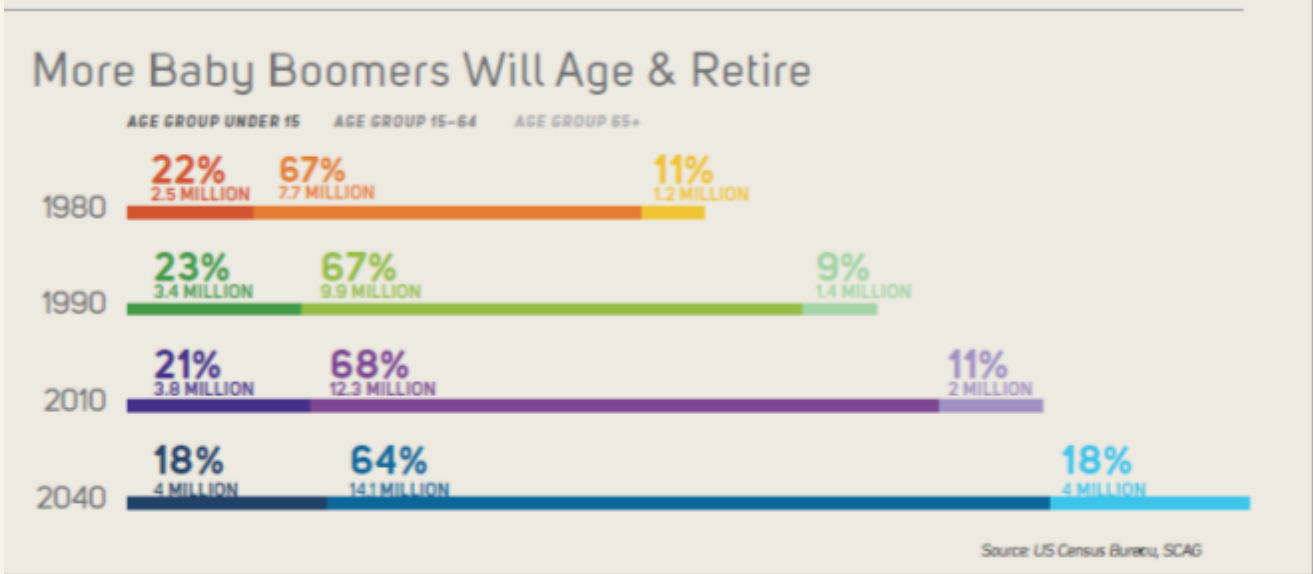
...and renters!

Funding in the New Millennium

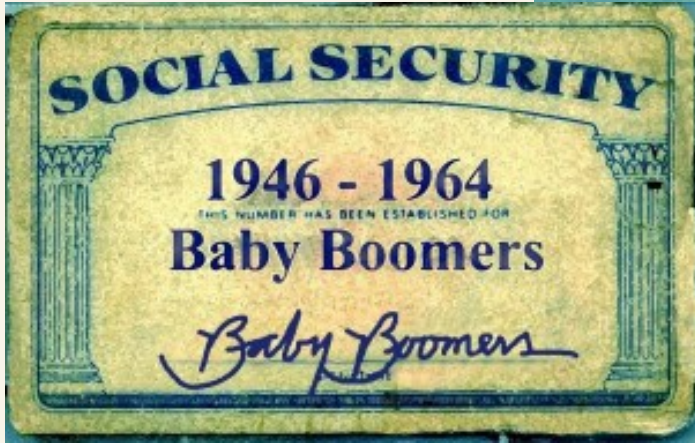
Low Fertility, Slower Population Growth, Rapid Ageing of the Workforce



Population growth rates continue to decline due to fewer births, less migration, and less immigration



Baby Boomers continue to near retirement, and the average age of our workforce also rises



10,000

Roughly 10,000 Baby Boomers will turn 65 today, and about 10,000 more will cross that threshold every day for the next 19 years.

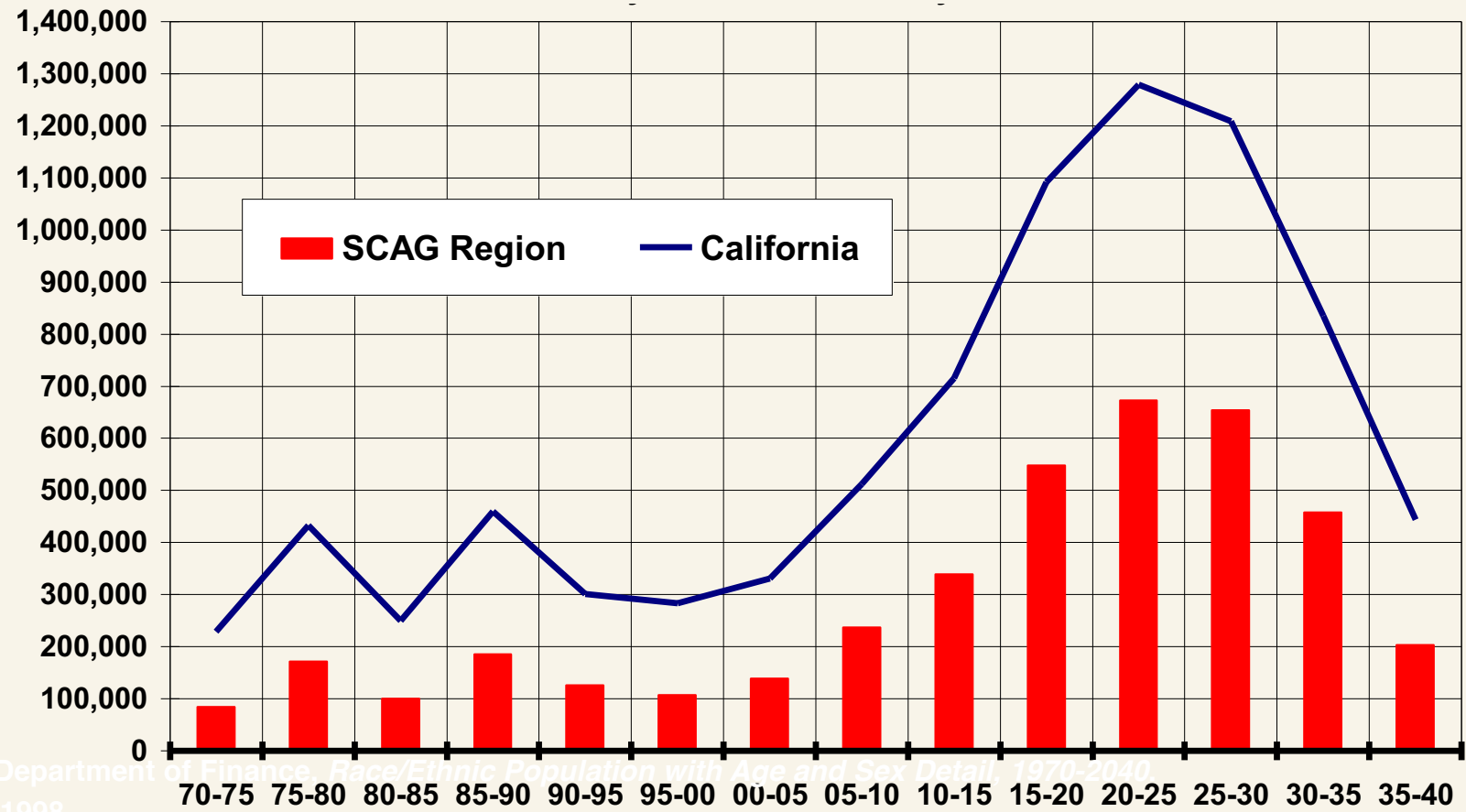
*Pew Research Center. 2010



Funding in the New Millennium

Rapid Ageing of the Workforce — 65+ population will account for 3/4 of all population growth in California and the SCAG Region (DOF 3/8/17 Projections)

Growth in Population Ages 65 and Over from 1970 to 2040

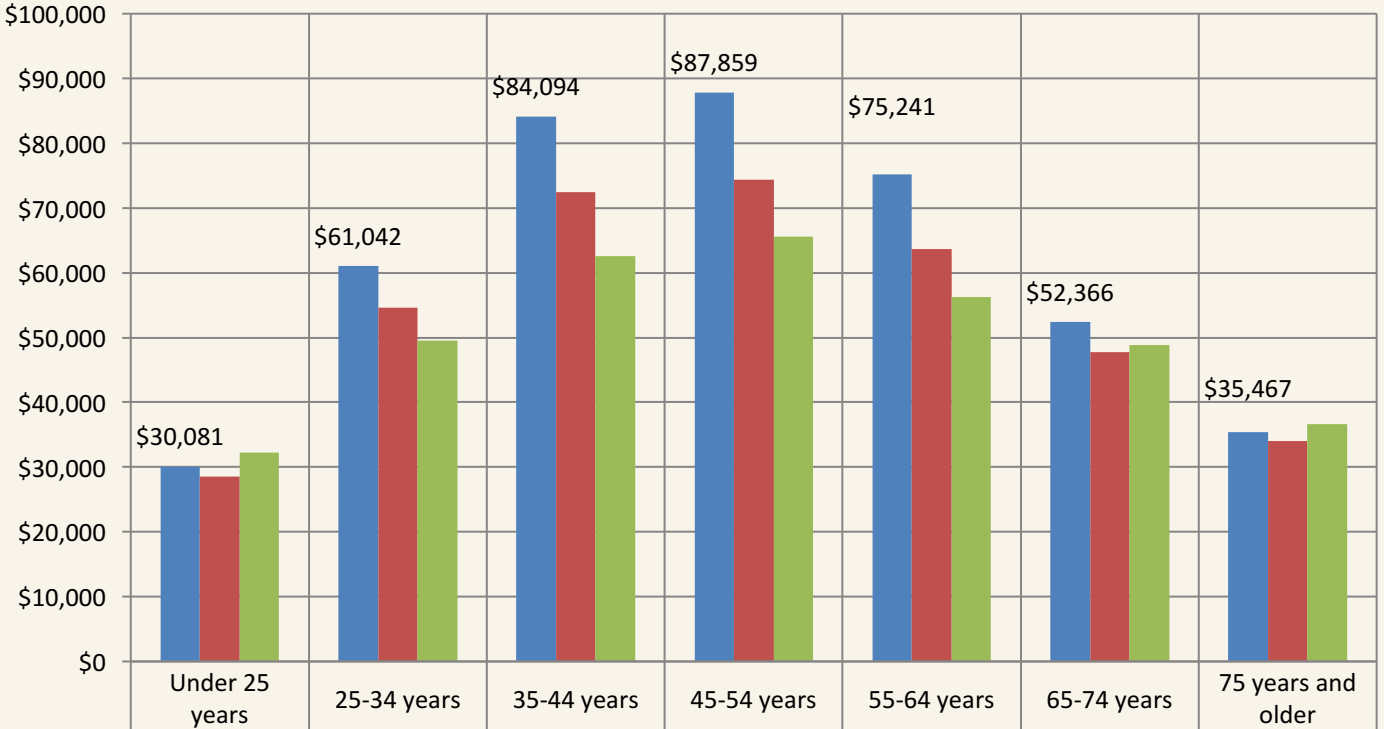


Source: State of California, Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 1970-2040*, Sacramento, CA, December 1998.

Funding in the New Millennium

Rapid Ageing of the Workforce

Average Consumer Income and Expenditures by Age Cohort: 2014



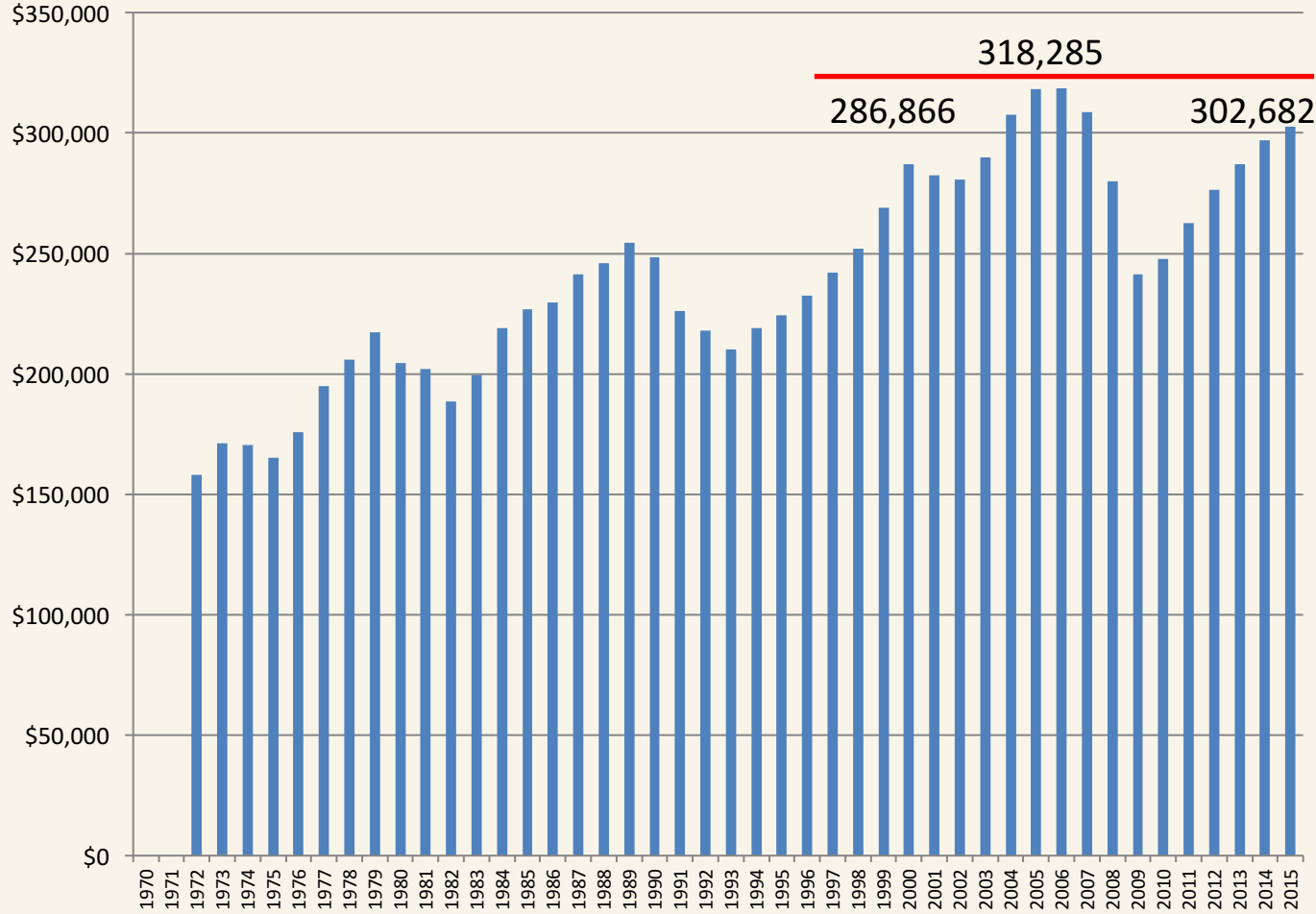
Income Before Taxes	30,081	61,042	84,094	87,859	75,241	52,366	35,467
Income After Taxes	28,518	54,622	72,495	74,344	63,703	47,779	34,056
Average Annual Expenditures	32,179	49,547	62,512	65,651	56,267	48,885	36,673

Older people earn less and spend less, leading to declining revenues for for all government agencies and public projects

Funding in the New Millennium

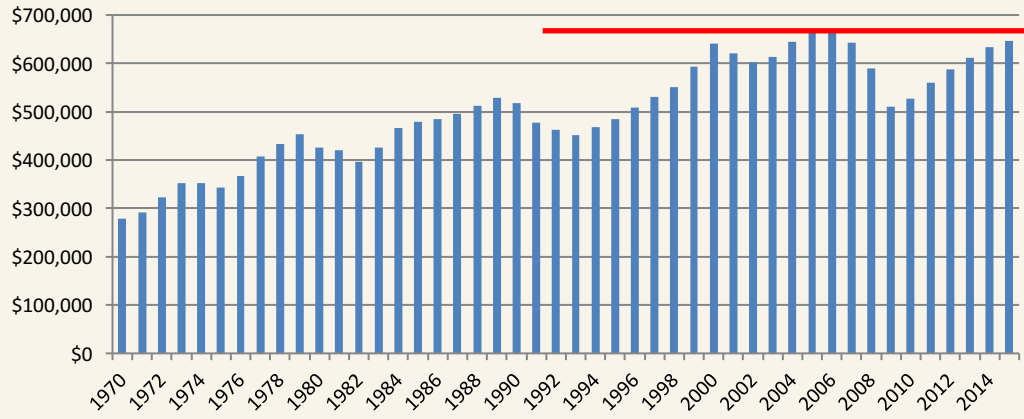
Slow Growth of Taxable Sales & the Economy

SCAG Region Real Taxable Sales



California still has NOT bounced back to 2006 levels of commerce, and has not shown much growth when compared to the year 2000

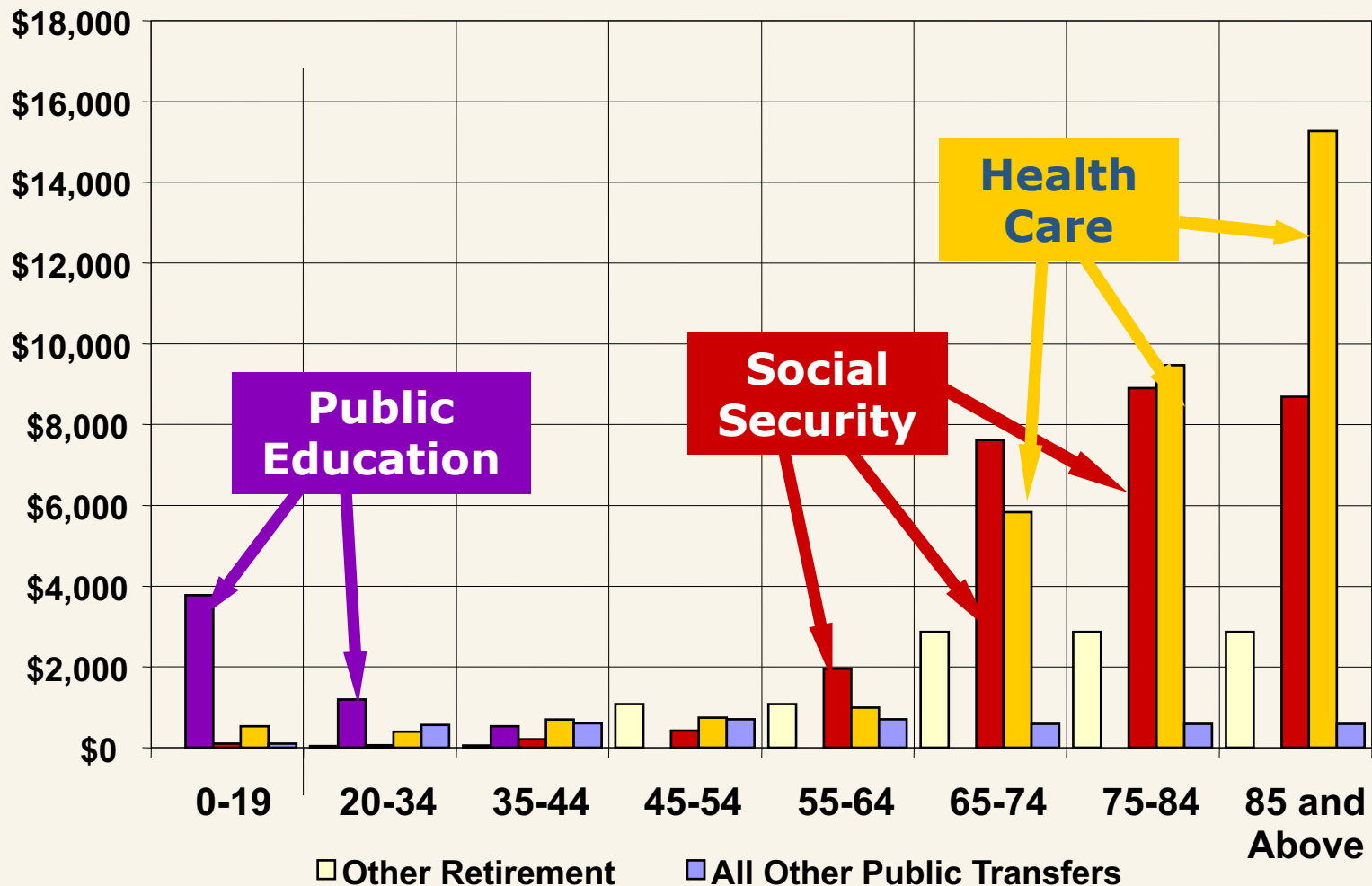
State of California Real Taxable Sales



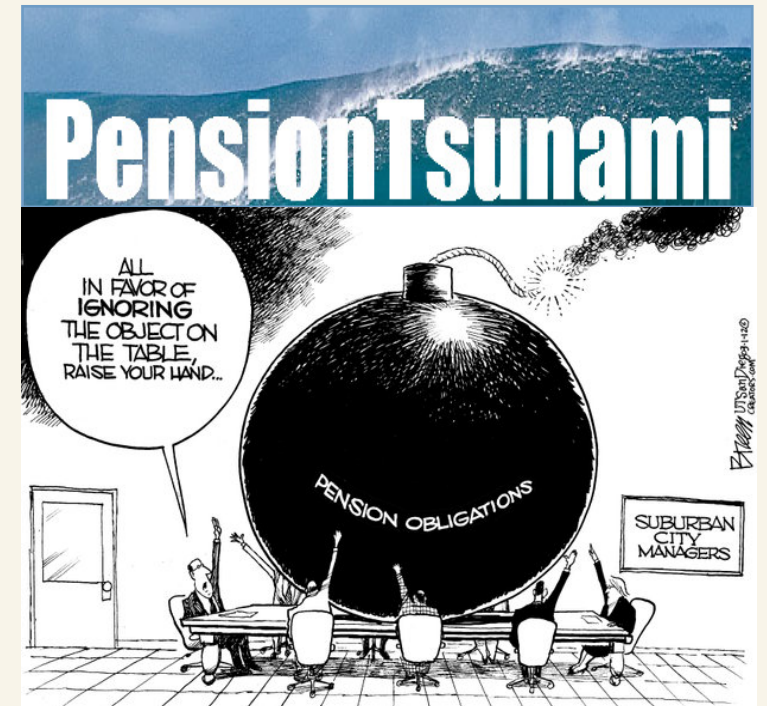
Funding in the New Millennium

Funding Uncertainties—Pension/Health Care vs. Infrastructure vs. Deficit

Average Per Capita Public Costs by Age Cohort



Older people require more relative public assistance for health care and social security



Solutions to Funding Challenges

Potential Solutions – Cap & Trade in Southern California

WITH GGRF

WITHOUT



The New Customers: Millennials

Who are they?

- 20 – 38 year-olds
- Expected to be largest buying cohort by 2017



What do they want?

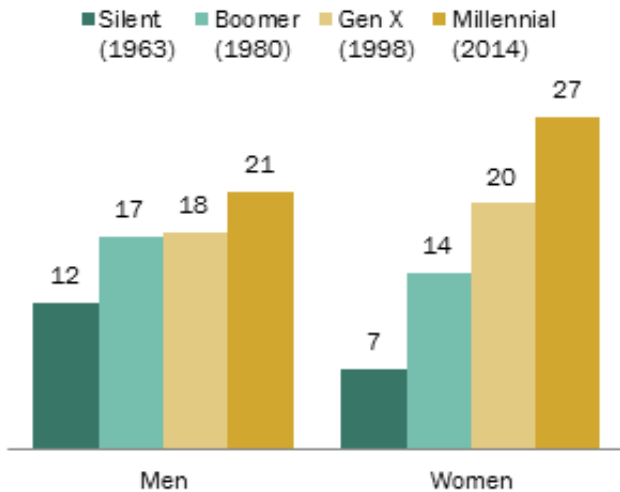
- Smaller footprint → Sharing Economy
- Convenience → Internet of Things
- Health and Sustainability → Big Data



Millennials and Education

Millennials On Track to be the Most Educated Generation to Date

% completing at least a bachelor's degree at ages 18-33, by gender



Note: The educational attainment question was changed in 1992. So for Boomers and Silents, this refers to those who completed at least four years of college. Educational attainment was not available for the 1963 Current Population Survey. The education of Silents was approximated using 18-33 year-olds from the 1962 Current Population Survey.

Source: Pew Research Center tabulations of the March Current Population Surveys (1963, 1980, 1998, and 2014) from the Integrated Public Use Microdata Series (IPUMS)

PEW RESEARCH CENTER

Share of 25- to 32-year-olds with at Least a Bachelor's Degree

%



Notes: In 1992, the Census Bureau changed the educational attainment question. Before 1992 respondents completing four or more years of college are assumed to have finished a bachelor's degree.

Source: Pew Research Center tabulations of 2013, 1995, 1986, 1979 and 1965 March Current Population Survey (CPS) Integrated Public Use Micro Samples

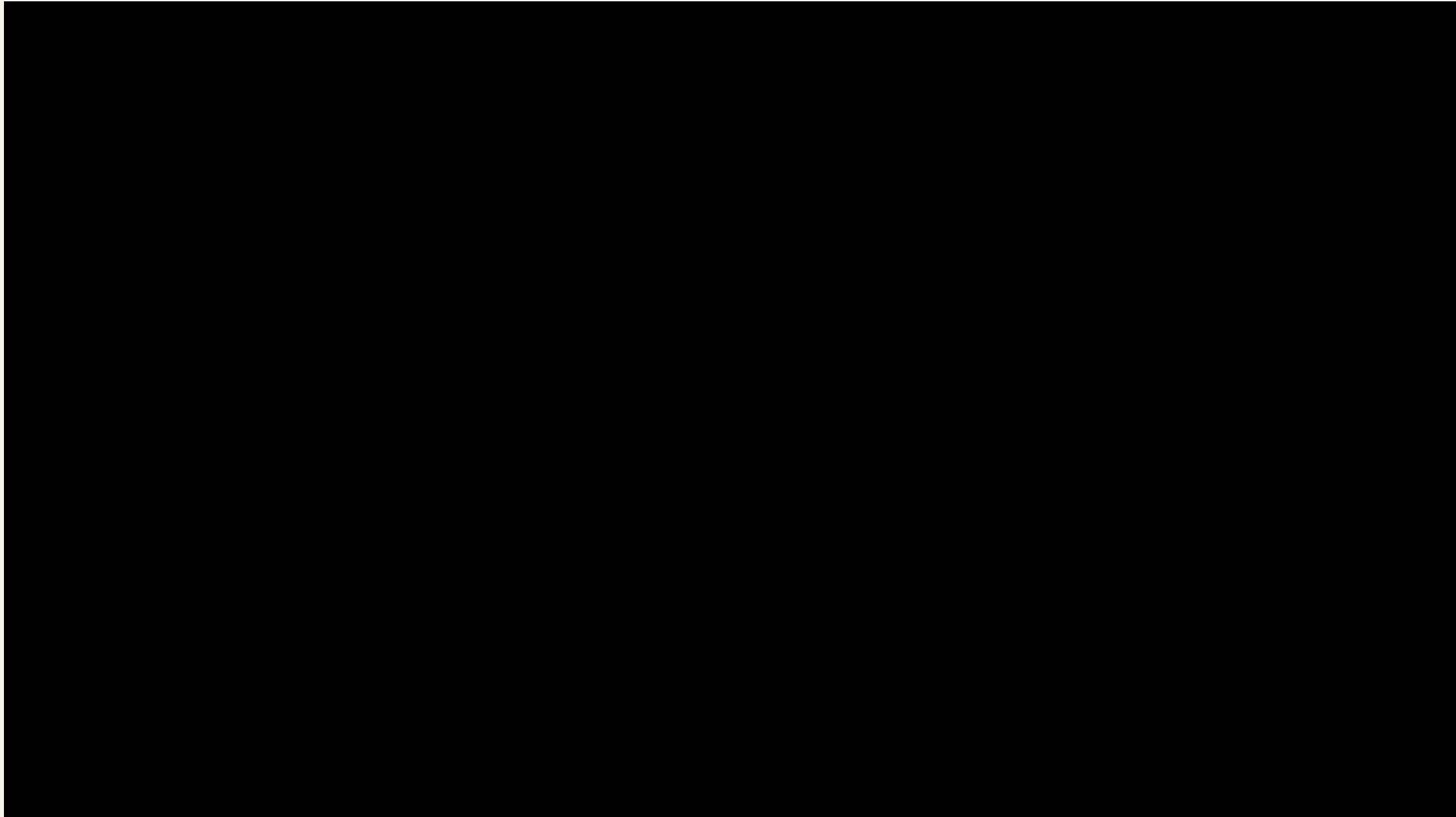
PEW RESEARCH CENTER

What type of transportation, housing and job options are the Millennials looking for?

For answers, please visit the RTP/SCS website:

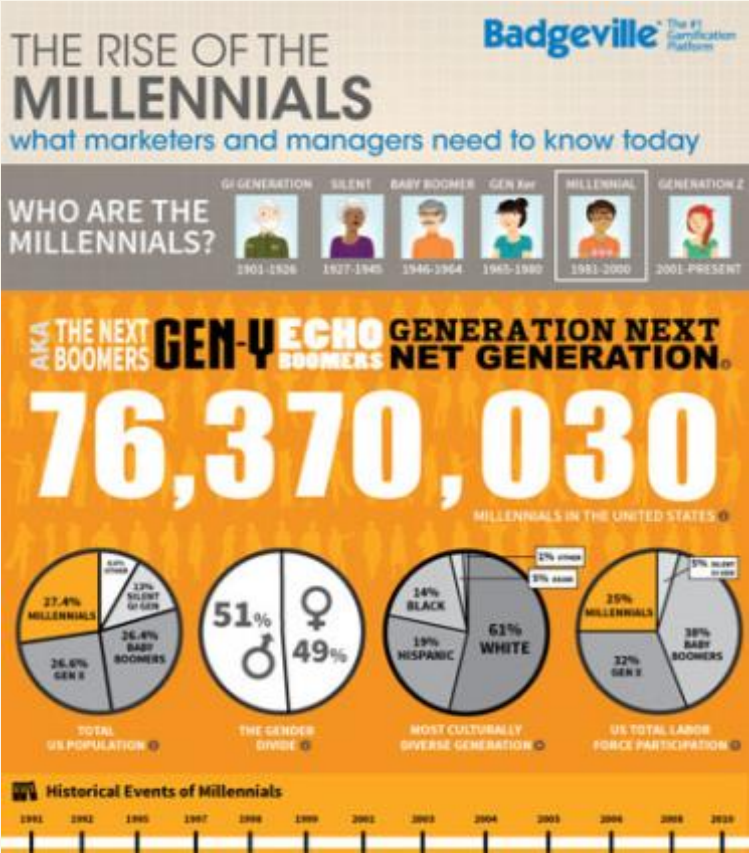
<http://scagrtpscs.net>

2016
2040 RTPSCS



Solutions to Funding Challenges

Can Millennials Produce More?



OR

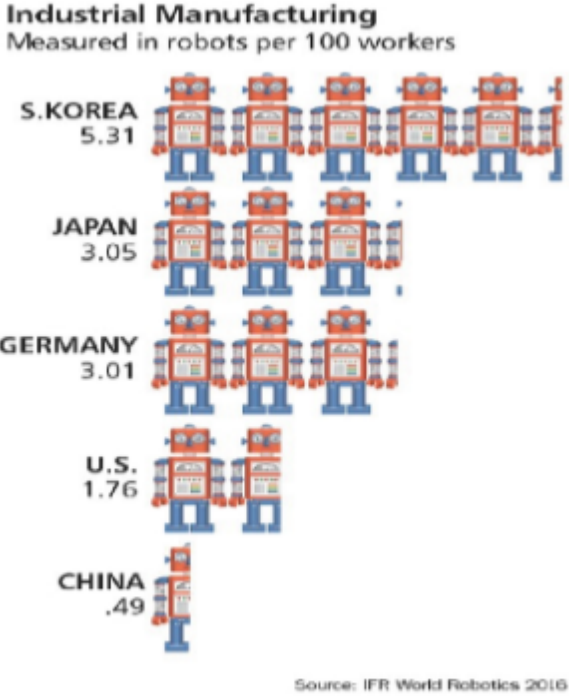


?

Our success as a region will depend on the availability of economic opportunities for the millenials

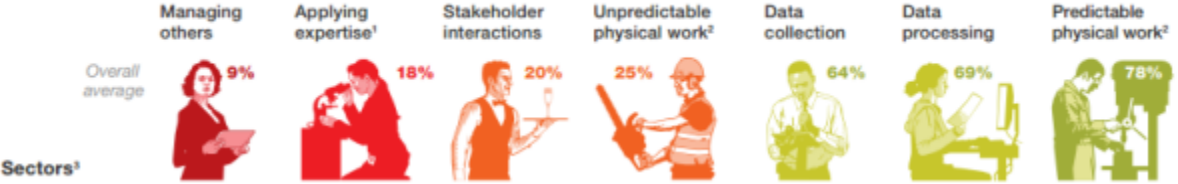
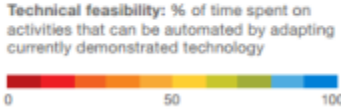
Solutions to Funding Challenges

Potential Solutions – AI, Robots, Automation and New Technology



The technical potential for automation in the US

Many types of activities in industry sectors have the technical potential to be automated, but that potential varies significantly across activities.



Solutions to Funding Challenges

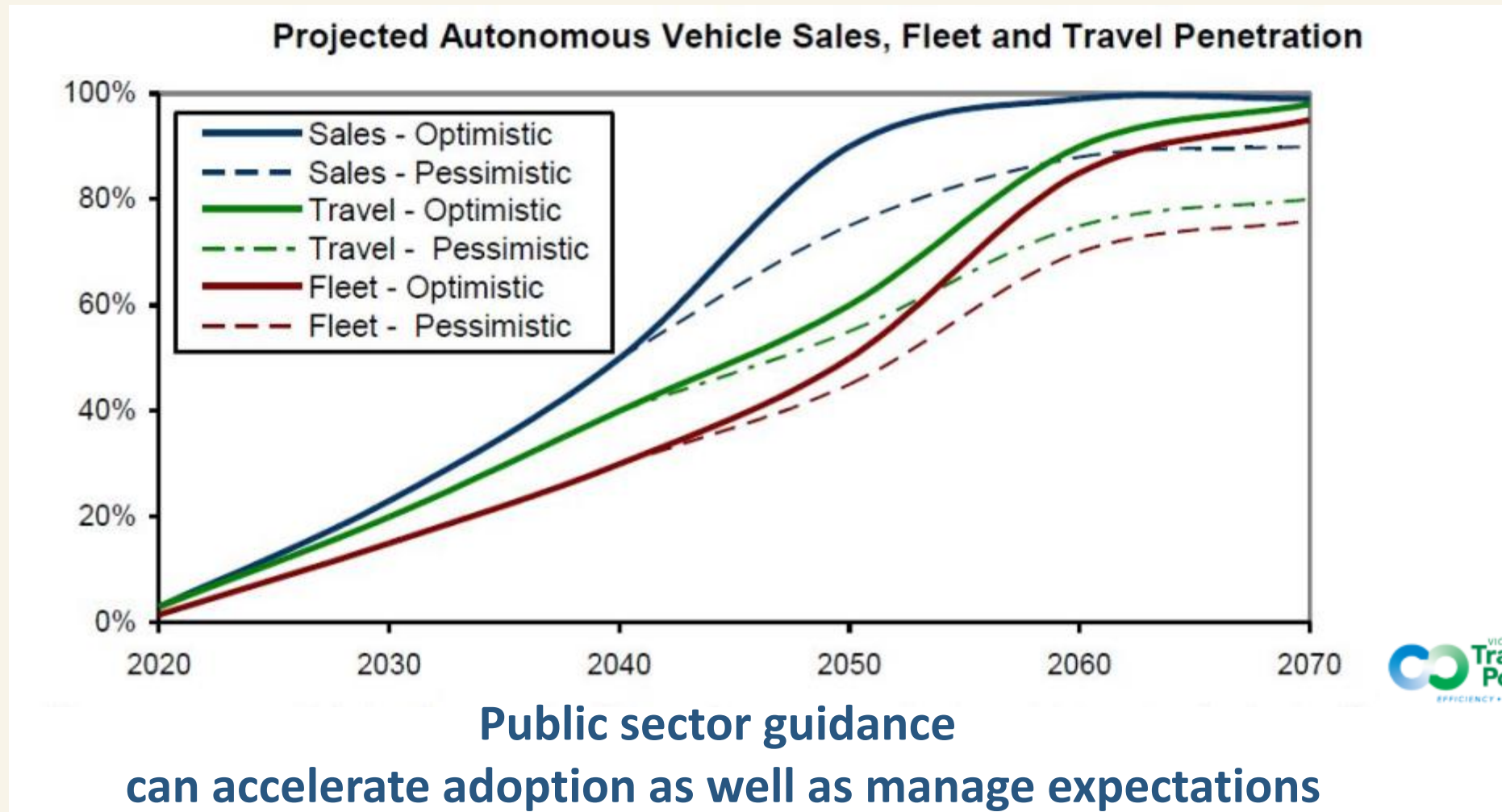
Potential Solutions – Automation and New Technology



**New technologies will need guidance
(and sometimes intervention) from public agencies**

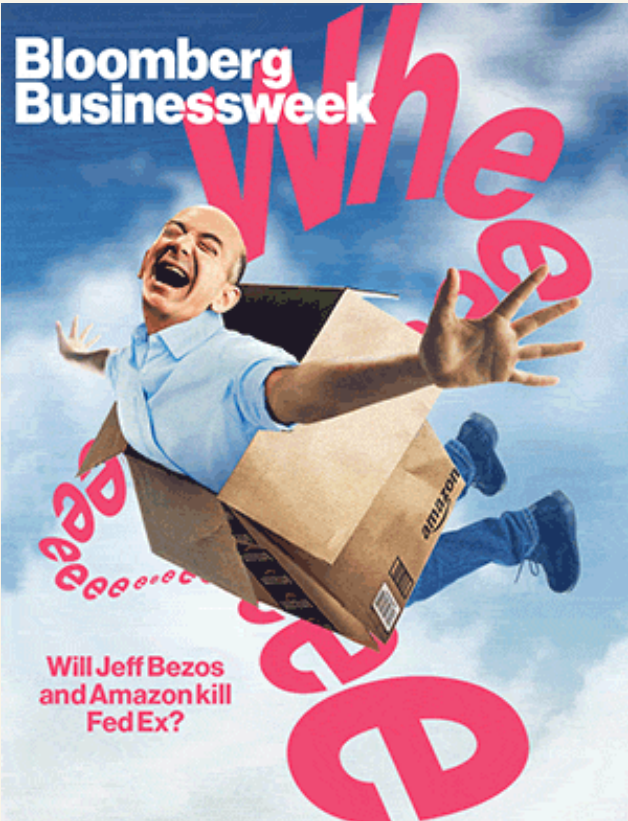
Solutions to Funding Challenges

Potential Solutions – Automation and New Technology



Solutions to Funding Challenges

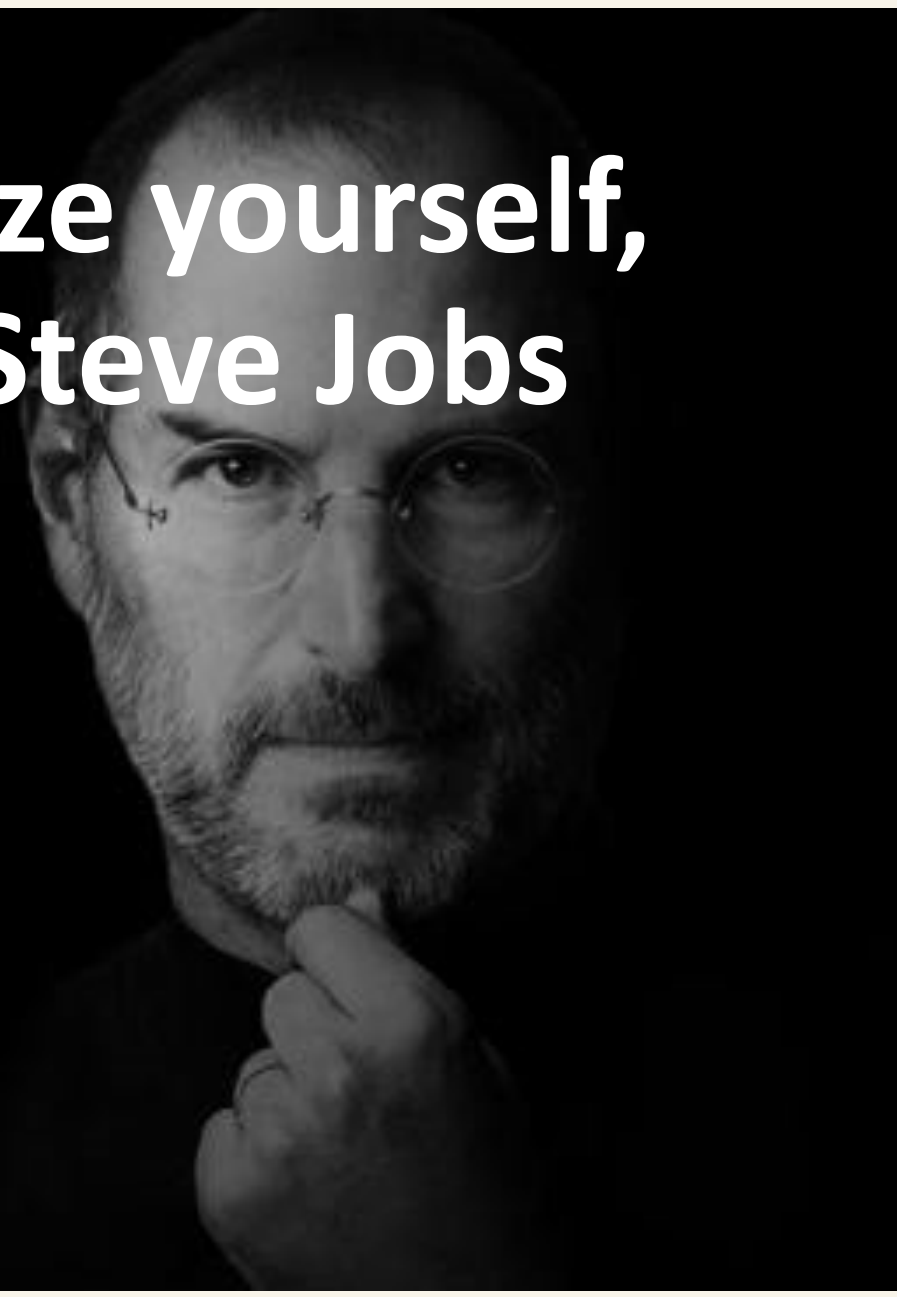
Potential Solutions – Public/Private Partnerships (PPPs)



**“If you don’t cannibalize yourself,
someone else will.” – Steve Jobs**



Think different.



Transit & Future Mobility

Bus ridership dropped -11% from 2007 to 2011

Since 2013, ridership resumed decline, on both busses and Metro Rail

Metro light rail ridership increased in 2016 due to new lines

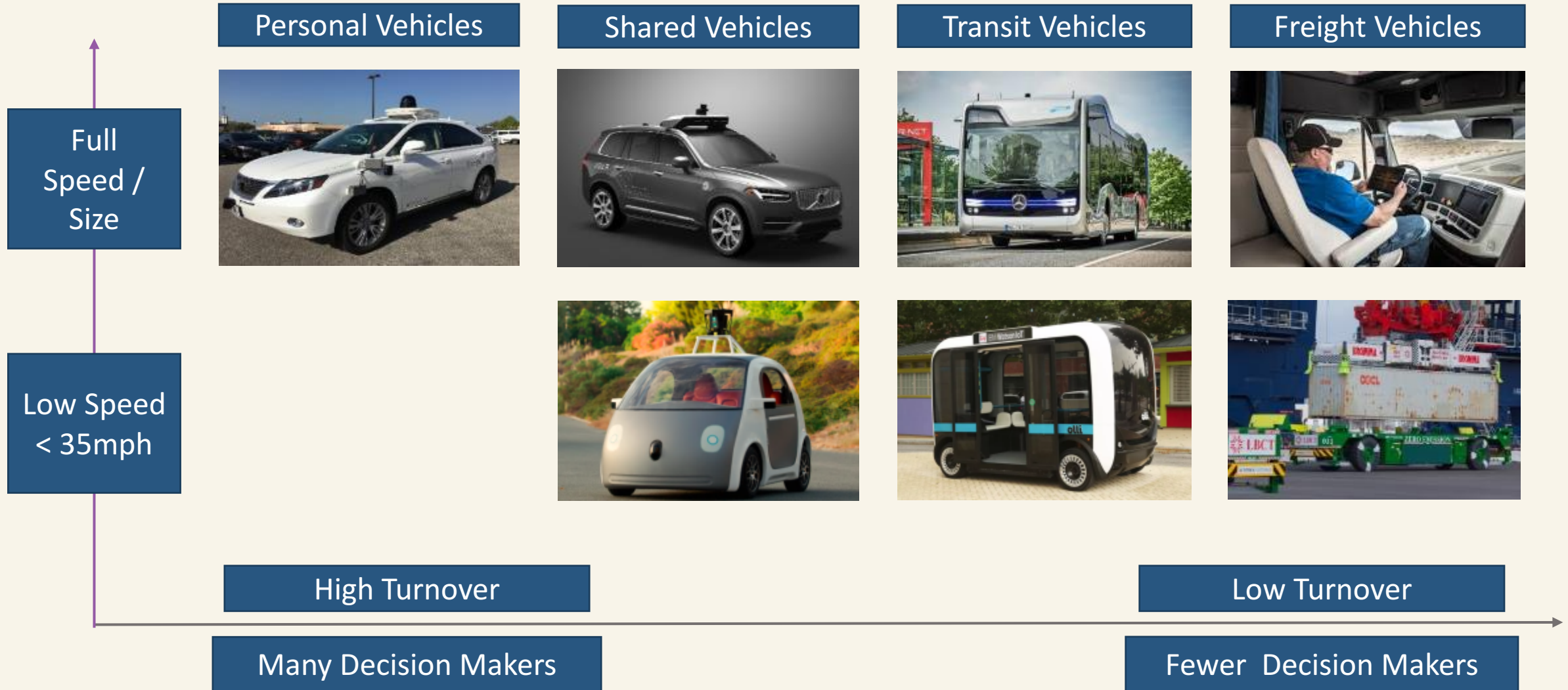
2016 suggests continued decline of ~7% (combined bus and rail)

UZA Name	Sum of 2015	Sum of 2016	Change
Seattle, WA	178,640,154	185,913,534	4.1%
Houston, TX	83,285,295	85,180,489	2.3%
Milwaukee, WI	40,610,851	41,476,982	2.1%
Detroit, MI	36,734,180	37,079,598	0.9%
New York-Newark, NY-NJ-CT	4,222,700,561	4,241,214,495	0.4%
San Francisco-Oakland, CA	454,952,418	454,996,256	0.0%
Boston, MA-NH-RI	403,464,723	402,554,159	-0.2%
Pittsburgh, PA	63,990,430	63,570,697	-0.7%
Denver-Aurora, CO	101,021,365	99,777,407	-1.2%
Portland, OR-WA	112,440,100	110,985,034	-1.3%
San Antonio, TX	37,983,886	37,290,201	-1.8%
Salt Lake City-West Valley City, UT	44,909,741	43,776,825	-2.5%
Minneapolis-St. Paul, MN-WI	96,636,368	93,716,857	-3.0%
Chicago, IL-IN	623,466,948	603,747,357	-3.2%
Urban Honolulu, HI	68,587,549	66,361,162	-3.2%
Las Vegas-Henderson, NV	72,044,767	69,420,973	-3.6%
Dallas-Fort Worth-Arlington, TX	75,998,371	72,137,725	-5.1%
Baltimore, MD	111,070,976	105,214,371	-5.3%
Atlanta, GA	141,154,134	132,925,293	-5.8%
Philadelphia, PA-NJ-DE-MD	369,644,085	346,276,496	-6.3%
Phoenix-Mesa, AZ	69,525,177	64,898,486	-6.7%
San Diego, CA	94,921,830	88,507,937	-6.8%
St. Louis, MO-IL	47,250,866	44,020,031	-6.8%
Cleveland, OH	46,844,074	43,507,057	-7.1%
Los Angeles-Long Beach-Anaheim, CA	619,459,557	572,589,716	-7.6%
San Jose, CA	44,718,244	40,763,554	-8.8%
Miami, FL	156,449,301	141,556,090	-9.5%
Washington, DC-VA-MD	441,222,366	396,260,838	-10.2%
Austin, TX	32,795,531	28,893,966	-11.9%
San Juan, PR	38,853,326	32,289,221	-16.9%

-7.6%

Transit & Future Mobility

Transit & transportation will exist on a continuum



Governing For The 21st Century

Sharing Economy

21st century
employment laws



Internet of Things

Prepare for
driverless vehicles



Big Data

Longitudinal
student test data



Big Data Is Revolutionizing Every Industry

"Information is the oil of the 21st century, and analytics is the combustion engine." -- Peter Sondergaard of the Gartner Group



Big Data Is Revolutionizing The Auto Industry

Why do we need these things?

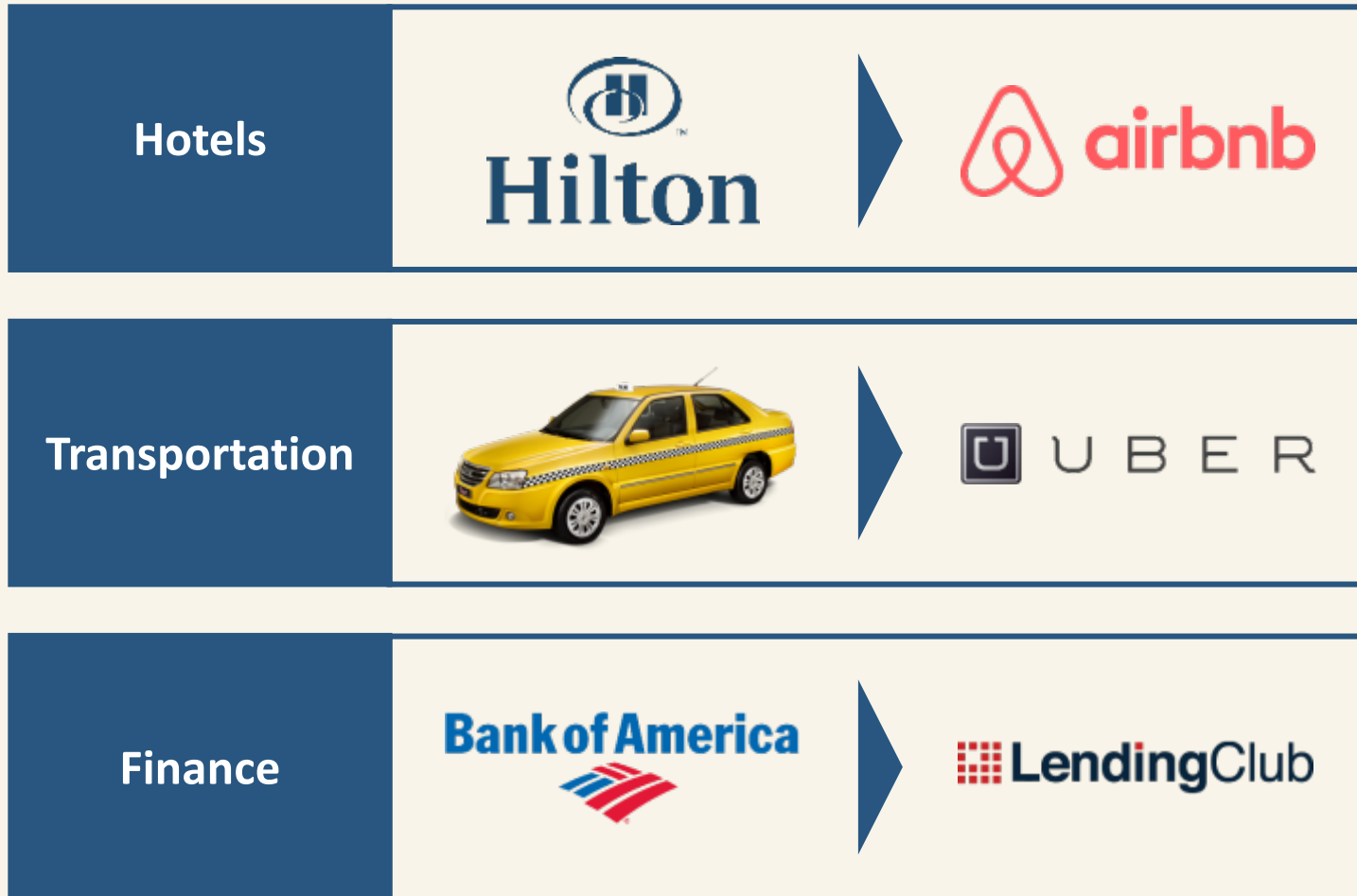
- Reduce auto fatalities 90%
- Reduce congestion → pollution
- Provides access for seniors and disabled

Coming faster than you think...

- **Google**
 - 30 Lexus' on the road *today* (top)
 - Now producing 100 of their own (bottom)
- **Apple**
 - Auto division expanded from 600 to 1,800
 - Planning electric car with self-driving features in 2019
- **Tesla**
 - Self-driving features launched Oct. 2015
 - 2016 cars park themselves with your iPhone



Sharing Economy – Impacting Every Industry



More to come...



100k companies
and counting

The Connected Home

The largest companies in the world are taking over your home

Google

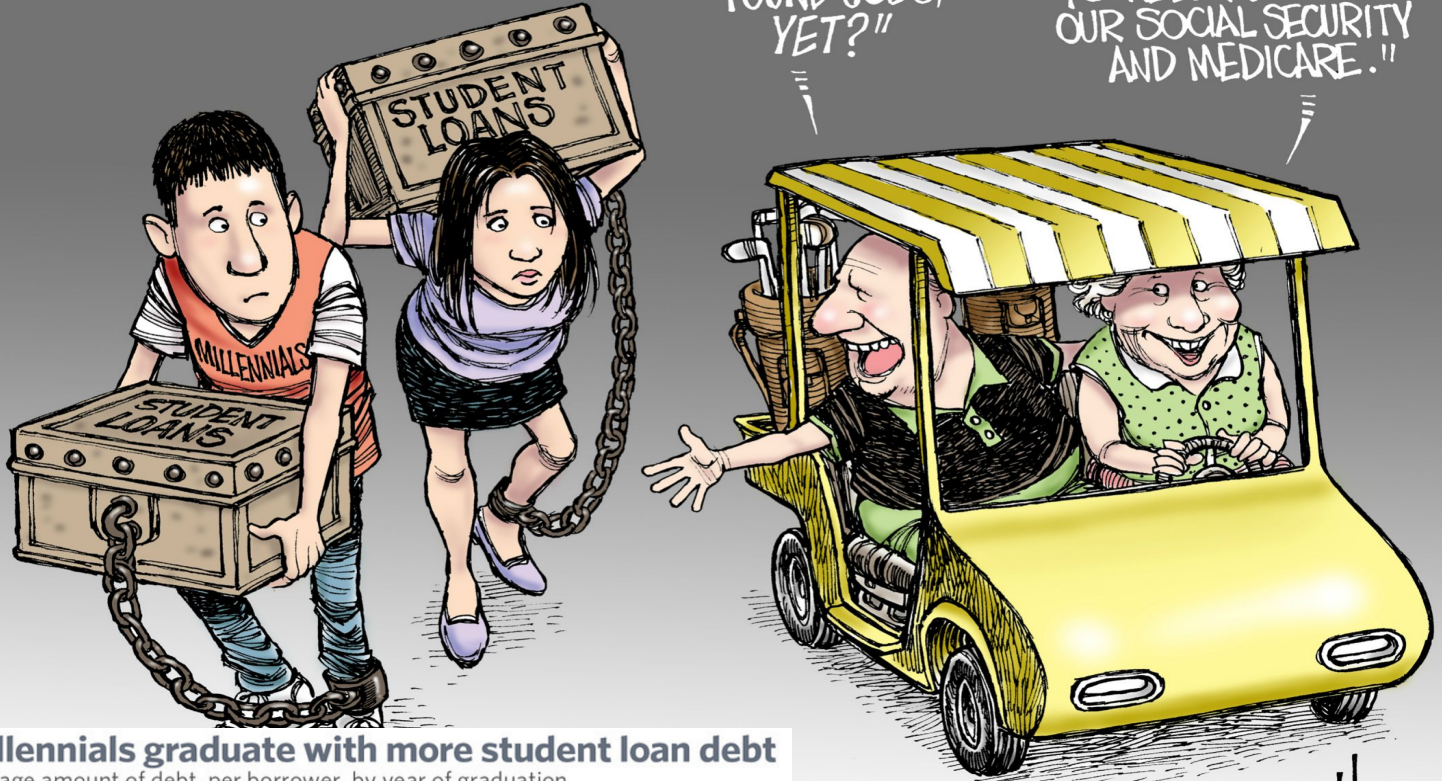


amazon



*Why did Google pay so much for this company?

Generation Gap...

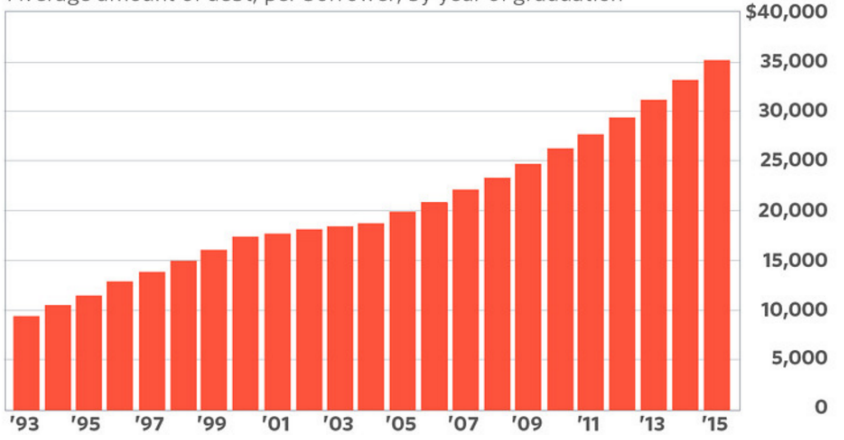


In the SCAG Region, down payments for a median priced home cost \$125k. To afford median rent, households must make \$60k a year

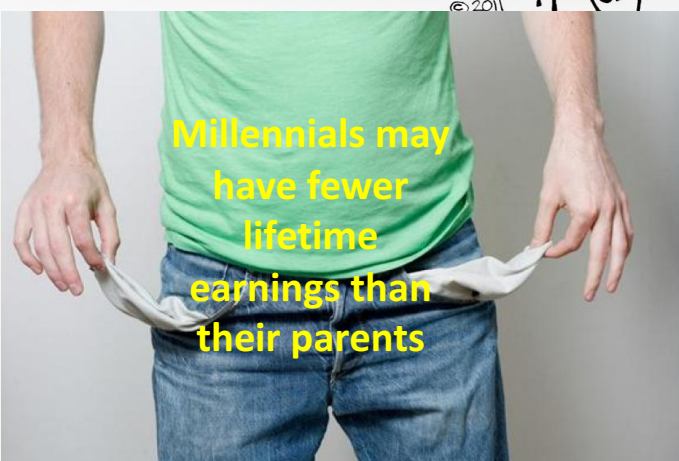


Weddings average \$35k, NOT Including the Honeymoon

Millennials graduate with more student loan debt
Average amount of debt, per borrower, by year of graduation



Source: Mark Kantrowitz/WSJ.com



●●●● Ages 0 to 18, No College \$ 100%

the cost of raising a child |

US \$245,340

Birth to age 18

Details:

Housing 30%	Food 16%	Transportation 14%
Clothing 6%	Health Care 8%	Child Care & Education 18%
		Miscellaneous 8%



SCAGTM

INNOVATING FOR A BETTER TOMORROW

Thank you!

Learn more by visiting <http://www.scag.ca.gov>