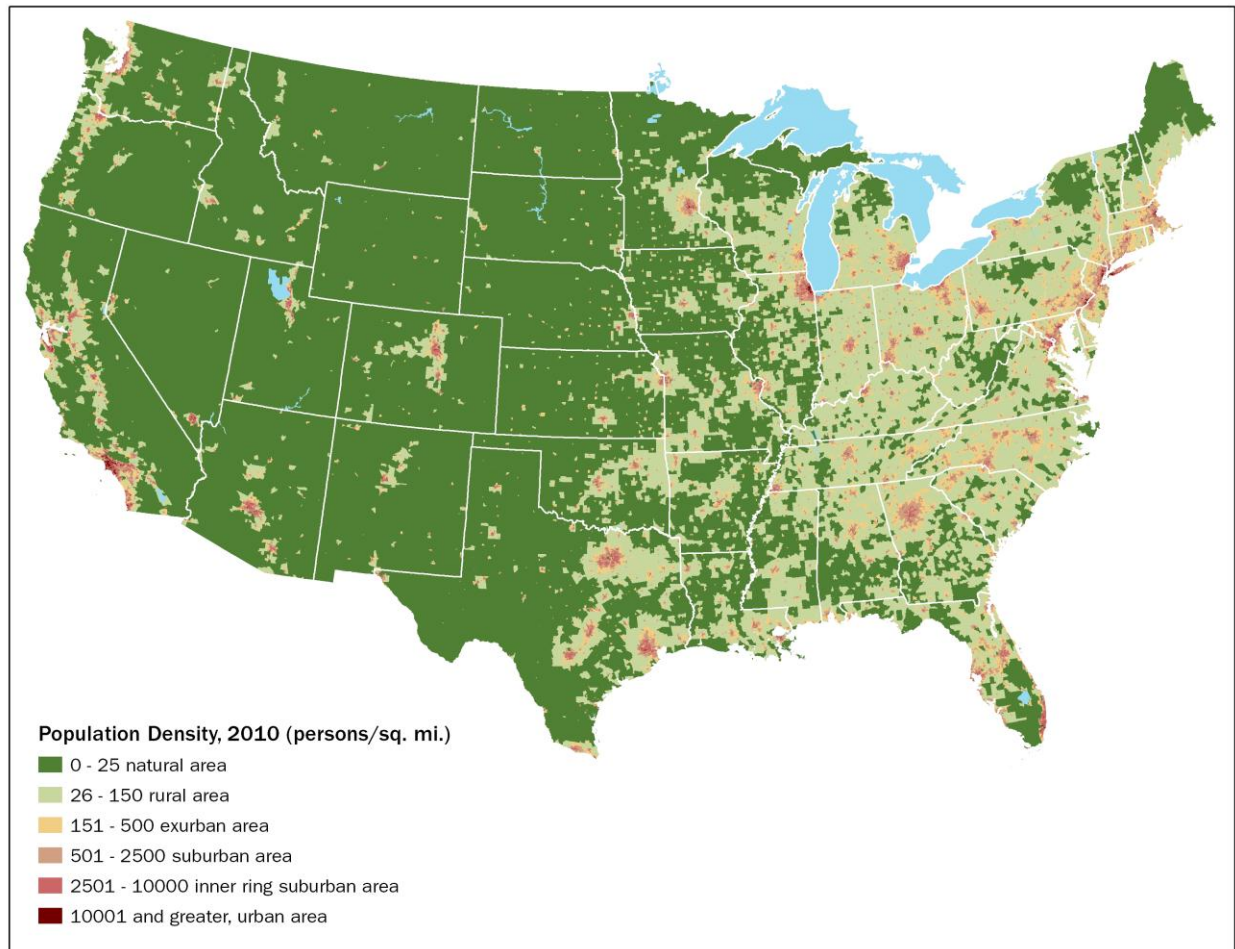

DEMOGRAPHIC TRENDS IN AMERICA

What the 2010 Census Says about the Past and Future of America and its Megaregions

Working Paper: America 2050 Thought Leaders Seminar, March 25-27, 2012
Daniel Schned, Associate Planner, America 2050
Regional Plan Association, March, 2012

Recent socio-economic trends affecting America and its megaregions provide the impetus for megaregional-scale planning that spans traditional political boundaries. The 2010 Census and other recent population, housing, and economic data confirm that America's megaregions have continued to grow and evolve over the past decade. These demographic trends, occurring at a broad scale, crossing city, metropolitan region, and state borders will help shape the makeup and structure of America's megaregions, demanding larger-scale planning to address these new realities.

MAP 1: U.S. POPULATION DENSITY IN 2010 (SOURCE: U.S. CENSUS, 2012. ANALYSIS: RPA, 2012)

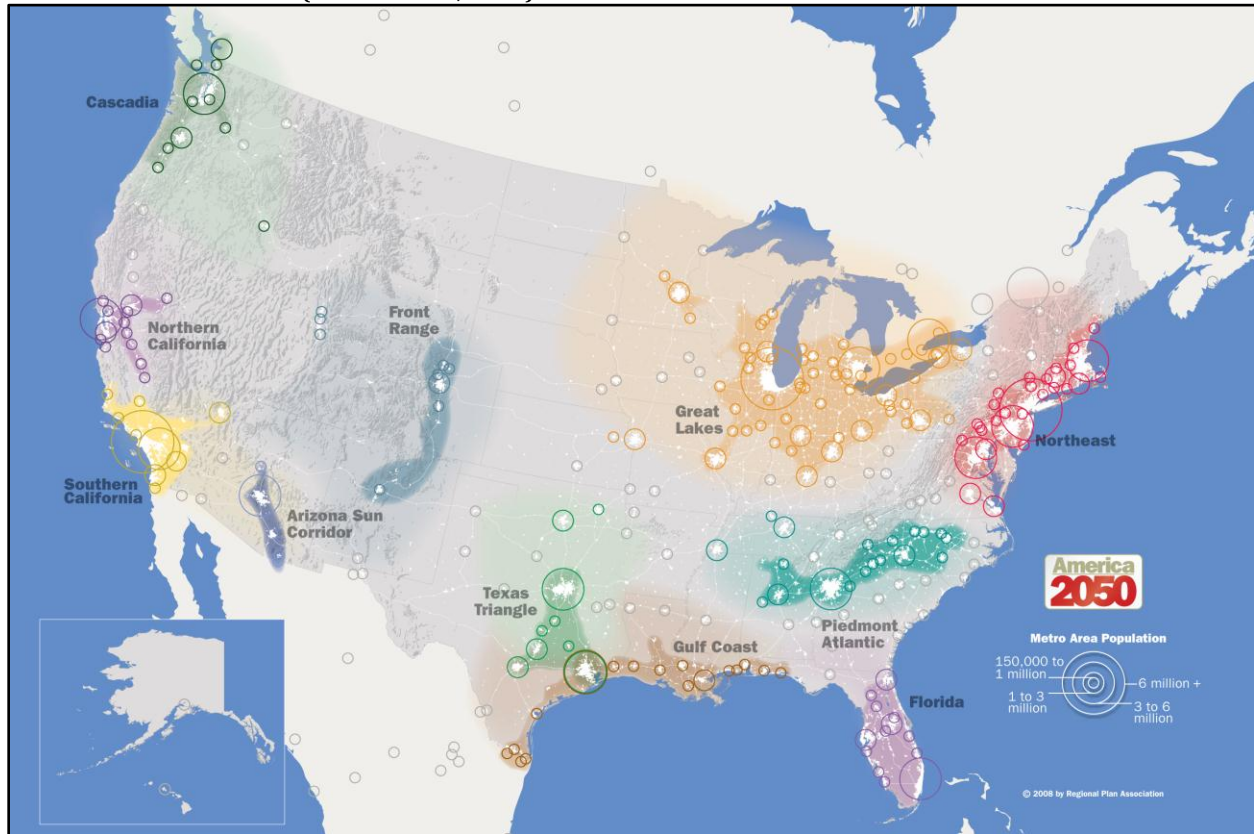


Over the past five years, much of America 2050's original research has focused on the emergence of America's megaregions, vast urban agglomerations made up of networks of cities and metropolitan areas with overlapping environmental features and natural landscapes, human settlement and land use patterns, infrastructure systems, commuter sheds, economic relationships, and common culture and history. Previous research has shown that megaregions are where the majority of America's future growth will take place, and have become the new competitive units in the global economy.

In 2008, America 2050 and staff of Regional Plan Association identified the following eleven megaregions throughout the United States (Map 2):

- Arizona Sun Corridor
- Cascadia
- Southern Florida
- Front Range
- Great Lakes
- Gulf Coast
- Northeast
- Northern California
- Northern California
- Piedmont Atlantic
- Southern California
- Texas Triangle

MAP 2: U.S. MEGAREGIONS (SOURCE: RPA, 2008)



The key socio-economic and spatial trends in the nation and its megaregions over the past decade, identified in the 2010 Census and other recent data, have been:

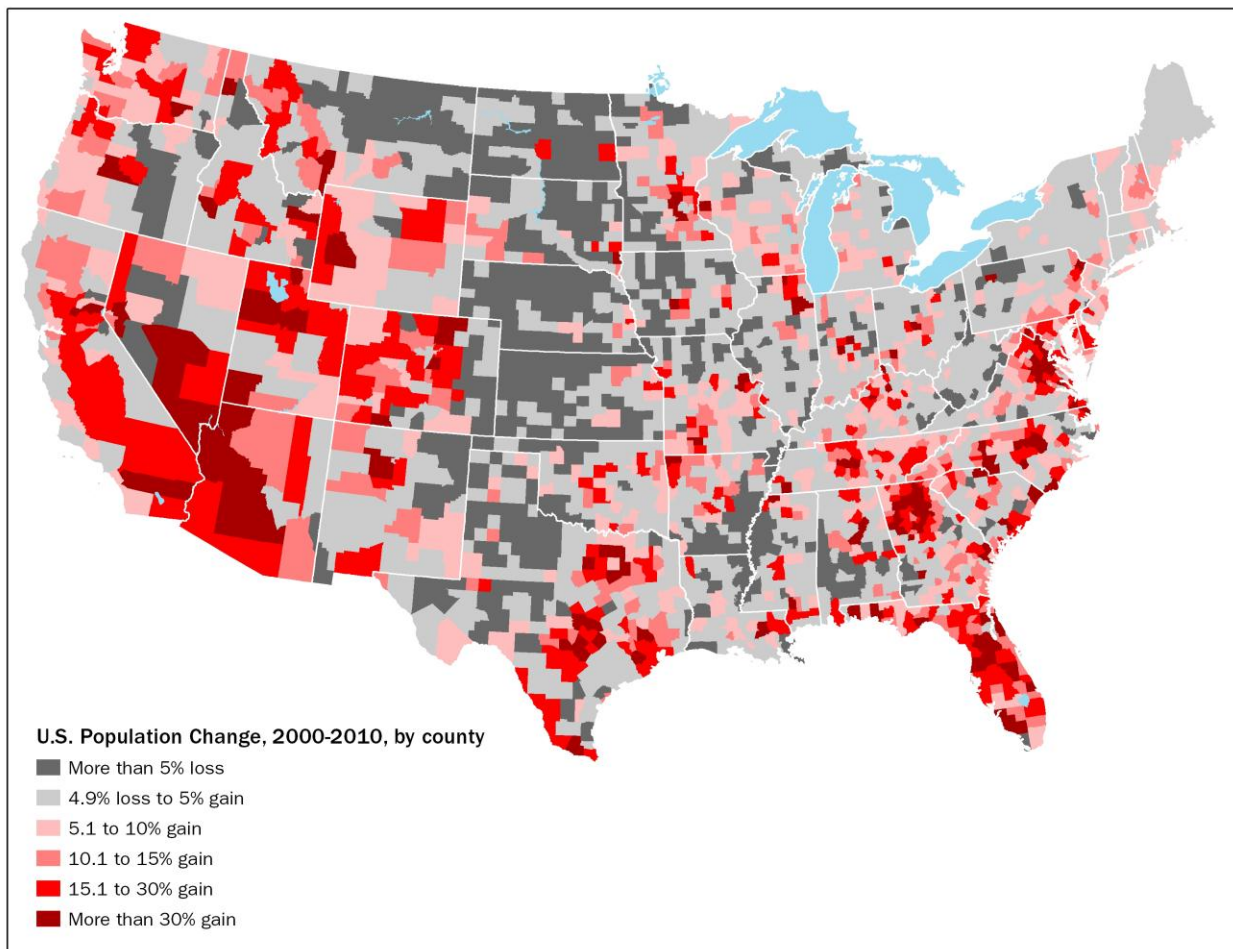
- Rapid (but Slowing & Uneven) Growth,
- Aging Population Structure,
- Greater Racial Diversification,
- Smaller Families & Households,
- Slower Construction of New Housing, and
- Increased Unemployment & Poverty.

TRENDS FACING AMERICA

The first decade of the 21st century was tumultuous for the United States in many ways that have had significant impacts on the formation and structure of its megaregions. The terrorist attacks of September 11th, 2001 caused major disruptions for national transportation systems, as all air traffic was grounded for a time and the Northeast's largest commuter and subway system was thrown into disarray. Subsequently, two overseas wars have strained our federal budget, resulting in less investment in infrastructure systems throughout the country. The bursting of the national housing bubble and the global financial crisis that followed continue to have an impact on housing supplies, the construction industry, and credit markets. This has had major implications for megaregions, resulting in vast demographic and economic changes. Other changes have been caused by the natural rises and declines of birth and death rates due to changes in fertility rates and life expectancies, and international immigration and internal migration.

The 2010 Census and other data provide a window to view the socio-economic changes that have taken place over the last decade. This paper is informed by the 2010 U.S. Census and other Census data products, such as the American Community Survey and American Housing Survey, and other demographic data from federal sources such as the Bureau of Economic Analysis and Bureau of Labor Statistics.

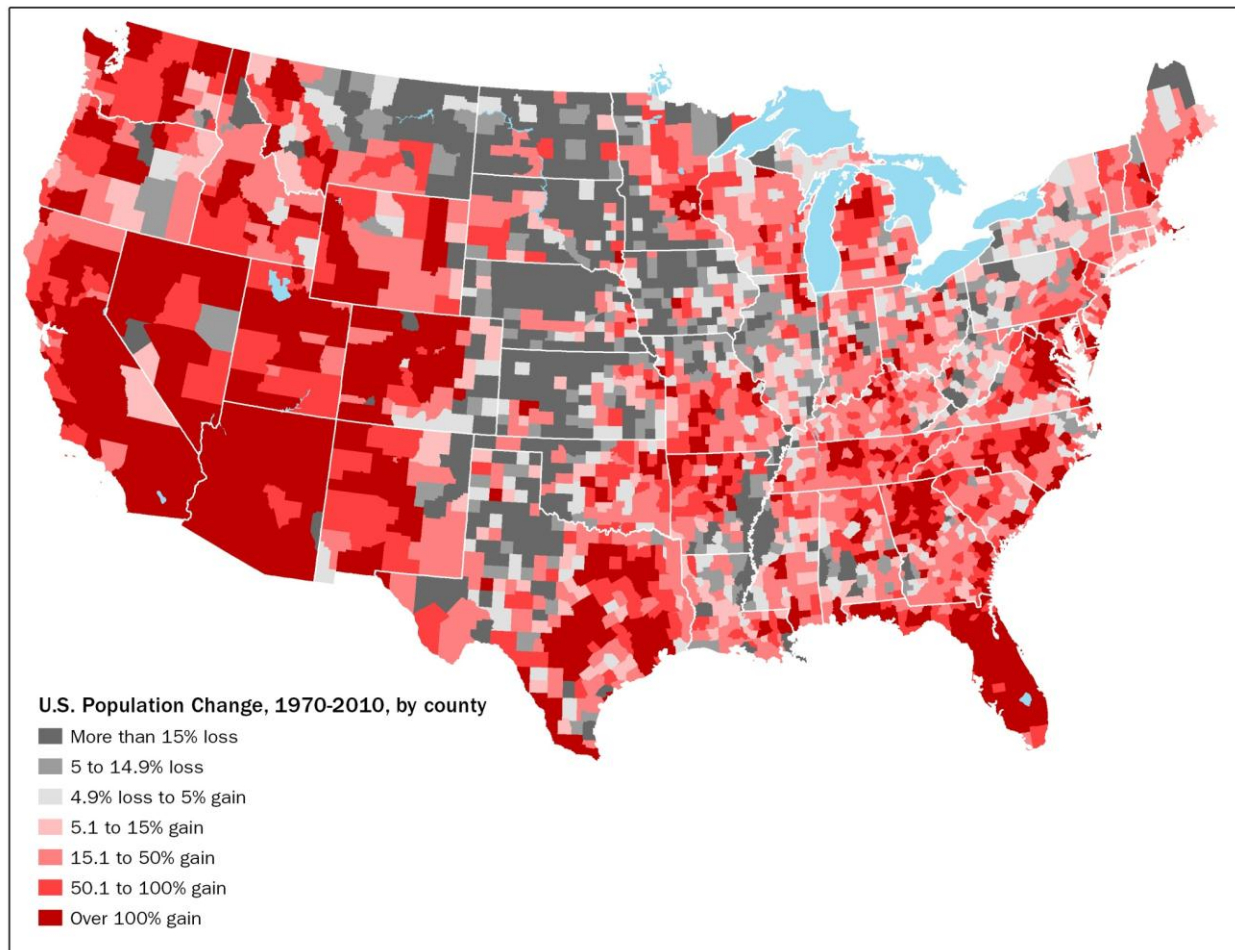
MAP 3: U.S. POPULATION CHANGE, 2000-2010 (SOURCE: U.S. CENSUS, 2012. ANALYSIS: RPA, 2012)



The United States' total population reached 308.7 million in 2010 with 227.5 million, or 73.7 percent, concentrated in America's megaregions and 81.3 million, or 26.3 percent, living outside of a megaregion. The nation grew by 9.4 percent and the megaregions absorbed 77.5 percent of this growth and as a result, the proportion of the U.S. population residing in megaregions increased by 0.4 percentage points. Map 3 shows the spatial distribution of population growth over the last decade.

Strong growth (areas with more than 15 percent gains), generally speaking, occurred in the major metropolitan areas of the Sunbelt states, while the Great Plains, Lower Mississippi River Valley, Midwest, and New England either lost significant population or remained relatively stable. Areas with the strongest growth were in the Southwest (Southern California and Central Valley, Greater Las Vegas, and Western Arizona), the Texas Triangle (Dallas/Ft. Worth, Houston, and San Antonio), several counties in Colorado and Utah, Central Florida (Tampa and Orlando), the Greater Atlanta and Washington, DC metropolitan areas. There were also small pockets of strong growth and more moderate growth in North Carolina around the Research Triangle, Nashville, western counties in the Pacific Northwest, and other counties in Wyoming, New Mexico, and South Atlantic states.

MAP 4: U.S. POPULATION CHANGE, 1970-2010 (SOURCE: U.S. CENSUS, 2010. ANALYSIS: RPA, 2012)



Map 4 shows historical population growth over the last 40 years. The broad pattern is significant depopulation of the Great Plains, strong growth in the West (particularly the Southwest), eastern Texas, Florida, and South Atlantic region. The northern Arkansas/southwestern Missouri/eastern

Oklahoma area saw growth in scattered areas. Other than the suburbs of Chicago, Minneapolis/St. Paul, and northern Michigan, the rest of the Midwest experienced modest growth and small pockets of losses. Growth largely bypassed the areas in upstate New York, the Appalachians Plateau, and the Lower Mississippi River Valley.

POPULATION PROJECTIONS, 2010-2050

The U.S. Census Bureau's latest population projections¹ consist of four series based on varying levels of net international migration. The four series all project strong growth into the future that will result in the U.S. population reaching somewhere in the range of 399 million, if international immigration remains constant, to 458 million, given a high level of international immigration by the year 2050. Woods & Poole Economics, Inc., a firm that specializes in economic and demographic projections, expects the U.S. population to reach 407 million by 2040, or 440 million if these projections are linearly extrapolated 10 more years.²

Figure 1 shows Woods & Poole's projections along with historical growth from 1970 to 2010, broken down into two of America's component parts, megaregions and non-megaregions. The projections estimate that from 2010 to 2050, America's megaregions will absorb 76.5 percent of national growth, and in 2050 will contain 74.7 percent of the U.S. population. From 2010 to 2050 the projections expect the megaregions to grow by 43.4 percent, or an average annual rate of 11.1 percent. However, over the past decade, megaregions only grew by 10 percent, indicating that, if current trends continue, Woods & Poole's projections may be too optimistic.

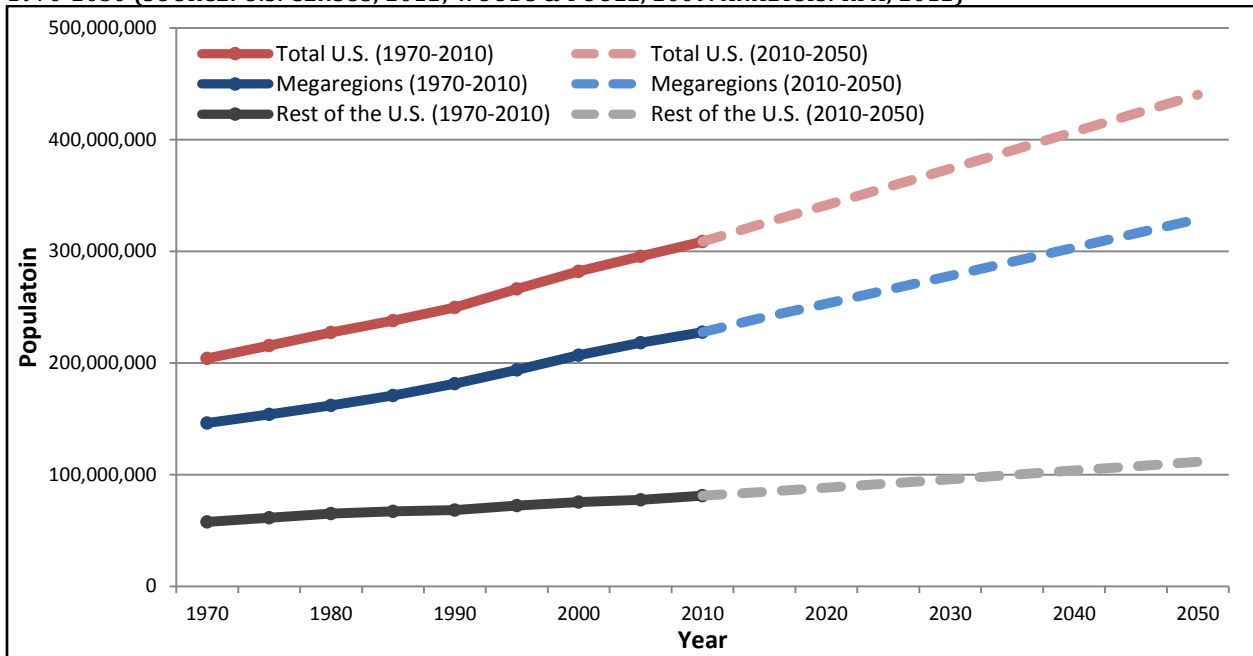
Long-term population projections make assumptions about birth rates, life expectancies, net immigration, and economic conditions over long time periods, and as a result will always fluctuate to some degree. While the estimates vary, there is agreement, even among the U.S. Census Bureau's high-series projections, that while the nation will continue to grow over the next 40 years the rate of growth will decrease as the population ages, birth rates fail to keep up with death rates, and immigration slows. The only question is: how fast will the growth rate fall?

Map 5 shows the spatial distribution of projected population change over the next 40 years. Woods & Poole's model projects population change to follow similar spatial patterns as it has over the last 40 years, however in a far more balanced way. The areas of major population gains and losses over the last 40 years are much less extreme over the next 40 years. Growth and losses in nearly all of the counties of the U.S. will slow.

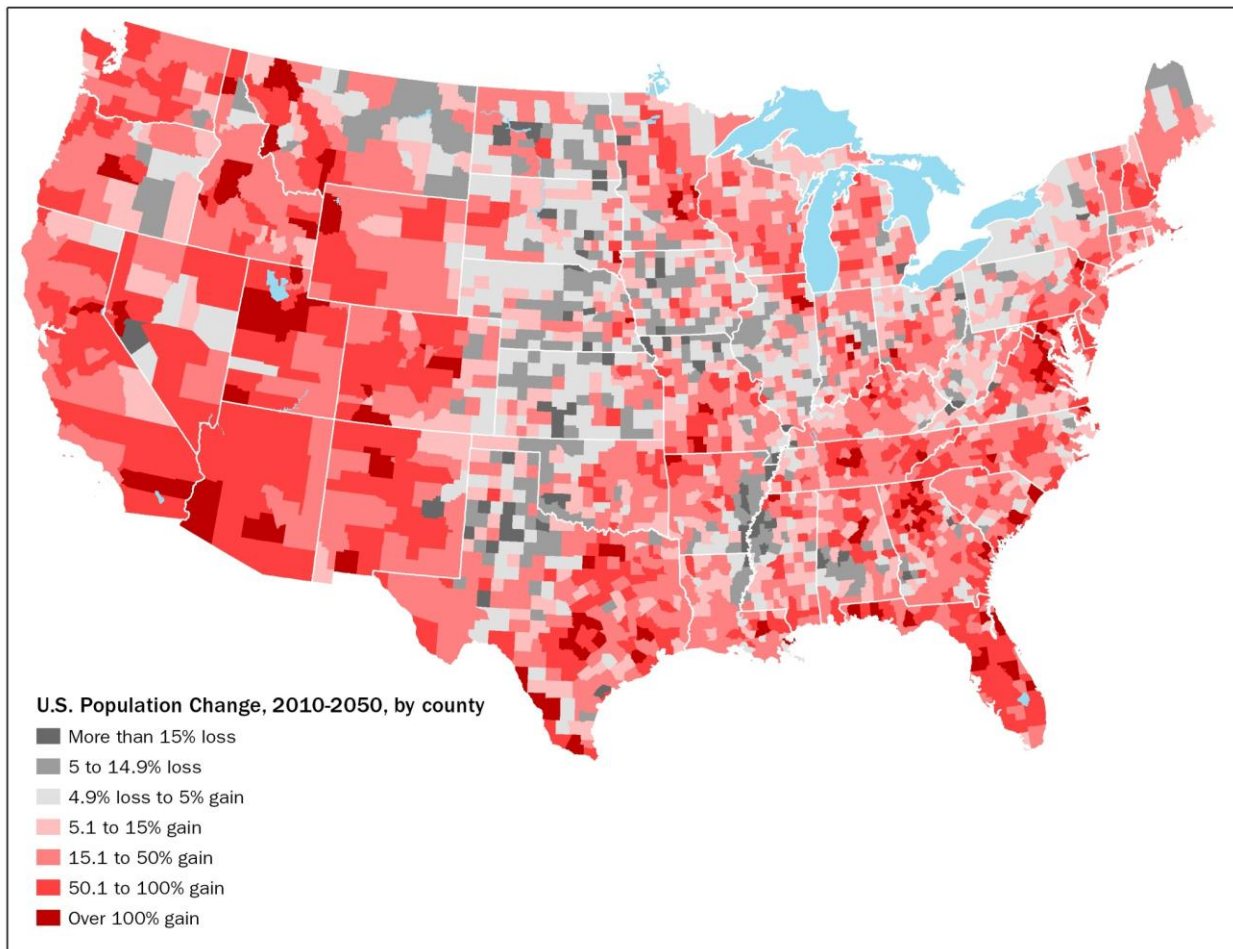
¹ U.S. Census Bureau. 2009. *National Population Projections*. <http://1.usa.gov/GIVRsy>. These projections, released in 2009, use a base population from the 2000 Census and estimate net international migration from more recent American Community Survey data. Updated projections based on the 2010 Census population are not yet available.

² Woods & Poole Economics, Inc. makes population projections driven by an econometric model. <http://bit.ly/GJ0FxV>. The database these projections are from is based on data before the current recession hit. Updated data, available now for sale, will certainly show more modest population growth due to recent poor economic performance. The projections are made at the county level, allowing data aggregation by megaregion, which is why they are used. RPA linearly extrapolated Woods & Poole's projected growth rates for 2035 to 2040 to calculate population projections for 2045 and 2050.

FIGURE 1: HISTORICAL & PROJECTED POPULATION CHANGE IN THE U.S., MEGAREGIONS, AND NON-MEGAREGIONS, 1970-2050 (SOURCE: U.S. CENSUS, 2012; WOODS & POOLE, 2009. ANALYSIS: RPA, 2012)

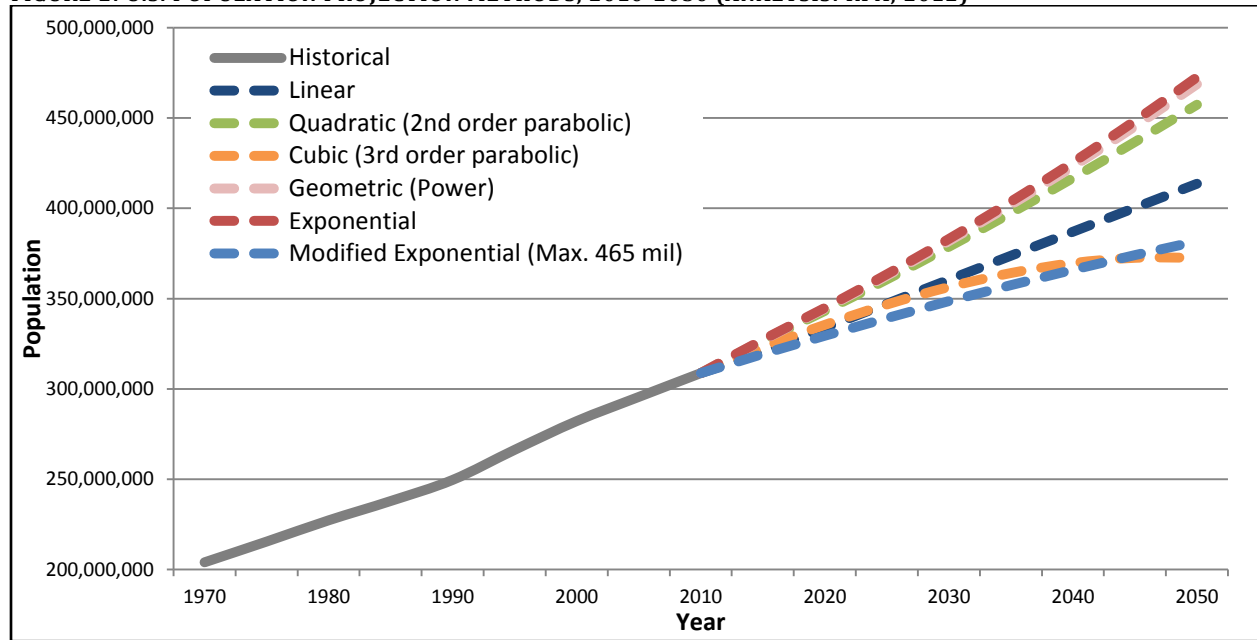


MAP 5: U.S. PROJECTED POPULATION CHANGE, 2010-2050 (SOURCE: WOODS & POOLE, 2009. RPA, 2012)



America 2050 conducted an exploration of population projection methods to estimate the population of the U.S. in the year 2050 based on the 2010 population and create a consistent national projection. The methods explored used linear, quadratic and cubic (2nd and 3rd order parabolic), geometric (power), exponential, and modified exponential curves. Figure 2 shows how these curves look when projecting the U.S. population out to 2050.

FIGURE 2: U.S. POPULATION PROJECTION METHODS, 2010-2050 (ANALYSIS: RPA, 2012)



The linear method is too simplistic. It extends the population growth trends from 1970 to 2010 linearly out an additional 40 years. The quadratic and cubic functions both follow parabolic wave curves and had the highest R-squared values when predicting the 2010 population based on the historical data. However, conceptually they are difficult to interpret when projecting out over long periods of time. The exponential and geometric curves (in Figure 2 the geometric curve is beneath the exponential curve) assume that growth rates will grow into the future and it is highly unlikely that that will occur. The modified exponential curve grows rapidly at first and then growth rates diminish slowly over time as it approaches an upper limit. This makes the modified exponential function an excellent model to predict population growth of a large, existing population in a finite environment over time. Furthermore, growth rates are already slowing in the U.S. and current national socio-economic trends indicate that this pattern will continue into the future.

The modified exponential function requires the upper limit, or a carrying capacity, to be inputted. This value represents the maximum population that the country can support. For the purposes of this paper, the total carrying capacity of the U.S. was roughly set at 550 million, or 178 percent of the current population. This method resulted in a projected total population of 382 million in the year 2050, the second lowest 2050 estimate of all of the methods. However, this figure represents an increase of 23.7 percent above the current population, or an average annual rate of 0.6 percent. By comparison, Woods & Poole projects average annual growth to be 1.1 percent.

The modified exponential model is the only method, except for the cubic method, that models diminishing growth rates over time, an assumption that is present in Woods & Poole's projections, and allows the user to input the carrying capacity. For these reasons, this was identified as the best

method for projecting population out to 2050. However, further research and analysis would be needed to determine the appropriate input for the carrying capacity of the nation.

Other functions that were not explored are sigmoid curves, with a characteristic “S” shape. These curves accelerate slowly, eventually inflect, and then begin to diminish slowly as they approach an upper limit. This is the path that many natural processes follow, including population growth. In the past, many demographers have used these curves to model population trends because it accounts for the rapid growth that commonly takes place early on as species develop, typical in population dynamics, as well as environmental carrying capacity. These functions will require advanced mathematical and modeling expertise to explore further.

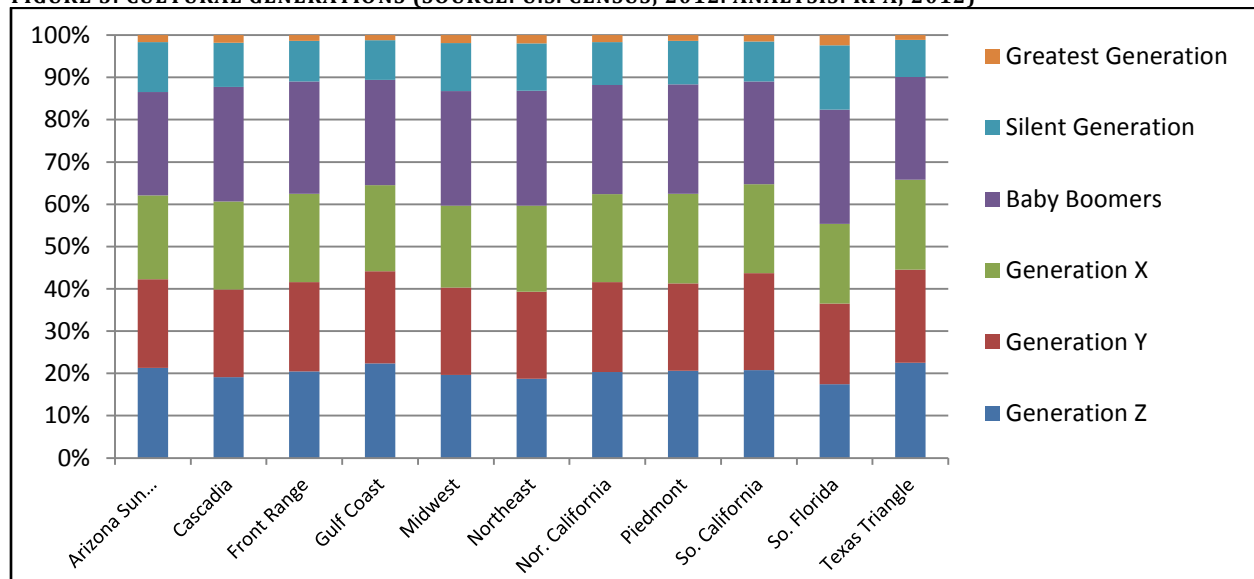
TABLE 1: U.S. POPULATION CHANGE BY AGE GROUP, 2000-2010 (SOURCE: U.S. CENSUS, 2012)

Age Groups	Change ('00-'10)
Under 5 years	5.3%
5 to 9 years	-1.0%
10 to 14 years	0.7%
15 to 19 years	9.0%
20 to 24 years	13.8%
25 to 29 years	8.9%
30 to 34 years	-2.7%
35 to 39 years	-11.1%
40 to 44 years	-6.9%
45 to 49 years	13.0%
50 to 54 years	26.8%
55 to 59 years	46.0%
60 to 64 years	55.6%
65 to 69 years	30.4%
70 to 74 years	4.7%
75 to 79 years	-1.3%
80 to 84 years	16.1%
85 to 89 years	29.8%
90 to 94 years	30.2%
95 to 99 years	29.5%
Over 100 years	5.8%
All Ages	9.7%

AGE STRUCTURE

One of the trends currently facing the nation that has significant implications is the upshifting in age of the U.S. population (Table 1). The overall age structure of the U.S. is currently driven mainly by three factors: 1) The aging of the baby boom generation, 2) net international immigration, and 3) fertility rates among Hispanic families.³ Over the past ten years, the Baby Boomer cohort entered elderly adulthood. In 2010, Baby Boomers were between the ages of 46 and 64. By 2030, all of the Baby Boomers will be over 65 years old. This factor is a certainty in projecting age into the future.

FIGURE 3: CULTURAL GENERATIONS (SOURCE: U.S. CENSUS, 2012. ANALYSIS: RPA, 2012)



³ Ortman, Jennifer M. and Christine E. Guarneri. 2009. *United States Population Projections: 2000 to 2050*. U.S. Census Bureau. <http://1.usa.gov/GAQ9G2>

From 2000 to 2010, while the nation grew by a total of 9.7 percent, the prime baby boomer age groups (50 to 64 year) experienced large, double digit growth. The 60 to 64 year cohort was the fastest growing age group with 55.6 percent growth. Generation Y can be seen in the growth of the 15 to 29 year age groups in Table 1. The growth in age groups over 80 years is the result of a period of rising life expectancy and high birth rates that occurred in the early half of the 20th century. Since the early 1990s, after Generation Y, the national birth rate has hovered around 15 percent, which is why there has been slower growth rates in the younger age groups over the last decade.

Figure 3 shows the age structure of the megaregions broken down by the cultural generations. Generation Z, ages 0 to 14 (also known as Digital Natives, as they will grow up never knowing a time before TV and Internet), Generation Y, ages 15 to 29 (also known as Echo Boomers because they are children of Baby Boomers), and Generation X, ages 30 to 44, all make up about 20 percent of the population, and taken together account for over 60 percent of all of the megaregions except for Southern Florida. Baby Boomers, ages 45 to 64, make up 25 percent, and the Silent Generation, ages 65 to 84 (those who were in their formative years during the Great Depression and veterans of the Korean War), and the Greatest Generation, ages 85 and up (including veterans of World War II), make up the balance.

The other two main drivers of aging, immigration and fertility rates among Hispanic populations, are far less certain. They will largely be determined by public policy and geopolitical events that are much harder to predict over long periods of time. Yet, they will have enormous impacts on the age structure of the U.S. population in the year 2050. If the rate of net immigration is high, the younger age groups will grow significantly, as net international immigrants tend to be younger individuals. Plus, higher net immigration will lead to increases in Hispanics, who tend to have higher rates of fertility. Thus, more net immigration would help balance the nation’s age structure and effectively slow the aging of the nation as a whole.

RACE & HISPANIC ORIGIN

The United States is currently undergoing significant racial diversification and this process will continue over the next 40 years. Figure 4 shows America’s racial composition in 2010. For the time being, the U.S. is still a majority White country with nearly three-quarters of the population in the White alone category. However, the U.S. Census Bureau is now projecting that sometime in the 2040’s, depending on immigration levels, the non-Hispanic White alone racial group will cease to be the majority race in the U.S., as immigration from Asian countries continues and populations of Hispanic origin are born or enter the country. Again, this trend is heavily dependent upon future levels of immigration, as Asians and Hispanics represent the largest immigrant groups. Even without immigration, America’s racial diversity is expected to increase as the existing Hispanic populations with younger median age and high fertility rates continue to grow naturally. Figure 5 shows the proportion of the U.S. population, megaregions,

FIGURE 4: U.S. RACIAL COMPOSITION, 2010
(SOURCE: U.S. CENSUS BUREAU, 2012)

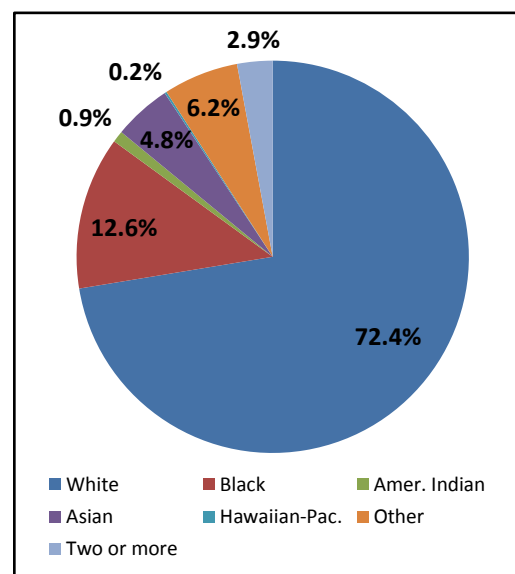
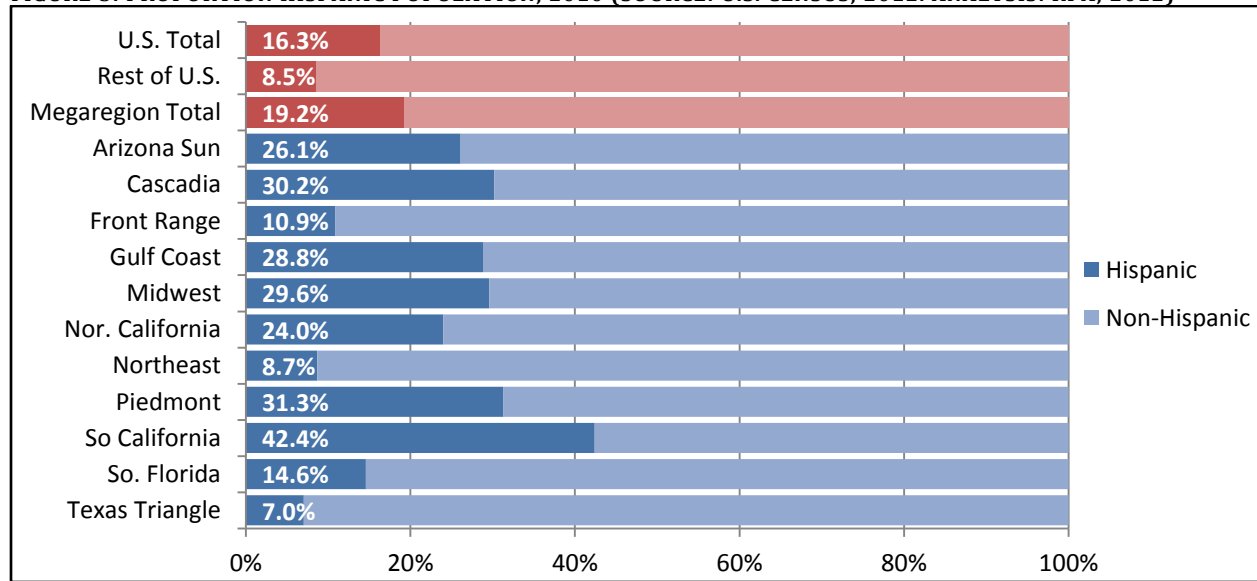


FIGURE 5: PROPORTION HISPANIC POPULATION, 2010 (SOURCE: U.S. CENSUS, 2012. ANALYSIS: RPA, 2012)



and aggregate megaregions that were of Hispanic origin in 2010. In seven of the megaregions, over one-quarter of the population is Hispanic and over 30 percent in the Texas Triangle and Arizona Sun Corridor. Southern California is over 40 percent Hispanic.

HOUSING & HOUSEHOLDS

From 2000 to 2010, the nation added 11 million households and built 16 million housing units. This translates into an annual rate of 1.6 million additional housing units per year. However, the rate of construction has slowed significantly after the national housing bubble burst in early 2008. As of February 2012, the seasonally adjusted annual rate of privately-owned housing completions was 568,000,⁴ far below the rate that will be needed to keep up with housing demand and maintain housing prices that are affordable for a majority of the population. Figure 6 illustrates the precipitous decline in construction that has taken place since 2008.

There is also a major shift in the structure of households underway in this country. The traditional “married-with-children” household structure now represents only one fifth of total U.S. households. In 2000, these households represented one fourth of the total. Furthermore, the number of one-person households increased by 4 million. So, the composition of families and households are changing in significant ways, and planners must be aware of how these trends will affect housing preferences. Evidence exists that American preferences are shifting towards smaller, more efficient housing units in multi-family buildings in central cities with a range of transportation options.⁵ Given these projected changes in housing preferences and settlement patterns, the nation will have to make significant investments in the infrastructure systems in our urban areas in order to support

⁴ *New Residential Construction in February 2012*. U.S. Census Bureau and Department of Housing and Urban Development press release. <http://1.usa.gov/GBgmmU>

⁵ Litman, Todd. 2011. *Where We Want To Be: Home Location Preferences And Their Implications For Smart Growth*. Victoria Transport Policy Institute. <http://www.vtpi.org/sgcp.pdf>

these new populations and housing units. Contrary to this evidence, Figure 7 shows that the proportion of the largest homes (over 4,000 square feet) has actually increased over the last decade, as have homes between 2,400 and 4,000 square feet, while smaller housing units (under 2,400 square feet) have decreased in proportion. However, from 2008 to 2010, there appear to be some minor signs that this trend may be reversing.

FIGURE 6: NEW PRIVATELY OWNED HOUSING UNITS COMPLETED, 1970-2010 (SOURCE: U.S. CENSUS, AMERICAN HOUSING SURVEY, 2012)

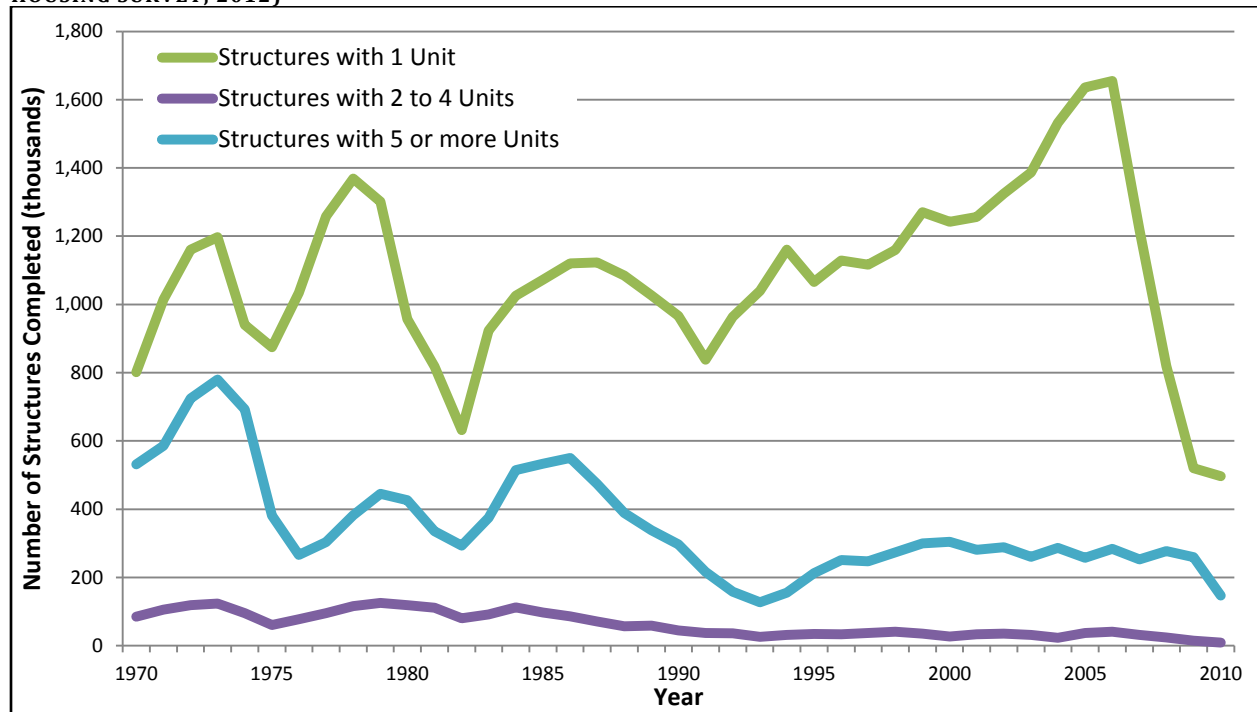
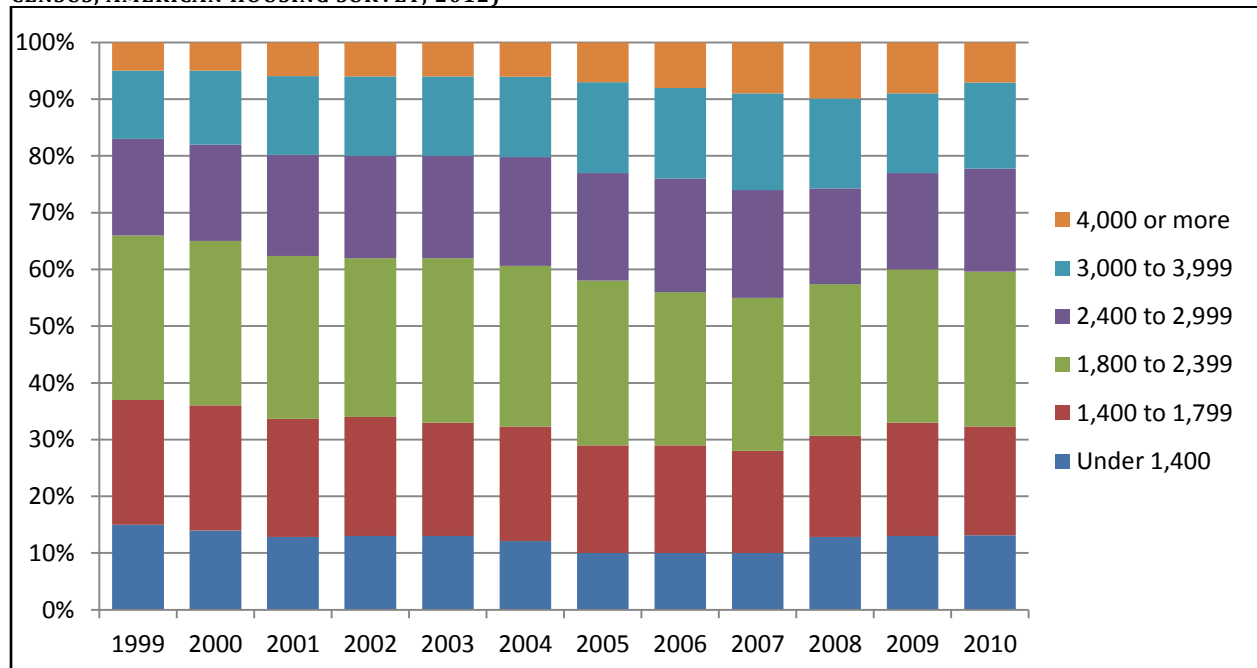


FIGURE 7: SQUARE FEET OF FLOOR AREA IN NEW SINGLE-FAMILY HOUSES COMPLETED, 1999-2010 (SOURCE: U.S. CENSUS, AMERICAN HOUSING SURVEY, 2012)



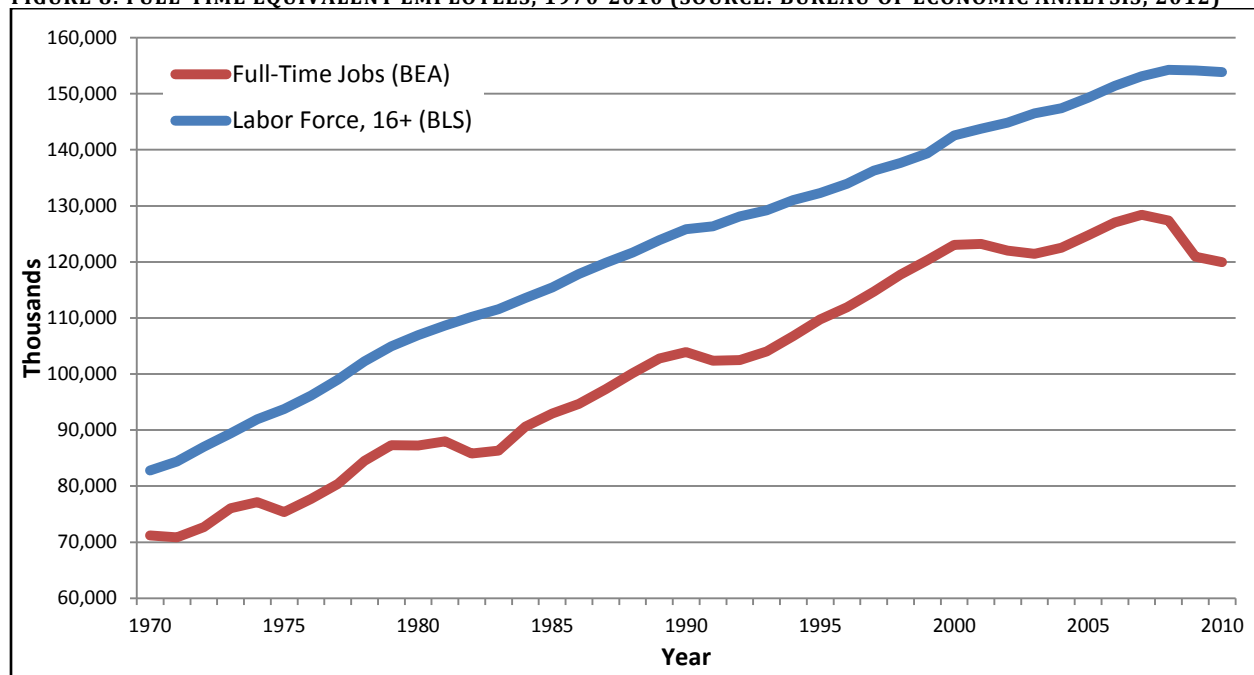
Furthermore, home values have risen considerably. The median value of an owner-occupied home in the U.S. rose by over \$76,600, or 68.5 percent, over the last decade. This is putting pressure on low income families and making it difficult for first-time buyers to enter the housing market.

EMPLOYMENT & INCOME

In 2010, for every full-time job in America there were 1.3 workers who could potentially fill it. One reason for this is that from 2007 to 2010, the U.S. economy lost 8.4 million jobs. According to the Bureau of Economic Analysis, the national economy supported 3 million fewer full-time equivalent jobs in 2010 than it did in 2000, for a total of 120 million. Concurrently, from 2000 to 2010, U.S. Census Bureau estimates that 16.4 million people entered the labor force for a total of 155.2 million potential workers. This is an unsustainable pattern. Mathematically, there are not enough full-time jobs for every potential worker. Figure 8 shows the significant drop in the average number of jobs that the national economy has supported since 2008.

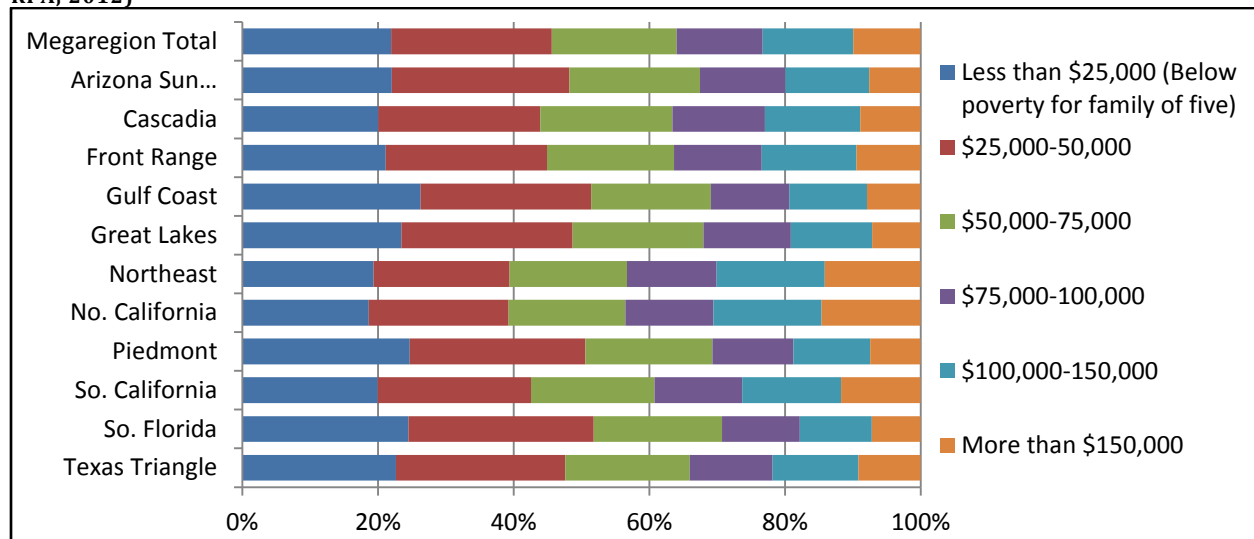
Due in large part to the global financial crisis, unemployment throughout the nation has been unusually high. In 2000, the national unemployment rate was 4.4 percent and as of February 2012, it was 8.3 percent. Furthermore, this unemployment does not affect all individuals equally. Nearly 12 percent of those in the labor force with no high school diploma are out of work, whereas those with a bachelor's degree have an unemployment rate of 2.7 percent.

FIGURE 8: FULL-TIME EQUIVALENT EMPLOYEES, 1970-2010 (SOURCE: BUREAU OF ECONOMIC ANALYSIS, 2012)



Median household incomes have also risen by 23.6 percent, driven largely by households joining the high income groups. In 2010, there were 10.9 million more households earning over \$100,000 per year than there were in 2000, while there were 6.3 million earning less than \$50,000 per year. Over the last ten years, poverty rates have also increased by over 25 percent. Figure 9 shows the different household income brackets in each of the megaregions. Over one fifth of households in nearly every megaregion made less than \$25,000 per year in 2010, which was below the poverty threshold for a family of five at that time.

FIGURE 9: HOUSEHOLD INCOME BRACKETS IN U.S. MEGAREGIONS, 2010 (SOURCE: U.S. CENSUS, 2012. ANALYSIS: RPA, 2012)



TRENDS FACING AMERICA'S MEGAREGIONS

America's megaregions make up a large portion of the U.S. population (73.7 percent live on just 21.2 percent of the nation's land), so it is not surprising that many of the trends facing the nation are the same trends facing the megaregions. However, there is a great deal of environmental, urban, social, and economic diversity between and within the megaregions, so every national trend affects each megaregion differently. Some of the national trends may have focused impacts on certain megaregions and no impact, or perhaps the opposite trend exists, in another megaregion.

SLOWED & UNEVEN GROWTH

The strong population growth rates that were experienced in most of the megaregions over the last 40 years have faltered somewhat over the past decade, altering many of the assumptions about the future growth of the country. Growth was also uneven, as large swaths of the country saw reductions in population while other areas have seen explosive growth.

Table 2 shows that from 2000 to 2010, the nation's population grew at a rate of 9.7 percent, lower than it has grown since the 1940's and only the third time in the country's history that the 10-year growth rate has been less than 10 percent (the second time was in the 1990's). During that same time frame the population growth rate of some of the megaregions fell much farther. Arizona Sun Corridor fell from 16.1 to 7.3 percent, the Front Range fell from 8.1 to 6.6 percent; and Southern Florida's growth rate fell from 10.6 to 6.4 percent.

Figure 10 shows, especially in those megaregions that had experienced strong growth from 1970 to 2005 (i.e. Arizona Sun Corridor, Southern Florida, and the Front Range), that the population growth rates slowed significantly over the last five years. These also happen to be places that were hit hard by the bursting of the housing bubble suggesting that many would-be new residents were unable to move either due to problems selling their current home or securing credit to buy a new home. It may also be the case that economic conditions have caused many would be parents to postpone their plans to have children.

TABLE 2: U.S. POPULATION CHANGE, 1900-2010 (SOURCE: U.S. CENSUS, 2012)

Year	Decennial Population	Absolute Change (10-year)	Percent Change (10-year)	Average Annual Percent Change
1900	76,212,168	n/a	n/a	n/a
1910	92,228,496	16,016,328	21.0%	2.10%
1920	106,021,537	13,793,041	15.0%	1.50%
1930	123,202,624	17,181,087	16.2%	1.62%
1940	132,164,569	8,961,945	7.3%	0.73%
1950	151,325,798	19,161,229	14.5%	1.45%
1960	179,323,175	27,997,377	18.5%	1.85%
1970	203,211,926	23,888,751	13.3%	1.33%
1980	226,545,805	23,333,879	11.5%	1.15%
1990	248,709,873	22,164,068	9.8%	0.98%
2000	281,421,906	32,712,033	13.2%	1.32%
2010	308,745,538	27,323,632	9.7%	0.97%

FIGURE 10: POPULATION CHANGE INDEX IN U.S. MEGAREGIONS, 1970-2010 (SOURCE: U.S. CENSUS, 2012)

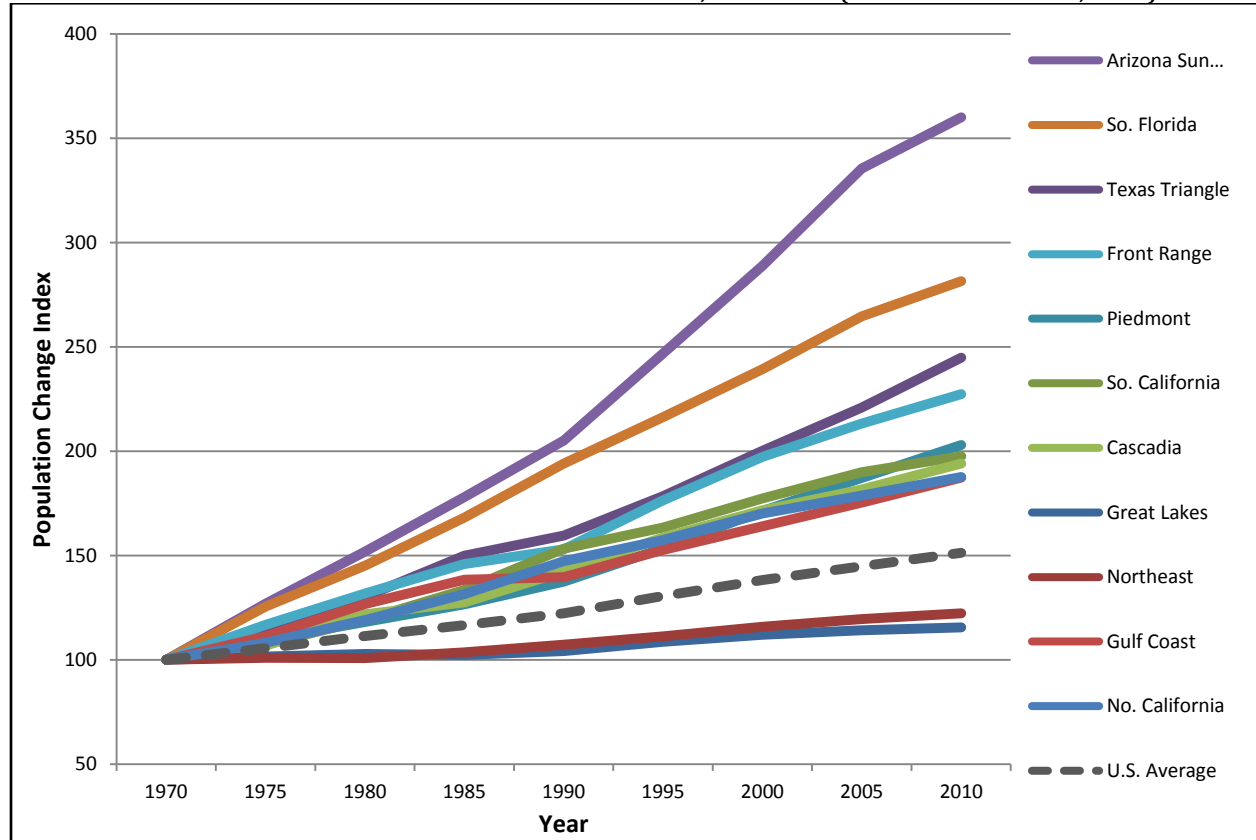
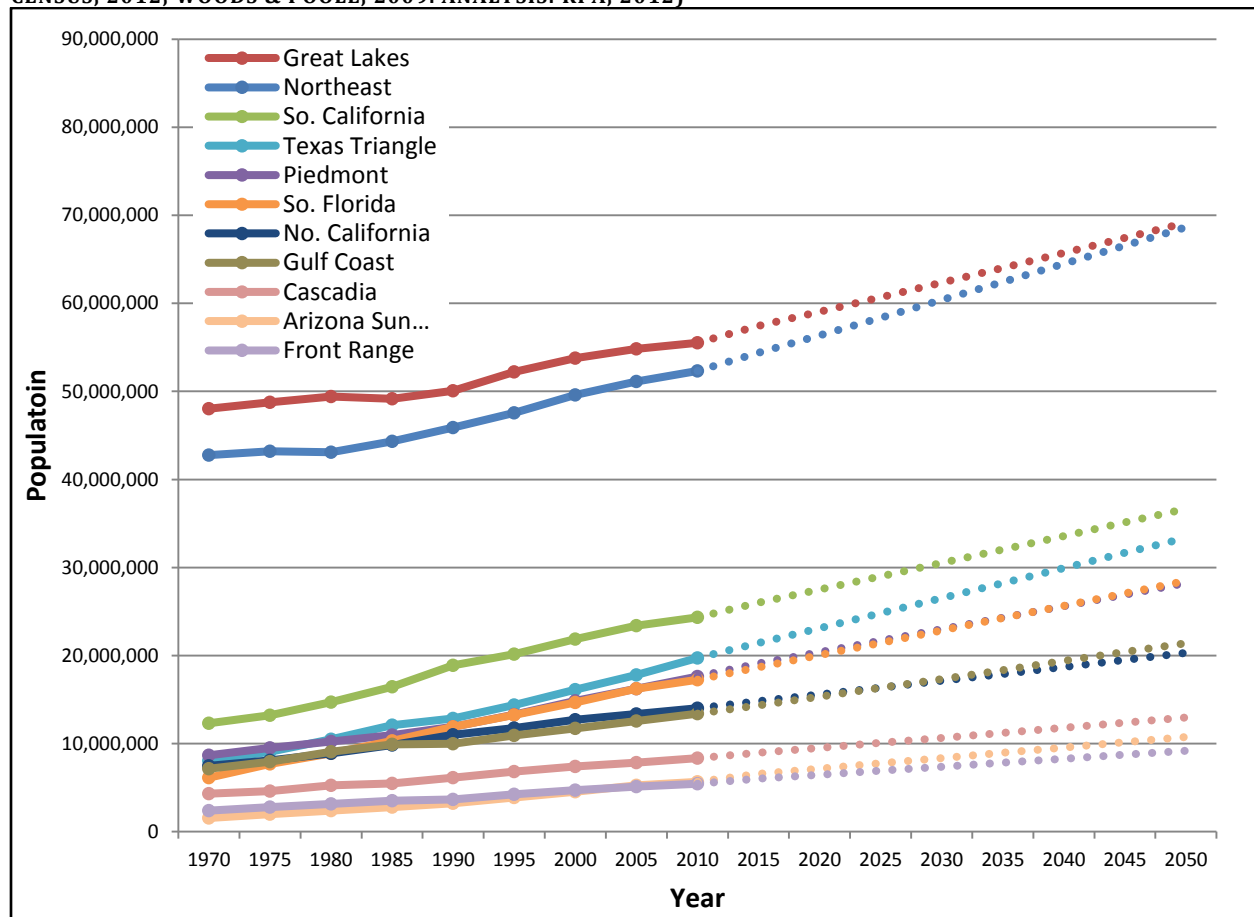


Figure 11 shows the population growth trends and Woods & Poole projections in each megaregion. In 2010, the Arizona Sun Corridor went from the least populous megaregion to the second least by passing the Front Range. According to these projections, by 2050, the Northern California and Gulf Coast megaregions will switch rankings in terms of absolute population in the 2020s, as will the Northeast and the Midwest sometime soon after 2050. However, the diminishing growth rates experienced over the last decade and recent national economic performance call into question some of the assumptions in the Woods & Poole projections.

FIGURE 11: HISTORICAL & PROJECTED POPULATION CHANGE IN U.S. MEGAREGIONS, 1970-2050 (SOURCE: U.S. CENSUS, 2012; WOODS & POOLE, 2009. ANALYSIS: RPA, 2012)



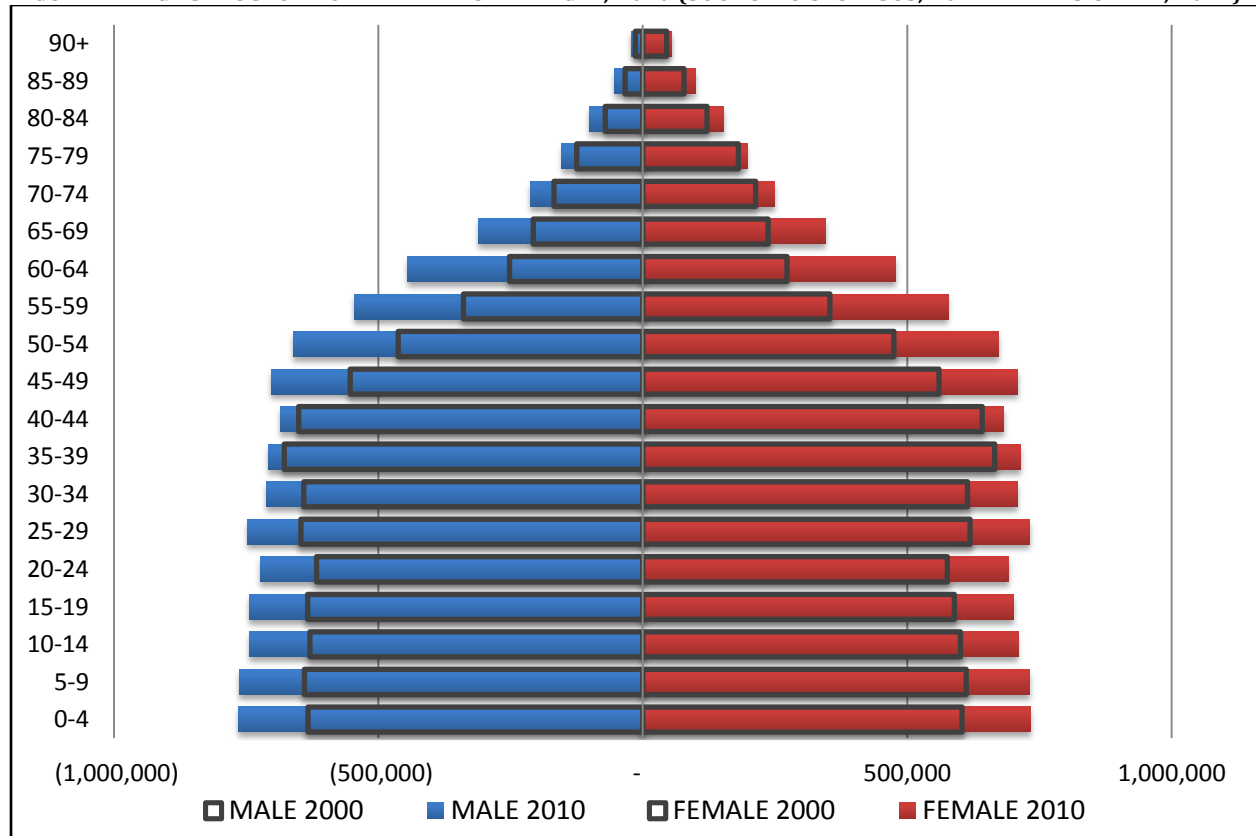
Population growth has also been inequitable within and between megaregions. Maps 3 and 4 show how growth has not been even throughout the country over the last 40 years or the last decade and the previous two figures (10 and 11) show how some of the megaregions have grown more rapidly than others. Large swaths of the country have lost population, remained relatively stable, or experienced modest growth, while other regions have experienced explosive growth.

AGING POPULATION

The population of megaregions continues to age significantly, similar to patterns in the U.S., which has major implications on economic growth strategies, housing policies, and infrastructure systems. However, there is a great deal of variation among them. For example, in most of the megaregions, aging in the 40 to 75 year range is the dominant trend. However, in the Arizona Sun Corridor, Texas Triangle, Southern Florida, and Piedmont megaregions, growth in the younger age groups are equally apparent. In the Arizona, Texas, and Florida, this is most likely due to the fact that large Hispanic populations with a younger median age and higher fertility rates live there. Elsewhere, this trend may be caused by the fact that younger international immigrants and domestic migrants are attracted to the megaregions because of the high density of people, rich culture, and employment opportunities that exist, or the social services provided.

Figure 12 shows the population pyramid of the Texas Triangle. It depicts a megaregion with strong growth in every age group. It also illustrates how the megaregion's age structure is changing in the younger age groups (0 to 29) almost as much as it is in the older age groups (45 to 69).

FIGURE 12: AGE STRUCTURE OF THE TEXAS TRIANGLE, 2010 (SOURCE: U.S. CENSUS, 2012. ANALYSIS: RPA, 2012)



GREATER RACIAL DIVERSITY

The racial composition of megaregions has become more balanced over the past decade, more so than America as a whole (Figure 4). Every megaregion experienced a reduction in the proportion of its White population, and many experienced strong growth in Asian and Hispanic populations.

In general, megaregions tend to be more diverse than the rest of the country. In 2010, over 88 percent of the Asian population living in the America resided in megaregions, 86.4 percent of all those of Hispanic origin, and 75.4 percent of Blacks. Over 95 percent of the Cuban population living in the U.S. resides in megaregions, with over 67 percent concentrated in the Southern Florida megaregion.

Over the past decade this trend towards diversification has continued, as nearly every racial group other than White alone grew its share of the population in nearly every the megaregion. The share of Asian grew by 2.7 percent in Southern California and the share of Black grew by 1.5 percent in the Piedmont and Southern Florida megaregions. However, the share of Black lost 0.7 percent in the Gulf Coast and 0.4 percent in the Southern and Northern California megaregions. The White share decreased by more than 0.6 percent in every megaregion.

On the other hand, in non-megaregion counties, over 80 percent of the population is White, 11.7 percent is Black, 8.5 percent are Hispanic, 2.3 percent are in the Other category, and less than 2 percent are American Indian, Asian, Hawaiian-Pacific Islander, or two or more races.

SMALLER FAMILIES & HOUSEHOLDS

The changing composition of families and households, shifting housing preferences, and a growing population are putting pressure on housing markets in megaregions, driving up prices as supply fails to keep up with rising demand.

Megaregions and the metropolitan areas they comprise generally tend to be denser and contain more multi-family buildings. They also contain many of the suburban and exurban counties that surround the metropolitan areas where much of the low density, land consumptive housing has been built and corresponding growth has taken place over the last few decades. Non-megaregion areas tend to be more established with single-family homes. Thus, the structure of families and households, and housing preferences within megaregions are different than they are in the non-megaregions areas. New construction, which has dropped off precipitously over the past decade (Figure 6), will need to increase in order to accommodate a growing population and satisfy new demand.

SLOWER CONSTRUCTION OF NEW HOUSING

New housing units are needed and the existing housing stock will not be sufficient to house all of the households in coming years given the rise in population, the changing structure of families and households, and Americans' shifting housing preferences. It is well documented that the popularity of more compact housing in central cities with public transit, a richer social life, and more cultural amenities is increasing.⁶ However, while recent trends show signs of change, new housing construction has failed to satisfy these new demands.

Construction and completion of new structures, particularly single-family housing units, have fallen off steeply since the housing bubble burst (Figure 6), putting millions of construction workers out of work around the nation. This also limits the ability of the national housing supply to support the population by preventing developers and builders from constructing new structures and redeveloping existing structures to adapt to changing housing preferences.

INCREASED UNEMPLOYMENT & POVERTY

Unemployment rates over the past decade were higher than they have been since the early 1980's and the odds of being out of work vary largely depending upon levels of educational attainment.

The global financial crisis has had widespread negative impacts on economic performance, driving up unemployment rates, particularly in the construction industry as new housing starts have fallen drastically. Other industries that have been hit particularly hard by high unemployment rates are

⁶ Litman, Todd. 2011. *Where We Want To Be: Home Location Preferences And Their Implications For Smart Growth*. Victoria Transport Policy Institute. <http://www.vtpi.org/sgcp.pdf>

production and transportation. The megaregions that have a high proportion of their economic base in those industries have the highest unemployment rates. Megaregions that have already transitioned to knowledge and other service industries are faring slightly better.

There are also vast inequities in worker earnings that should be addressed. In general, women make less than men, earning 82 cents for every dollar that men earn. The median earnings of Asian men are \$970 per week while Hispanic women make almost half of that at \$518 per week. There are also many more people that have fallen into poverty over the last decade.

SUMMARY FOR DISCUSSION

- The nation continues to grow rapidly, but its rate of growth will slow over time, and growth has been uneven between and within the megaregions. Based on the growth and economic performance of the past decade, it is highly likely that long-term population projections have been overly optimistic. The assumptions of past population projections should be reexamined and new methods should be explored. Strategies to spur growth in bypassed regions should be planned and deployed.
- The aging baby boomer generation has contributed to an upshift in the age structure of the nation, while greater racial diversity and international immigration have helped to balance out the age structure in many megaregions. Further research is needed to determine the impact that a much larger elderly population will have on megaregions.
- Family and household size are shrinking, resulting in demand for smaller households in the central cities, which are mainly located in megaregions. However, the construction industry has been unable to update housing supplies and build new structures to meet demand due to the current economic recession. Stimulating the new construction of housing units will need to be a high priority for many of the megaregions in the future.