Human Capital: The Key to Los Angeles' Long-Term Prosperity

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The most important determining factor of success for cities in the U.S. is high human capital. A city with higher human capital will have a more productive workforce, earn a higher income, foster more advanced innovations, and create more business entrepreneurs. A city with higher human capital will have a more resilient employment market, lower unemployment rates, lower crime, better public schools, and a better quality of life and amenities for its populace. A city with more educated residents will attract and retain more creative talents and businesses from home and abroad. A city with a high level of human capital will prosper. A city without will eventually wither.

Los Angeles as a whole, currently has a low level of human capital compared to other major metropolitan areas in the U.S. The past and current competitiveness of L.A. has been relying more on natural endowment, e.g. a temperate climate, the beautiful ocean, and an ideal geographic location, than on its human capital. To retain long-term prosperity and vibrancy, L.A. must invest in its schools and children, especially in the early stage. Families and private and public sectors in L.A. need to prioritize their limited resources and refocus on education. By doing so, we will see a brighter future for L.A.

In the following sections, we will first examine L.A.'s past economic performance, secondly, discuss the reasons for its underperformance, and finally, suggest some solutions to help lead L.A. to prosperity.

THE EMPLOYMENT CHANGES IN L.A., CALIFORNIA, AND THE U.S. OVER THE PAST TWO DECADES

To forecast the future of Los Angeles, we must first review her past. Figure 1 illustrates how L.A.'s employment recovery compares to that of California and the U.S. As of December 2012, the U.S. employment remains 2.4% below its pre-Great Recession peak level. California's is 5.1% below its pre-recession level. L.A.'s is 6.1% below. In terms of the pace of recovery, L.A. is falling behind California and the nation. Is this simply due to bad luck for L.A. in the aftermath of the recession? The answer is no, as we can see from looking at a broader picture of L.A. employment growth compared to the state and the nation.

Figure 1. Nonfarm Payroll Employment Change for L.A. County, California, and the U.S. Since December 2007

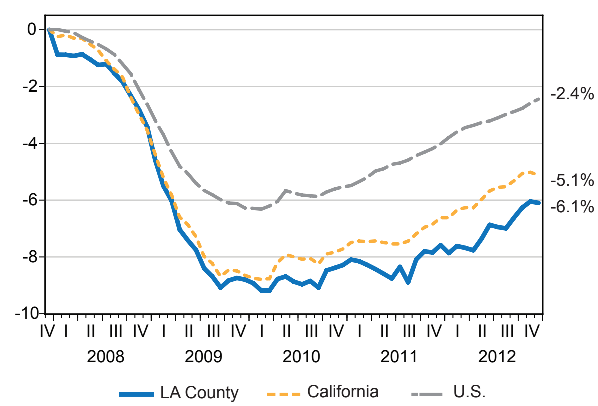
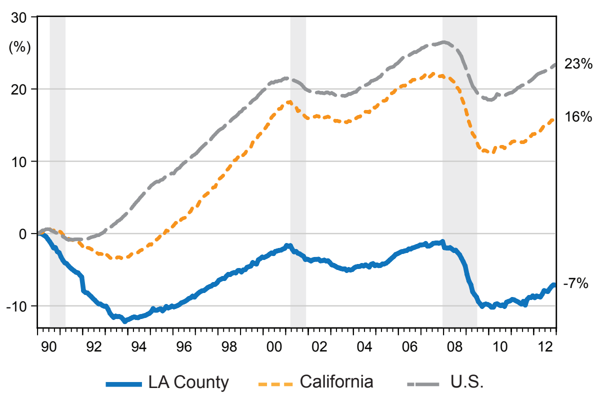


Figure 2 presents a bleak picture of the L.A. labor market over the past 23 years, starting in 1990 and covering three recessions. From January 1990 to December 2012, nonfarm payrolls for the U.S. as a whole increased by 23%, and California's increased by 16%. During the same period, L.A.'s payroll employment declined by 7%. Note that during the peak-to-peak business cycles in the 1990s and in the 2000s, the peak employment levels in 2001 and in 2007 for the U.S. and California have been higher than in 1990. But that is not the case for L.A. Over the following two decades, L.A. has never been able to return to its peak level of 1990.

Figure 3 exhibits the changes in household employment, including self-employed workers, for these three areas. During the period from 1990 to 2012, L.A.'s household employment increased by a paltry 2%. Although it is better than the 7% decline of the payroll employment, it is still falling behind California's 17% and the country's 20% gain.

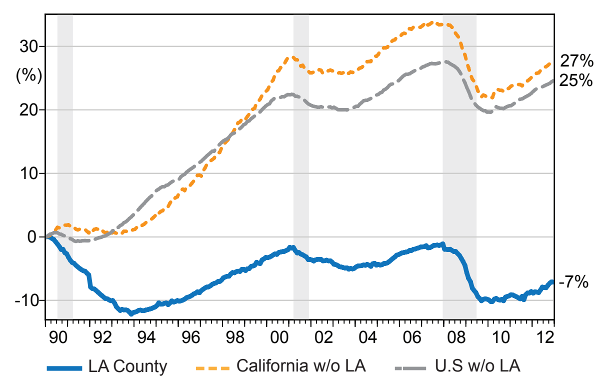
Since the L.A. economy accounts for about one-fourth of California's, the former's performance will naturally affect the latter. What will the employment change comparisons look like if we set L.A's against the rest of California

Figure 2. Nonfarm Payroll Employment Change for L.A. County, California, and the U.S. Since January 1990



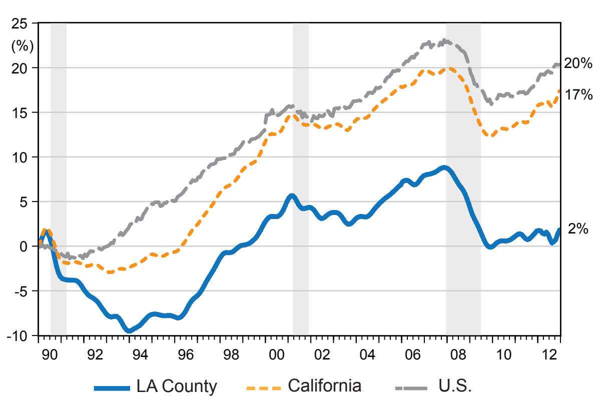
Sources: Bureau of Labor Statistics and California Employment Development Department

Figure 4. Nonfarm Payroll Employment Change for L.A. County, California Excluding L.A., and the U.S. Excluding L.A. Since January 1990



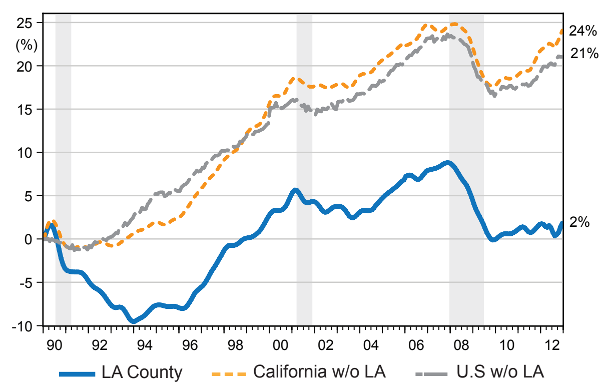
Sources: Bureau of Labor Statistics and California Employment Development Department

Figure 3. Household Employment Change for L.A. County, California, and the U.S. Since January 1990



Sources: Bureau of Labor Statistics and California Employment Development Department

Figure 5. Household Employment Change for L.A. County, California Excluding L.A., and the U.S. Excluding L.A. Since 1990



Sources: Bureau of Labor Statistics and California Employment Development Department (state excludes L.A. County) and against the rest of the U.S. (nation excludes L.A. County)? Figures 4 and 5 present the comparison of employment changes. In contrast to the results of Figures 2 and 3 where the nation is ahead of California, California without L.A. has been performing better than the nation without L.A.

Employment and population growth are highly correlated with the economic performance and prospects of a city. When an economy is booming, employment growth will rise due to more migration and a higher birth rate. But to some degree, employment growth could be constrained simply by population growth due to noneconomic reasons. To control for differences in population growth, we calculate the ratios of household employment to the total population for L.A., California, and the U.S as displayed in Figure 6.

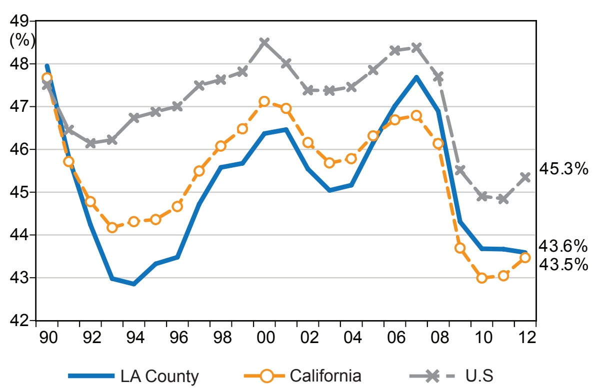
Since 1991, L.A.'s employment-to-population ratio (43.6%) has been lower than that of the U.S. (45.3%). That said, L.A. residents are less employable or are less likely to work than the U.S. residents over the past two decades. Compared to California, L.A.'s ratio is higher since 2005. The reason for California's poor ratios could be attributed to the housing bubble bust since 2006. In short, L.A. is still lagging behind, at least to the nation, in terms of the employment-to-population level.

THE EMPLOYMENT CHANGES OF MAJOR METROPOLITAN AREAS OVER THE PAST TWO DECADES

One might argue that it is unfair to compare a relatively dense and mature metropolitan area like L.A. County to the rest of California and the US, where endless and inexpensive land is available for business development and for families to build and live. Therefore, we compare L.A. to other major metropolitan areas in the U.S. Among the 30 largest metropolitan areas, only three cities have declining payrolls over this 23-year period. They are Cleveland (-2.6%), Detroit (-6%), and L.A. County (-7.1%). Sunny L.A. has had deeper losses in payroll employment than those two cities in the Rust Belt.

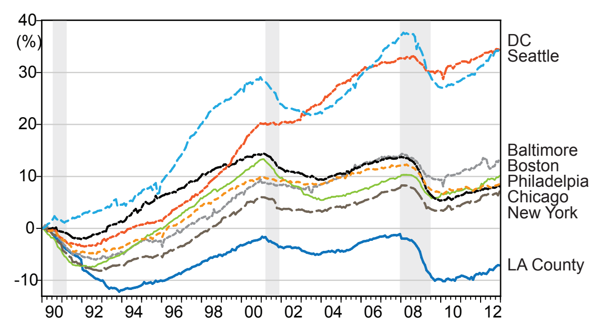
Figure 7 displays some selected metropolitan areas to present the dynamics of employment change over the past two decades. Figure 8 shows the employment change for the costal California areas. The message is the same: L.A. is lagging behind; in fact, L.A. is at the bottom.

Figure 6. The Ratios of Household Employment to the Total Population for L.A. County, California, and the U.S. Since 1990



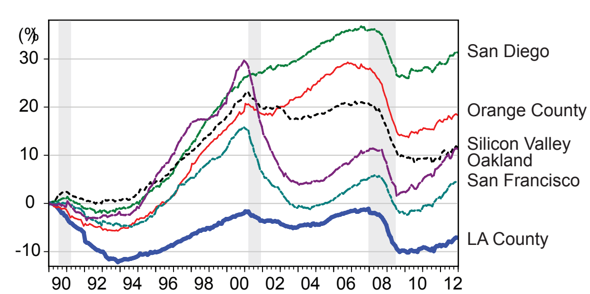
Sources: Bureau of Labor Statistics, California Employment Development Department, Census Bureau and California Department of Finance

Figure 7. Nonfarm Payroll Employment Changes of Some U.S. Metropolitan Areas Since January 1990



Sources: Bureau of Labor Statistics and California Employment Development Department

Figure 8. Nonfarm Payroll Employment Changes of Coastal California Metropolitan Areas Since January 1990



Sources: Bureau of Labor Statistics and California Employment Development Department

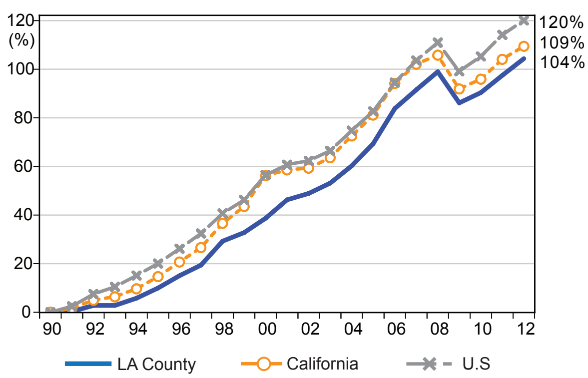
REAL PERSONAL INCOME CHANGE OF L.A., CALIFORNIA, AND THE U.S. OVER THE PAST TWO DECADES

Employment performance does not fully represent overall economic performance. Therefore, we compare the change in real personal income[1] over the past two decades for the U.S., California, and L.A. as shown in Figure 9. Over the 23-year period, U.S. real personal income has increased by 57% and California's has increased by 50%, while L.A.'s has increased by only 31%. To control for differences in population growth, we calculate changes of the real personal income per capita as shown in Figure 10. Although the differences among L.A. (104%), California (109%) and the U.S. (120%) are not as dramatic as those in Figure 9, the overall growth of real personal income per capita for L.A. still trails California and the U.S.

THE ECONOMIC PERFORMANCES OF L.A., CALIFORNIA, AND THE U.S. OVER THE PAST FOUR DECADES

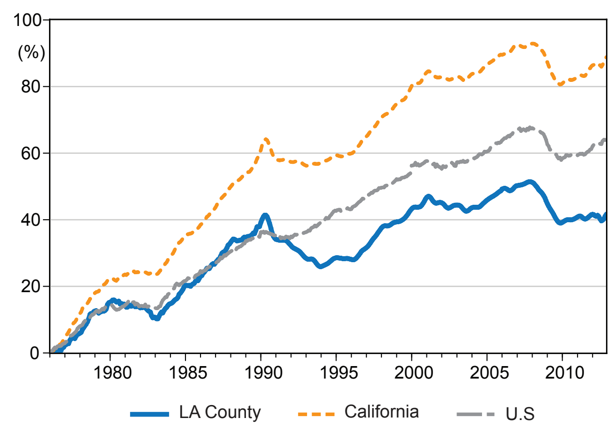
One could argue that choosing 1990 as a starting point for comparing the economic performance of L.A., California, and the U.S. is ad-hoc. If L.A. was outperforming before 1990, its underperformance after 1990 might just represent a reversion back to the mean for the U.S. as a whole. As a result, we extend our comparison to the earliest period for which data are available. Figure 11 displays the household employment changes since 1976. We found that L.A. employment growth did not outperform the U.S. or California. Before 1990, L.A. employment growth grew in tandem with the U.S. but lagged behind California. Since 1990, it departed further away from the nation and the state.

Figure 9. Real Personal Income Changes for L.A. County, California, and the U.S. Since 1990



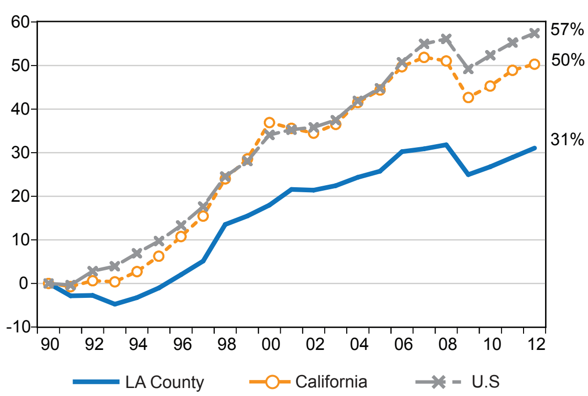
Sources: Bureau of Economic Analysis

Figure 11. Household Employment Change for L.A. County, California, and the U.S. Since 1976



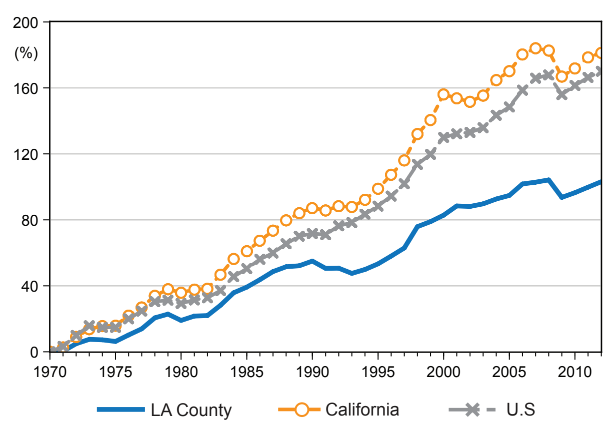
Sources: Bureau of Labor Statistics, California Employment Development Dept.

Figure 10. Real Personal Income Per Capita Changes for L.A. County, California, and the U.S. Since 1990



Sources: Bureau of Economic Analysis and Census Bureau

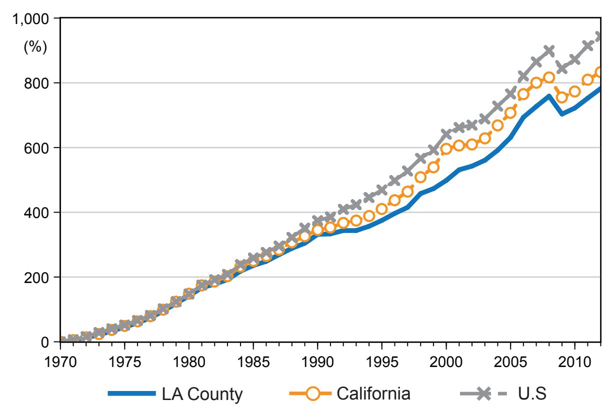
Figure 12. Real Personal Income Changes for L.A. County, California, and the U.S. Since 1970



Sources: Bureau of Economic Analysis and Census Bureau

Figures 12 and 13 portray a similar story in terms of real personal income and real personal income per capita. L.A.'s income growth had been trailing before 1990. But the 1990 recession coupled with the sharp contraction in the aerospace industry exacerbated the difference. Since then, L.A. has never bounced back to close the gap.

Figure 13. Real Personal Income Per Capita Changes for L.A. County, California, and the U.S. Since 1970



REASONS FOR L.A.'S LAG

Based on the evidence mentioned above, it is undeniable that L.A.'s economy has been consistently lagging behind the nation's, California's and other major metropolitan cities' since 1990. The important question is: Why?

Here we provide three main possible reasons for L.A.'s underperformance: (1) an unfriendly environment to businesses, (2) a higher cost of living, i.e. home and commuting, and (3) a low level of human capital. We believe the low level of human capital in L.A. is the most important reason for L.A.'s sluggish economic performance. Therefore, in this report, we will focus on this factor, though we touch briefly on the issue of housing affordability in L.A. We will discuss the business environment in L.A. in a future report.

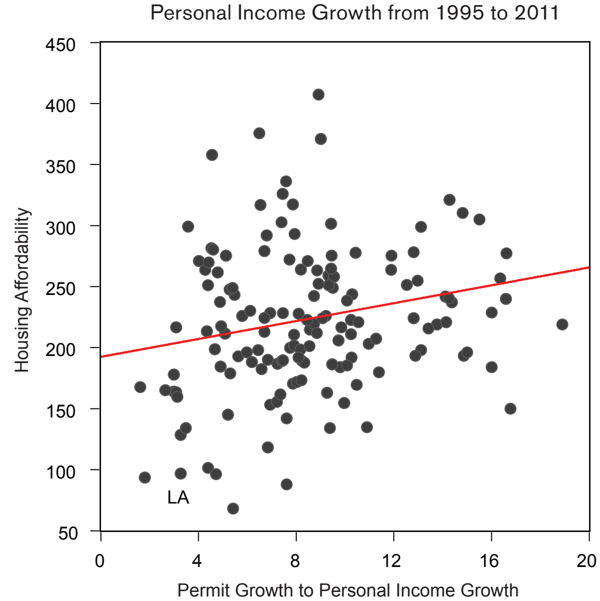
THE STATE OF L.A.'S HOUSING AFFORDABILITY

According to the National Association of Realtors' housing affordability index in 2011, L.A. is one of the five cities with the least affordable housing among 150 metropolitan areas in the country. To interpret the index, a value of 100 means a family with a median income has exactly enough income for a median-priced home, assuming 20% down-payment. The lower the value, the less likely a family can afford a home. L.A. metro's index number is 96.8, along with San Francisco's 93.5, San Jose's 87.9, San Diego's 96.6, and Honolulu's 68.1.

Home prices are determined by supply and demand factors, just like almost all products in the free market. Less supply or more demand will drive up a home's price. The supply-side factor is mainly determined by the growth of building permits, assuming the cost of building a home does not vary significantly across the country and its quality is constant over time. The demand-side factors include mostly economic factors: income growth, employment growth, population growth, etc., and amenities, such as a city's winter weather. Putting other factors aside, it is not surprising to see this picture: if a city's growth of building permits cannot catch up with its economic growth, i.e. the growth of total personal income, its home prices will rise faster and be less affordable.

To simply understand the correlation, Figure 14 displays the association between the housing affordability index in 2011 and the ratio of building permits per capita to personal income growth for around 100 metro areas in the U.S. We calculate the ratio: the numerator is the total unit of building permits issued from 1995 to 2012 divided by the population in 2003 (the middle point of the period). And the denominator is the growth of personal income from 1995 to 2011.

Figure 14. The Correlation Between the Housing Affordability in 2011 and the Ratios of Permit Growth to Personal Income Growth from 1995 to 2011



Sources: Housing affordability is from National Association of Realtors, permit number is from U.S. Census, and the personal income growth and population is from Bureau of Economic Analysis.

L.A. is in the left-bottom corner, which means that L.A.'s housing is less affordable than most of the cities in the nation. This is associated with its slower growth of total building permits adjusted to its income/employment growth. If we run a simple regression to include more possible factors that affect house prices, i.e., building permit growth, city size, personal income growth, human capital, and January temperature, we reach the same conclusion: controlling for all other factors, the growth of building permits, which is mainly constrained by local government regulations, has a negative effect on the growth of housing prices. The higher the permit growth, the slower the appreciation of the home price (more affordable).[2]

An adequate number of construction and building permits in line with the demand of homes in a city is more likely to temper home price appreciation and to provide affordable housing. For L.A., as its housing market recovers gradually, more permits on building multi-family units accompanied with appropriate urban planning will relieve its affordability problem and therefore attract more businesses and talent. What's more, it will reduce L.A.'s carbon emission because we will be able to have more efficient residences that will utilize fewer cars and more mass-transportation.

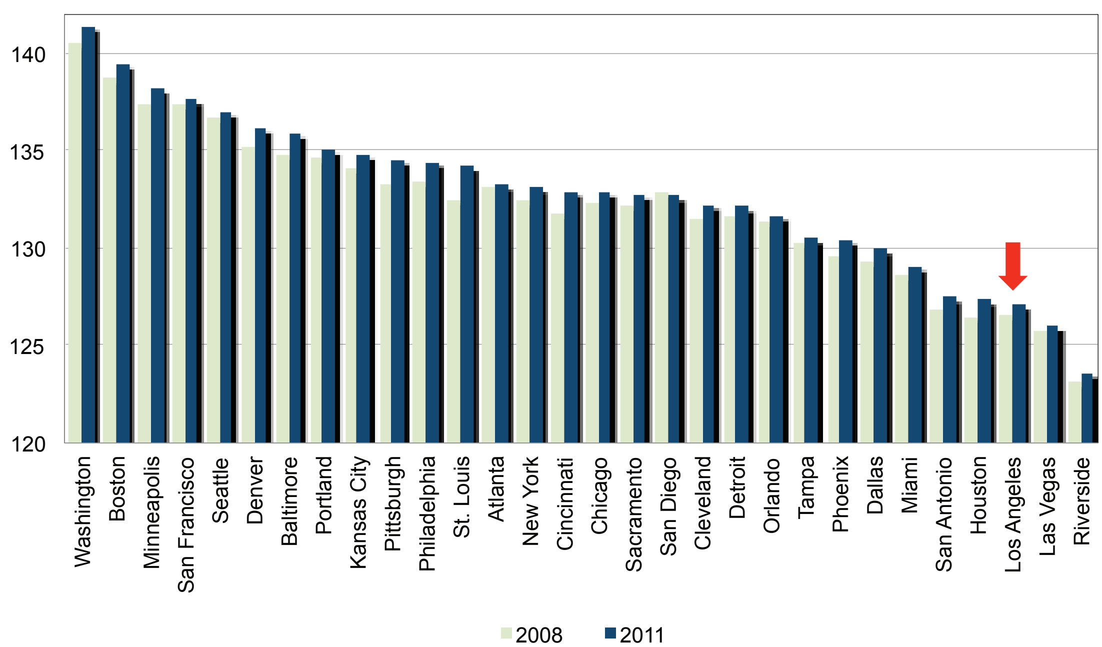
THE STATE OF L.A.'S HUMAN CAPITAL

As we mentioned in Anderson Forecast's previous reports and presentations, L.A.'s human capital is falling behind compared to other metropolitan areas. Figure 15 displays the First 5 LA/UCLA City Human Capital Index (CHCI) for the 30 largest cities in the U.S. in 2008 and 2011. One tenth of the index number is the average number of schooling years for residents in each metropolitan area. In 2011, the index for L.A. (which includes Los Angeles and Orange Counties) was 127.1, meaning that the average education attainment was 12.7 years. L.A. ranks 28th among 30 major cities in 2011, trailed by only Las Vegas and Riverside.

Figure 16 shows the probability distribution of the education attainment for L.A. County and other major cities in the U.S. It is clear that L.A. has a smaller group of residents with a bachelor's degree compared to other major cities. Moreover, L.A. has a larger group of residents with less than 9th grade education.

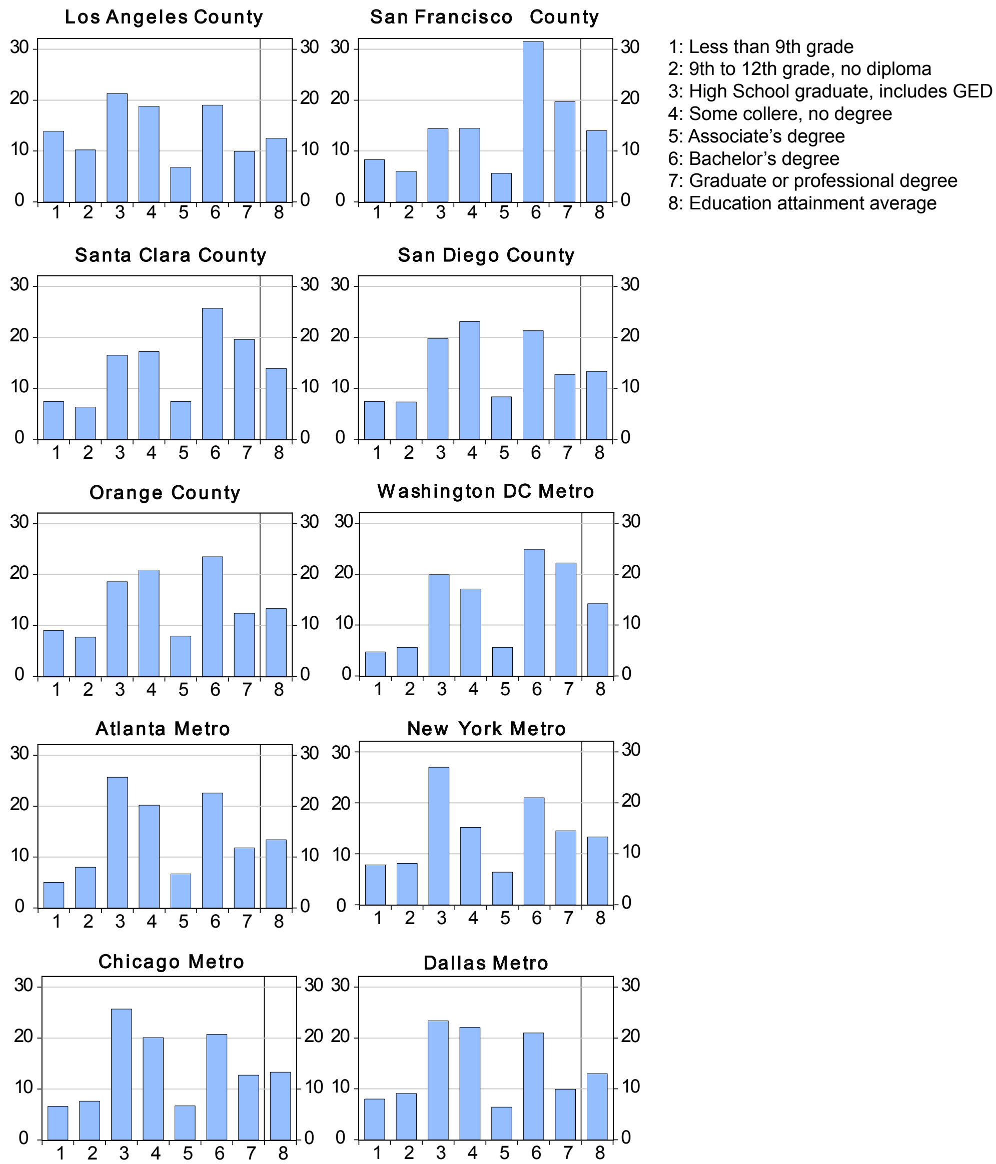
In our previous research, we provided evidence of a high correlation among a city's human capital, its per capita

Figure 15. First 5 LA/UCLA City Human Capital Index for the 30 Largest Cities in the U.S.



Source: Author's calculation based on the American Community Survey of 2011, and 2006-2010

Figure 16. The Distribution of Education Attainment for Residents above 25 Years Old in Selected Counties and Metropolitan Areas



Source: Author's calculation based on the 5-year American Community Survey, 2006-2010

income, and its unemployment rate.[3] We found that a city with higher human capital will have higher per capita income and will have a lower unemployment rate. The economic literature has documented that a country with one additional schooling year will be associated with 30% higher GDP per capita. To disaggregate this 30% gain of income and output, we could break it into three parts: (1) 10% is directly from the individual wage gain caused by his or her enhancement of human capital. (2) More educated residents will stimulate more creative ideas and policies, which creates a positive externality. (3) The richer residents place a higher value on education and therefore investment more in education.

In his book, Triumph of the City, Edward Glaeser argues that human capital, far more than physical infrastructure, determine which cities succeed. More educated residents and high-skilled workers having face-to-face contact in a city will be able to accumulate more human capital and spur higher growth. In sum, the economic benefit of the enhancement of human capital is tremendous for an individual, for a country, and of course for a city.

HOW TO IMPROVE L.A.'S HUMAN CAPITAL?

It is well known that the performance of the public education system in the U.S. has been disappointing. What are the sources of this problem? Two factors include teacher unions and low wages. Teacher unions can often stifle competition, incentives, reforms, and innovation in schools and classroom. Relatively low wage levels and prospects for school teachers cannot compete with positions in private sectors. Therefore, K-12 schools cannot attract and retain the best talents to teach our children.

We think, however, that there is a more subtle and fundamental reason for this problem. We believe the real problem lies in the American middle class and low-income families overlooking the value of education. Complacency in parents, teachers, and students often undermines citizens' view of the value of education. Where is this complacency coming from? For the middle class, it perhaps comes from the golden era of the post-war economy in the U.S. During several decades after WWII, less-educated and less-skilled workers could easily get a well-paid manufacturing job protected by unions. Many of those jobs have moved abroad or replaced by robots with the rise of globalization over the past three decades.

The problem is: those jobs are gone, but the complacent mentality remains. In the aftermath of the Great Recession, Americans need to face the reality: to get a decent job nowadays and in the future in the U.S., you need to develop more advanced cognitive skills, e.g. math and science skills, analytical skills, problem-solving skills, communication skills, and creativity. Americans need to learn these skills to handle and create sophisticated computers and robots and to learn the skills that could distinguish them from diligent laborers in developing countries.

If we can accept this reality, adjust our complacent mentality, and truly place more value on education, the reformation of our public education system can be much more easily implemented. The enhancement of human capital would then, therefore, be shortly achieved. If our nation needs to improve its human capital, then L.A. needs to enhance its human capital even more desperately because its human capital level has been falling behind.

INVESTING IN QUALITY EARLY CHILDHOOD EDUCATION

For disadvantaged families and children, we need to do more work than simply improving public education. For various economic and noneconomic reasons, adequate parenting in low-income families might not be available for their children. Before these children enter K-12, they have been falling behind in both cognitive and non-cognitive skills. Nobel Laureate James Heckman found that the return on investment in early childhood for at-risk children is 7-10% annually for subsequent years.[4] That is, each dollar invested at age 4, compounded through age 65, yields a total return of 62 to 330 dollars.

Early childhood education could be the most efficient and the most effective investment a government could make for promoting economic growth, narrowing the income gap, and increasing the economic mobility. In his State of the Union Address this year, President Obama correctly pointed out the benefits of preschool education investment: boosting graduation rates, reducing teen pregnancy, reducing crime, increasing the likelihood of reading and doing math at grade level, holding a job, and contributing to the formation of more stable families of their own.

California, unfortunately, has been cutting its state funding to early childhood education over the past several years.[5] Lately, as California's budget deficit has been stabilizing, L.A. communities should work with State and Federal governments to reinvest in high-quality early childhood education. In particular, we should teach these at-risk children to develop non-cognitive skills: positive social and emotional character, attitude, and behaviors such as perseverance, self-discipline, and a work ethic.

L.A. has more disadvantaged families and children than any other cities. It is imperative for L.A. to invest in these at-risk children in their early years. It would be too late and too costly to do so during their K-12 education.

CONCLUSIONS

The take-away points from our report are as follow:

- L.A. has been falling behind in its income and employment growth over the past few decades. We believe the main reason is its low level of human capital.
- Looking to the future of L.A., the key to its long-term prosperity is enhancing human capital in L.A.
- To improve our underperforming K-12 education, we must face the reality that we are living in the age of globalization and post-industrialization: it is more difficult for the less skilled to survive. As a result, we ought to truly understand and value the importance of education.
- For those disadvantaged children, an investment in their early childhood education is the most efficient and effective way to achieve vibrant growth and shared prosperity for our city.

ENDNOTES

1. *Personal income is about 85% of GDP. It includes all sources of household and non-corporate income.*
2. *For more details, see William Yu, "What Factors Contribute to the Long-term Home Price Growth Across Cities?: Some Evidence from 1995 to 2012" at UCLA Economic Letter, March 2013.*
3. *William Yu, "The First 5 LA/UCLA Anderson Forecast City Human Capital Index," at http://www.uclaforecast.com/chci/.*
4. *See James Heckman, "The Rate of Return to the HighScope Perry Preschool Program," in Journal of Public Economics, (2010).*
5. *See William Yu's "The Economic Impact of Budget Cuts on Early Childhood Education in California," at http://www.eceworks.org/sites/all/files/ECE%20Funding.pdf.*