



“Higher Education and the Economy”

Remarks at New England Board of Higher Education’s “New England Works” Summit on Bridging Higher Education and the Workforce

Eric S. Rosengren
President & Chief Executive Officer
Federal Reserve Bank of Boston

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It is a great pleasure to be with you today. I want to welcome all of you to the Boston Fed and especially commend all the educators in the room for the work that you do. I benefited immeasurably from my experience at Colby College as an undergraduate and at the University of Wisconsin-Madison in graduate school. I am pleased now to have the opportunity to “give back” to both schools, in that I serve on an advisory committee for the economics department at Madison, and on Colby College’s Board of Trustees. These experiences give me a window into some of the daunting challenges that you face, particularly in the current economic environment.

Today I want to spend a few minutes discussing the nexus between what you do as educators and what I do as a central banker. Like a central banker should, let me first note that

my comments represent my perspectives, and not necessarily those of my colleagues on the Federal Reserve's Board of Governors or the Federal Open Market Committee. Returning to that nexus between what you and I do, at first glance it might seem as if there is not much commonality. A case in point – generally when setting monetary policy, we assume we have little impact on demographic variables including the educational attainment of the workforce.¹ Not that such variables are unimportant, by any stretch, because we all know that the educational characteristics of the workforce play an important role in the dynamics of an economy. A well-educated work force is likely to be more productive, and highly skilled workers tend to have much lower unemployment rates in economic downturns.

On the other hand, as senior officials at colleges and universities, you likely view macroeconomic conditions as something you have little control over. You focus instead on key matters like educating students, worrying about raising funds for the endowments that are a key ingredient to financial aid, and affording new and engaging educational programs. So while you might take them as “given,” the recent recession has only highlighted how economic conditions affect how you go about educating students.

I would like to suggest, however, that what educators do matters to the Fed and what the Fed does matters to educators. I'll touch briefly on some of the reasons why.

As you all probably know, the monthly U.S. employment report was released last Friday. The unemployment rate is now 9.0 percent – a rate that remains stubbornly, and unacceptably, high. The Federal Reserve has taken unprecedented actions to improve the growth rate in the economy. But economic “headwinds” – stemming from the previous financial crisis and concerns about possible future financial shocks – have meant that despite Federal Reserve

actions, economic growth has been lethargic and job growth has been too slow to make significant inroads into reducing the unemployment rate.

However, underlying the *average* unemployment statistics are a vast range of circumstances, depending on educational attainment.

Today I want to discuss some of those statistics and propose that as you and your peers are making admissions, financial aid, and retention-program decisions at your schools, you are powerfully shaping the outcomes for individuals – and society more generally. I also want to emphasize that institutions represented in this room play an important role in economic development in the communities in which you are located. There are important synergies between communities and schools of higher education. Schools are important anchors for their communities. They provide good and stable jobs for people in the area, and businesses that support the academic community benefit as well. They also bring in highly motivated students, some of whom choose to use their education to form businesses in the communities where they were educated. And of course the schools benefits, in many ways, from their communities.

Educational Attainment and the Work Force

It is stating the obvious, but educational attainment is one of the defining characteristics of a workforce. Particularly in New England we tend to have highly skilled and highly educated workers.

I would like to take just a moment to show how educational attainment is important not only to individuals, but also to the communities they inhabit. In the current economic environment, the variation in unemployment by educational attainment is particularly striking.

To begin, let me draw your attention to **Figure 1**. As a result of a long and severe recession, the unemployment rate has gone up dramatically for people in *all* categories of educational attainment, but no one will be surprised to hear that the levels of unemployment are dramatically different depending on educational attainment. Those with no high school diploma are experiencing more than three times the unemployment rate of those with at least a bachelor's degree. While the current unemployment rate is 9.0 percent, for those with at least a college education it is only 4.4 percent.

It is important to note that while the level of unemployment has varied by educational attainment, Figure 1 is not supportive of what economists call a "structural" unemployment explanation for persistently high unemployment – such as when there are lots of open jobs that cannot be filled because the available workers have the wrong skill sets for those positions. As you may know, evidence of a change in the structural level of unemployment has been a matter of significant debate among economists and policymakers. Figure 1 might provide some evidence that structural unemployment was a problem if, for example, unemployment had risen dramatically for lower-skilled workers but there was a shortage of highly skilled workers (that is, their unemployment rate had fallen).

Stimulating an economy where most of the unemployment is structural would place additional demand on high-skilled jobs – causing rapid increases in compensation for those

workers without generating improvement in the overall unemployment rate, as the supply of highly educated workers would be slow to respond.

But we see quite the opposite right now, because people at *all* levels of educational attainment have experienced a substantial increase in unemployment, as shown in **Figure 2**. In fact, if one compares the percentage increase in unemployment by category of educational attainment, it is striking what a high percentage increase in unemployment has occurred in *each* category. This is consistent not with the “mismatch” dynamic of structural unemployment but with a story of weak demand *throughout* the economy.

On this subject I would recommend a recent paper by economists Bob Triest and Bill Dickens, presented last month at the Boston Fed’s annual economic conference. They provide important evidence on employment flows – evidence that is consistent with most of the unemployment being driven by inadequate demand, rather than structural problems.²

A look at the compensation data in **Figure 3** provides additional evidence that structural unemployment cannot explain the persistently high unemployment rate. If most of the current unemployment were structural, we would expect to see compensation increasing as employers bid for scarce high-skilled workers. But as the figure shows, compensation growth has slowed, and remains quite low relative to compensation over the past 30 years.

Similarly, **Figure 4** shows there has been no great divergence in compensation trends across occupations. If a skills mismatch existed, one would expect wages in the sectors where supply is short to be accelerating, while wages would be declining in sectors where there was excess labor supply. We do not see this happening. Growth in compensation for management and professionals – presumably a higher skilled occupational category – has not shown evidence

of sharp acceleration relative to occupations that one would presume have somewhat lower skill requirements, such as work in natural resources, construction, and maintenance.

In fact, **Figure 5** presents the increase in labor costs over the past nine quarters (since the beginning of the recovery) by occupation, and it does not show dramatically different growth in compensation by job type. In fact, management and professional occupations have seen compensation grow less than workers in natural resources, construction, and maintenance over these nine quarters of recovery.

This is just some of the evidence that suggests why the notion of rising structural unemployment cannot explain the high aggregate unemployment rate we are unfortunately experiencing. This distinction is very important to the policy response. Of course, for individuals it should be noted that employment prospects are significantly improved with educational attainment.

But educational attainment affects far more than just employment prospects. The left-hand chart in **Figure 6** shows the relationship between median household income and educational attainment. While the median income of all households is approximately \$50,000, there are substantial differences based on educational attainment. Those with no high school diploma have less than half the median income, and those with just a high school diploma (no college experience) have about three-quarters of the median income. And those with professional degrees have more than twice the median income.

And the right panel of the figure shows that growth in median income over the past two decades also varies substantially by educational attainment. For example, those with only a high

school education have experienced a significant decline in median real income where the most rapid growth has been for those that have received doctorate or master's degrees.

Figure 7 shows that educational attainment also translates into significant differences in net worth. Those with college degrees have more than triple the net worth of those that do not. Over the last two decades, those with college degrees have had a significant increase in their real net worth – while in contrast, those with no high school diploma have substantially less net worth, and their real net worth has declined over the past two decades. Of course, the causation can work in both directions here, especially with regard to inherited net worth – that is, parental wealth makes it easier to afford higher education.

The Implications

Figure 8 shows that the U.S. workforce is becoming more educated. There has been a substantial increase in the number of people in the workforce that have a bachelor's degree or higher. Given the employment, income, and net worth differentials shown in earlier charts, it is not surprising that an increasing number of high school students are realizing that higher educational attainment is in their interest.

However, underlying this positive trend are sharp differences across racial categories.

Figure 9 shows that educational attainment differs substantially by race. While Asian individuals have been particularly successful in obtaining college degrees, African-Americans and Hispanics in the labor force significantly lag in educational attainment. This lack of education makes it much more difficult for them to maximize their potential, given the evolving work-force needs in the US economy.

I think there are a number of potential implications for educational leaders from this analysis. As you consider whom to admit, how much of an endowment to spend to provide financial aid, whether financial aid should be in the form of grants or loans, and how those scarce funds should be allocated, I would urge you to keep in mind that you are making choices that are not only important for individuals but for society more generally. And I would urge public policymakers to keep similar notions in mind when they consider budgetary investments in public and community institutions.

Indeed, income and net worth differences are highly related to educational attainment, as I have shown. Insuring that children have adequate preparation, from early childhood education through high school, is critically important. And it is critical that those whose families have limited financial means are not shut out from the opportunities an education provides. In short, finding ways to encourage greater educational attainment – particularly for low and moderate income families and those racial groups that have traditionally been underrepresented – will be an important determinant of the quality of the U.S. work force and the income distribution in our country.

Similarly, many of your institutions are in cities that have been hard hit by the economic downturn and tepid recovery, making it even more important – to a macroeconomic policymaker – that you reach out to affected communities, and view your institutions as anchors of community economic development. Certainly the location of this conference, in Boston, highlights the tangible benefits that can accrue to a community when it has great colleges, and college leaders that take the development of their communities seriously.

Finally, I am pleased to note that many schools have become better at bridging their students to the working world. I would strongly encourage using alumni networks and other resources to provide students with internship opportunities. A vibrant New England needs a vibrant work force, and internships can be an important way for communities to attract and retain top talent.

Helping the region attract and retain talented college students is one reason the Boston Fed partnered with the Greater Boston Chamber of Commerce to provide a better clearinghouse for college internships in the Boston area. I would encourage your institutions' career offices to direct students looking for internship opportunities to the web site that has been set up.³ We and our partners hope it will continue to grow and provide many opportunities in the greater Boston area over time.

I have described the Boston Fed's research that highlights the important role that education plays in our regional development. Let me touch briefly on other policy work that we do and describe what is currently a major concern to us. At the Boston Fed it is central to our mission to explore ways that U.S. monetary policy – entrusted by Congress to the Federal Reserve System – can promote maximum employment with stable prices. My own forecast is that inflation is likely to be below 2 percent over the next several years, in part because of the very weak labor markets. Given the very weak labor market conditions and the low expected inflation rate, the Federal Reserve should in my view continue to take action to aggressively try to reduce the stubbornly high U.S. unemployment rate.

But clearly the Federal Reserve cannot do it alone. Given the sobering macroeconomic situation, it is important that fiscal policy, controlled by the federal government and the states, do

its part. It is also important for international policy makers to take actions that provide more stable world markets. But at the same time, in my view the Federal Reserve should continue to use the tools at its disposal to boost demand in the economy. And at the same time, we would do well to work on addressing any impediments to students getting the employment opportunities that will serve them, their communities, and the macroeconomy.

It is a pleasure to be here with you today, and to take a few minutes to explore the nexus between higher education and the macroeconomy. Thank you for having me.

NOTES:

¹ I am aware, of course, that investment in human capital through schooling may have a degree of sensitivity to interest rates.

² See their paper at <http://www.bostonfed.org/economic/conf/LTE2011/papers/dickens-triest.pdf>. The rest of the conference materials are available at <http://www.bostonfed.org/economic/conf/lte2011/agenda.htm>.

³ The website is <http://intern.bostonchamber.com/about-chamber-intern-connect/>

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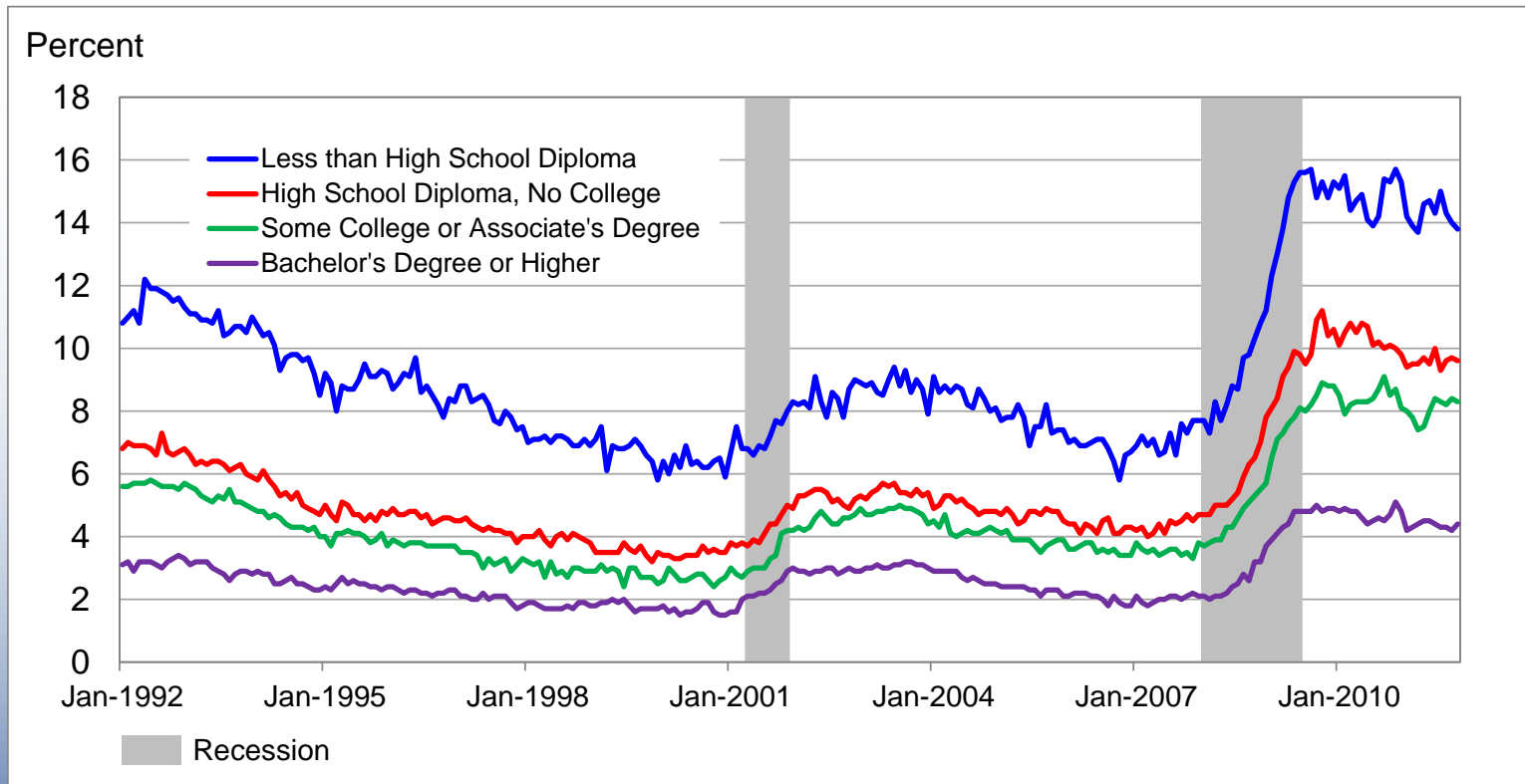
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Figure 1

U.S. Unemployment Rate for Population Age 25 and Older by Educational Attainment

January 1992 - October 2011



Source: BLS, Census Bureau, NBER / Haver Analytics

Figure 2

Changes in Unemployment Rate by Educational Attainment

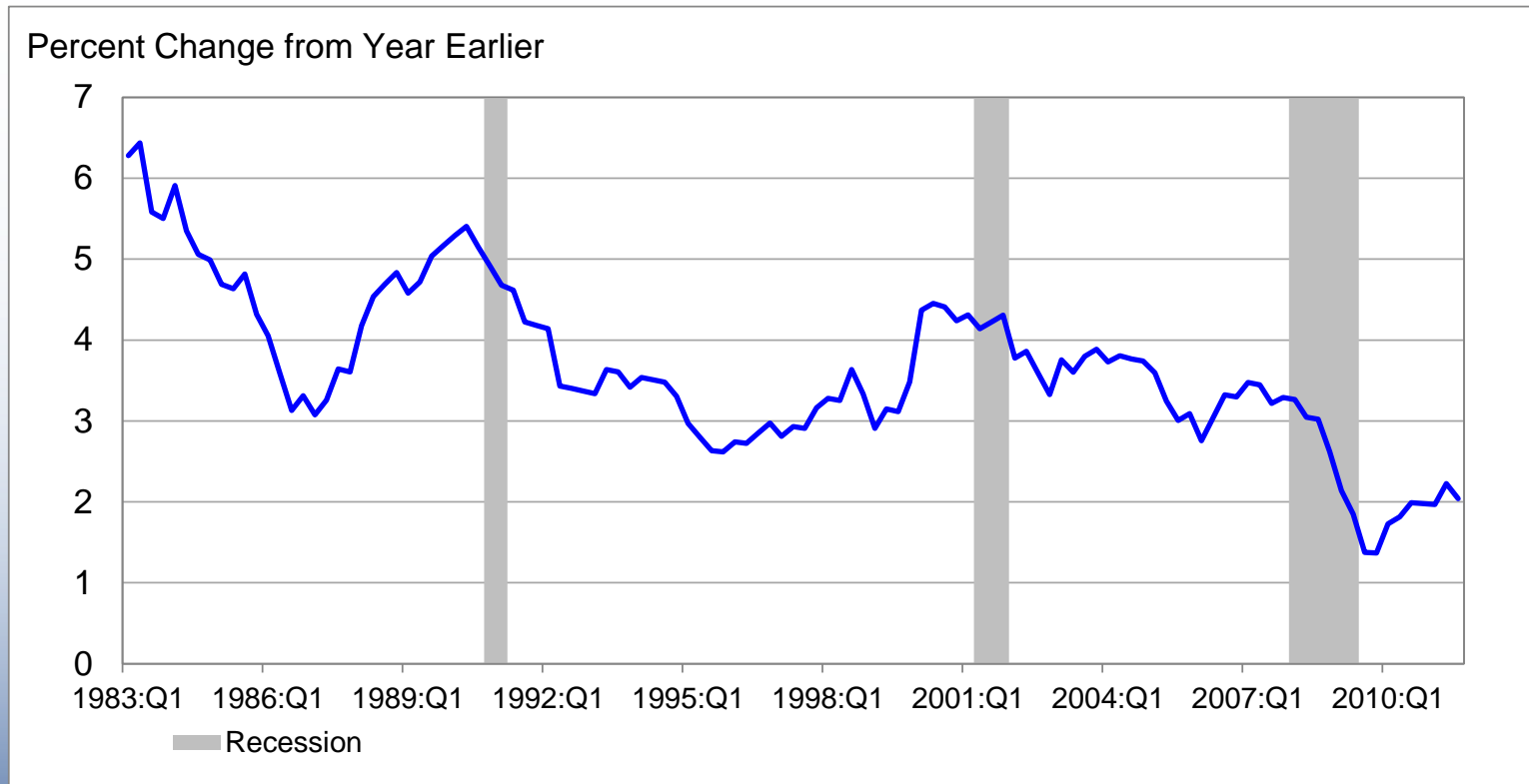
Education Attainment	Unemployment Rate		
	Business Cycle Peak December 2007	Current October 2011	Peak-to-Current Percent Change
Less than High School Diploma	7.7%	13.8%	+ 79%
High School Diploma, No College	4.7%	9.6%	+104%
Some College or Associate's Degree	3.8%	8.3%	+118%
Bachelor's Degree or Higher	2.1%	4.4%	+110%

Note: Figures are for population age 25 and older
Source: BLS, Census Bureau / Haver Analytics

Figure 3

Employment Cost Index for Civilian Workers

1983:Q1 - 2011:Q3

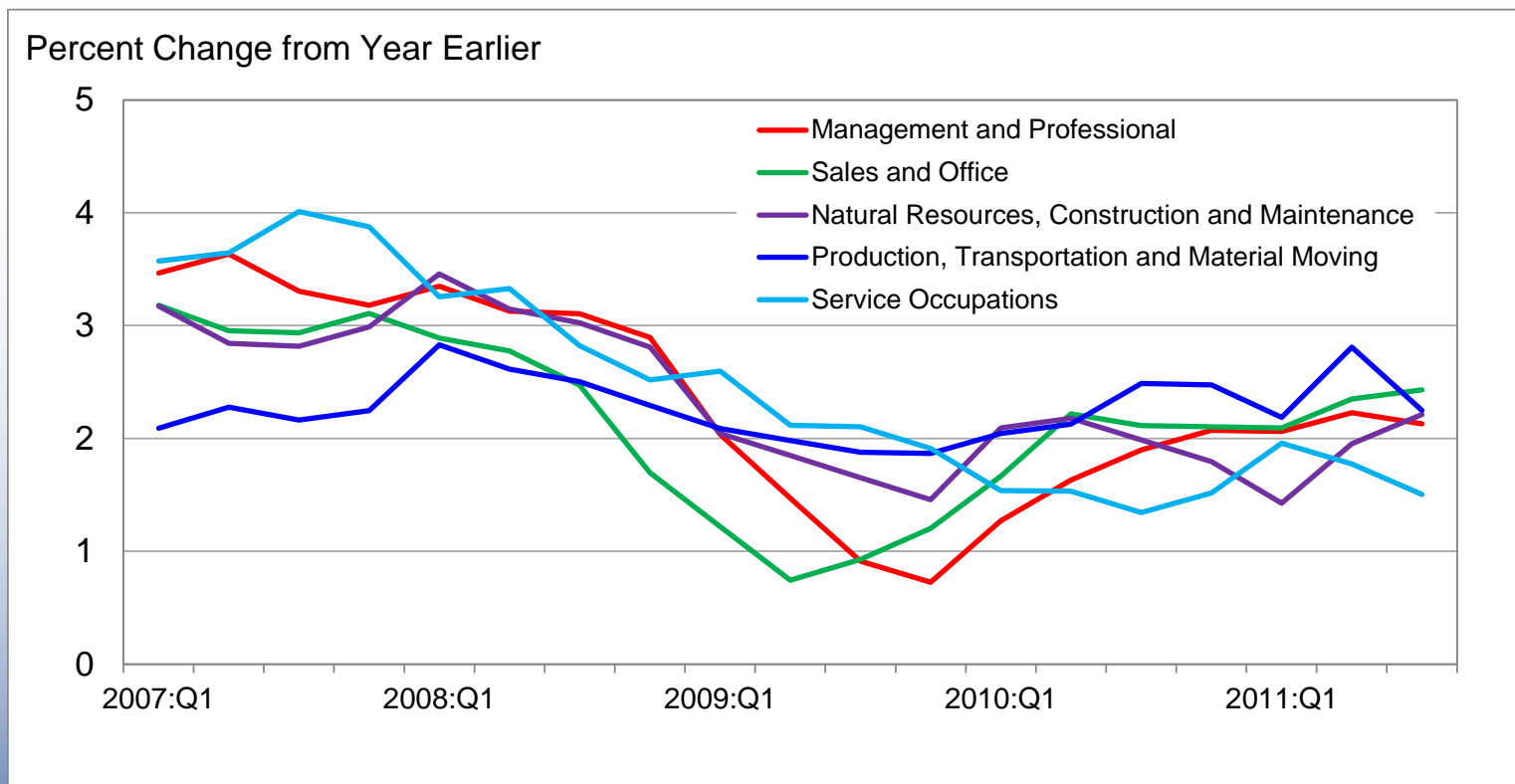


Source: BLS, NBER / Haver Analytics

Figure 4

Employment Cost Index for Civilian Workers by Occupational Group

2007:Q1 - 2011:Q3

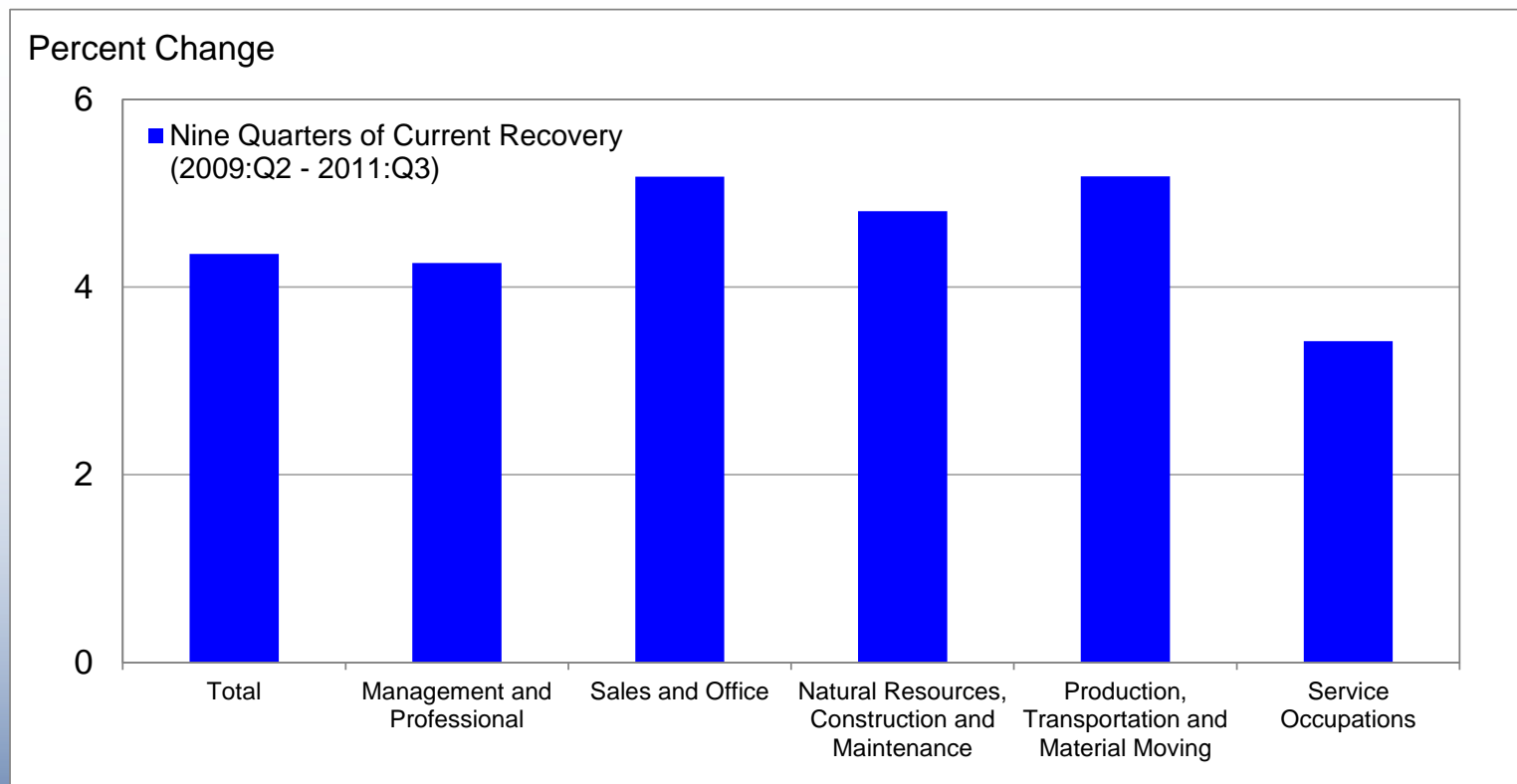


Source: BLS / Haver Analytics

Figure 5

Employment Cost Index for Civilian Workers by Occupational Group

2009:Q2 - 2011:Q3

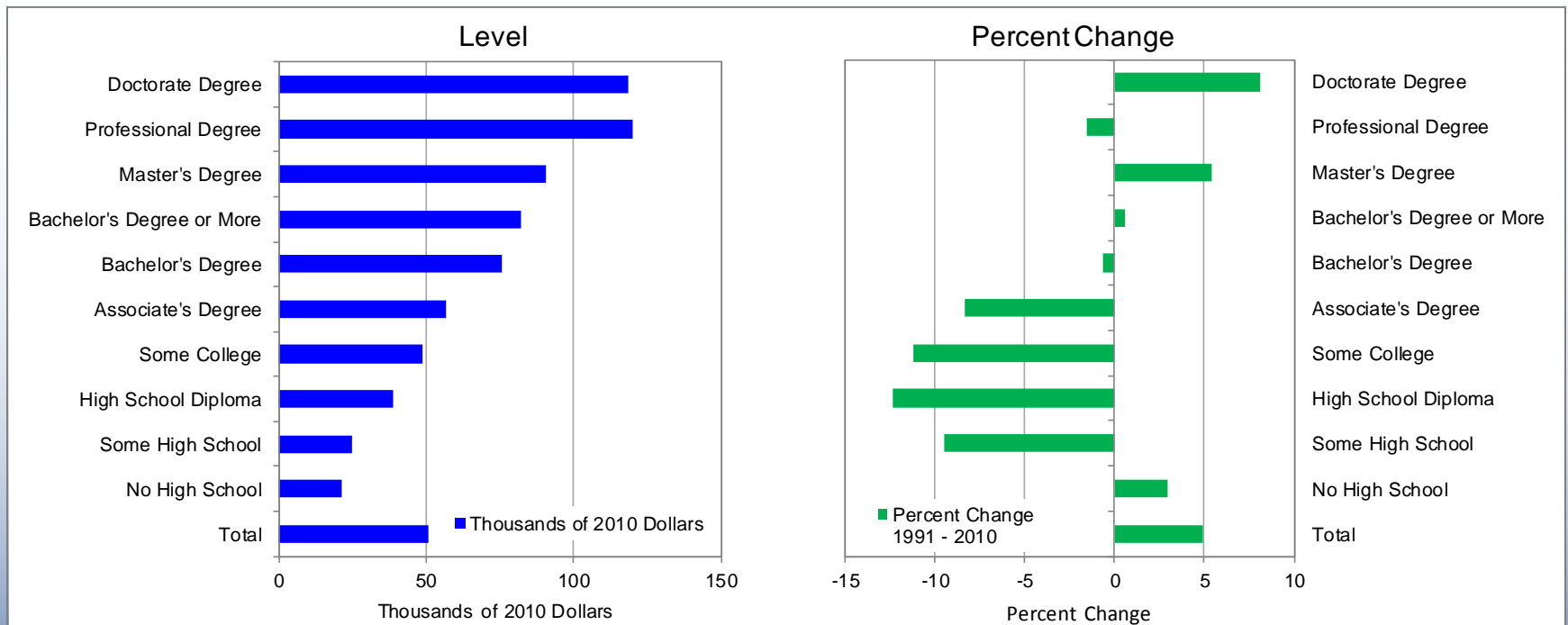


Source: BLS / Haver Analytics

Figure 6

Median Real Household Income by Educational Attainment: Level and Change

2010 Level and Percent Change from 1991

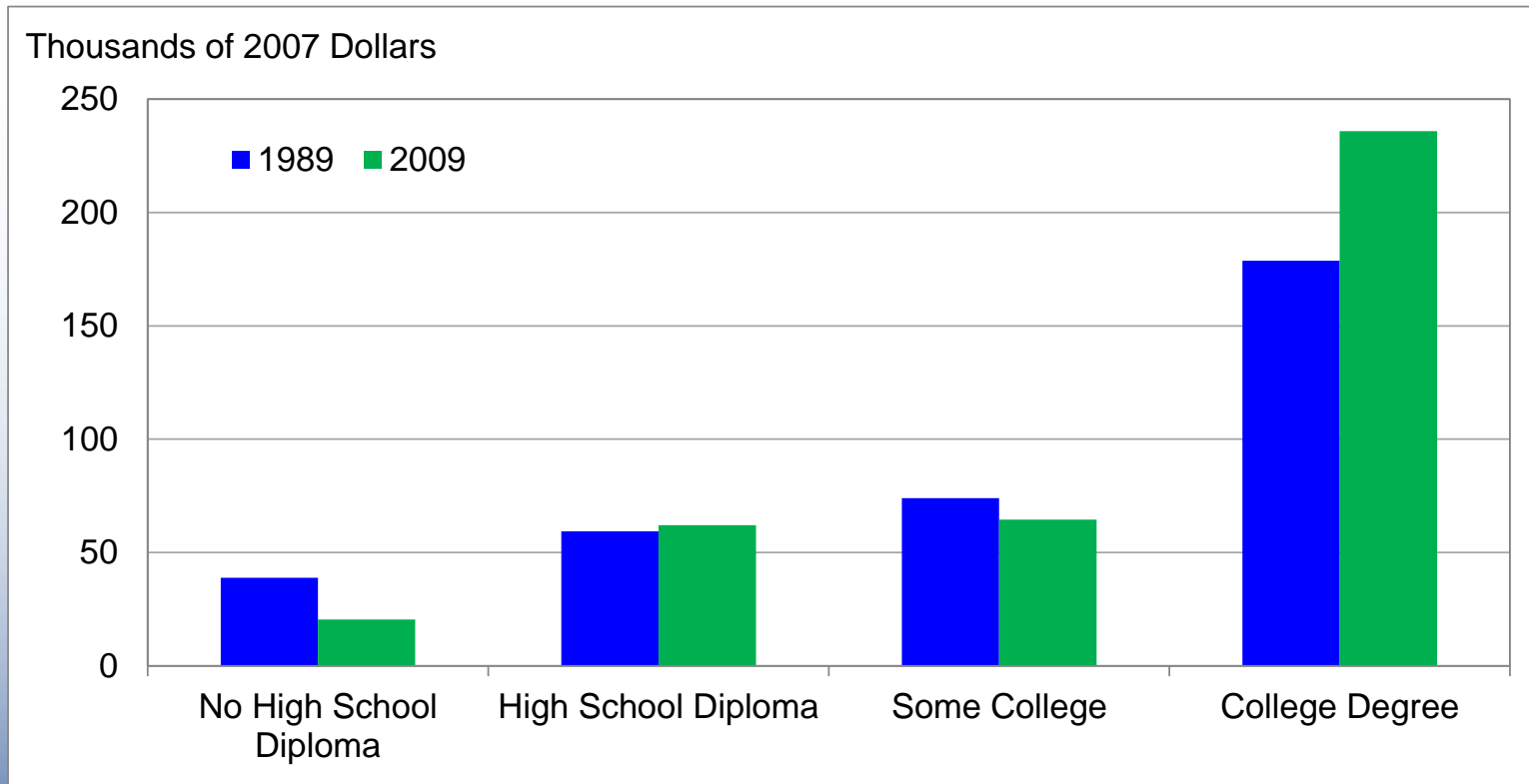


Source: Census Bureau (Annual Social and Economic Supplement to the Current Population Survey) / Haver Analytics

Figure 7

Median Value of Net Worth for Families with Holdings by Education of Head

1989 and 2009

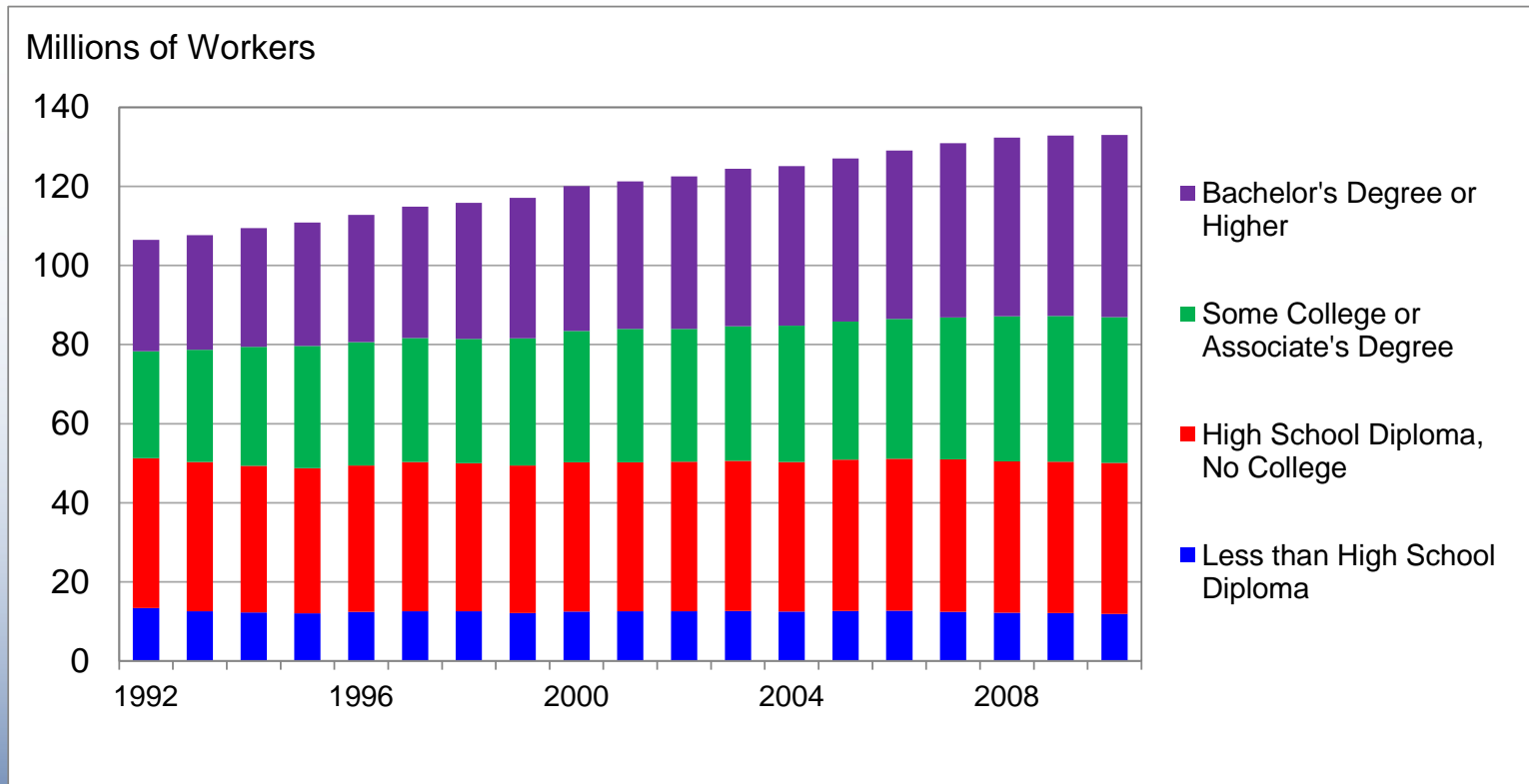


Note: 2009 figures are estimates based on a follow-up survey of 2007 families and use education of head in 2007
Source: Federal Reserve Board, Survey of Consumer Finances

Figure 8

Educational Attainment of Labor Force Age 25 and Older

1992 - 2010

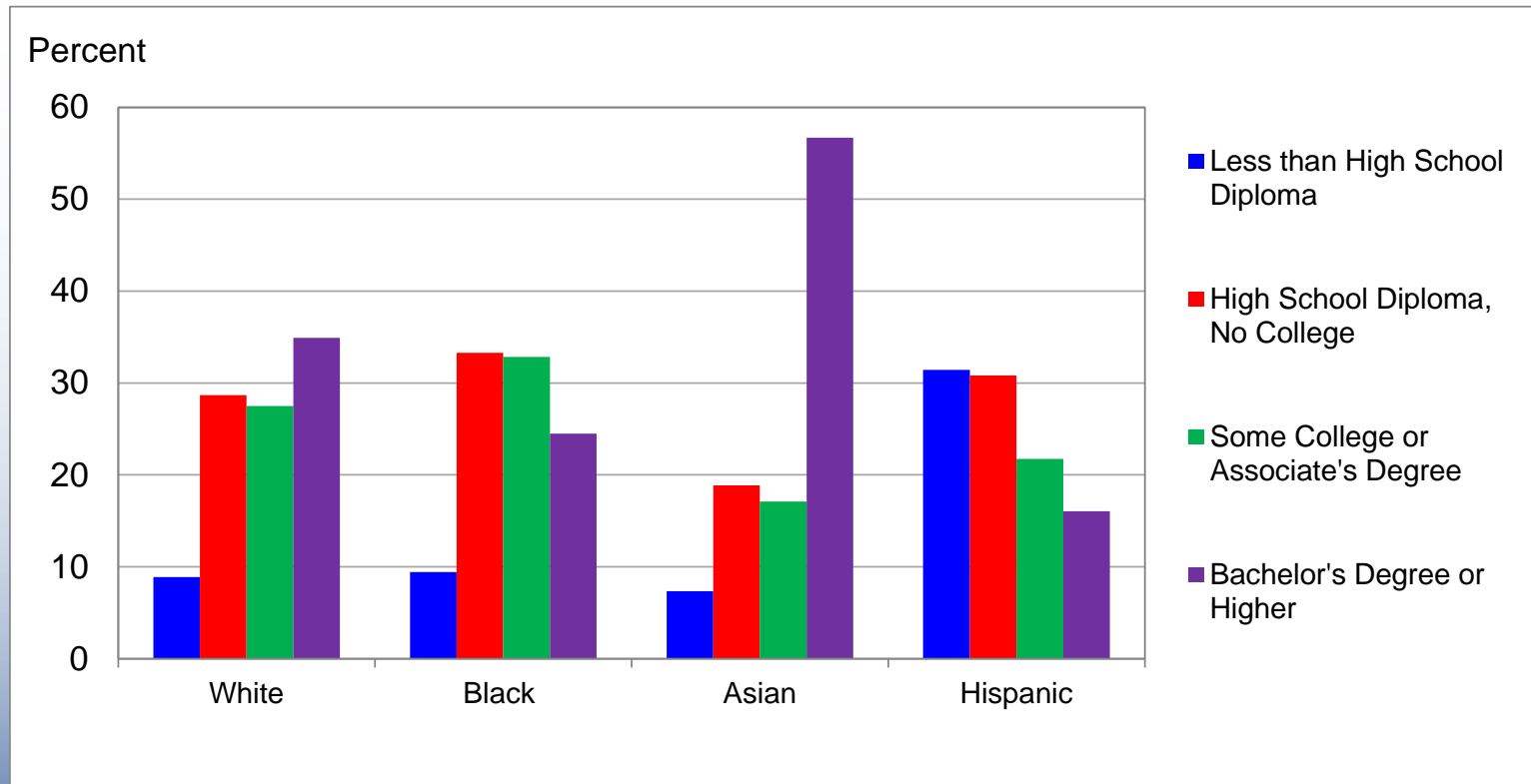


Source: BLS, Census Bureau / Haver Analytics

Figure 9

Educational Attainment of Labor Force Age 25 and Older by Race and Ethnicity

2010



Source: BLS, Census Bureau / Haver Analytics