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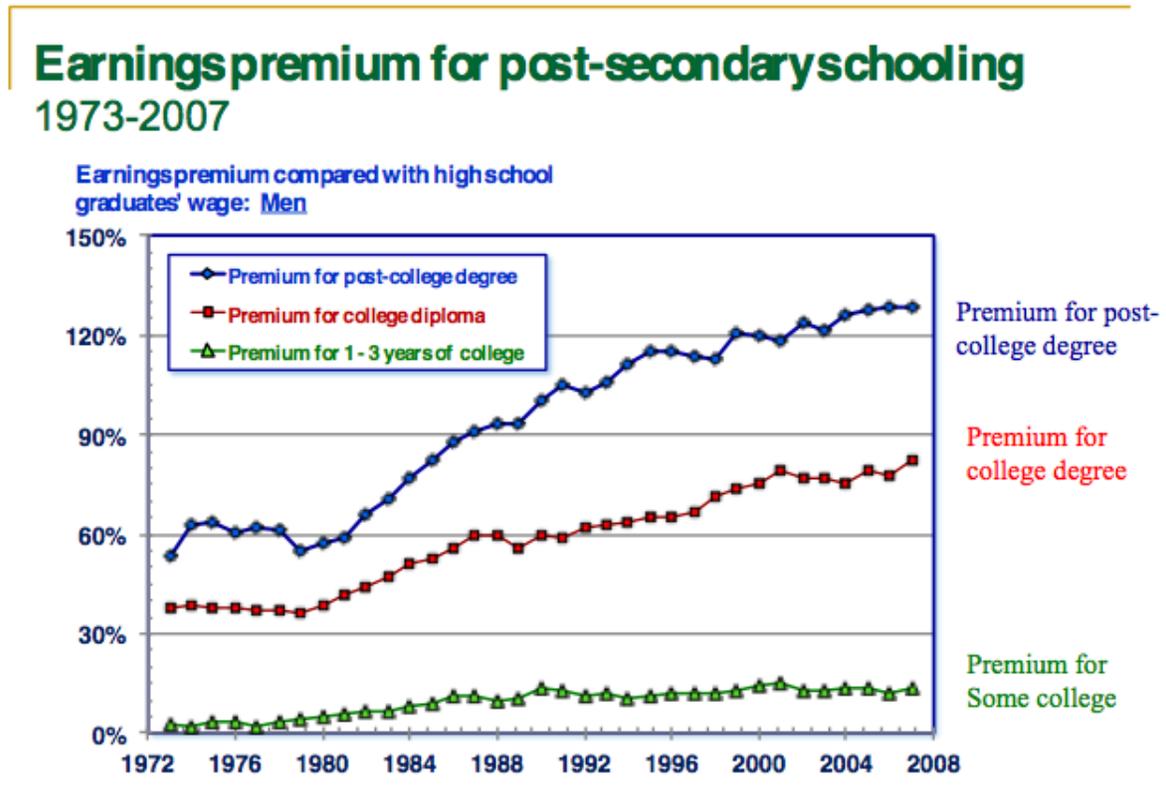
**The Labor Market for College Graduates—Transcript
Gary Burtless and Adam Looney**

MR. BURTLESS: I'm going to talk about the demand for the product that your institutions sell, which is college graduates.

The demand for college grads and for post-college degree holders doesn't actually change all that fast. We're not talking about stock prices or real estate here, we're talking about how many new grads American employers need to keep their goods and services flowing. And the story doesn't change very much from one year to the next.

The world is buying what your institutions are selling. Figure 1 shows the earnings premium that the labor market is giving to people who have completed college, or some amount of college, compared with the mean earnings that the market gives to people who have completed high school and nothing beyond.

Figure 1.



Source: Economic Policy Institute.

The payoff of having some college has leveled off in recent years, and it's not terribly much higher than it used to be a long time ago. The payoff to holding a B.A. degree, however, is considerably higher than it was 30 years ago, although it is leveling off.

The payoff to a post-college degree, and that includes graduate degrees and professional degrees, continues to rise, and I'm not sure that we see even much of a slowdown in that rise. Figure 1 is based on the mean earnings of men who happen

to be currently employed. If I showed you the same chart for women, it wouldn't look all that much different since 1979, although before then it would look different.

Suffice it to say, though, that the payoff to a college degree, as far as we can tell, is at a historical peak. And for degrees beyond completion of college, the payoff has risen nearly continuously for the past three decades.

Adam is going to get into some of the finer details about how many people are actually employed among those who have different levels of schooling. That information reinforces the picture we see here, although, again, Figure 1 is based just on men employed in a given week. These data don't take into account the total payoff over the course of a career, which would strengthen the picture. The great recession has not changed these basic features of the trends.

Talking about this topic since the late 1980s has been like watching paint dry. The facts don't change much. All that changes is the chatter in the daily newspapers and on cable news. That changes. There are many misinformed commentators who say this is a terrible time to go to college, and that wise parents are counseling their children to skip it, go do something else. I just don't know where these commentators get their information. There is not a scintilla of evidence to support any of the claims they have made. One of the more distressing developments in journalism is that you can say anything you want in the fact-free zones known as op-ed pages and cable television news.

One thing has changed, though. Being a high school dropout no longer imposes such a severe penalty as it used to (at least compared with being a high school graduate).

Figure 2.

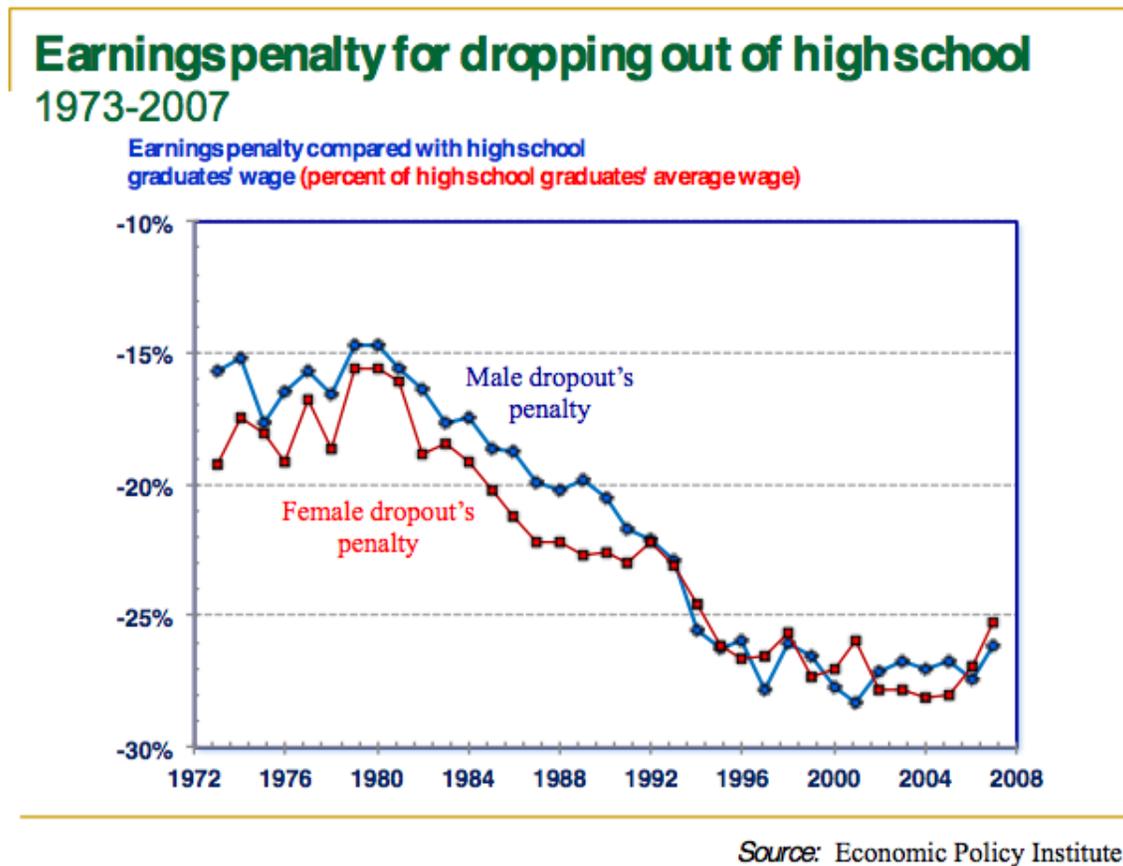


Figure 2 shows that the earnings penalty for dropping out of high school has gotten a bit smaller. It's certainly not gotten any worse for quite a considerable period of time. But that's partly because, if you dig into it, many people who say they have a high school diploma actually don't. More and more of them have a GED, and a lot of economic evidence suggests a GED really is not the equivalent of completing the degree requirements to get a high school diploma. So, there is some

watering down in what that credential "high school diploma" means in the census.

To summarize the long-term trends: As you all know, income equality has been rising for a long time. Since the middle of the 1990s, we're mainly talking about income inequality between people at the very top of the American income distribution and everyone else. It's not that there's rising inequality in the bottom three-quarters of the income distribution. There hasn't been much of that since the mid-1990s. But at the very top, those 1% folks are putting a bigger distance between themselves and the rest of us.

Most of the long-term rise in income inequality is caused by the growth of labor earnings inequality. It's hard to believe that the top one percent is putting a bigger distance between itself and a middle class family because of increased labor income, but that seems to be the fact. Capital gains and so forth are not the whole story. Nor are they the main story, except in some exceptional years when the stock market soars. But the long-term trend toward greater income inequality has been mainly caused by rising labor earnings inequality.

One source of the increased labor inequality is the rising pay premiums for post-high school education. But if you consider that most of the recent rise in inequality actually comes from the people at the very top putting bigger distance between themselves and everyone else, then that points toward the role of colleges and universities educating the people at the top. Indeed, education does play a big role in determining whether you're in the top, as does your college major.

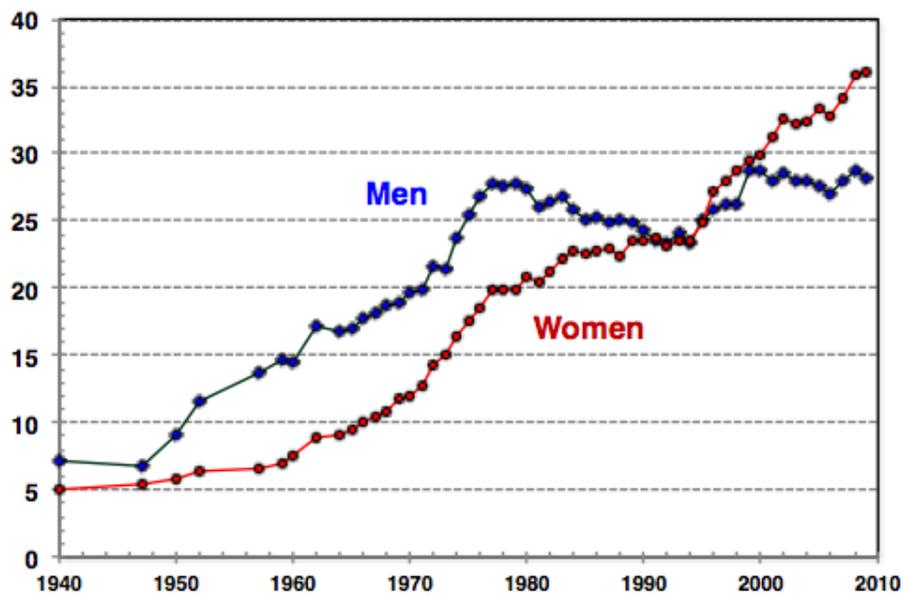
The mystery is, why haven't American youngsters responded as much as you might expect, given this steady increase in the payoff that they will receive from having a

degree? What's the evidence on the supply side response?

Figure 3.

College completion among 25-34 year-olds 1940-2009

Percent of population with a college degree



Source: U.S. Census Bureau.

Figure 3 shows college completion data separately for men and women among 25 to 34 year-olds. The picture for women looks pretty good. Women seem to be responding to economic incentives. However, the picture for men is awfully discouraging -- and that's especially true if you're an economist who happens to think that human beings are rational,

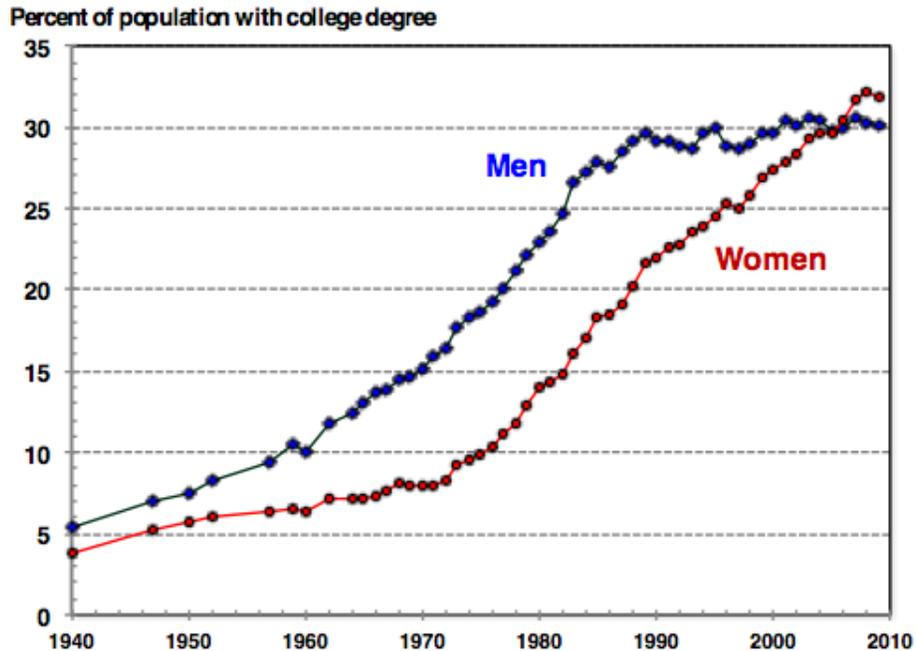
far-sighted actors who respond to market incentives in a way that your six-year-old child would.

But it doesn't look like the men have paid much attention to the changing incentives for college completion. There was a fairly sizable decline in college completion rates over much of the 1970s and 1980s, which is puzzling. The male college completion rate got back to where it was in the early 1970s sometime around 2000. "You'll earn more money with a college degree" seems hard for many men to understand. Maybe young men pay more attention to the sticker price of college than they do to the reward they are likely to obtain as a result of completing college.

Figure 4 shows the trends in college completion among the U.S. population between the ages of 35 and 54.

Figure 4.

College completion among **35-54** year-olds 1940-2009



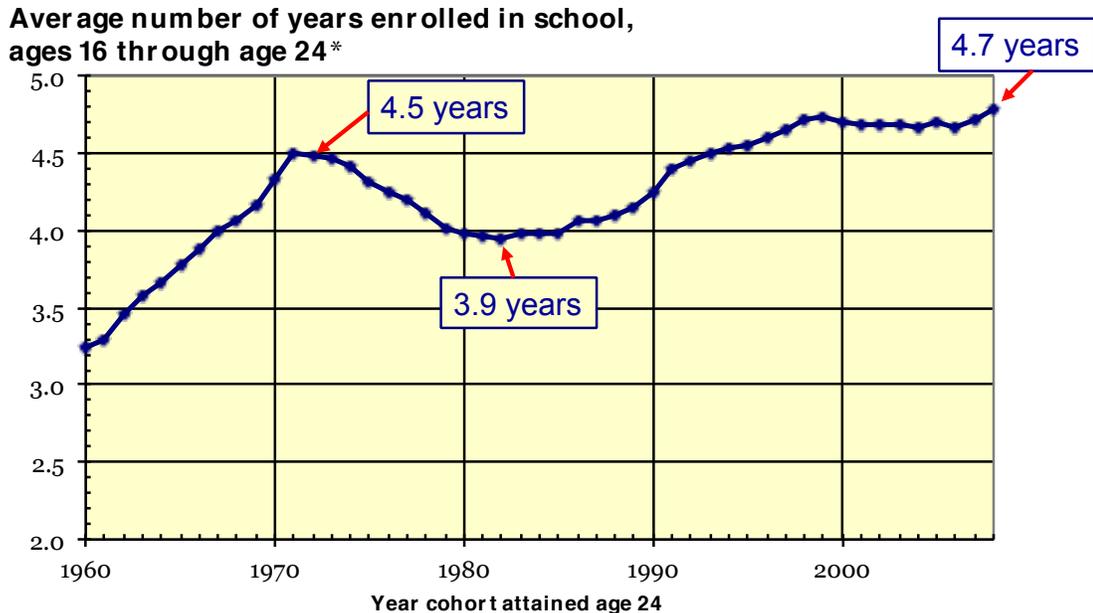
Source: U.S. Census Bureau.

There's a trailing off in the growth of college completion in this population among men, but completion for women is steadily rising.

Figure 5 gives us a sharper picture of what happens to young men in the United States between the time they turn 16 and the time they turn 24 years old. During that time, they have nine years that they could spend in school, either in high school, college, or grad school.

Figure 5.

Years of school enrollment between ages 16-24 (Males)



* Consistent, cohort-based estimate of years of enrollment based on October CPS responses.

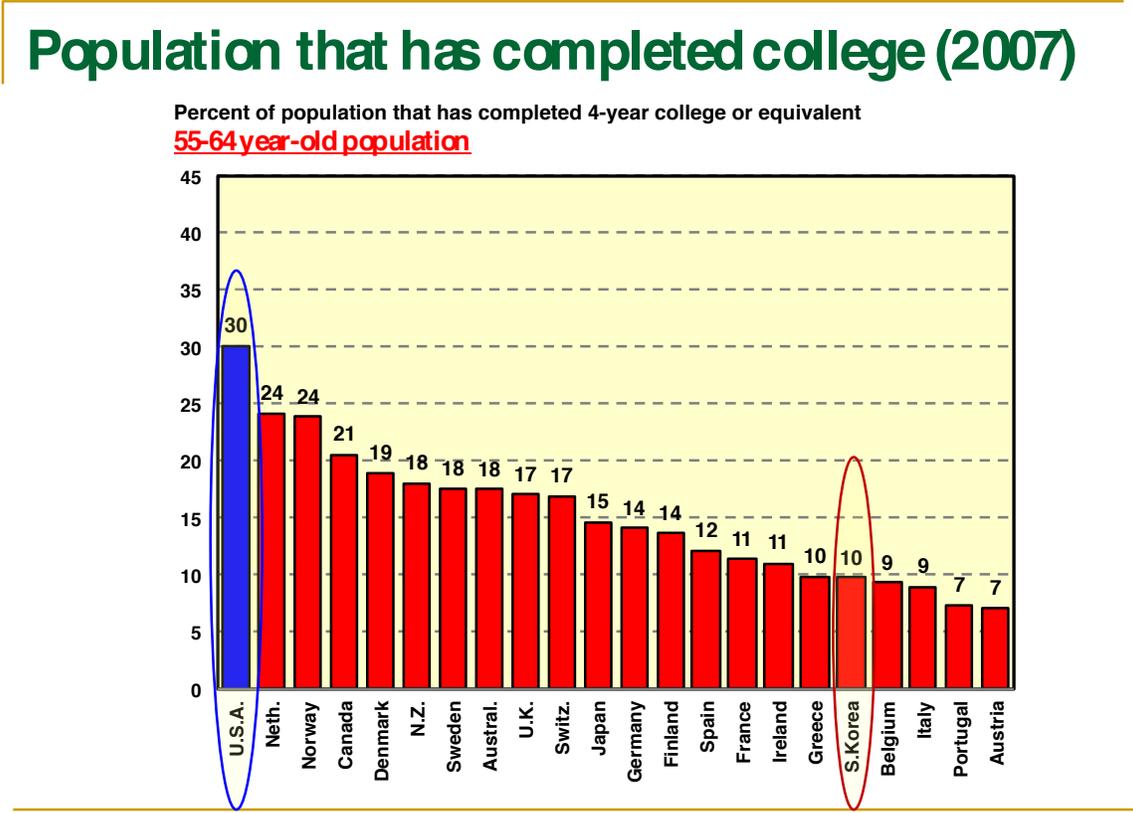
Source: U.S. Census Bureau.

Figure 5 shows how many of those years they report they're enrolled in school. In the early 1970s, the men turning 24 years old had spent four and a half years in school between the ages of 16 and 24. The number of years of enrollment then dipped. In the early 1980s this might be understandable. The payoff to completing college was not rising. But starting in the late 1970s the college payoff recovered and then reached historical highs. Nonetheless, the fact of the matter is that men report being in high school or college or a post-college institution just 4.7 years out of the potential nine years. That isn't much more time than young men were spending in school back in the early 1970s. It's very puzzling.

Now let's look at the cross-national evidence on the

supply side response to rising college pay premiums. Figure 6 shows the proportion of the population between the ages of 55 and 64, the oldest age group, that has a college degree.

Figure 6.



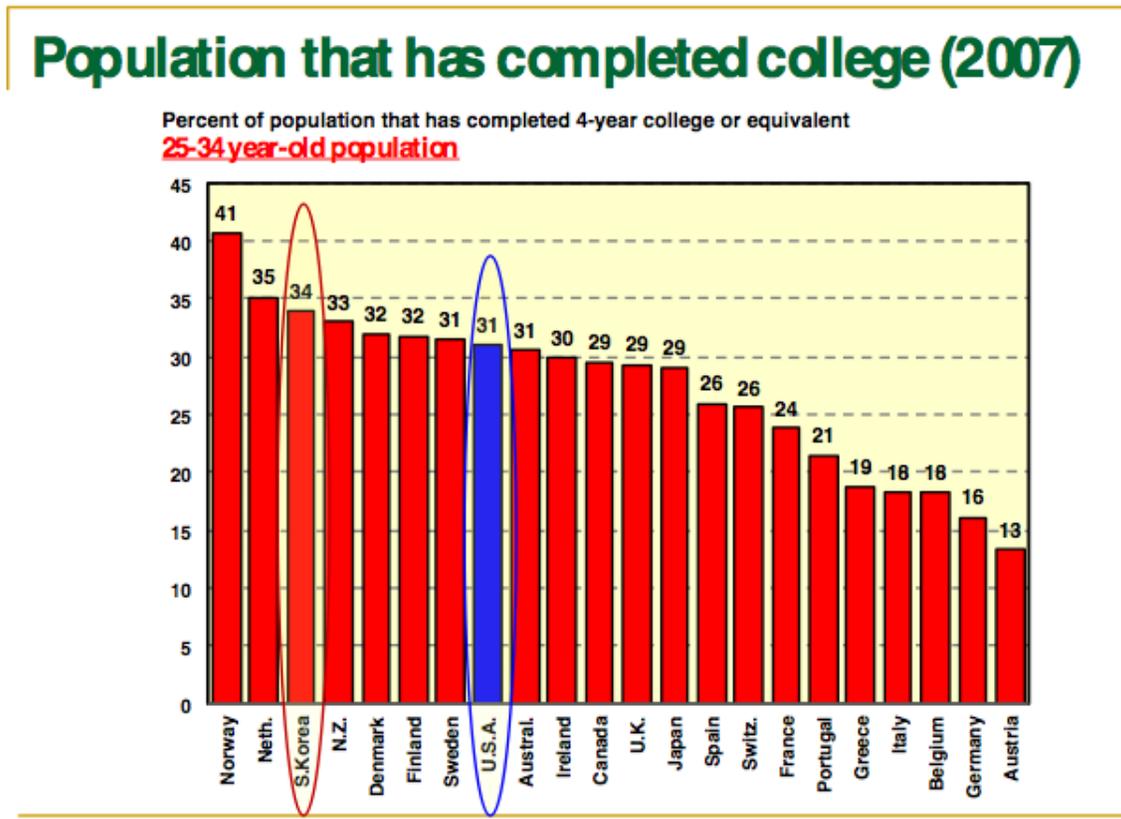
Source: OECD.

The United States leads the pack. Thirty percent of the 55-64 year-old U.S. population reports a college diploma. The percentage would be even higher if we focused just on the people in the workforce. Notice the circle around South Korea. Just 10 percent of South Koreans between the ages of 55 and 64

have completed college.

Figure 7 shows, for the same calendar year, the percentage of the population between the ages of 25 and 34 with a B.A. degree or its equivalent.

Figure 7.



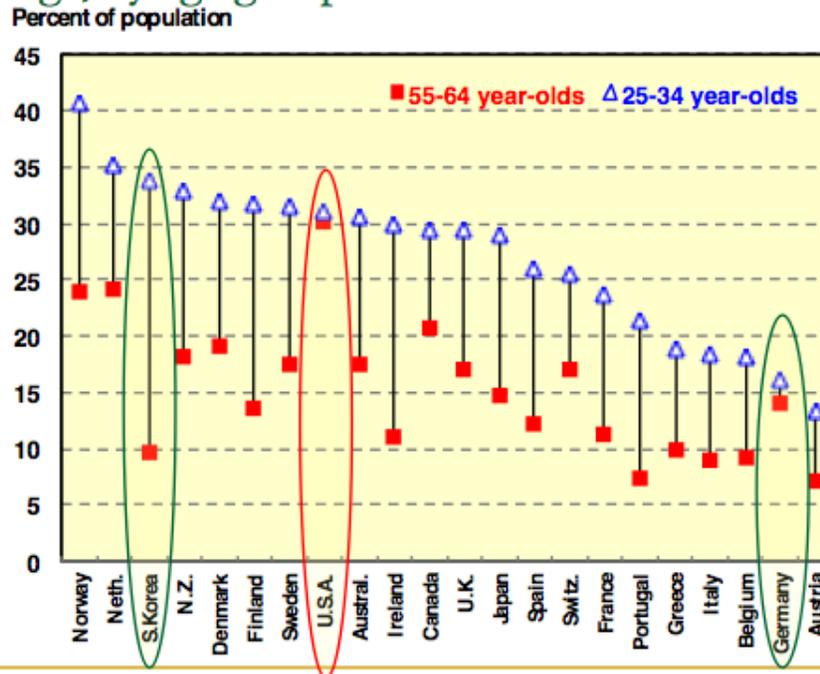
Source: OECD.

In this chart U.S. college completion doesn't look nearly as good. In fact, that number for college completion, 31 percent, is roughly the same as it is in the U.S. population aged 55 to 64. South Korea, on the other hand, has risen from having 10 percent of its older population with a college diploma to 34 percent with a college diploma in the younger age group.

Figure 8 summarizes these data.

Figure 8.

Population that has completed college: Percentage, by age group -- 2007



Source: OECD.

The red squares show the proportion of people who are college degree holders in the oldest age group, and the blue triangles show the percentage that are college degree holders in the younger age group. You can easily see the long-term trends in the differences between these two indicators. These are only rough indicators of the trend, however, because in the United States adults do continue to add to their educational attainment, even after they reach age 35.

On the whole, we see a very discouraging picture. If you think a good indicator of a well-prepared labor force is one that has a lot of degree holders, then the United States is

clearly not going to be in the lead in the future based on these data.

What are the explanations for what's going on here in the U.S.? There's been a rise in the payoff to going to school after high school. The rise has been observed in other rich countries, although it is unusually large in the United States compared with other rich countries. And yet, there has been a muted response, especially among men, in the United States, to this growing incentive to go to school.

What are some reasons the United States may be distinctive? One explanation might be immigration. Unlike some other rich countries, where immigrants come from favored groups or from rich parts of the world that have decent education systems, the United States has an unusually large portion of immigration from very poor parts of the world, and from poor communities in poor parts of the world.

Our image in the university community might be of Indians, Chinese, Europeans, and other very well educated immigrants, but the fact of the matter is that well-educated immigrants do not constitute the bulk of immigration into the United States. A large share of U.S. immigrants is comprised of people with relatively poor backgrounds from poor parts of the world. These people, of course, are constantly entering the country. Their educational attainment - or lack thereof -- is going to be reflected in education statistics for the resident population. I think that more than a quarter of the U.S. population between ages 20 and 45 is either an immigrant or the child of an immigrant. The children of immigrants who lack a high school degree may also accumulate relatively little schooling.

Another factor may be rising direct college costs.

These are offset, as every economist knows, by the lower opportunity cost of going to college, so it's not clear that the net cost has gone up at all. (The "opportunity cost" of attending college is the wages a student would earn if not currently enrolled in school.) More fundamentally, a lot of research shows that the net price to students and their parents of going to college has not risen nearly as much as the sticker price -- although the sticker price is what's emphasized in newspapers and on cable network news. A naïve reader of the daily paper could easily get the impression that the average tuition in the United States is the tuition charged by Harvard College. Memo to reporters: not everyone goes to Harvard.

It may be that there's a higher variance in the earnings payoff to going to college. Thus, to an 18-year-old college may look like a risky investment. Alternatively, it may be hard for people who are young to make long-term calculations and tradeoffs. Maybe they can't perform the computations needed to see why college as a positive payoff. Further, compared with other rich countries, the United States is distinctive in charging students and their parents significant sums to attend college. The amount that some countries expect parents and children to pay has gone up, but the United States remains a country where direct college costs are well above average.

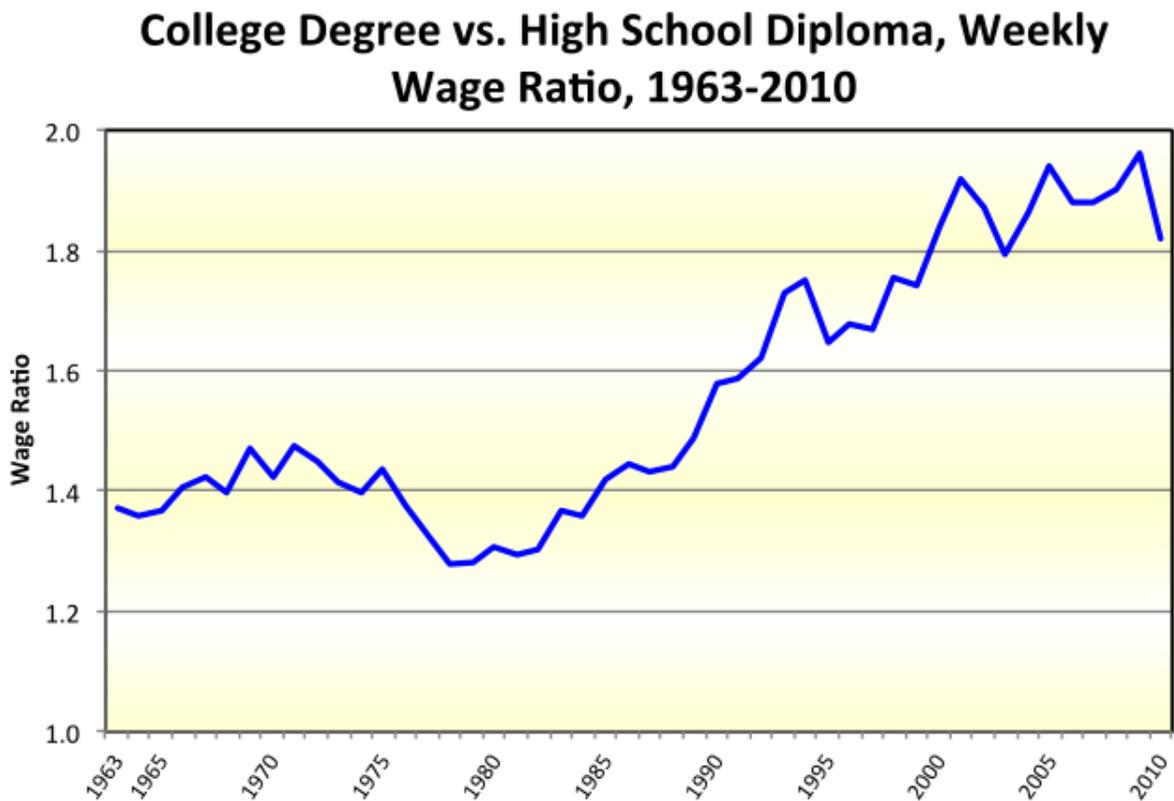
MR. LOONEY: I want to address specifically one question that Gary raised, which is whether in today's tough labor market, it still makes sense to go to college. As Gary said, it's a question that I can't believe people are raising, and yet at the same time, the fact that they are raising it means that I feel some responsibility to hammer back against it.

I want to show you the evidence on how the return to college has changed and what a college degree is worth today,

and then discuss some of the issues surrounding the labor market for young college grads.

Figure 9 shows the ratio of weekly earnings of full-time, full-year workers who have a bachelor's degree divided by the weekly earnings of workers with only a high school diploma.

Figure 9.



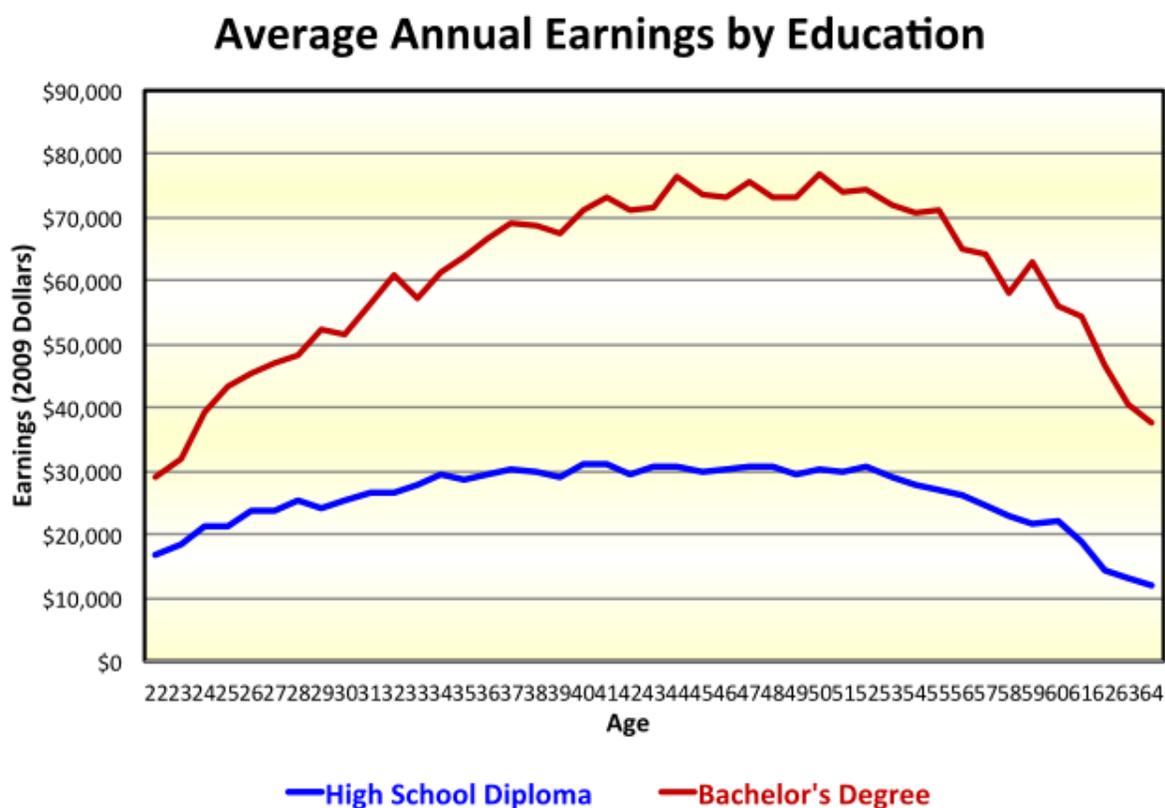
Source: Current Population Survey (March), 1964-2011.

The ratio has never been higher. Back 30, 40 years ago, the typical college graduate earned something like 30 or 40 percent more than a typical high school graduate. Today a college graduate earns almost twice as much.

Once you factor in the fact that college graduates are more likely to work each year -- that is, they're likely to have

lower unemployment rates -- and they're likely to have longer careers, those numbers actually increase. Figure 10 shows average annual earnings by age for high school and college graduates. The red line is the annual earnings of bachelor's degree holders. The blue is people with only a high school degree.

Figure 10.



Source: March CPS 2007-10.

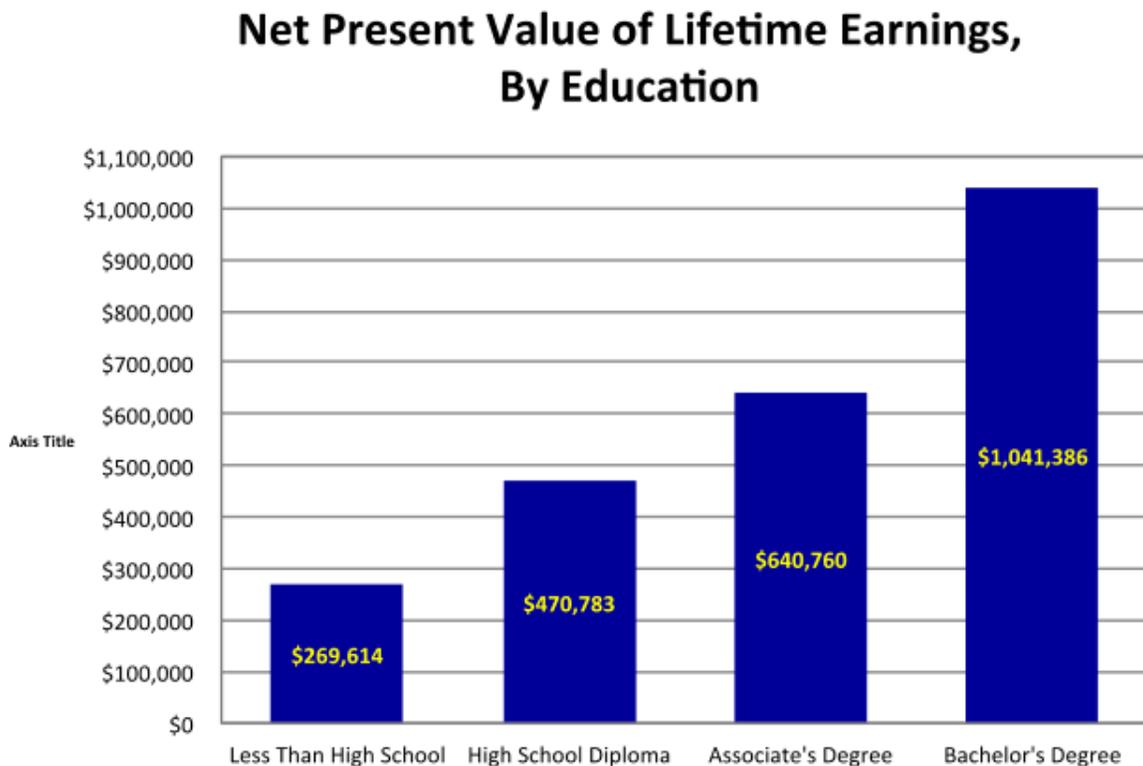
Starting off early in life, an individual with a college degree earns almost twice as much as someone with a high school degree. That premium rises throughout the first 20 years of work. It hits roughly two and a half times as much by the time

that they're 40 years old. By the time they're 60, it's almost three times as much.

So, over the course of a career, the payoff to college is extremely high. It's very persistent. And it lasts more than 40 years out.

What does that actually mean for the lifetime earnings of college graduates? Figure 11 adds up workers' earnings over the course of their careers, including all their earnings between the ages of 25 and 64, and provides the net present value of those earnings.

Figure 11.



Source: March CPS 2007-10.

Figure 11 shows that college graduates over the course

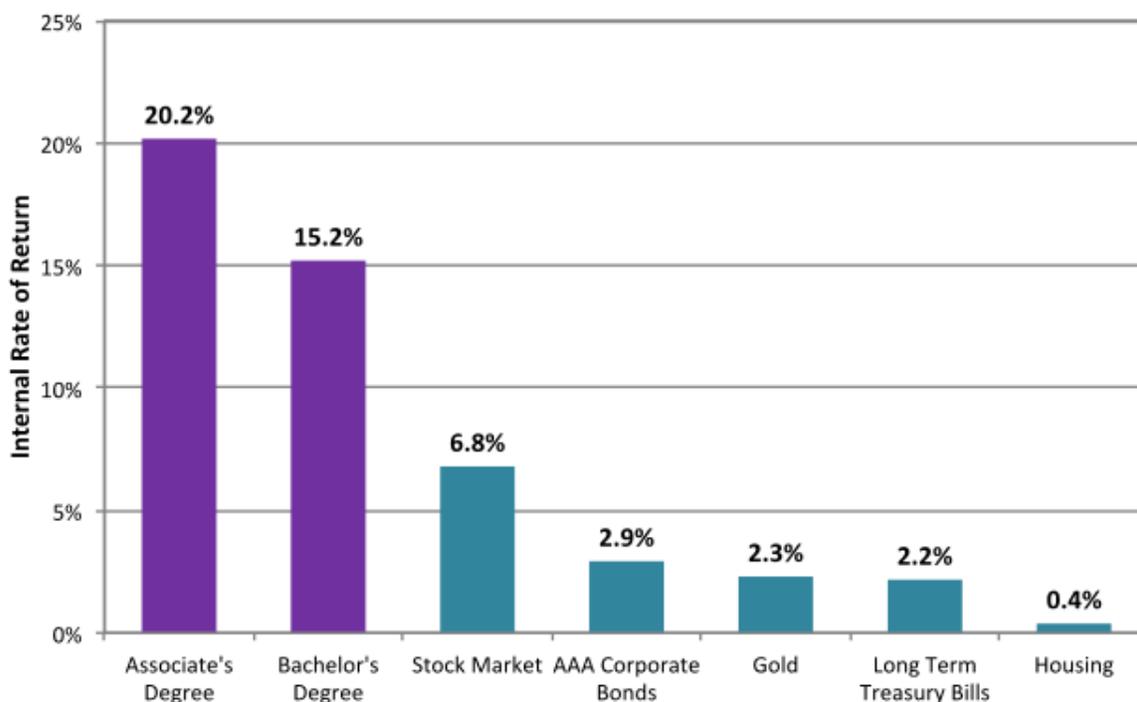
of their lives earn on average about \$600,000 more than typical high school graduates. That's a lot of money. And no matter how much you think college costs and whether you think college is expensive -- and there's reason to think that it is expensive -- it comes nowhere close to \$600,000.

Another way to consider this is to look at college as a financial investment. If you think about what college costs, and add up tuition, fees and books, and take into account the fact that for four years you're not going to be working, you're going to be in school and so there are foregone earnings, on average, based on the typical four-year colleges that typical Americans attend, the average total cost is about \$102,000. That reflects the fact that not everybody goes to Harvard or Stanford or MIT, and more typically attends less expensive public schools.

The question is, if you're an 18-year-old and someone gives you \$102,000 to invest, what is the best way to invest that \$102,000? We address that question by looking at the internal rate of return. Figure 12 shows that the effective rate of return for a bachelor's degree is about 15 percent, roughly twice the rate of return earned in the stock market over the last 50 years, and significantly more than the rate of return on bonds, gold, treasuries, and housing. A remarkably better return.

Figure 12.

College Compared to Alternative Investments



Note: Asset returns are geometric averages since 1950.

Source: Author's calculations of IRR, values adjusted for inflation using the CPI-U; March Current Population Survey (CPS) 2007-2010 averages; National Mining Association; National Center for Education Statistics; Robert Shiller online data, Long Term Treasury Bills have 10 year maturities after 1953; Federal Reserve Bank of St. Louis.

One thing I'll point out is that an Associate's degree appears to be an even better return on a dollar-per-dollar basis. That simply reflects the fact that an Associate's degree is much, much cheaper than a Bachelor's degree. But if you actually refer back to Figure 11, you can see that the boost to lifetime earnings from an Associate's degree is about \$200,000 above lifetime earnings for those with a high school degree. So, it's not that an associate's degree is particularly good for your lifetime earnings; it just happens that it's particularly

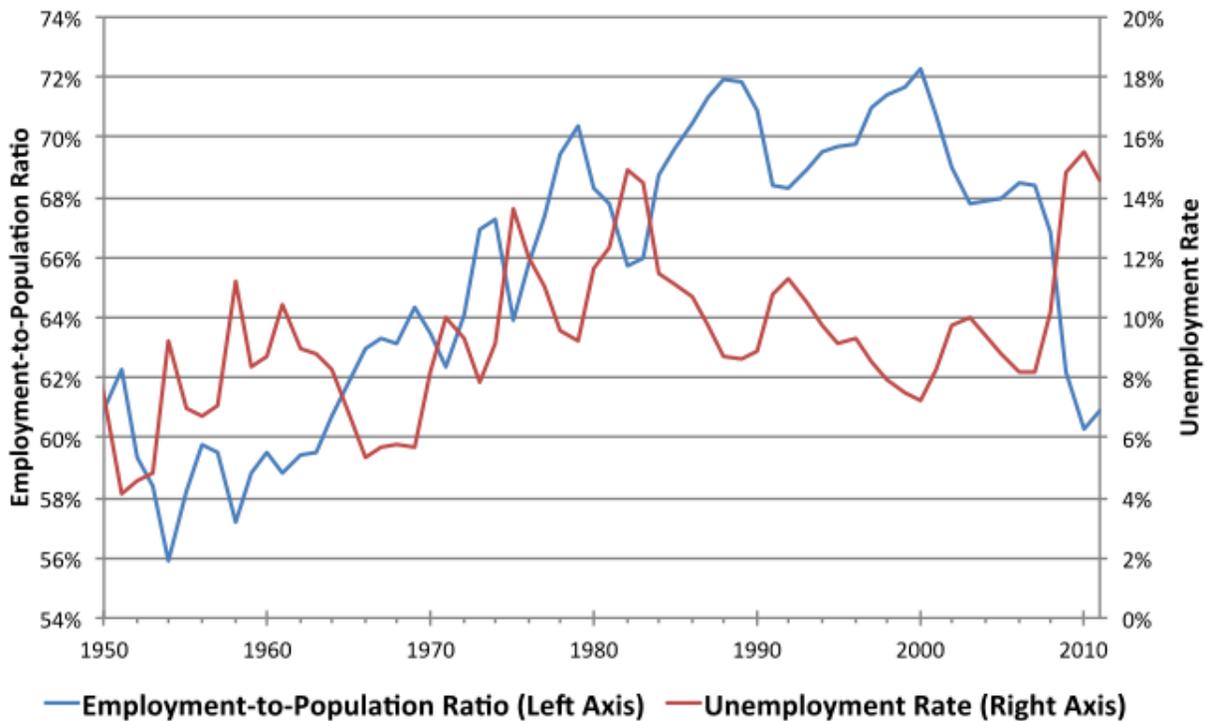
cheap, and that's why it looks like the rate of return is higher.

My point in presenting these data in different ways is to emphasize that college is still a pretty good deal. The question then is, why are -students and their parents so pessimistic about the job prospects for themselves or for their children?

Figure 13 shows that we're in the midst of a terrible recession, and I'm sure this is something that you've heard all day. This figure shows simply the unemployment rate for young adults age 20 to 24 (the red line), and the employment to population ratio (the blue line)-- the sheer number of young people who hold a job.

Figure 13.

Employment-to-Population Ratio and Unemployment Rate for Young Adults, 20 to 24



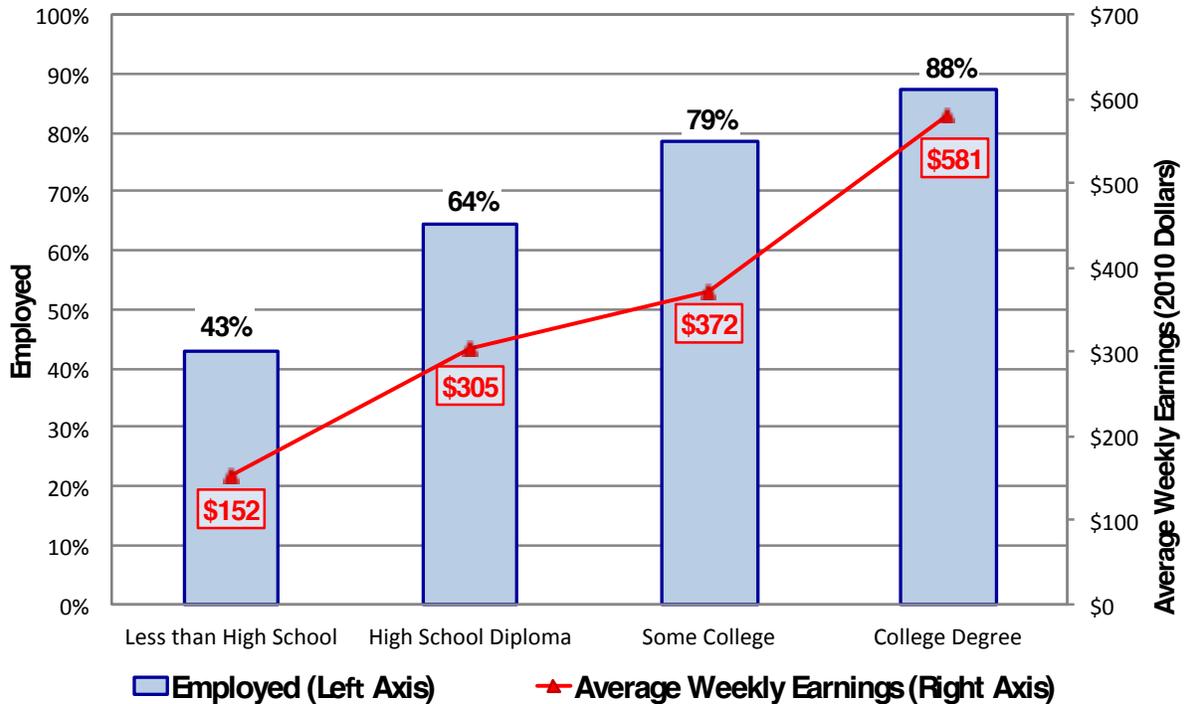
Source: Current Population Survey (Monthly), Bureau of Labor Statistics/Haver Analytics.

The unemployment situation for 20 to 24 year-olds is terrible. In 2007, the unemployment rate for this population was 8 percent. Today it's about 15 percent. If you look at the fraction of these young people who have jobs, their jobs have literally been decimated. There are 10 percent fewer jobs among this population than there were just a few years ago. They got terribly unlucky.

What I would like to emphasize, however, is that it's vastly worse for young people who don't have a college degree. Figure 14 shows how recent graduates stack up in terms of employment and earnings based on their educational choices.

Figure 14.

How Recent College Graduates Stack Up



Note: Sample includes U.S. citizens aged 23 and 24 in 2010 who were not enrolled in school. Weekly earnings is averaged over this entire population, including those without work.
Source: CPS Merged Outgoing Rotation Group 2010.

We selected a sample of just 23- and 24-year-olds, people who entered the job market over the last two or three years in the middle of the recession, and who face probably the toughest job market since the 1930s. Among those young people who have a college degree, 88 percent of them have jobs. They earn about \$581 per week, which includes unemployed people who are earning nothing as well. Compare that to people with only a high school diploma -- just 64 percent of 23- and 24-year-olds who aren't in school have a job, and they earn about \$300 a week.

So, as tough as the labor market is today, it's much better if you have a college degree and much worse if you don't.

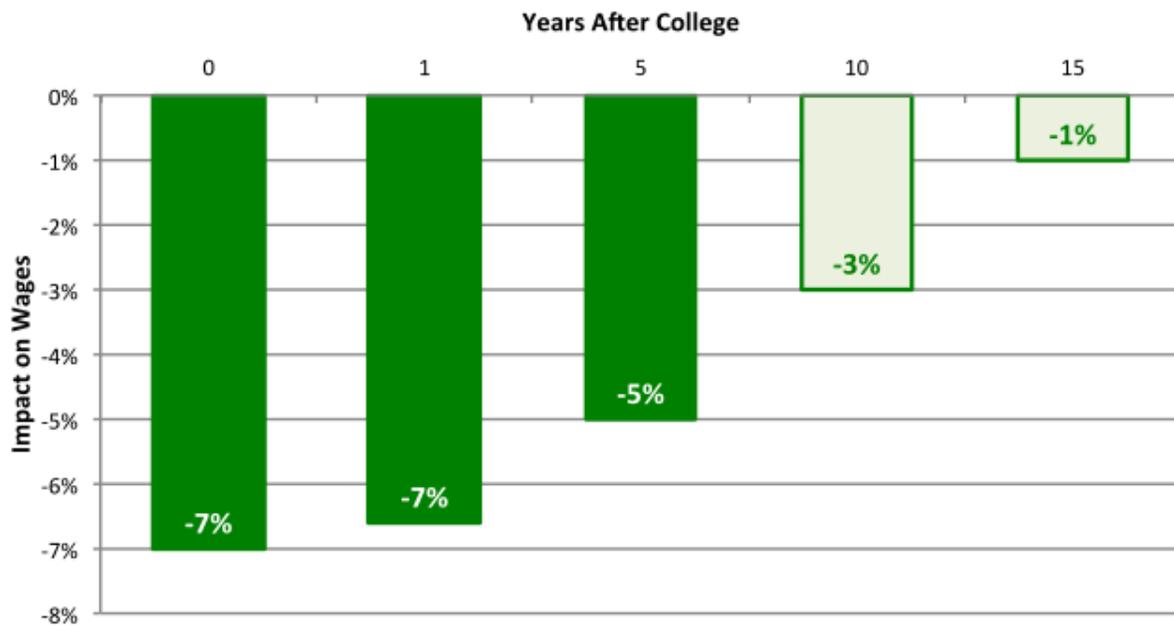
That's a point worth emphasizing.

My last point is just a follow-up on that. As valuable as a college degree is today, it still is a very tough labor market, and I'm very sensitive to the fact that the students who graduate today are in an unusual and unfavorable situation.

Figure 15 shows some work by Lisa Kahn, who's an economist at Yale, and a Brookings visiting fellow. It shows the consequences of being a young person graduating into a challenging labor market, specifically, the effect of a one percentage point increase in the unemployment rate on the wages of college graduates over the course of their lives.

Figure 15.

Effect of 1 Percentage Point Increase in College Unemployment Rate on Wages



Note: Impact on wages of graduating in a year with 1 percentage point higher unemployment. Solid bars are statistically significant at the 5 percent level. Sample of white males who graduated from college between 1979 and 1989.
Source: Lisa Kahn, "The Long-Term Labor Market Consequences of Graduating from College in a Bad Economy" (2009).

Just as you'd expect, the consequence of graduating into a tough labor market is negative. A one percentage point increase in the unemployment rate lowers wages in the first couple of years by almost seven percent. And when you think about how significant the recession has been, it's clear that this effect is going to scale up quite a lot.

Without question, it's a very challenging labor market for these workers. They're not getting their dream jobs. They're probably not getting even satisfactory jobs. And the consequences of that will persist. Figure 15 shows that even 10 or 15 years out, there is still a negative outcome associated with graduating into a tough economy.

So, despite the fact that there are many advantages to

a college degree, it's also likely that there are going to be significant and long-lasting disadvantages of having graduated in 2009 or 2010 or 2011.

I will conclude there, but Gary and I are both pleased to have a conversation about any of these topics.

DISCUSSION

SPEAKER: You'll probably be able to tell I'm over 65, but why is there not so much blame put on parents for the fact that not as many Americans are going to college? I mean, we have a zillion excuses for why, but you wonder why the Chinese and other Asians are so much more aggressive at that. People complain about them taking over the Cal University system and so forth.

I just think it's kind of avoiding a big issue. Maybe I sound like Bill Cosby, too, I don't know.

MR. BURTLESS: About seven or eight years ago, I wrote a paper with Sandy Jencks, who's a sociologist, on what might be going on. We didn't make a distinction between young men and young women. We were looking at the change in college enrollment rates between the mid-70s and mid-90s. College enrollment rates increased over that 20- or 25-year span. We asked, "What part of the income distribution saw an increase in college attendance rates?" College attendance rose much more noticeably in the top quarter of the income distribution than in the bottom half of the income distribution.

I am told that if you compare young men and young women, it's actually in the top of the income distribution where a major gap has opened up between men and women in terms of college attendance. But for the purpose of answering your

question, I just want to focus on the effect of income level on both sexes combined.

A theory that Sandy Jencks and I offered is that middle and upper middle class parents have a lot more influence over their youngsters than poorer parents do. More affluent parents have plenty of money to finance their kids' schooling, and they can withhold cash support from their youngsters if those youngsters, after high school, do not go on to college.

So, upper middle class and middle class parents simply have more influence over the behavior of their children. Jencks and I suggested that many 17-year-olds may not be able to make rational, far-sighted choices about whether to go on to college. In fact, it may take a considerable amount of parental pressure to induce a reluctant 17-year-old to apply and attend. Middle and upper middle income parents have the resources to exercise greater influence over what their kids do.

So, while college attendance rates have risen over the last 25 years, the rise has been greater where parents can be expected to have a lot of influence over what their kids do. Jencks and I wondered how much power a single parent, not very well off, has over his or her youngsters. The fact is they may not have much, because they don't have much that they can trade in exchange for getting the kid to behave in a way that's in the kid's own long-term best interest.

SPEAKER: What about the responsibility of the colleges? We have, going back to 1970, a very significant increase in the percentage of high school graduates going on to some form of post-secondary education - it's in the 50 to 70 percent range, give or take. We're losing huge numbers of students at the college level.

A lot of discussion is taking place now around issues

like credit recovery, the various barriers that exist to letting students transfer credits, and other barriers that prevent students from making it through to graduation. Of course, the students and their parents bear some of that responsibility, but are colleges doing what they should be to boost graduation rates?

MR. LOONEY: Can I try to address both of your questions quickly? The first question was why is it that certain segments of the population have much higher college going rates and completion rates? Or, why do some parents encourage their children to go to college and other parents don't? And I think that if you look at the pattern across demographic groups, across states, across communities, there are widely different outcomes that seem to have little to do with economics and may have more to do with what cultural norms are.

Those are things where I won't pretend to understand what the answer is, but I am pleased to raise them as a question. Why is it culturally acceptable for men not to go to college and for women to go to college, or for men to drop out of college and for women to complete college?

I ask it provocatively in that way because I don't have the answer, but I think there are plausible theories based on cultural expectations. For instance, I remember reading the book, *Friday Night Lights*, when I was in college. My recollection of the book was a reporter travels to Odessa, Texas, and is totally appalled that there are high schools in America where there is a total abdication of responsibility to educate students in favor of developing a good football team. It meant that the men were oriented towards sports rather than academics and, similarly, the women were often oriented towards being cheerleaders.

In the television show, however, what they've done is take away all the finger pointing about the abdication of the responsibility educate. And it often just seems to be a celebration of football.

I think we have a culture in America that celebrates non-academic pursuits. And there are gender differences that arise because of that. I think that that may be one thing.

The second question was about completion rates. I can't call the statistics to mind, but people talk about a huge dropout problem -- a lot of people start college and then don't complete it. And that seems like a tremendous waste.

Do you know what the sheepskin effect is, as they say? My recollection was that the return to one year of college was not equal to one-quarter of the return of four years of college. And so going for part of college is not proportionately as advantageous as going the whole way.

We have to think about ways to encourage people who start to finish. I don't know that I have great answers for you right now on the spot, but I think that's an important issue.

MR. BURTLESS: I think in broad terms, the sheepskin effect is worth about one year of extra college, give or take. It varies all over the place within different subgroups, of course, but roughly one year.

SPEAKER: I have two questions. One is, when you mentioned that if you have \$102,000, how would you invest it. And my kind of snide response was, in my smartest friend to go college. So, one question I have is, do these returns control for the ability of kids?

The second question I have is, is past performance, in fact, indicative of future returns? Do we worry that, going forward, something is changing the expected returns from past

returns, and that may have some role to play? And it may have to do with your increased variance.

MR. LOONEY: So, one question is, what is the causal effect of education on earnings, particularly for those who are on the margin of going or not going to college.

And so, broadly speaking, there is a robust literature in economics that examines that relationship and finds that the reason why better educated people earn more is because of what happens when they're in school. So, it's treatment. The evidence for this is best in K through 12, but there's some evidence from college that suggests the same thing.

I can walk you through the studies, but I think that there's pretty good evidence that it is college that makes people earn more.

I think that there is some disagreement about whether we are dropping down too far into the ability distribution. So, is the person on the margin between going to college and not going to college going to have the same treatment effect as the typical person?

I don't know. I think that there's disagreement in that literature, but that on average education provides a pretty big effect. And I think that if we had a society that had more people go to college, we would be a better off and wealthier place.

MR. BURTLESS: A lot of economists would prefer to believe that the marginal person is making the right decision because that would represent a triumph for their rational model of behavior. But it's unclear whether the evidence supports this view of decision making. It's very tough to tease it out.

Let me step back and talk about a broader question. Going to college -- getting an additional year of high school,

for that matter -- has a causal effect in boosting people's earnings. There are a lot of different ways that economists have isolated that effect and estimated it precisely, controlling for the differences in average ability between people who attend and who fail to attend college. Educational attainment has a separate and estimable impact, independent of the effect of ability.

So from the point of view of a person thinking of making an investment in schooling, the net private gain from the investment is the only number that matters. Now, if we step back and think about the social impact of college attendance, the value of the investment is, I think, more ambiguous. It might be that the college sheepskin effect on people's earnings, or the years-of-schooling effect on their earnings, is due to the fact that employers sort people in the hiring queue and give a preference to job applicants who have more schooling. Employers might do this even though, in fact, those with more schooling are not intrinsically made more productive by their schooling. In fact, someone won a Nobel Prize for demonstrating this possibility.

The fact that employers give preference to the better educated applicants makes it privately worthwhile to invest in extra schooling, even though the true return *to society as a whole* is not as big as is suggested by the rate of return calculations reported by Adam. So, perhaps it's a social phenomenon that is partly generating these effects.

No one has been able to make a statistically convincing distinction between those two theories. But it doesn't matter from the point of view of somebody who's 16 years old and thinking about whether to spend one more year in school. The private rate of returns calculations suggest emphatically,

yes, you should make the investment; you are likely to earn higher wages over your career. There's no reason that you should concern yourself about whether the *social* return is smaller than your private return. Your private return is very good. And the question is, why don't more boys, in particular, respond rationally to this information and work hard to attend and complete college?

SPEAKER: I'd like to follow up on that a bit. Let's just say that more college is good. But when you look at countries that have made significant changes in the educational attainment of their populations, what happens to those wage premium effects and the unemployment rates?

I mean, a lot of times you'll see these linear projections that suggest that you can take what we see right now, extrapolate from that, and conclude that as a matter of public policy for states or for the nation, this is the right kind of investment. But there is a way that you could look at it if you made comparisons across some of these countries where they've made significant changes.

Have any economists actually dug into that that you know of?

MR. LOONEY: I know the case for the United States best, and so it's not an international comparison. But you can look back historically and see that increases in the supply of better-educated workers changed the structure of wages: when the number young people going to college has increased, the overall average earnings of those young people increased but the premium between college graduates and high school graduates has compressed.

There's also some evidence in the United States that suggests that a better educated workforce makes the economy in

the aggregate more productive, and it also reduces the inequality on the basis of skill.

That's true for the United States and, I believe that's also the story in South Korea, which has rapidly expanded the educational attainment of its young people. My understanding is that that has both contributed to its economic competitiveness and its ability to attract and to develop the earnings and productivity of the workforce. But it also has compressed earnings within those cohorts.

MR. BURTLESS: The cross national evidence helps us see the distinctive features of each country's educational system. So, the United States looks like we have a lot of people who begin post-secondary education, but we have a smaller proportion of people, among those who begin college, who also complete it. There are other countries that have higher completion rates, even though they have lower levels of people who start college.

This apparently is a long-standing difference between the United States and other countries. We have a very open college system. Lots of people are welcome to start, and lots of them don't make it through. In other countries, there's a higher threshold to get in, and once you get in, there's a higher probability that you will complete.

Again, these cross national comparisons tend to tell us something about the distinctive educational system we have, but it's very hard to draw firm conclusions about the implications for nationwide productivity. We don't know whether the United States enjoys a particular advantage because our best educated youngsters probably do get a better education in a lot of different dimensions than the best educated kids do in many other systems. But we're only talking about 2 or 3 percent of

the population, those who complete our most demanding and rigorous institutions.

Is it enough that that the top 2 or 3 percent of Americans seems to get an extraordinarily good college and post-college education? Does that advantage offset the disadvantage that our median 17-year-old's preparedness in literacy, in math, in science, in ability to write, and so forth, looks to be mediocre in cross national comparisons?

The U.S. is not at the bottom of the educational heap with respect to our median students. That claim is just untrue. But we are not very high in terms of the achievement of the broad middle of our youngsters. In this country, the broad middle is wide enough to include a lot of people who've had one or two years of college, and they do not look very impressive by cross national standards, at least if we confine the comparison to rich countries.

But maybe all a country needs to grow and be highly productive is to have a small proportion of extraordinarily well prepared folks at the very top, workers who are clearly getting an elite education by international standards. Maybe that's enough. Having a very well educated elite and mediocre middle certainly doesn't help to address the problem of income equality. But it might be sufficient to maintain decent growth and good productivity performance in the wider economy.