U.S. DEPARTMENT OF THE TREASURY

Press Center

Remarks by Assistant Secretary for Economic Policy Jan Eberly before the Urban Institute

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As prepared for delivery

WASHINGTON – It is a pleasure to be hosted by the Urban Institute today. The research that you perform and the voice you bring to the conversation are critical in helping policy makers understand the choices available to them in designing and implementing policy. As you all know, the Urban Institute has been at the forefront of evidence-based policy development. This is clearly a value that I share in my work in the Administration, going from policy ideas to analysis and the ultimate judgment about policy choices to serve our country and support the economy.

As Treasury's chief economist, I study the incoming data on a daily basis and try to assess the broader health of the macroeconomy. The higher frequency data certainly tell a story, and we follow it closely. However, in economic policy, it is longer-run investments, rather than short-term growth, that will determine our competitiveness and productivity, and ultimately our standard of living. Much has been written about the strong rebound in private sector investment, which has been a growth story during the recovery, but today I will emphasize public investment and two of our nation's economic successes: higher education and infrastructure. While our research in these two areas initially began as unique tasks, a larger theme has since emerged in our thinking about the connections across generations, which I want to focus on today.

Connecting Investments Across Generations

At first glance, higher education and infrastructure, while distinct areas of policy, share some simple commonalities. Both involve long run investment critical to the long-run success of economy. Both are key priorities of the Obama Administration. And both are part of our national identity as Americans.

For example, the aspiration to be the first generation in a family to graduate from college has long been part of the American lore. At a societal level, access to higher education is one of the hallmarks of a functioning meritocracy.

Similarly, the idea that American infrastructure is the best in the world– enabling people to easily travel and allowing business and commerce to function effectively – is still a cornerstone of how we view our global comparative advantage.

But stepping back and examining these investments makes clear that they are part of a more general set of connections across generations of Americans. One of the core elements of the American ideal is the promise that each generation will leave the nation in a better condition than when they inherited it. This intergenerational compact is one of the many reasons why the President says that America's best days are in front of us, not behind us. Respecting these commitments, these connections, preserves the fabric of our society and unites us as a country; it also builds the common resources that underlie our economic success. We expect our children to enjoy better opportunities than we ourselves had and to watch our grandchildren enjoy opportunities beyond our current comprehension.

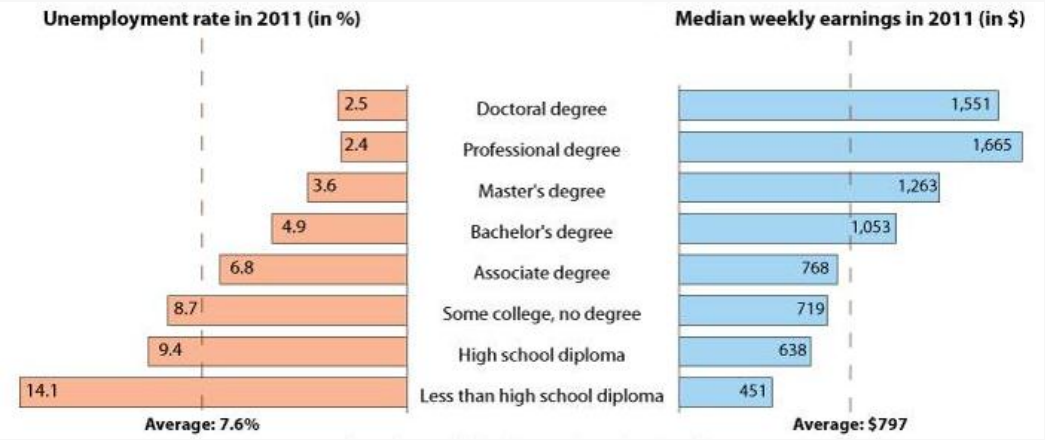
This sense of forward progress, of paving the way for the future, is evinced in many developments: the expansion of civil rights, improving health and safety, strengthening institutions to secure justice and the rule of law. As an economist, I will focus on policy options that strengthen economic outcomes and growth, but these also represent a legacy that one generation provides to the next, and ideally, connects multiple generations in an on-going and perpetuating legacy.

Higher Education

Education is one of the clearest mechanisms through which we observe the intergenerational compact. Education represents, by definition, knowledge and skills accumulated over generations and the transfer of that wisdom to the young. From the advent of public schools, to the high school movement of the early twentieth century, to the GI bill after World War II, there have been a series of policy choices aimed at broad access to education, resulting in a steady increase in the educational attainment of Americans.

The economics make clear that education has never been more valuable. The earnings gap between those with a college degree and those without one is the highest it has been since 1915, the earliest year for which such estimates exist. Moreover, the benefits associated with having a college degree are far greater than what is shown in the earnings gap: college-educated workers are far less likely to be unemployed and are more likely to have jobs that provide additional non-wage compensation such as employer-provided health insurance and paid vacation and sick leave. The reduction in the unemployment rate, in particular, is quite significant, as those with only a high school diploma are nearly twice as likely to be unemployed as those with a college or advanced degree.

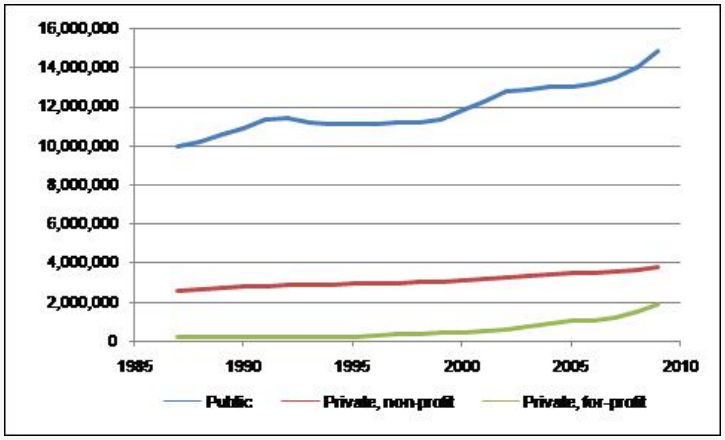
The Returns to Education



Higher education is also critical for economic mobility. Recent work from the Pew Foundation found that without a college degree, children born in the bottom income quintile have a 45 percent chance of remaining there as adults. With a degree, they have a roughly equal chance of attaining each income quintile, which means an 80 percent chance of being in a higher income quintile than their parents. Thus, affordability and access to education provide an important gateway to intergenerational and economic mobility.

Given the growing returns to higher education, an economist would expect to see a response in the demand for education. As you can see, this response has come in the substantial growth in college enrollment. The Department of Education estimates that of the 2.9 million people who finished high school in 2009, 70 percent (approximately 2.1 million) enrolled in college that same year.[1] One decade earlier, in 2000, only 63 percent of recent graduates enrolled in college right out of high school (1.7 of 2.8 million).

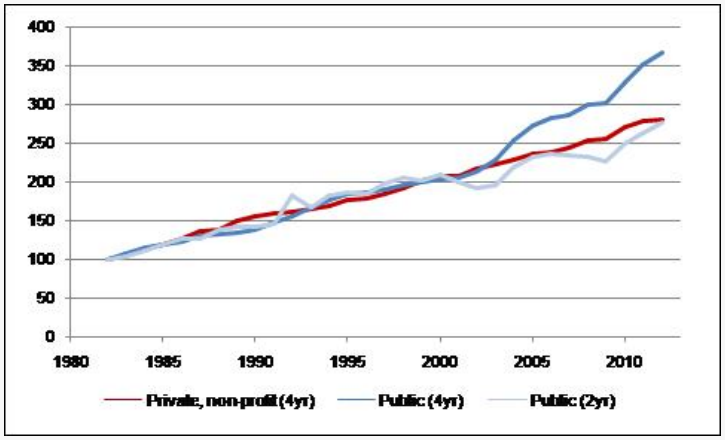
Total Enrollment Over Time



I would make two additional points based on this chart. First, the vast majority of higher education takes place at public institutions. Approximately 80 percent of new students enroll in a public institution. Second, while enrollment has grown across the board, growth is highest at private, for-profit institutions, although they still represent a small share of total enrollment. And even though public institutions are the largest player in higher education, they have still maintained higher growth than private, non-profit schools. Public school enrollment grew 50 percent from the 1980s through 2009, while private non-profit enrollment grew by only 33 percent.

In addition to rising college enrollment, we have also seen rising tuition costs. As the next slide shows, posted tuition has more than doubled in real terms over the last thirty years.

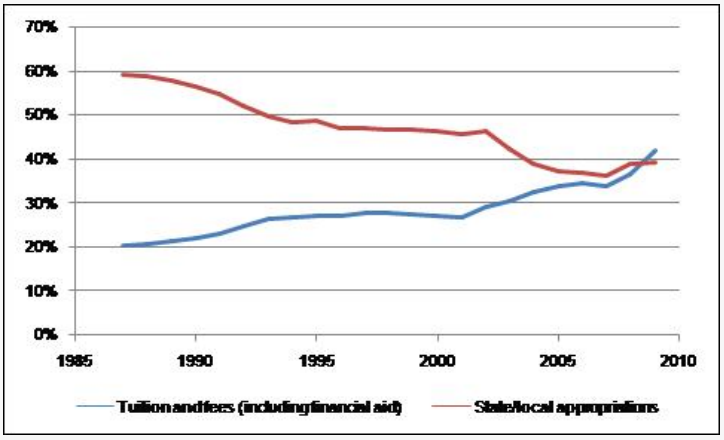
Published Tuition and Fees (1981 = 100)



Note that tuition has risen the most quickly at public, four-year colleges, increasing by more than 350 percent. Net tuition, defined as sticker tuition minus financial aid, has increased at a slower rate due to greater availability of financial aid, but the increase has nonetheless been substantial, especially for those students who do not receive financial aid.

Underlying the trend in tuition is a fundamental shift in education financing, especially at public institutions. As state support for higher education has been withdrawn, tuition has grown in importance as a source of funding at public institutions, doubling from only 20 percent of revenue in the late 1980s to over 40 percent today.

Share of Revenue at Public Four-Year Institutions



During that same time period, state and local government support has fallen by almost the exact same share. In fact, 2009 was the first year since we began keeping these statistics that tuition accounted for more revenue than state and local governmental support at public institutions.

At the same time, the Federal Government has increased its support for higher education by increasing the size of Pell Grants, and by enacting new tax credits, which assist students and parents in coping with increased tuition. While these programs soften the impact of higher tuition, they do not completely offset the substantial decline in support from state and local sources.

Intergenerational Connections

These data reflect an on-going decline in state and local public support for higher education, with a shift to tuition-based funding which is partially offset by increased need-based financial aid. Low tuition was historically supplemented by public funding – the current generation of tax payers – supporting the education of the next generation of students. This cross-generational support is a classic example of a social contract: one generation invests in subsequent ones, which in turn uses the benefits of that investment to support the next, and so on. The higher incomes and productivity from greater education supported on-going investment across generations. As public support declines and tuition rises, however, there are two ways to think about the rewritten social contract. If parents or other family members write the tuition check, then tuition is another form of intergenerational support conducted within a family, rather than societally through the tax system. While this may sound comforting by preserving the intergenerational connection, linking educational access to family resources limits the ability of education to provide a platform for economic mobility – a problem to which I will return in a moment. If instead the student pays for college herself, either by working, or taking out loans, for example, then there is no longer an intergenerational connection. In the latter case, the compact between generations is weakened. It is up to the younger generation to invest in itself and to self-finance the cost.

Data on who ultimately bears the cost of education is difficult to ascertain for a variety of reasons. Families are taking out more in student loans to support their children. However, it is unclear to what extent this is a substitution away from other forms of borrowing, such as home equity loans, which have become more difficult to obtain. It may also be that parents would have spent savings to pay for tuition, but have had to take out loans due to the erosion of their assets in the wake of the financial crisis.

The Role of Housing

While housing is not the main focus of my remarks, it is still a meaningful part of these financing issues, since as many of you know, their home is the single largest asset for most American families. Tapping into this equity was one way for families to shoulder the increasing costs of education. Through this store of wealth, parents were able to invest in their children's education.

While it is not possible to know the exact ramifications of the loss in housing wealth as a result of the recent financial crisis, the total figures are substantial by any measure. On average, house prices have fallen by more than 30 percent from their 2006 peak and housing wealth has fallen by over $7 trillion. This has led to 11 million homeowners who owe more on their mortgages than their homes are worth, an amount totaling about $700 billion. Continued problems in the financial sector have also tightened credit constraints, limiting the ability of those with diminished home equity or with impaired credit to access that wealth.

The problems in the housing market are likely to be even more significant for those in the middle class and lower-income families. These individuals are far less likely to have other liquid assets to finance their children's higher educational costs. Research conducted by the Urban Institute, by Rolf Pendall, indicates that these problems may also affect families of color to a greater degree. They found, and I quote: "A wide gulf separates households by race and ethnicity. The median household headed by a white non-Hispanic held about $113,000 in assets in 2009, and the median Asian household held about $78,000 in wealth. Hispanics and blacks held only $6,300 and $5,700 in wealth, respectively, the lowest inflation-adjusted levels in at least 25 years." [2]

Moreover, related research from Pew[3] and also from the Treasury shows how severely the recent financial crisis affected families' savings. Overall, median household net worth fell by 28 percent from 2005 to 2009. There has since been some recovery in equity values, but for most households, their most significant investment is their home. While overall home values have fallen by about a third, this decline, and hence the hit to families' wealth is not evenly distributed. Hispanic and Asian households are more likely to live in the states hurt most by the housing crisis – such as California, Nevada, and Florida – and hence their home equity has fallen by 50 percent and 32 percent, respectively.

Moreover, the decline in housing has hurt low-income families disproportionately, since homes with lower prices and larger mortgages also lost disproportionately more equity. In each of the 16 cities surveyed by Case-Shiller tiered home price index, the lowest-priced homes had the largest decline in value. In Los Angeles, for example, overall house prices fell 40 percent since 2006, but the highest value homes fell 31 percent and the lowest value homes fell over 50 percent. The gap is even more pronounced in Atlanta, where on average house prices have fallen 35 percent since 2006, but the lowest-priced homes fell in value by 64 percent. This is a terrible wealth loss for most homeowners – there is no minimizing the impact – but for some families the decline has been catastrophic. And the way these losses are distributed reinforces the challenges already faced by those working hard to save to build up a buffer, to give their children a leg up in the next generation, and to secure their family's future.

Education Conclusion

While analyzing family wealth is challenging due to data constraints, it is clear that, as a result of the financial crisis, there is less available in home equity for the current generation to pass along to future generations in various forms. In particular, it draws into even greater question the ability of families to self-finance the education of their children and provide access

to higher education as effectively as broad-based public financing of higher education. Thus the current financial crisis has made the recent trend toward linking educational access to family resources that I mentioned previously, even more problematic.

The magnitude of the change in total tuition, both in posted price and as a share of college revenue, is unlikely to be fully offset by family resources or increased need-based Federal aid in the form of increased Pell Grants and educational tax credits. This is especially true where either need-based aid is not sufficient to cover total costs, or where families have too much income to qualify for much aid but not enough to readily cover college costs. In such cases, the costs may be shifted to the student generation, largely in the form of loans. Depending on the accessibility and cost of these loans, students may find it difficult to obtain the education to which they aspire. Moreover, we know that when individuals are solely responsible for making investments with positive societal spillovers, they tend to underinvest from society's perspective. This is the situation in which we currently find ourselves with regard to education, at a time when the benefits of that education to not only the student, but also to our society and our economy have never been greater.

Infrastructure

Similar to the increases in educational attainment, American infrastructure has improved with each generation. From the building of roads and canals in the late 18th and early 19th century, to the linking of American with the cross-continental railroad in the mid-19th century, the electrification of our country at the turn of the last century, to the building of the Eisenhower interstate system in the mid-20th century, generations have built new infrastructure networks which have transformed the nation.

Public support to fund these infrastructure systems dates back to the beginning of our nation. Two of our founding fathers and earliest Treasury Secretaries, Alexander Hamilton and Albert Gallatin, didn't agree on many things. Hamilton was a Federalist who advocated for the federal government to play a larger role, while Gallatin served as President Jefferson's Treasury Secretary, and generally favored a smaller federal government. However, even the minimalist Gallatin recognized that building infrastructure was a critical role for the federal government. He wrote, and I quote:

"The early and efficient aid of the *Federal* Government is recommended by still more important considerations. The inconveniences, complaints, and perhaps dangers, which may result from a vast extent of territory, can no otherwise be radically removed or prevented than by opening speedy and easy communications through all its parts. Good roads and canals will shorten distances, facilitate commercial and personal intercourse, and unite, by a still more intimate community of interests, the most remote quarters of the United States. No other single operation, within the power of Government, can more effectually tend to strengthen and perpetuate that Union which secures external independence, domestic peace, and internal liberty."[4]

Gallatin's insight was accurate but it took economists quite a while to prove it. A significant contribution demonstrating infrastructure's ability to increase economic growth was conducted by John Fernald, now a researcher at the Federal Reserve Bank of San Francisco. Specifically, Fernald studied the construction of the Eisenhower interstate highway system in the 1950s and 1960s and found a significant increase in the productivity of related industries – those that rely on vehicle transportation – relative to those that did not depend on vehicles. He showed how the interstate system had a material impact on productivity for a wide swath of sectors in the American economy.

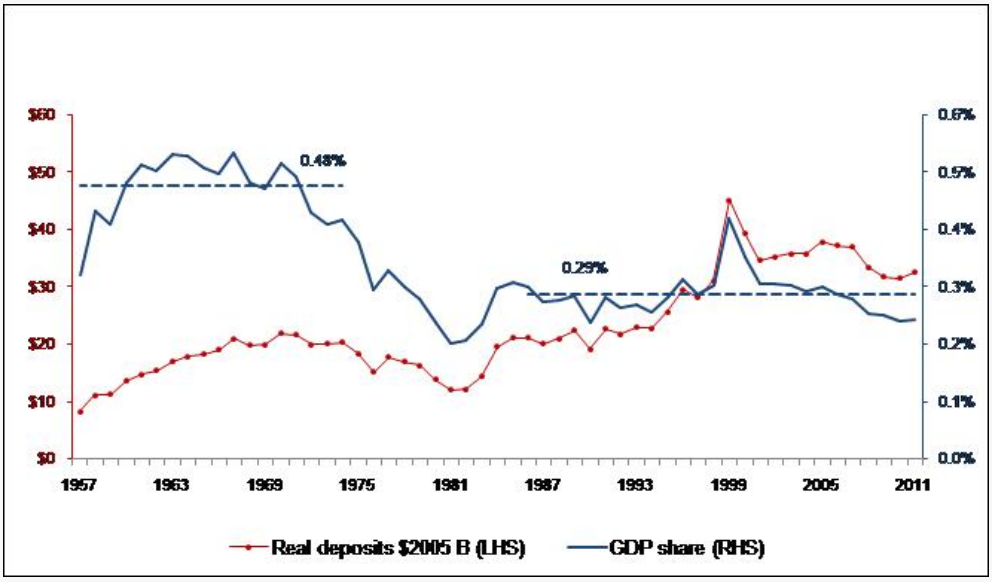
How was that investment paid for? The Federal government enacted a set of taxes and fees, the most noteworthy being the imposition of a three cent tax on gasoline, and used those revenues to build the interstate system. States provided some matching funds and funds raised through similar gasoline taxes.

This is unusual – while states have the ability to borrow for specific capital projects in the municipal market, the Federal government generally runs a unified budget and does not borrow for specific projects. However, the legislation which created the interstate system actually created a special Highway Trust Fund which provided separate accounting for tax revenue dedicated to spending on highways, and in 1983, was later broadened to public transit. Revenue collected was segregated and spent only for these purposes.

Thus, the Federal government directly funded the interstate system through current taxes. Interstate roads, like most infrastructure, have a long, useful life, stretching over several generations of users. While they require maintenance, the upfront cost of the initial construction is far greater. This significant investment was left as a legacy to future generations to use and to maintain. In this way, the creation of an interstate highway system funded by current revenue was another form of intergenerational support: one generation built and funded a highway network and bequeathed it to the next generation, whose responsibility has been its upkeep and preservation. This investment provides a real, tangible benefit and improves the lives and productivity of the next generation.

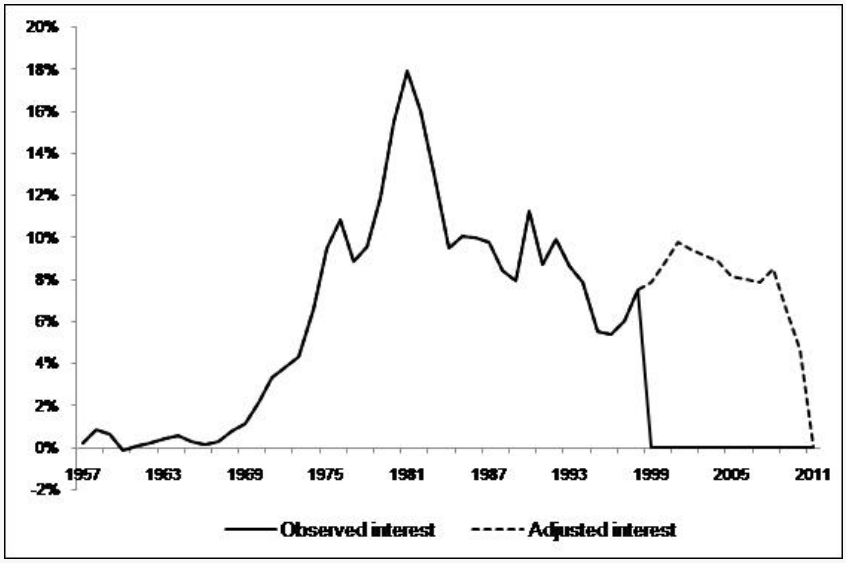
Slide 5 shows the deposits into the Highway Trust Fund in constant dollars (left axis) and as a share of GDP (right axis). Between 1957, when the system was established, and 1972, drivers were paying in approximately one-half of one percent of GDP, or about $17 billion a year (in 2005 dollars). Although real receipts generally increased from 1986 through 2011, drivers paid roughly only three-tenths of one percent of GDP, or just under $30 billion a year (in 2005 dollars).[5]

Real Highway Trust Fund Deposits ($2005 billions) and GDP Share (without interest)



Between 1972 and the early 1980s, there was a decline in revenue collected, but that does not capture the full story. At that point in time, the trust fund had built up a substantial surplus which, like other U.S. government trust funds, was invested in U.S. Treasury notes. During that period, those notes were paying relatively high interest rates (those who are one side of the intergenerational transfer debate remember 15 percent interest rates). Slide 6 shows the size of those interest payments relative to the Highway Trust Fund.

Interest Payments to Highway Trust Fund Relative to Total Tax Sources



As a result, total infrastructure investment was able to stay at a high level temporarily until the surpluses were eventually exhausted.[6]

Intergenerational Connections

Viewed from an intergenerational lens, a generation of drivers paid for and built a substantial interstate system which they then bequeathed to the next generation, along with a sizable trust fund. The next generation was, in turn, able to spend significantly less as a share of GDP (around 40 percent less), while depleting the accumulated surplus.

This is a very different system than one which is "financed." As opposed to entirely paying for a system which provides substantial benefits to the next generation, a financed system is paid for by multiple generations as they inherit both the infrastructure asset and the debt. Analogous examples include inheriting a freeway system versus a toll road, or inheriting your family home with or without a mortgage.

I defer to the infrastructure experts as to how the United States has recently fared in providing infrastructure funding commensurate with continued economic and population growth. The American Society of Civil Engineers did, however, grade the various components of our infrastructure systems, which are federally funded by the Highway Trust Fund, and gave our roads a D-, our bridges a C, and our transit systems a D. Combined, they estimated the five-year shortfall in expected public investment in those areas at $640 billion, a figure which includes expected federal, state, and local investments.

Clearly, if we are to pass along to the next generation a better infrastructure system than the one which we inherited, there is a need for greater investment. How we decide to pay for that investment, whether by current funding or financing, will determine how much of a net benefit is provided to the next generation.

Conclusion

Investing in our future is an obvious and well-understood priority of every responsible citizen and policy-maker. Doing so in a way that not only grows our economic capacity but also preserves our generational fabric is harder, and less well-understood. The cases I've discussed today show that we have inherited institutions of learning and means of production that are paid for only in part – in many cases they come with the equivalent of a mortgage or need for maintenance to keep them in shape for the next generation. It is difficult to say whether this shift in the compact between generations is a deliberate choice to move from paying it forward to pushing it off, or rather a reaction, perhaps temporary, to the crush of economic and budget pressures. But even if meant to be temporary, it shifts the balance between generations, tears at the fabric of connections between us, and undermines the investments and the competitiveness we need to build.

I propose that we are stronger than the forces that would fracture these essential connections between generations, between citizens, and between citizens and government. I hope and expect that these essential investments will continue to receive broad public support, not only morally and vocally, but also with the resources needed to achieve real improvements in our human and productive capacity.

Thank you, and I look forward to discussing policy options with our panel today.

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[1] Table 208, *DES 2010* (Snyder & Dillow, 2011). High school completion, as measured by the ratio of high school graduates to the population that is 17 years old, increased between 1990 and 2010 (from 73 percent to 77 percent) (Table 110, *DES 2010*).

[2] http://www.urban.org/UploadedPDF/412520-Demographic-Challenges-and-Opportunities-for-US-Housing-Markets.pdf, pg. 40

[3] "Wealth Gap Rises to Record Highs Between Whites, Blacks, and Hispanics," Pew Research Center. http://www.pewsocialtrends.org/files/2011/07/SDT-Wealth-Report_7-26-11_FINAL.pdf

[4] Williamson, John, "Federal Aid to Roads and Highways Since the 18th Century: A Legislative History" Congressional Research Service, January 6, 2012.

[5]The jump in funding in 1999 is due to the Taxpayer Relief Act of 1997, which delayed some deposits that were slated to be made into the fund in 1998 until 1999. Section 901(e) of the Taxpayer Relief Act of 1997 allowed fuel taxpayers to delay the deposit of estimated tax liabilities that would otherwise have been required in August and September of 1998 until October 5, 1998. This effectively delayed the deposit of over $5 billion of Highway Account fuel tax receipts from 1998 until 1999.

[6] For those of you who are transportation or infrastructure specialists, you will recall that interest payments to the Highway Trust Fund (HTF) were ended in TEA-21 in 1998. However, Congress subsequently transferred general fund revenue to the HTF, stating that it was returning that interest. Treasury staff estimated the size of that revenue, although it was essentially used to maintain spending levels over the last few years.