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DRIVERS OF JOB CREATION

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BEFORE THE

SUBCOMMITTEE ON
ECONOMIC POLICY

OF THE

COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

SECOND SESSION

ON

EXAMINING THE CURRENT STATE OF JOB CREATION FOCUSING ON KEY SECTORS SPURRING JOB GROWTH AS WELL AS THE IMPORTANT ROLE OF THE MIDDLE CLASS

MAY 7, 2014

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C O N T E N T S

WEDNESDAY, MAY 7, 2014

WITNESSES

DRIVERS OF JOB CREATION

WEDNESDAY, MAY 7, 2013

U.S. SENATE,
SUBCOMMITTEE ON ECONOMIC POLICY,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Subcommittee met at 2:32 p.m., in room SD–538, Dirksen Senate Office Building, Hon. Jeff Merkley, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF CHAIRMAN JEFF MERKLEY

Chairman MERKLEY. I call this hearing of the Economic Policy Subcommittee of the Committee on Banking, Housing, and Urban Affairs to order.

Five and a half years ago, this country faced the largest financial crisis since the Great Depression. This crisis and the following recession shook the American job market to its core. We have made progress over the last several years in recovering jobs and growth, with employment recently surpassing pre-recession levels for the first time.

At the same time, though, there is no doubt that much more needs to be done and should be done to drive job creation, particularly middle-income, good-paying jobs with benefits—a foundation for America's economic success.

We still have much more to do to make an improving but still tough economy work for all Americans. Unemployment rates remain high and punishingly long for too many. The recent lapse in emergency unemployment insurance has led many long-term job seekers to exit the workforce. And while payroll employment gains have recently been rising at a pace of about 200,000 per month and almost 300,000 last month, we need more jobs for new entrants and more jobs for those seeking full-time employment.

Among the hardest-hit sectors have been construction and manufacturing. As policy makers, we should above all keep in mind that not all jobs are created equal. One of the most troubling trends of the Great Recession has been that middle-income jobs lost in the recession have been replaced in the recovery by low-wage jobs. An updated study released last week by the National Employment Law Project shows that this trend continues. We should focus most on the creation of good middle-class jobs with living wages which will serve as a multiplier driving the economy forward.

I know that these types of jobs are good for working families and good for the economy, because I grew up in a blue-collar family that was able to live the middle-class American dream. As I have said before, America does well when the middle class does well.

We have with us today a panel of experts who will discuss the state of the labor market as a whole and describe the roles of some key sectors in creating living-wage jobs. So I thank all of you. We will have an opening statement from our Ranking Member, Senator Heller, and then we will turn to your testimony. It is great to have you here.

STATEMENT OF SENATOR DEAN HELLER

Senator HELLER. Mr. Chairman, thank you for holding this hearing, and it is always timely to talk about jobs. I want to thank our witnesses also for taking time and being here with us today.

Creating jobs and fixing this broken economy has always been my highest priority, as I know it has been for the Chairman. And there is not a day that goes by that I do not think about what can be done to create jobs and improve our economy.

It has almost been a year since we had our first Subcommittee hearing on how to help the middle class in this recession. Unfortunately, after a year, it is clear that

Washington, DC, is still failing to create an environment where private businesses are able to create robust job growth. Some would argue that Washington, DC, has been forcing a job destroying agenda on the American public.

I believe that the policies of the last couple years are not working in Nevada. Nevadans suffered through 4½ years of double-digit unemployment and is still one of the worst rates in our country. We have to end the fear and uncertainty that most Nevadans are facing.

Now is the time when we should develop policies that would create new growth and opportunities and finally free ourselves from this mediocre and stagnant economy.

Well, there is a lot of talk about how to create jobs. There has been a lack of action to help create jobs. There are concrete measures that Congress could be doing right now that would create jobs. Let us reform the Tax Code. Let us rein in wasteful Federal spending. Let us support comprehensive energy policies. And let us stop Washington's overregulation.

As I mentioned in our hearing last year, Nevadans are fighting every day for a decent paycheck, a safe home, and a strong community. Their driving goals for a better life is what motivates me every day to fight for them here in Washington so their voices can be heard.

I want to thank again all of our witnesses for taking the time to be here today. I look forward to your testimony, and thank you, Mr. Chairman, again for this hearing.

Chairman MERKLEY. You are welcome, and I will go ahead and introduce all of our witnesses, and then we will enter directly into the testimony.

Jennifer Erickson is the Director of Competitiveness and Economic Growth at the Center for American Progress. She holds a B.A. from the University of Virginia, a master's in public policy from the University of Edinburgh. Her work focuses on a range of issues affecting America's ability to compete successfully at home and internationally. Prior to joining the Center for American Progress, Ms. Erickson served as special advisor to the First Minister of Scotland, with portfolios including economic growth, innovation, and U.S. relations.

Mr. Derek Smith comes from Portland. I am so glad that you traveled so far to join us. He has been a leader in the role in triple bottom line ventures for more than a decade with experiences in the public, private, and nonprofit sectors. Prior to heading Clean Energy Works Oregon, he was policy advisor for the city of Portland's Bureau of Planning and Sustainability. In the late 1990s, Derek developed one of the first sustainability programs in the retail world at Norm Thompson Outfitters. As Director of Operations at YOLO Colorhouse, Derek was a member of the management team that achieved 500 percent annual growth. He has a B.S. in Mass Communications from San Jose State University and an M.B.A. from the University of Oregon.

Emil Frankel is a visiting scholar at the Bipartisan Policy Center and an independent consultant on transportation policy and public management issues. Previously, he served as BPC's Director of Transportation Policy. He received his bachelor's degree from Wesleyan University and his law degree from Harvard Law School. Mr. Frankel has a varied and distinguished career in both the public and private sector, including serving as Assistant Secretary of Transportation, Commissioner of the Connecticut Department of Transportation, and principal consultant at an international engineering consulting firm.

Dr. Robert Dietz is Vice President for Tax and Market Analysis for the National Association of Home Builders. His responsibilities include economic and legal analysis of tax and policy issues. Prior to joining the National Association of Home Builders in 2005, Dr. Dietz worked as an economist for the Congressional Joint Committee on Taxation, specializing in revenue estimation of legislative proposals involving housing, urban development, and other business tax issues. He earned his Ph.D. in economics from Ohio State University.

Mr. Tom Buffenbarger is the president of the International Association of Machinists and Aerospace Workers. He assumed his first IAM leadership post at age 20 in 1970 when he was elected shop steward of his apprenticeship group at General Electric Jet Engines. He has served in a number of key leadership roles over these years before becoming international president in 1997. And I might add that my father was a member of the Machinists, and so I certainly grew up so much appreciating the union. Thank you.

And to kick us off, Ms. Jennifer Erickson.

STATEMENT OF JENNIFER ERICKSON, DIRECTOR OF COMPETITIVENESS AND ECONOMIC GROWTH, CENTER FOR AMERICAN PROGRESS

Ms. ERICKSON. Thank you, Chairman Merkley and Ranking Member Heller, for inviting me here to testify. My name is Jennifer Erickson, and I am the director of competitiveness and economic growth at the Center for American Progress.

My testimony today will focus on three things: the current jobs picture in the United States, policies that can promote jobs over the short term, and what we have to do over the longer term to have a dynamic economy. And what is central to all of this analysis is the understanding that if we are going to have a strong and growing economy, we need a strong and growing middle class—a middle class which provides a stable source of demand and also a pipeline of entrepreneurs and skilled workers.

Between 2007 and 2009, the United States underwent its longest, most severe economic contraction since the Great Depression, with unemployment rising to 10 percent. In the nearly 5 years since the official end of the recession, the economy has continued to recover. As of last week's latest jobs numbers, we have seen 50 straight months of private sector job growth and added a total of 9.2 million private sector jobs.

And while that is encouraging, there can still be no doubt unemployment is stubbornly high unemployment and labor force participation is far too low.

Much of this problem has to do with a lack of aggregate demand, an output gap which can be attributed in part to stagnant family incomes as well as fiscal austerity. So with 10 million workers still unemployed, the message could not be clearer. We need to take immediate steps for job creation.

Now, if we are going to grow the largest, most dynamic, complex economy the world has ever seen, we have to do a lot of things right. But there are two things we can do right away: invest in infrastructure and dramatically expand apprenticeships.

At a time when almost 800,000 construction workers are out looking for work and when so much of America's infrastructure is in disrepair, this is the perfect time to invest. And we can do so knowing that for every $1 billion invested in infrastructure, between 9,000 and 15,000 direct and indirect jobs are supported.

When it comes to our younger workers, we should remember that right now in the United States we have as many unemployed and underemployed workers as the entire population of New York City. And expanding apprenticeships is one way to address a part of that problem. Apprenticeships are a form of on-the-job training where workers are still earning a wage, and that training and those jobs will lead to good middle-class jobs.

And when it comes to the longer term, we know that investments in our middle class and in our competitiveness helped build our economy in the 20th century. So the question is: Are we prepared to invest in ourselves once again?

When it comes to building human capital, will we make sure that every child in America has the opportunity to attend high-quality preschool education where we know there is an enormous return on investment? And when it comes to our economic environment, since we know that about half of all economic growth following World War II came from advances in science and technology, then are we prepared to boost investments in general science, space, and technology funding, a category where we saw a cut in real terms of 12 percent from 2010 to 2013?

In fact, if we look at those 3 years, 2010 to 2013, we saw the largest 3-year reduction in Federal spending since demobilization following the Korean War. And cutting investments in our economic competitiveness at a time when the world is getting increasingly global is incredibly shortsighted and it risks the very innovation economy that our workers and businesses have so diligently built.

Finally, I would note that we have to take great care to avoid the mistakes of the past. Americans lost millions of jobs and trillions of dollars from the financial crisis that led to the Great Recession. So as a start, we must see through the landmark reforms from Dodd-Frank to ensure that the era of "too big to fail" has truly passed, enabling regulators with the tools they need to protect American jobs.

We know how the economy works: Securing America's middle class is the key to America's economic growth in both the short and long term. So the sooner that we acknowledge that smart investments in growing that middle class are key to our economic success, the sooner we will see more Americans in good-paying jobs.

Thank you.

Chairman MERKLEY. Thank you.

Senator, I know that you have to go. Do you want to ask any question before you go, just slip one in before you take off?

Senator HELLER. I just want to apologize. Ms. Erickson talked about infrastructure and creation of jobs. I have got a Commerce hearing right now, and the Department of Transportation is going to be in front of that Committee, and we need some infrastructure work in Nevada. So I do apologize to all the witnesses. I really need to get to this Committee. But thank you very much for being here.

Again, Mr. Chairman, thanks for holding this hearing.

Chairman MERKLEY. You are off to apply the very insights that are being presented. Thank you so much.

Mr. Smith.

STATEMENT OF DEREK SMITH, CHIEF EXECUTIVE OFFICER, CLEAN ENERGY WORKS OREGON

Mr. SMITH. Mr. Chair, my name is Derek Smith. I am CEO of Clean Energy Works, based in Portland, Oregon. Thank you for the opportunity to speak with you this afternoon, and thank you for your leadership on clean energy and economic development.

Clean Energy Works is a nonprofit, public–private partnership. Our mission is to create jobs and reduce energy waste through the facilitation of home energy retrofits. We coordinate and deploy public, private, and utility dollars to scale up the residential energy efficiency sector.

We were founded 4 years ago as a city of Portland pilot project seeded with Recovery Act dollars, and I am here to report that this smart Federal investment is proving that residential energy efficiency can create quality jobs and unlock private capital to grow a vibrant marketplace.

To date, our statistics include:

12,000 Oregonians signing up, 3,700 homes upgraded in rural, suburban, and urban communities; 30 percent average energy savings per home; and more than $1.5 million put back into the pocketbooks of Americans instead of being spent on energy waste.

As for jobs, we know through our work that, for every 10 homes upgraded, one job gets created. To date, we have enabled 1,300 workers to receive paychecks; 400 new hires in the hard-hit construction industry; $21-an-hour average wages across multiple trades, from weatherization to HVAC to plumbing to electrical; 56 percent of work hours performed by women and people of color; 36 veterans working on projects; $65 million in economic development; and counting.

Before we began our work a few years ago, this market was small. About 200 homes were upgraded per year, and workers were paid piece-rate wages averaging around $9 an hour, no benefits. We are now lifting people out of poverty and into career pathway professions.

How do we generate these numbers? It all comes down to making it easy for citizens to upgrade their homes for energy efficiency. The way it works for a homeowner is they sign up at our website; we arrange an energy assessment of their home and pair them with a vetted contractor; a scope of work is drafted and agreed upon by the contractor and the homeowner; we arrange financing from a local lender; and we provide quality control and customer service throughout the project.

Currently, more than 100 small- to medium-sized contracting firms are growing their businesses in the program, and multiple private lenders are providing unsubsidized financing. These lenders include several credit unions, a regional bank, and a community development financial institution. Loan products include secured, unsecured, home equity and "on-bill," meaning that customers can pay back their loans through the utility bill. So private investment is happening in energy efficiency, initially spurred on by public investment.

As you know, a coordinated effort to retrofit America's inefficient housing stock would create hundreds of thousands of U.S. jobs in some of the hardest-hit industries, as you mentioned, including construction and manufacturing. These are primarily small business jobs that cannot be outsourced, using materials that are on average 90 percent made in the U.S.A. In Oregon alone, we estimate there are 600,000 homes in need of weatherization, an $8 billion economic opportunity that could create 60,000 jobs.

So I would like to conclude by highlighting a few policy issues for your consideration.

First, on real estate valuation, a key component to the future, the Sensible Accounting to Value Energy, or SAVE, Act, Senate bill 1106, was introduced by Senators Bennet and Isakson in June of last year. This legislation would improve the accuracy of mortgage underwriting used by Federal mortgage agencies by including energy efficiency as a factor in determining the value and affordability of a home.

And on financing, Senators Cardin, Feinstein, and Schatz introduced Senate bill 2189, the Energy Efficiency Tax Incentives Act, last month. This legislation includes the first performance-based energy efficiency tax incentive—25E in the Tax Code. This tax incentive would provide between $2,000 to $5,000 to homeowners based on their energy savings. This approach would let the market determine the technology put in the home. Tax dollars would essentially be investing in savings from what you could consider miniature power plants represented by bundles of home energy retrofits, and those tax dollars would also be investing in the multiple public benefits those savings provide, notably job creation.

Thank you very much for your support and consideration.

Chairman MERKLEY. Thank you, Mr. Smith.

Mr. Emil Frankel.

STATEMENT OF EMIL H. FRANKEL, VISITING SCHOLAR, BIPARTISAN POLICY CENTER

Mr. FRANKEL. Thank you, Mr. Chairman. I appreciate this opportunity to address this important issue. Before proceeding, I would like to request that my full written statement be made part of this Committee's hearing record.

Chairman MERKLEY. Without objection.

Mr. FRANKEL. I would like to say that this issue of the interrelationship between transportation and infrastructure investment has dominated our work on the National Transportation Policy Project at the Bipartisan Policy Center, which work I directed. Most relevant, in January of 2011, we issued a white paper entitled, "Strengthening Connections Between Transportation Investments and Economic Growth", which was co-authored by two members of our project: Douglas Holtz-Eakin, former CBO Director, and Martin Wachs, of the University of California.

Increasingly, over the past 25 years, as a State and Federal transportation official, a consultant, teacher, and policy contributor on transportation and infrastructure issues, I have come to appreciate the role that these investments play in building economic growth and prosperity. This has been true throughout American history, from the days of roads and canals and Henry Clay's and Abraham Lincoln's internal improvements, through highways and airports, and it has been recognized going back to Secretary Albert Gallatin, Thomas Jefferson's Treasury Secretary, to Dwight Eisenhower.

In my own teaching, I have made extensive use of a book by a distinguished economist, Peter Bernstein, called "Wedding of the Waters" about the building of the Erie Canal at the beginning of the 19th century. It was, of course, an engineering and construction miracle, but most importantly, from Bernstein's point of view, was how this investment in infrastructure in a transportation facility changed the economy of the State, the region, and the Nation. The Erie Canal connected newly settled areas of the Midwest and the Great Lakes to the original States and allowed agricultural products to flow from west to east and industrial products from east to est. New cities were born, and old cities got a new economic function. For example, New York City, because of the Erie Canal, reinforced its pre-eminent position as America's center of finance, commerce, and international trade, a position that it has held for 200 years.

Similarly, as William Cronan wrote in his monumental "Nature's Metropolis", the coming of the railroads to Chicago not only changed that city but fundamentally altered the economies and the natural and built environments of both Chicago and of the Plains and western regions of the United States.

A March 2012 report by President Obama's Treasury Department with CEA noted that the United States has a rich history of investing in infrastructure and reaping long-term benefits. Those benefits include both the long-term economic growth and the short-term effects of stimulating maintenance and creation of construction and construction-related jobs.

While infrastructure investments play an important role in stimulating construction jobs, quantifying the multiplier effect, the jobs multiplier effect, is difficult. But I think as was noted in the BPC white paper, to which I have referred, and I am quoting from it, "Short-term job creation, while vitally important, must be viewed within the context provided by a long-term view. Over the long-term, higher productivity . . . is the key to higher labor earnings and improved standards of living." It is the long-term economic benefits, in terms of productivity, efficiency, access to markets, and labor force flexibility, which should be the goals and purposes of public investment in transportation and other infrastructure investment.

But selecting the appropriate infrastructure investments, those that promise the greatest short- and long-term economic benefits in a time of persistent budget deficits and stagnant public spending, is a difficult challenge to public policy leaders. Public investment capital is constrained, and the reality is that Federal transportation spending is likely to be under economic pressure for some time to come, despite compelling evidence that we have been falling consistently short of making the infrastructure investments we need to sustain an efficient, safe, environmentally sustainable, and well-functioning transportation network.

The priority, then, needs to be on making "wise" infrastructure investments, that is, those that promise the greatest economic benefits in terms of increased productivity, efficiency, and job creation. Unfortunately, for the most part—there are exceptions, but for the most part, the United States' framework for planning, analyzing, and making decisions about infrastructure investments is really not up to the job of making these tough, wise investment decisions. I think that is an important challenge to the Congress as it considers transportation reauthorization legislation.

I think also the funding limitations puts a greater burden on financing and a greater burden on States and localities.

None of these policy initiatives, whether it is infrastructure banks or public–private partnerships or expanding TIFIA, remove the need to make better and wiser choices. Smart, wise infrastructure investments are critical to economic growth and long-term job creation.

Thank you very much.

Chairman MERKLEY. Thank you.

And we will proceed with Dr. Dietz.

STATEMENT OF ROBERT DIETZ, VICE PRESIDENT FOR TAX AND MARKET ANALYSIS, NATIONAL ASSOCIATION OF HOME BUILDERS

Mr. DIETZ. Thank you for the opportunity to testify today. My name is Robert Dietz, and I am an economist with the National Association of Home Builders. NAHB represents all sectors of residential real estate development—single-family, multifamily, remodeling, and businesses connected with supplying and financing those activities. Home building is also an industry dominated by small businesses.

The residential construction industry was hard-hit by the Great Recession. Home construction fell 75 percent from 2005 to 2009, and the industry lost almost a million and a half jobs. But since 2011, the home building and remodeling sectors are growing again. Over the last 2½ years, 274,000 jobs have been created.

This job creation has occurred because of significant improvement in housing starts. From 2009 to 2013, total starts grew by 67 percent, reaching an annual total of 925,000. This expansion has had direct economic benefits. NAHB estimates that, on average, the construction of 1,000 single-family homes provides enough work to create 2,970 jobs—roughly 3 jobs per single-family home.

Additionally, construction of 1,000 rental apartments, including units developed under the Low-Income Housing Tax Credit Program, generates 1,130 jobs, roughly 1 job per multifamily home. And $100 million in remodeling expenditures creates 890 jobs.

This job impact is broad-based across sectors and across the Nation. For example, somewhat more than half of these jobs are created in the construction sector, with the rest in other sectors in the economy.

The health of housing is key for the overall state of the U.S. economy. Currently, housing represents about 15.5 percent of GDP through a combination of housing services and the investment produced by builders, by adding or improving homes.

Nonetheless, housing has room to grow. Typically, housing represents 17 to 18 percent of GDP. With a growing population and an aging housing stock, NAHB forecasts that single-family construction will increase 22 percent in 2014, with 6 percent additional growth for multifamily. 2014 should, in fact, be the first year since the recession in which the total number of housing starts exceeds 1 million homes. And this expansion will produce jobs. In April alone, builders and remodelers added 13,100 jobs.

The Great Recession was an important if painful reminder of the key role that housing plays as a source of household savings. According to Federal Reserve data, primary residences accounted for 42 percent of a typical homeowner's wealth. And savings in a home are also widely held. Roughly 65 percent of households own a home while only 50 percent possess a retirement account and only 16 percent own stocks and bonds outside of such an account.

Housing, of course, also plays a key role in the health of our society. Access to safe and decent and affordable rental housing is needed for those households for whom renting is the best choice. And for those able to assume the financial responsibility of owning a home, home ownership has been shown across an array of academic studies to produce a rich set of social and individual benefits, including increased neighborhood participation and improved education and health outcomes.

While home construction is poised to continue to expand and add jobs, certain industry head winds exist. These include access to building lots, rising building material prices, access to builder loans, and worker shortages in some markets. And an additional head wind is the lack of policy certainty in areas connected to housing. Providing certainty in these areas, including enacting a tax extenders bill and passing comprehensive housing finance reform, would be a net positive for job creation. And fostering job training for those interested in becoming home builders and remodelers will pay dividends. In particular, support for job centers and the community college system will ensure that the next generation of construction professionals will fill the jobs of the future, including building new homes and making the existing stock of homes more energy efficient.

In conclusion, housing provides the momentum behind an economic recovery because home building and associated businesses employ such a wide range of workers. Housing can be a key engine of job growth that this country needs.

Thank you, and I look forward to your questions.

Chairman MERKLEY. Thank you very much.

And now we will turn to our fifth presenter. President Buffenbarger, thank you so much for coming.

STATEMENT OF R. THOMAS BUFFENBARGER, INTERNATIONAL PRESIDENT, INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS

Mr. BUFFENBARGER. Thank you, Chairman Merkley, Ranking Member Heller, and Members of this Committee for the opportunity to testify before you today on the vital importance of manufacturing to the creation and preservation of American jobs. My name is Tom Buffenbarger, and I serve as International President of the International Association of Machinists and Aerospace Workers, also known as the IAM. Our members work in a variety of manufacturing industries including aerospace, electronics, defense, shipbuilding, transportation, and forest products. The IAM is a broadly diversified manufacturing union and the largest aerospace union in North America. We strongly believe that manufacturing is critical to our national economic recovery. Manufacturing is responsible for the good jobs that our Nation needs. It also generates the innovation and new technology which our Nation depends upon to ensure a healthy, robust, and sustainable economy in the future.

According to the U.S. Bureau of Labor Statistics, the manufacturing sector contributes $1.6 trillion in value to our economy, or about 9 percent of GDP. A recent study by the Congressional Research Service notes that manufacturers have been responsible for approximately 70 percent of all research and development conducted by businesses in the United States.

Manufacturing jobs are good jobs. Workers in the manufacturing sector enjoy an 8.9-percent compensation premium over other working Americans and are more likely to have employer-paid health care and other benefits. Since the start of the 21st century, education levels for manufacturing workers have improved; nearly 30 percent have at least a college degree, and the percentage with less than a high school diploma has shrunk to 10 percent. However, what has made manufacturing a source of middle-class jobs has been the traditionally high rate of unionization within the sector. The Center for American Progress notes the disturbing correlation between the decline of union density and the share of the Nation's income going to the middle 60 percent of households, which has fallen from 52.3 percent to 45.7 percent since peaking in the late

1960s. If this trend continues, then manufacturing work will not be the ladder to the middle class as it historically has been.

The effect of the manufacturing sector and the jobs that it produces can be found in the sector's multiplier effect. This can be seen in two ways. The Manufacturing Institute has found that every dollar of manufactured products supports $1.33 in output from other sectors, a larger multiplier than any other economic sector. In other words, manufacturing creates the wealth that drives much of our economy.

Moreover, manufacturing jobs support additional jobs, both direct and indirectly related to manufacturing, throughout the economy, and the multiplier ratios from manufacturing vary from a low of 1:3 to high of 1:16. The difficulty in coming up with a precise ratio derives from the changing nature of manufacturing jobs and what is counted as a manufacturing job. In the past, many manufacturing enterprises were vertically integrated operations that included a variety of support functions, such as shipping and transportation, as well as professional and business services like accounting, legal, and consulting. If any of these functions are directly employed by a manufacturer, then they are counted as manufacturing jobs; otherwise, the jobs are considered indirectly related to manufacturing. Other examples of indirect employment impacted by manufacturing activity include jobs in restaurants, retail, as well as local and State government.

According to last week's employment report, manufacturing employment currently stands at 12.1 million jobs, nearly 9 percent of U.S. payrolls. Significantly, even with the addition of 650,000 manufacturing jobs since the bottom of the Great Recession, the U.S. has still lost over 5 million manufacturing jobs since the start of this century. While a variety of factors, including technological changes and lean manufacturing practices, have reduced overall manufacturing employment, the lack of a comprehensive manufacturing policy that is directly related to jobs, our flawed trade policies, and a ballooning trade imbalance—$475 billion in 2013—have also contributed to this decline.

This year marks the 20th anniversary of NAFTA, which increased our trade deficit with Canada and Mexico by $150 billion resulting in a loss of an estimated 1 million U.S. jobs. For our members at companies like Maytag and Freightliner who saw their work and their jobs move to Mexico, the harsh reality of this model of trade is not a theoretical discussion.

An even bigger killer of U.S. manufacturing jobs has been the implementation of the PNTR with China. When China PNTR was passed in 2000, the U.S. exported three times as many manufactured goods as China, but within a decade China surpassed the U.S. in exports and became the world's leading manufacturer and exporter. By 2012 our share of global manufacturing activity had declined to 17 percent from 30 percent just a decade earlier even as the value of our exports had more than doubled. Now, two-thirds of our global trade deficit is with China, a rapidly growing country that engages in a variety of unfair trade practices—illegal subsidies, forced technology transfer, currency manipulation, and an appalling lack of labor rights.

The Economic Policy Institute estimates that over the last decade our trade imbalance just with China has cost the U.S. nearly 3 million jobs and put downward pressure on U.S. wages. And now, just 2 years after the passage of the U.S.–Korea FTA, we have seen our exports to Korea drop and our trade deficit with that country grow with a loss of an estimated 60,000 American jobs, mostly in manufacturing.

Successful countries recognize the importance of a strong manufacturing sector and the true nature of global competition. These countries know that there is no such thing as a "free market" and provide strong support for critical wealth and job-creating sectors like manufacturing.

The IAM has long called for the development of a national manufacturing strategy as our global competitors have done. This is not about picking winners and losers but, rather, creating the foundation for future prosperity. We applaud the President for taking steps to make this happen. The creation of the Office of Manufacturing Policy reporting to the National Economic Council, as well as the Advanced Manufacturing Partnership. which includes representatives from labor, industry, academia, and the Federal Government, has put a new focus on manufacturing at the highest levels of Government.

We look for the Advanced Manufacturing Partnership to develop a national manufacturing strategy that links Government policies and investment to actual job creation. This could be accomplished by requiring employment impact statements as part of the decision-making process for Government procurement contracts, grants, and awards. Simply stated, contracting agencies and policy makers should know how many good domestic jobs will be created and maintained by a contractor or grantee.

Our trade policies must be reformed to include enforceable labor rights and environmental protections, and this is particularly important as the U.S. negotiates the Trans-Pacific Partnership, or the TPP, with countries like Vietnam and Brunei that lack free and independent labor unions. Also, enforcement action must be taken to end currency manipulation by our global competitors.

There are many other steps that also will include strengthening the measure and standardizing the measure of Made in the U.S.A. and Buy American requirements for Government procurement contracts. In some cases, the domestic content requirement is as low as 51 percent, and it is not always clear that agencies limit their calculation of domestic content.

One Government initiative, the Export-Import Bank, stands out as a success. The Export-Import Bank provides critical financing for the export of American-made goods and services. Last year, the Bank provided over $37 billion worth of export financing that supported over 200,000 American jobs, mostly in manufacturing, and returned $1 billion to the U.S. Treasury.

Manufacturing plays a critical role in our economy. The sector is an engine of innovation and a source of middle-class jobs. We must not, however, take the sector for granted. America needs to think strategically about how we prepare our workforce, what investments we make to remain globally competitive, and how we trade with other Nations. For too long our focus has been on meeting the needs of U.S.-based multinational corporations at the expense of working Americans. This culture must change. Only then will we see a rebirth of American manufacturing—a rebirth that is essential for our national and economic security, and the future of America's hard-working men and women and their families and their communities.

I would be happy to answer any questions that the Committee may have. Thank you, Mr. Chairman.

Chairman MERKLEY. Thank you, all of you, very much. I have been so struck by the fact that in the last recession 60 percent of the jobs we lost were good-paying or living-wage jobs, yet only 40 percent of the jobs we are getting back fall into that category. The difference of that 20 percent means that millions of families across America who had the American dream in their hand—a good, solid job, one with benefits, the ability to save a little to assist their children and launch them into the world—are now seeing that dream crumble and slip through their fingers. And these are very concrete areas, these areas of infrastructure and rebuilding the building infrastructure with energy-saving retrofits and home construction and manufacturing that can make a difference.

I am going to ask some questions of each of you. I will follow the general pattern, but since there is only one of me and my panel members are not here, please feel free to indicate you would like to jump in on some of these questions so we create a little bit more of a conversation. And Senator Elizabeth Warren has indicated she is trying to wrap up her other Committee and is on the way. So we may have reinforcements soon.

Jennifer, I thought I would start with your point about aggregate demand, and if I understand right, this is the point that people do not make something if you do not have someone to sell it to. But there are others who have said, you know, the real key is not aggregate demand; it is concentrating wealth among the very few at the top because they will devise and build new factories, create new jobs, new job employment strategies.

So as you think about those two different theories, essentially aggregate demand and, if you will, a concentration of wealth at the top, what is the case that favors one theory over the other?

Ms. ERICKSON. Thank you so much, Mr. Chairman. I think the case that favors the argument for aggregate demand and the importance of the middle class is that we tried the other way. Supply side economic policies were de facto what was in place for a lot of America's last 15 years, and what we saw was exactly this concentration of wealth that you mentioned at the top.

In fact, if we look at all income gains since 2009 when we entered recovery, 95 percent of those income gains have gone to the top 1 percent. And so the reality is that the top 1 percent does not have the ability to drive the demand that is needed to employ more American workers and for businesses to feel the need to invest. It is no mystery that U.S. businesses are currently sitting on about $2 trillion in cash. That is because they do not think that there are enough customers on the other side if they make those investments. In fact, it was the former adviser to Presidents Ronald Reagan and George H.W. Bush, Bruce Bartlett, who wrote back in

2011, “It is the demand.” That was the headline of a major national piece.

And so I think that the reality is that the sooner we realize that businesses need customers, the sooner we will realize that we need a strong and growing middle class and policies that will support that.

Chairman MERKLEY. So, in short, if concentration of wealth at the top was the key, we would have more jobs now than ever before since we have more concentration of wealth; and, therefore, the model has been tested, it has failed, and it shows that people are not going to keep creating more factories and employing more people if there is no one to buy the product.

Ms. ERICKSON. Absolutely. In fact, venture capitalist Nick Hanauer, who is from Washington State—he was one of the original investors in Amazon. He wrote a piece in Bloomberg a couple of years ago where he said, “A typical middle-class consumer is more of a job creator than I can ever be.” And his point was that while he makes about 1,000 times a year as much as a typical American worker, he is not going to buy 1,000 times as many pairs of pants or pillows or dinners. And so he was addressing this not just from the reality of the type of character of country he wants to live in where there is more opportunity in the middle class, although we would certainly believe that is important; but also a matter of hard economics, that even if you are looking at it from a purely business perspective, you need customers.

Chairman MERKLEY. So in this sense, what turns out to be very good for the middle class is very good for the entire economy.

Ms. ERICKSON. Absolutely. Absolutely, and for the private sector, too. Again, I think if you look at what is happening both in small businesses and large businesses, the single biggest thing that comes up when they are asked what is their impediment to growth and hiring more workers is demand. They need to know there are customers there if they are going to open a new set of doors.

Chairman MERKLEY. So I want to turn next to the issue of infrastructure, and, Mr. Frankel, you addressed this as well as Ms. Erickson in the beginning. One of the statistics I was struck by is that China is spending roughly 10 percent of its GDP on infrastructure. And I went to China a decade apart. On my first trip, I saw largely bicycles in Beijing, and on my second trip, not only were the roads clogged with cars, but I also got on a train that went 200 miles per hour. And that was a phenomenal change in infrastructure, and I saw that all over China.

I understand Europe is spending 5 percent of its GDP on infrastructure and America just 2 percent. If these numbers are not right, please correct me. But what does it mean for a major developed country if we are investing far less of our economy in infrastructure than, if you will, our European competitors and upcoming countries like China? I do not know if either of you would like to jump into that.

Mr. FRANKEL. Well, respectfully, Mr. Chairman, I am not one who really looks to what other countries are doing. I think it has some relevance, but China is certainly at a very different place in its development from the United States. And it is to be expected that it would be spending a much higher percentage of its GDP on infrastructure. We spent a much higher percentage when we were building the Interstate Highway System.

The question I think is more are we spending enough or not in terms of our own needs, in terms of our own capacity to remain competitive, and that is without regard to, you know, what China is spending or some other country is spending.

Similarly, in terms of the high-speed rail system, we need to provide the kind of infrastructure which meets the needs and can bring the greatest benefits in a time of fiscal constraint. You are dealing with that much more directly than I am. You are dealing with scarce resources, the issue about how to divide a, if not shrinking, not adequately growing Federal pie, Federal funding. Congress has kind of established a policy as much by inaction as by action and thought over the last 10 years and, that is, Federal funding in terms of transportation infrastructure, as I noted in my statement, is actually in real terms declining. That is inappropriate in terms of providing for a productive economy.

I was struck—I make reference to this in my written statement, as you probably noted. I was more recently in the United Kingdom. They have a conservative-led Government, which has a commitment to a policy of austerity, and they are still spending what they think they need to spend on wise investments. Particularly, I spent a good deal of time in London and got some briefings on a project called "Crossrail", which is a brand-new subway line across Greater London. It is a $15 billion or almost $20 billion investment at a time of austerity. It was a decision to go forward by a Labour Chancellor of the Exchequer, pursued by a conservative Chancellor of the Exchequer, because of a perception of an analysis which showed that in their case the London region was an engine of economic growth for the United Kingdom and that an investment in improved access, improved labor mobility, and enhancing the agglomeration economics of the financial industry and financial sector in the London region was absolutely critical to ongoing growth of the United Kingdom and was based on a very careful business case and benefit-cost analysis.

We need to be able to do that in order—those are the kinds of decisions, rather than looking to what percentage China is spending or some other Nation is spending and what they are spending it on, what do we need to spend, what are wise investments for us which benefit long-term economic growth?

Chairman MERKLEY. I take your point that we should be in the context of are we spending enough for our infrastructure. What I see in kind of an anecdotal way—and I do a town hall in every county each year of our Oregon 36 counties—and I meet beforehand with the city commissioners and the county commissioners and ask them what is going on, what are they challenged by. And they are always raising infrastructure issues. And one of the things that is very common for them to raise is water infrastructure, and what they tend to say is, "We built this water system that we love decades ago," often post-World War II, that it now has three problems: first, it is wearing out; second, it does not meet the modern standards for either clean water supply or wastewater treatment; and, third, we need to plan for an expanded water supply or wastewater treatment for additional growth to be able to occur.

And given those three things and kind of the common sense that those were a major—in terms of the feedback of local officials, feedback in terms of what is constricting their economy, I have sponsored a bill called "WIFIA", or the Water Infrastructure Financing Innovation Act, modeled on TIFIA, which you mentioned in your testimony, the goal being to provide more low-cost funding for this type of infrastructure to be built.

Any insights or thought about—often we talk about roads and bridges, but any thoughts about how important water infrastructure is to our future?

Mr. FRANKEL. Well, it is obviously critical, and we are going to have to invest in water resources. Our inland waterways may be less relevant in your State, but certainly in the middle part of the United States, we have systems of locks and dams that are 100 years old. We talk about the transportation system, and it does not compare to elements of the inland waterways in terms of the need for upgrading and restoration.

Certainly in metropolitan regions, New York to its credit has made major efforts to prevent leakages from an old water system, and we lose tremendous amounts of water, when water is becoming a more and more valuable resource, from leaks and breakdowns in major water systems for major metropolitan regions. So I think this is critically important.

In terms of the particular—and I commend you for the initiative in terms of the financing initiative, as I mentioned, if funding is going to be flat or decline at the Federal level, if the burden is going to be greater on States and localities, the Federal Government should expand its financing capabilities, that is, offering greater credit to State and local governments, allowing them to leverage Federal resources by putting their own resources in, as well as raising private resources. All of that is critically important, although it does require the establishment of adequate revenue streams, whether it is for transportation or water projects, in order to service the debt of provide returns if there are private investors involved.

But as I think I mentioned in my written statement, my colleague, Aaron Klein, who is an alumnus of the staff of this Committee, and I wrote an op-ed about 8 or 9 months ago about the need—that what was happening really was a shift from Federal funding to Federal financing, and drawing that distinction is important, and taking advantage of and trying to ride that and maximize the opportunities.

I might mention one other thing, actually your comments, Senator, reminded—I do not know if this is still the case. I suspect it is. When I was at the Department of Transportation now 10 years ago, I know a huge issue in Oregon was the state of the bridges on the interstate system, particularly on the I–5. And it is an example of, with limited, scarce Federal funding available, what should we be putting it into. And I would make the strong argument, for example, in the case of Oregon, where they would like to, they need to restore and rebuild and in some cases replace those bridges; otherwise, the whole system of mobility, including freight and goods movements, to, from, and through the State of Oregon will come to a stop. Think about the economic impacts of that, as

I know you have. Think about the economic benefits, huge economic benefits in terms of cost and investing in our existing infrastructure maximizing its effectiveness and allowing it to contribute to a growing economy.

Chairman MERKLEY. I think as you may know, Senator Murray has for a very long time, long before I ever came to this body, worked very hard to line up the particular project, the last drawbridge on I–5 on the North-South Freeway, and it had rather a rough course over the last 2 years. But because the need still remains as a key part of our freight and passenger transportation, I am sure we going to be revisiting that piece of infrastructure. Point taken.

I wanted to particularly emphasize a point, if I caught it right, that 90 percent of the jobs from infrastructure would be middle-class jobs. Did I catch that right in your analysis?

Mr. FRANKEL. I made reference to the Treasury–CEA report in 2012, and it identified—I think the figure was 80 percent of the jobs, as I remember—it is in my written statement—of the jobs that would benefit from investment in infrastructure would fall into the percentiles between the 25th and 75th percentile, the construction and construction-related, because most of the jobs are in construction and manufacturing, and most of those jobs fall into those middle-class percentiles in the economy.

Chairman MERKLEY. Yes, that 80 percent of the jobs created by investing in infrastructure would be in construction, manufacturing, and retail, and that 90 percent of these would be middle class. That is a powerful recognition of how much connection there is between building this needed infrastructure for the general economy but also at the same time creating those living-wage jobs.

While we are still on the infrastructure, did you have anything you wanted to add to that?

Ms. ERICKSON. The only thing I would say is that U.S. public construction spending as a percentage of GDP has dropped to its lowest point in 20 years, and while we can all agree that the question is are we meeting the needs of our workers and our businesses, I also think the answer to that has been a resounding no, we are not. So that is why you are seeing different bedfellows from the AFL to the Chamber of Commerce standing up together and saying that this is really a time when we need to act.

So it is my sincere hope that we will see some bipartisan movement on this in Congress. I think that staying too focused on every dollar of Government spending as if it is exactly the same as part of an overlong and, in my view, sometimes misguided deficit fight really risks our fiscal future in the long term as well as our jobs picture today.

Chairman MERKLEY. Thank you very much.

I am going to turn now to Mr. Smith, and a different sort of infrastructure is our building infrastructure and rebuilding our buildings to make them more energy efficient, as you know, to create a lot of jobs. There was a statistic that you utilized, which I believe was Oregon could create 60,000 jobs. Can you repeat the conditions that would be necessary to create those jobs just in the energy retrofit field?

Mr. SMITH. Yes. So the data that we have gathered to date has been that for every 10 homes that get upgraded for energy efficiency, one job gets created, and that is proven data that we have, working on this for many years, and is actually consistent with what the home builders—as we discussed before, the testimony.

And so the analysis we have done in the State is that there are 600,000 homes. These are prequalified homes that are owner-occupied, that are in need of weatherization, that we can go after now, but we have to raise demand to get to them. Again, it comes back to demand. And so, therefore, that results in 60,000 jobs.

Chairman MERKLEY. OK. I realize that Oregon is 1 percent basically of the Nation, and that would mean a potential for 6 million under a roughly similar ball-park, back-of-the-envelope calculation, so a key piece.

Mr. SMITH. That is right.

Chairman MERKLEY. And in terms of customers actually saying it is convenient and easy and financially possible to do these retrofits, how important is low-cost financing and how important is on-bill financing?

Mr. SMITH. Financing is a critical tool in the toolbox, and on-bill is a very important piece of financing. I would underscore that capital is not the only issue. I appreciate the focus on demand in this testimony because from you standpoint, we need to get energy efficiency retrofits to be valued by citizens, like a kitchen remodel or a bath remodel. Again, this is remodeling that should be considered not only for the benefits that it provides in terms of better comfort in the home, but also that there is better health in the home, the homes are safer, and that there will be a return in the result of a sale transaction, so a financial return. And the way we can really get all those demand drivers moving, not only by providing more capital, is to promote policies that support real estate valuation. And then in the meantime, as demand continues to grow and we result in all these benefits of health and safety and job creation, investments in rebates like the ones I mentioned and the policy site I mentioned are really important and they are smart investments that the public sector can make because of all these benefits of job creation, health, safety, et cetera.

And I just want to add, just also to link infrastructure and demand, that we recently started adding services of seismic strengthening, radon mitigation. We will go into storm water, electric vehicle infrastructure. So any services that help make the home ready for the future and help the homeowner and occupants be safer, healthier, spend less on those resources, that is where we want to go. It creates more jobs, creates more business development opportunities for these small contracting firms, creates more private investment. And it is just great all the way around. We are achieving multiple public policy objectives in one fell swoop.

Chairman MERKLEY. And if I can go back to your estimate on the 60,000 jobs, that is homes only. So there is a huge potential also in the commercial side in addition.

Mr. SMITH. Absolutely, yes.

Chairman MERKLEY. I would like to welcome Senator Elizabeth Warren, who has been able to join us. We have been talking quite a bit about infrastructure and now also on energy-saving retrofits and their role in creating jobs and how many of these jobs in these two areas are also good-paying middle-income jobs. So I have had the privilege of carrying on the conversation for a while, and so would you like to take 5 minutes and jump in?

Senator WARREN. I would. Thank you very much. I appreciate it, Mr. Chairman. I apologize for not being here earlier. I am caught in two committees at the same moment. We have another committee that is about NIH funding and cancer research, so I apologize for not being here. But I had some questions I wanted to ask about that I thought were important here.

I was looking through some data, and according to the National Institute of Standards and Technology, manufacturing is responsible for about 12 percent of our GDP. Every dollar spent in manufacturing generates about $1.48 in economic productivity in other sectors of the economy. So we have got a powerful multiplier out of investments in manufacturing.

The growth in manufacturing is very important to the economy, but if manufacturers cannot get adequate funding, then growth is obviously held back, and that means that they cannot take on more orders, hire more people, make more shipments, that sort of thing.

Now, a recent study from NIST which analyzed the results of a national survey for manufacturing companies found that a lack of access to capital was one of main obstacles to manufacturers' ability to remain profitable, to expand their operations, and to compete with larger companies—cannot get the money, cannot make the investments, cannot have a business that prospers and then grows.

So the question I would like to ask—and I will ask it to anyone on the panel—is: How do we think about sustaining, expanding, capital—making capital available to manufacturers, particularly to smaller manufacturers? Does anyone have thoughts on this or had any experience with this? Mr. Dietz, you had the misfortune of moving first.

Mr. DIETZ. I represent the National Association of Home Builders. I would say that is beyond just manufacturing. It is construction as well.

Senator WARREN. Fair enough.

Mr. DIETZ. Absolutely a very large issue for home builders. Something like two-thirds of the construction in this country is done by small firms, firms that are family owned, that have 10 or fewer employees, and that access to credit, what is called "acquisition, development, and construction loans," is a big deal. And a lot of that lending comes through smaller banks, so we need to make sure that the community banking system is available so you get the kind of benefits that come from regional growth. And it is also—we have talked a lot about demand. It is also a matter of credit for home buyers. And so, you know, people go through a life cycle. They rent, they buy. But credit is key to turning that kind of macroeconomic concept of demand into kind of a real economic benefit at the microeconomic level.

Senator WARREN. Yes. You know, it is a very powerful point you make about the importance of community banks, that community banks disproportionately relative to big banks spend more of their lending portfolio in small business lending. And I worry about our community banks because we all know the number of community banks out there is shrinking. They are under a lot of pressure. They are under regulatory pressure. They are under other economic pressures. They get swept up in purchases by other larger financial institutions. And every time that happens, it is not only an impact on that community bank and on the banking system, it is also an impact on every small business that counted on that community bank for its financing.

Anybody else want to speak to this? Any other thoughts about it? Yes, sir.

Mr. BUFFENBARGER. Well, from the machinists' perspective, this is an interesting conversation, and we are talking from our own parochial points of view. But what the Government needs to do is start thinking big again. The first thing to the safety of community banks and support is reinstate Glass-Steagall, handle a few——

Senator WARREN. I did not set you up with that answer.

Mr. BUFFENBARGER. No, no.

Senator WARREN. Would you please clarify?

Mr. BUFFENBARGER. But you certainly gave me the opportunity to put my 2 cents' worth in.

Senator WARREN. Good.

Mr. BUFFENBARGER. But, Senator Merkley, you pointed out, as did others on the panel, the crisis in, for instance, water resources in this country. Being an old union, 126 years old this past Monday, we were around at the creation of the Tennessee Valley Authority, and we were designated by President Roosevelt—the machinists and the electrical workers—to build TVA. And if you take that concept and expand that nationwide, you address the issues of water resources. With that inherently are the other side—sewer, waste—but it also has an element of power with it where we generate low-cost electricity. That in turn, when power is cheap, to entice manufacturing to start, and the consumers of that on both ends, the manufacturing side, the using end, and those then who will benefit from it on the purchasing side, seems to be a self-perpetuating idea.

And that is something that merits deep thought and a review—I mean, all the lessons of the past were not bad lessons. TVA happens to be, I think, one of the—that and Social Security are the two great hallmarks of Franklin Roosevelt's domestic agenda.

Instead, today we fight because the Government wants to privatize TVA, much as we did the banking community, and our experience as a union with the deregulation, privatization of transportation, of power, of pharmaceuticals, of banks, of just about everything in our lives has been the code word for "destroy." Why do we want to do this?

So I would recommend the creation on a big thinking level of a development bank, a bank that spurs innovation, low-cost loans to those who wish to get into the manufacturing business, that we give an oversight to assure it does provide jobs, the middle-class jobs we are looking for to sustain this country. And if we have got the stomach for big-ticket items again and a challenge to America, I think this country is looking for that kind of challenge again.

Senator WARREN. I really appreciate your making that point, Mr. Buffenbarger, because you are exactly right, that when we make the investments in infrastructure, we not only create good jobs right now; we create the right conditions for businesses to be able to grow and flourish. Every investment that we make in the power grid is an investment in bringing down the cost of production for every business out there. You are right. Every investment we make in roads and bridges is an investment in being able to get your goods to market. And when we make those investments, we have another particular to build a future—a future in manufacturing and a future in all other business areas. That is a very good point.

Anyone else want to add? Mr. Smith.

Mr. SMITH. Yes, Senator, I would like to add a point to your great point about community banks, and credit unions, actually, and how close they are to their communities, and a point related to the work I am in, which is energy efficiency retrofits of homes. And before I do that, I just want to credit Senator Merkley for your—I meant to mention in my previous statement your efforts to get capital to rural communities through working with rural utilities, which is a huge help for those communities.

What we have experienced is we took U.S. Department of Energy stimulus dollars to provide credit enhancements early in the downturn of the economy to motivate private lenders to lend into the residential energy efficiency sector. In 2008, there was no lending anywhere, but certainly not in this new burgeoning field. And what we have been able to do in the past few years is actually unlock that private capital, pull the credit enhancements, and have multiple lenders competing for this sector because we created competition among them, and we have found that it has been community banks like Umpqua Bank and credit unions like Advantis and Selco and others in our State that are closer to the ground, they are closer to the communities, they want to support their members, they want their capital to go locally. And I find—a little editorial here—a little too much attention on the big banks and interest from those banks in reaching out their hand for a subsidy, when actually it is these small banks that are taking the risk. There is enough data in this sector that it is worthy of investment, and I believe that if we turn our attention to supporting these community banks, as you pointed out, that the big banks will follow at some later point as demand—again, we need more demand before they are going to enter the market. We do not need to subsidize them. We need to focus on the small guys who are close to the communities. Thank you.

Senator WARREN. Very powerful point.

Ms. Erickson.

Ms. ERICKSON. I think everyone has had really important suggestions. One thing that I would like to mention in addition to support for community banks is that, again, the single most important thing we need to do for access to capital from my perspective is avoid repeating the next financial disaster that will seize all credit. The Chairman mentioned that, before I came to the Center for American Progress, I was the economic adviser to Scotland's First Minister, which is a tiny country with huge banks. And so I had, unfortunately, far too close a ringside seat to what happens when credit pretty much dries up overnight, when institutions that are hundreds of years old and operate in many countries pretty much go away or have to be taken over by the Government.

And I think that, as important as Dodd-Frank is—and I certainly appreciate the leadership of this Committee in getting it through—if we were to go ask men and women on the street, "Do you think that the financial sector is safe? Do you feel like your 401(k) is all right? Do you trust your banks?" I do not think that most people in America think that the job is done. I do not think that most people in this room would think that the job is done. And so I think one of the most important things now to protect credit and access to capital is making sure that the regulations that were so strongly fought for in this chamber are actually put into place.

Senator WARREN. I think that is a very, very good point, Ms. Erickson. I think Americans get this. I think people all around the country get this. They understand that we have some very large financial institutions that are continuing to load up on risks and that it poses a danger to the entire economy.

You know, the five largest financial institutions which we were told back in 2008 were too big to fail, had to be bailed out, are now 38 percent larger than they were when they were bailed out in 2008 and 2009. This is not a sustainable path for the United States. So I thank you very much because I think you have made powerful points around this.

Going back to Mr. Dietz's point, finance is important for being able to develop manufacturing, to develop markets, to develop all of our business activities, and getting it right so that our community banks, our credit unions, the people who are on the ground and working with small businesses can make an important difference. But we have got to make sure we do not crash this economy, let the largest financial institutions crash this economy again.

I thank you all very much on this, and I appreciate this, Mr. Chairman.

Chairman MERKLEY. Thank you. Thank you, Senator.

I am going to jump back in, following up with Mr. Dietz, in regard to two issues related to home construction, and that is, one concern I have is that with fewer families earning middle-class incomes, fewer families will believe they have the power and, in fact, de facto will not have the financial power to become homeowners. So I would just like you to comment a little bit on that, but also—and, by the way, we will have to keep our comments very short because we have votes now scheduled for 3:45, which means we can go until 3:50, but then we have to dash over to the Capitol.

And, second, I read recently that young adults between 25 and 30 in a short number of years have become half as likely to get a home mortgage, in other words, to start become homeowners, which obviously affects the long-term number of houses that will be sought and purchased.

Any comment on those two challenges?

Mr. DIETZ. Yes, I think they are actually connected. One of the kind of areas of my research has been to look at demographic challenges. We talk about income distribution. We have talked about it here. But we really need to look at age analysis, too.

One of the things you have seen recently is even though there is job creation going on, there has actually been some wage declines, but it has been for people under age 35. When you layer on student loans and all the other typical challenges that come about those kind of key years of forming households, getting married, you really do have a problem for both renter demand and owner-occupied demand.

So, you know, the Congress needs to look carefully, pass comprehensive housing finance reform to make sure the credit is available for those home buyers, but also make sure credit is available for developers of multifamily housing. And a key way that we can support the rental housing sector is to protect the Low-Income Housing Tax Credit Program, which has obviously been a topic of debate in tax reform.

Chairman MERKLEY. I think one of the things we are hoping—and I have signed on to Senator Warren's bill—is that by reducing the interest rates on student loans, enabling folks—in Oregon we have 500,000 folks who have student loans—to refinance those at 4 percent, a lot of those people may be much more likely to become customers of the home construction, home ownership world.

Mr. DIETZ. Eventually.

Chairman MERKLEY. Yes. And, President Buffenbarger, I want to—you made many big points about how we are structuring our economy from talking about financing banks for infrastructure, industrial banks, manufacturing, certainly how manufacturing drives R&D. Did I catch you right, 70 percent of R&D driven by manufacturing?

Mr. BUFFENBARGER. Yes.

Chairman MERKLEY. Yes, substantial, and kind of the whole multiplier. But here is an issue that I have seen in manufacturing, that we have—we did lose a lot of manufacturers, as you pointed out, 50,000 factories, 5 million jobs, due to an unlevel playing field. But we also have a challenge that we have to figure out in terms of automation. I have been doing a Made in Oregon manufacturing tour, and the modern robotics and modern software to drive that robotics are phenomenal and are changing what can be done with human hands at a cost that can replace workers. This means much higher productivity, on the one hand, but it means a lot fewer workers, a lot more money going to capital and less to labor. And I have always felt if we do not make things in America, we are not going to have a middle class in America. But in this case, if we do not make things in America with people, we have a challenge. And yet, to be competitive with the world, we are certainly going to continue adopting these new technologies.

So any insights on the challenge of sustaining substantial—not just a successful manufacturing sector but ways in which we can make sure it thrives so much that it continues to provide living-wage jobs.

Mr. BUFFENBARGER. Thank you, Senator. As you pointed out, Oregon, which is a great State—and recently I toured the Boeing facility in Portland, a prime example of high technology, yet we are hiring there. We are going to be putting the employer there. It is going to be adding about 500 new jobs, because the technology enables us to handle the higher volume to meet the demand of the marketplace.

What would help in this realm, if the Government were to insist on those Made in America principles we spoke about earlier and Made in the U.S.A., maybe we could make the robots here for a change. After all, the concept of them was invented here, and we offshored it with Government incentives to Nations such as Japan and Germany. Maybe we should have kept the technology that was devised from defense-related R&D. That was a taxpayers' investment into the thought process, and then we turn it over to the private corporations who send it overseas and make a big profit off of it.

Where was the taxpayers' return on the investment? It was in the loss of jobs.

I say that if we are going to use our incentives, tax policies, whatever, to promote this type of innovation, this type of R&D, the quid pro quo would be it has to be built in the United States. That would bring and keep those good, high-tech—high-wage manufacturing jobs here, or at least go a long way toward that end.

Chairman MERKLEY. And can you comment on the Export-Import Bank and the fact that its authorization is expiring this year and the role it plays in being able to sell our products to the world?

Mr. BUFFENBARGER. The IAM is very much in support of renewal of the Export-Import Bank. For the aerospace industry, it is the best example I can draw on right now. It helps us, the U.S., sell our products overseas, to export products. And the fact of the matter is it is the one bank that returns its profit to the United States Treasury each year. Last year, it was $1 billion. That is $1 billion more than a few other banks I could think of that we used the taxpayer dollar to bail out not too long ago.

Chairman MERKLEY. Let us give the final question to Senator Warren, and then we are going to have to dash. Normally after we conclude a hearing, I would be able to stay and chat with folks. My team will be staying, but I am going to have to run for the vote.

Senator WARREN. So we have time for me to just ask a little bit more? OK.

So I have a question about worker training and whether or not worker training is good enough to meet the real-time needs of manufacturers. A recent National Association of Manufacturers survey indicates that more than 80 percent of manufacturers reported a significant shortage in skilled workers and about 75 percent of manufacturers said that the skills gap was harming their ability to expand their businesses.

Community colleges can play a valuable role in closing the skills gap. In fact, in Massachusetts, we have put something together called the "Rapid Response Grants Program", which provides money to community colleges so they can respond to workforce training needs within 90 days of a company's request. Last year, for example, the State provided funding to MassBay Community College so that students could receive training to work at Web Industries, which is an employee-owned advanced manufacturing company in Holliston.

Also, in February of this year, Greenfield Community College announced the expansion of its advanced manufacturing training programs.

These programs make sense if we are helping workers learn skills that will help them over the course of their careers and not just subsidizing in-house training for specialized manufacturers that they ordinarily would provide. And I just am interested in anyone on the panel's comments about whether this is an approach that works or not. We hear a lot about it, but I would just like the views of some of the people who are on the front lines on this.

Why don't we start with you, President Buffenbarger?

Mr. BUFFENBARGER. I am the product of a tool-and-die apprenticeship with General Electric jet engines, a very high-tech apprenticeship. It also includes that time with the university. In my case, it was Miami University of Oxford, Ohio. All the apprentices with General Electric attend university classes. The concept is not so much the community college or the university providing the skills. They cannot alone. With an apprenticeship, it is hands-on, augmented by that classroom, that instruction, at whatever level it is.

And so whatever we are going to do in the future, there has to be that emphasis placed by this Government with great strength and great force behind it to take a serious look at that original 4-year degree program called an "apprenticeship."

Senator WARREN. I hear you. Thank you.

Mr. Dietz? And we are going to have to run in just a minute here. Thank you.

Mr. DIETZ. Yes, very quickly, again, that is a very large issue in construction right now. You can look at Bureau of Labor Statistics data. The number of open, unfilled construction sector positions is 127,000, which, given the high rates of unemployment, is a bit of a paradox, but it has a lot to do with skills. It is also where the construction is taking place. But community colleges, job centers, NAHB has a subsidiary called Home Builders Institute that helps train workers. That is a necessary part of filling these jobs, which are available, they are out there, and they are middle class jobs that pay about $40,000 a year.

Senator WARREN. Anyone else want to add to that? Ms. Erickson, you get the last word, it looks like here.

Ms. ERICKSON. I just wanted to say I am so grateful that you brought up apprenticeships, because it is something that we are very much pushing at the Center for American Progress. We have about 375,000 apprentices registered right now in the United States. That is a tiny fraction of the apprenticeships that we see in countries such as England and Germany, not just in manufacturing, although that is really important, but we can expand them into things like IT and health care. And I just want to note there is a bipartisan bill before the Senate, the LEAP Act, and so hopefully we will see some progress soon.

Senator WARREN. Thank you.

Thank you, Mr. Chairman.

Chairman MERKLEY. You are welcome, and thank you for your participation. And I appreciate so much all the perspectives that you have brought on keeping and expanding living-wage jobs in America. This is a huge, huge issue for the success of our Nation. We should not be judging the success of our economy by the Dow Jones or S&P 500. We should not be judging in by the GDP. We should be judging it by how many living-wage jobs are we creating that provide a strong foundation for families to thrive.

And so each of you have brought insights related to that central question in our economy. I so much appreciate it. I apologize I cannot stay and talk, but it is a dialog that we are continuing to carry on with all of you.

With that, I will note that the record will remain open for 7 days for any questions that Members wish to be submitted, and with that, I formally adjourn the Banking Committee Economic Policy Subcommittee hearing on job creation.

Mr. SMITH. Thank you both for your leadership.

[Whereupon, at 3:56 p.m., the hearing was adjourned.]

[Prepared statements supplied for the record follow:]

PREPARED STATEMENT OF JENNIFER ERICKSON

DIRECTOR OF COMPETITIVENESS AND ECONOMIC GROWTH, CENTER FOR AMERICAN PROGRESS

MAY 7, 2014

Thank you Chairman Merkley and Ranking Member Heller for inviting me here to testify. My name is Jennifer Erickson, and I am the Director of Competitiveness and Economic Growth at the Center for American Progress.

It is difficult to imagine a more important issue for the security of both American families and the American economy than creating and maintaining good, middle-class jobs. With that in mind, my testimony today will focus on three things: an overview of the current jobs picture in the United States, policies that can promote job creation in the short to medium term, and also what we need to do to ensure a vibrant economic ecosystem in the future.

Central to all of this analysis is the understanding that if we are going to have a strong and growing economy, we need a strong and growing middle class. President Barack Obama rightly identified reigniting the engine of growth of the middle class as the defining issue of our time. [1] That is because we know that with a strong and growing middle class, we have a more stable source of demand, a bigger pipeline of both entrepreneurs and skilled workers, and the critical support needed for public institutions that a vibrant middle class provides. [2]

Overview of the Current Jobs Picture

Between late 2007 and June 2009, the United States underwent its longest and most severe economic contraction since the Great Depression, the result of a real estate bubble and the ensuing crash that had its roots in lax regulations, opaque financial products, and unsustainable household debt. [3]

The economy saw a rapid increase in unemployment, from 5 percent in December 2007 to a peak of 10 percent as of October 2009. [4] This decline in employment exceeded that of any recession over the past few decades [5] and was the first on record to wipe away all of the previous job gains of the most recent economic expansion. [6]

It has been nearly 5 years since the official end of the recession, [7] and the economy continues to recover. 2013 was the third straight year in which private-sector employment rose by more than 2 million jobs. [8] And as of last week's jobs numbers, the U.S. economy has seen 50 straight months of private-sector job growth, adding a total of 9.2 million private-sector jobs. [9]

While the signs of improvement are encouraging, there is no doubt that the pace of the recovery in terms of growth and jobs has been modest and underwhelming when we consider the potential labor-force growth during this time. Stubbornly high

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[1] The White House, "Remarks by the President on Economic Mobility", Press release, December 4, 2013, available at *http://www.whitehouse.gov/the-press-office/2013/12/04/remarks-president-economic-mobility.*

[2] Heather Boushey and Adam Hersh, "Middle Class Series: The American Middle Class, Income Inequality, and the Strength of Our Economy, New Evidence in Economics", (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/issues/economy/report/2012/05/17/11628/the-american-middle-class-income-inequality-and-the-strength-of-our-economy/*; David Madland, "Growth and the Middle Class, First Principles: Arguing the Economy", *Democracy Journal* (20) (2011), available at *http://www.democracyjournal.org/20/growth-and-the-middle-class.php.*

[3] Council of Economic Advisers, "2010 Economic Report of the President" (Executive Office of the President, 2010), available at *http://www.whitehouse.gov/sites/default/files/microsites/economic-report-president-chapter-2r2.pdf*; Bob Willis, "U.S. Recession Worst Since Great Depression, Revised Data Show", *Bloomberg News,* August 1, 2009, available at *http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aNivTjr852TI.*

[4] U.S. Bureau of Labor Statistics, "Data, Tables and Calculators by Subject: Labor Force Statistics From the Current Population Survey", available at *http://data.bls.gov/timeseries/LNS14000000* (last accessed May 2014).

[5] Bureau of Labor Statistics, "The Recession of 2007–2009" (U.S. Department of Labor, 2012), available at *http://www.bls.gov/spotlight/2012/recession/pdf/recession_bls_spotlight.pdf.*

[6] Christopher J. Goodman and Steven M. Mance, "Employment Loss and the 2007–2009 Recession: An Overview", *Monthly Labor Review* (2011): 3–12, available at *http://www.bls.gov/opub/mlr/2011/04/art1full.pdf.*

[7] Bureau of Labor Statistics, "The Recession of 2007–2009".

[8] Council of Economic Advisers, "2014 Economic Report of the President" (Executive Office of the President, 2014), available at *http://www.whitehouse.gov/sites/default/files/docs/full_2014_economic_report_of_the_president.pdf.*

[9] Jason Furman, "The Employment Situation in April", *The White House Blog,* May 2, 2014, available at *http://www.whitehouse.gov/blog/2014/05/02/employment-situation-april*; Center for Budget and Policy Priorities, "Chart Book: The Legacy of the Great Recession", available at *http://www.cbpp.org/cms/index.cfm?fa=view&id=3252* (last accessed May 2014).

unemployment and low labor-force participation continue to define today's workforce. As of April 2014, the United States had an unemployment rate of 6.3 percent, down nearly 4 percentage points from the labor market's recession peak.[10] While there has been steady private-sector job growth over the past 50 months, the pace has been too slow to restore us to full employment.[11] The current share of workers either working or looking for work falls below the rate at the beginning of the recession—66 percent—and is equal to the lowest participation rate since around 1978.[12]

The long-term unemployed have suffered tremendously as we continue to see an abnormally high number of Americans who want to work but are unable to find employment. As of April 2014, there were 3.5 million Americans who have been actively searching for a job for 27 weeks or more.[13] At 35.3 percent, the current rate of long-term unemployment as a share of the unemployed falls below the peak during the recession but is far and away the highest level on record.[14] Among those ages 20 to 24, there is an unemployment rate of 10.6 percent, more than 4 percentage points higher than the national average.[15]

According to Adam Hersh of the Center for American Progress, the economy is currently growing at around 60 percent of the pace set by the prior three U.S. expansions from as far back as 1982.[16] Since the June 2009 trough, "the economy has grown just 11 percent overall."[17] Of the last six recoveries, the most recent recovery ranks behind all but December 2001, with the smallest share of months with job growth above 200,000, or 33 percent.[18] Moreover, at the current average rate of job growth, analysis done by CAP's Michael Madowitz using The Hamilton Project's estimates demonstrates that the U.S. economy will not reach its former level of employment until 2019.[19]

Much of the problem has to do with the fact that our economy is suffering from a large output gap. Through the first quarter of 2014, demand for goods and services has been more than 4 percent less than what the economy can supply.[20] This restrained growth can be largely attributed to both fiscal austerity and stagnant incomes for families across the United States.[21] While businesses continue to see strong earnings and capture a major share of the income gains throughout the re-

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[10] U.S. Bureau of Labor Statistics, "Economic Situation Summary", Press release, May 2, 2009, available at *http://www.bls.gov/news.release/empsit.nr0.htm*; U.S. Bureau of Labor Statistics, "Data, Tables and Calculators by Subject: Labor Force Statistics From the Current Population Survey", available at *http://data.bls.gov/timeseries/LNS14000000* (last accessed May 2014).

[11] Furman, "The Employment Situation in April"; Center for Budget and Policy Priorities, "Chart Book: The Legacy of the Great Recession".

[12] U.S. Bureau of Labor Statistics, "Data, Tables and Calculators by Subject: Labor Force Statistics From the Current Population Survey, LNS11300000", available at *http://data.bls.gov/timeseries/LNS11300000* (last accessed May 2014).

[13] U.S. Bureau of Labor Statistics, "Economic Situation Summary".

[14] The State of Working America, "The Share of the Unemployed Who Have Been Jobless for Six Months or More, 1948–2014", available at *http://www.stateofworkingamerica.org/charts/long-term-unemployment/* (last accessed April 2014).

[15] U.S. Bureau of Labor Statistics, "Economic Situation Summary".

[16] Adam Hersh, "Private Debt, Public Penny-Pinching Holding GDP Back", *Market Watch,* April 30, 2014, available at *http://www.marketwatch.com/story/private-debt-public-penny-pinching-holding-gdp-back-2014-04-30?link=MW__story__latest__news.*

[17] Ibid.

[18] CAP analysis of Bureau of Labor Statistics and National Bureau of Economic Research data. See U.S. Bureau of Labor Statistics, "Labor Force Statistics From the Current Population Survey", available at *http://www.bls.gov/cps* (last accessed May 2014); National Bureau of Economic Research, "U.S. Business Cycle Expansion and Contractions", available at *http://www.nber.org/cycles/cyclesmain.html* (last accessed May 2014).

[19] Michael Madowitz and Matt Markezich, "The State of the U.S. Labor Market: Pre-May 2014 Jobs Release", Center for American Progress, May 1, 2014, available at *http://www.americanprogress.org/issues/economy/news/2014/05/01/88688/the-state-of-the-u-s-labor-market-2/*; The Hamilton Project, "Closing the Jobs Gap", available at *http://www.hamiltonproject.org/jobs__gap/* (last accessed April 2014).

[20] Center for Budget and Policy Priorities, "Chart Book: The Legacy of the Great Recession".

[21] Hersh, "Private Debt, Public Penny-Pinching Holding GDP Back".

covery, this has not translated into more jobs.[22] This is largely because businesses have less of an incentive to invest when consumer demand is weak.[23]

This need to improve our economic prospects has not been helped by sequestration, debt ceiling debates, and spending cuts on both the Federal and State levels. In particular, according to the Council of Economic Advisers, the most recent Government shutdown and debt limit brinkmanship had a "substantial negative impact" on the economy, resulting in a "0.25 percentage point reduction in the GDP growth rate in the fourth quarter and a reduction of about 120,000 private-sector jobs in the first 2 weeks of October."[24] Additionally, not only have these austerity policies resulted in cuts to investments and services critical to economic growth, but they have also led to cutting jobs—including the loss of hundreds of thousands of public-sector jobs since the end of the recession.[25]

In short, while we are slowly recovering from the worst economic crisis since the Great Depression, in February 2014, the Congressional Budget Office estimated that economic growth from the end of 2017 onward will be "well below the average seen over the past several decades" and that the unemployment rate will remain above 6 percent until the end of 2016.[26] Nearly half a decade following the recession, with 10 million workers unemployed and 3.5 million who have been looking for work for 6 months or more,[27] the message could not be clearer. We need to take steps to accelerate job creation, and we also need to take care that we are creating an economic environment that is producing good, middle-class jobs.

Policies That Can Promote Job Creation in the Short to Medium Term

In 2013, the Center for American Progress published an economic growth strategy, "300 Million Engines of Growth", that was centered on the premise that our economy will do better when all Americans are able to participate in it at the top of their talents. In "300 Million Engines of Growth", we acknowledge the reality that if we are going to grow the largest, most dynamic, complex economy the world has ever seen, we have to do a lot of things right—with the Government both investing in human capital and setting a competitive environment in which our workers and businesses can compete at home and abroad.

Today, I would like to highlight a few policies that would have the benefit of spurring job creation in the shorter term, while at the same contributing to our longer-term competitiveness.

Infrastructure

At a time when approximately 800,000 construction workers are out looking for work,[28] and when the American Society of Civil Engineers ranks America's infrastructure with a troubling D+ grade,[29] this is the perfect time for bipartisan consensus on the importance of investing in a new generation of infrastructure—from our roads and bridges, to our railways and ports, to our electric grids and wastewater systems.

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[22] Matthew Phillips, "Goldman: Corporate Profits Grew Five Times Faster Than Wages in 2013", *Bloomberg BusinessWeek*, January 24, 2014, available at *http://www.businessweek.com/articles/2014-01-24/goldman-2013-corporate-profits-grew-five-times-faster-than-wages*; Nelson D. Schwartz, "Recovery in U.S. Is Lifting Profits, but Not Adding Jobs", *The New York Times*, March 3, 2014, available at *http://www.nytimes.com/2013/03/04/business/economy/corporate-profits-soar-as-worker-income-limps.html?pagewanted=all.*

[23] Bruce Bartlett, "It's the Aggregate Demand, Stupid", *Economix*, August 16, 2011, available at *http://economix.blogs.nytimes.com/2011/08/16/its-the-aggregate-demand-stupid/?pagewanted=all.*

[24] Council of Economic Advisers, "Economic Activity During the Government Shutdown and Debt Limit Brinksmanship", (Executive Office of the President, 2013), available at *http://www.whitehouse.gov/sites/default/files/docs/weekly_indicators_report_final_0.pdf.*

[25] Michael Linden, "It's Time To Hit the Reset Button on the Fiscal Debate", (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/wp-content/uploads/2013/06/FiscalReset.pdf*; U.S. Bureau of Labor Statistics, "Top Picks", available at *http://data.bls.gov/cgi-bin/surveymost?ce* (last accessed May 2014).

[26] Congressional Budget Office, "The Budget and Economic Outlook: 2014 to 2024" (2014), available at *http://www.cbo.gov/publication/45010.*

[27] Hersh, "Private Debt, Public Penny-Pinching Holding GDP Back"; U.S. Bureau of Labor Statistics, "Economic Situation Summary".

[28] U.S. Bureau of Labor Statistics, "Table A-14. Unemployed Persons by Industry and Class of Worker, not Seasonally Adjusted", Press release, May 2, 2014, available at *http://www.bls.gov/news.release/empsit.t14.htm.*

[29] American Society of Civil Engineers, "2013 Report Card for America's Infrastructure", available at *http://www.infrastructurereportcard.org/a/#e/welcome* (last accessed May 2014).

Infrastructure investment is a well-known "two-fer," meaning it results in job creation in the short term and greater economic competitiveness over the long term.[30] As of 2008, for every $1 billion in infrastructure spending in a given state, around 9,000 to 15,000 direct and indirect jobs are supported—making infrastructure one of the single best investments the Government can make.[31]

The President's recently released surface transportation reauthorization proposal calls for $302 billion in expenditures, which would have a powerful effect on both jobs and competitiveness.[32] As valuable as this contribution to the jobs picture would be, the contribution to our Nation's productivity for years to come would be enormous as well. After all, the interstate highway system was a massive investment in our Nation's infrastructure and boosted U.S. annual productivity growth by double digits for decades.[33] Yet many of these critical assets are rapidly approaching the ends of their useful lives. America's workers stand at the ready to lay the foundation for the next five decades of prosperity.

Apprenticeships

The latest unemployment statistics highlight that too many of America's young people are either unemployed or underemployed.[34] Unemployment does not just hurt these would-be workers now; it can also depress their earnings for years into the future due to forgone work experience and missed opportunities to develop skills.[35] The fact that the number of unemployed and underemployed young Americans is greater than the entire population of New York City has extremely damaging implications for our economic prospects as a Nation.[36]

One immediate opportunity to address part of this problem is through dramatically expanding apprenticeships, a structured form of paid worker training that combines on-the-job learning and classroom instruction. Apprenticeships have been shown to boost workers' earnings and raise sponsoring companies' productivity levels, which is why many other countries rely on them as a central tool to develop a highly skilled, competitive workforce.[37] But even though, according to the U.S. Department of Labor's Employment and Training Administration, there are currently more than 375,000 registered apprentices in the United States, the training model is largely unfamiliar to Americans and considerably less widely used than in countries such as Germany and the United Kingdom.[38]

Expanding the U.S. apprenticeship system both in number of participants and available occupations would strengthen employment outcomes for young Americans by creating pathways for young workers to good-paying, middle-class jobs. Appren-

[30] "President's Council on Jobs and Competitiveness, Taking Action, Building Confidence: Five Common-Sense Initiatives To Boost Jobs and Competitiveness", Interim Report (Executive Office of the President, 2011), available at *http://files.jobs-council.com/jobscouncil/files/2011/10/JobsCouncil_InterimReport_Oct11.pdf.*

[31] Claudia Copeland, Linda Levine, and William J. Mallett, "The Role of Public Works Infrastructure in Economic Recovery", (Washington: Congressional Research Service, 2011), available at *http://www.fas.org/sgp/crs/misc/R42018.pdf.*

[32] The White House, "Fact Sheet: President Obama Lays Out Vision for 21st Century Transportation Infrastructure", Press release, February 26, 2014, available at *http://www.whitehouse.gov/the-press-office/2014/02/26/fact-sheet-president-obama-lays-out-vision-21st-century-transportation-i.*

[33] Federal Highway Administration, "Productivity and the Highway Network: A Look at the Economic Benefits to Industry From Investment in the Highway Network", (U.S. Department of Transportation, 2012), available at *http://www.fhwa.dot.gov/policy/otps/060320b/index.htm.*

[34] U.S. Bureau of Labor Statistics, "Economic Situation Summary"; Sarah Ayres, "The High Cost of Youth Unemployment" (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/wp-content/uploads/2013/04/AyresYouthUnemployment1.pdf*; U.S. Bureau of Labor Statistics, "Employment and Unemployment Among Youth Summary", Press release, August 20, 2013, available at *http://www.bls.gov/news.release/youth.nr0.htm.*

[35] Ayres, "The High Cost of Youth Unemployment".

[36] Sarah Ayres, "America's Ten Million Unemployed Youth Spell Danger for Future Economic Growth" (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/issues/economy/report/2013/06/05/65373/americas-10-million-unemployed-youth-spell-danger-for-future-economic-growth/.*

[37] Ben Olinsky and Sarah Ayres, "Training for Success: A Policy To Expand Apprenticeships in the United States" (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/wp-content/uploads/2013/11/apprenticeship_report.pdf*; London School of Economics and Political Science and Centre for Economic Performance, "The State of Apprenticeship in 2010" (2010), available at *http://cep.lse.ac.uk/pubs/download/special/cepsp22.pdf.*

[38] U.S. Employment and Training Administration, "Registered Apprenticeship Data and Statistics", available at *http://www.doleta.gov/OA/data_statistics.cfm* (last accessed May 2014); Olinsky and Ayres, "Training for Success: A Policy To Expand Apprenticeships in the United States".

tices get a job today and higher wages for a lifetime. Researchers have found that, including nonwage benefits, workers who complete an apprenticeship make an average of $300,000 more than comparable job seekers in their lifetimes.[39] Importantly, the wage premium in many cases comes with little or no educational debt.[40]

Given these benefits, we should welcome the President's recent announcement of $100 million in grants to support new apprenticeships, and Congress should pass the bipartisan Leveraging and Energizing America's Apprenticeship Programs, or LEAP, Act, which would provide businesses with a tax credit for each apprentice they hire, expanding these highly successful private-sector-led training programs.[41]

Policies That Can Promote Job Creation in the Longer Term

While investing in infrastructure and apprentices can help create jobs in the near term, there is much more to be done to drive job creation in the longer term.

Investments in the middle class following World War II helped build the most prosperous economy in the world. Congress made those investments in core areas of U.S. competitiveness—our people, our infrastructure, and our innovation.

The G.I. Bill helped almost 8 million American veterans go to college or get training and was seen as so successful that it was repeated for Korean and Vietnam veterans and further expanded after September 11, 2001.[42] From 1944 to 1956, we invested the equivalent of more than $100 billion in 2011 dollars, and our return on that investment was the engine of middle-class growth that powered the American economy following the Great Depression and World War II.[43]

President Dwight D. Eisenhower embarked on one of the most ambitious Government spending programs America has ever seen in the form of the interstate highway system. In 2011 dollars, we invested $468 billion—across multiple administrations headed by both Republicans and Democrats—to connect the country with more than 42,000 center-line miles of road, in what President Eisenhower referred to as a "mighty network" critical to U.S. competitiveness, safety, and defense.[44]

Taking one example of our research and development investment following World War II, in 2011 dollars, we invested $150 billion in the Apollo space program. At the height of its efforts, it employed 400,000 Americans and worked with 20,000 partnering institutions. This investment led to massive technological advancement and technology transfer in the private sector, leading to more than 1,500 successful spinoffs in areas from heart monitors to solar panels.[45]

The point of these three examples is that we know what works and leads to big returns on public investment: investments in our people and our innovative environment.

The question now is this: Are we prepared to invest in ourselves once again?

When it comes to human capital, will we invest in our future workers by ensuring all our children have access to high-quality preschool education, where economist James Heckman has shown we can earn a high return on our educational investment?[46] Or—in a clear-eyed realization of the economic and entrepreneurial value of giving legal status to aspiring Americans—will we ensure there is a pathway to citizenship for the 11 million undocumented immigrants currently living in the

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[39] Debbie Reed and others, "An Effectiveness Assessment and Cost-Benefit Analysis of Registered Apprenticeship in 10 States" (Oakland, CA: Mathematica Policy Research, 2012), available at *http://wdr.doleta.gov/research/FullText_Documents/ETAOP_2012_10.pdf*; Sarah Ayres, "5 Reasons Expanding Apprenticeships Will Benefit Millennials", Center for American Progress, December 2, 2013, available at *http://www.americanprogress.org/issues/economy/news/2013/12/02/79872/5-reasons-expanding-apprenticeships-will-benefit-millennials/*.

[40] Ayres, "5 Reasons Expanding Apprenticeships Will Benefit Millennials".

[41] The White House, "Fact Sheet: American Job Training Investments: Skills and Jobs To Build a Stronger Middle Class", Press release, April 16, 2014, available at *http://www.whitehouse.gov/the-press-office/2014/04/16/fact-sheet-american-job-training-investments-skills-and-jobs-build-stron;* Nia Hamm, "Bill Aims To Spur Job Growth for the Unemployed", CNBC, April 15, 2014, available at *http://www.cnbc.com/id/101581979.*

[42] Jennifer Erickson, "Top 10 U.S. Government Investments in 20th Century American Competitiveness: Why Federal Funding in the 21st Century Is Equally Critical to U.S. Science and Economic Competitiveness" (Washington: Center for American Progress, 2012), available at *http://www.americanprogress.org/issues/economy/report/2012/01/06/10930/top-10-u-s-government-investments-in-20th-century-american-competitiveness/*.

[43] Ibid.

[44] Ibid.

[45] Ibid.

[46] James J. Heckman and Dimitriy V. Masterov, "The Productivity Argument for Investing in Young Children". Working Paper 5 (Committee on Economic Development, 2004); James J. Heckman, "Schools, Skills, And Synapses", *Economic Inquiry* 46(3) (2008): 289–324; James Heckman, Seong H. Moon, Rodrigo Pinto, Peter A. Savelyev, and Adam Yavitz, "The Rate of the Return to the High Scope Perry Preschool Program", *Journal of Public Economics* 94 (2010): p. 114–128.

United States, knowing that the extra jobs and money that their status would create would lead to an average annual increase of 121,000 jobs and a cumulative 10-year boost to GDP of $832 billion? [47] The Senate has already spoken on this, passing a bipartisan bill that is still waiting for a vote in the House.

And when it comes to improving our economic environment, since we know that advances in science and technology account for roughly half of the growth in the U.S. economy since World War II, [48] are we prepared to boost investment in general science, space, and technology funding, which was reduced in real terms by about 12 percent from 2010 to 2013? [49]

In fact, according to Michael Linden, the period from 2010 to 2013 saw "the largest three-year reduction in Federal spending since the demobilization at the end of the Korean War." [50] Since we all have an interest in responsible public finance, we must recognize that responsible public finance includes responsible public investment. Cutting investments at a time when the global economy is getting ever more competitive is short sighted in the extreme and risks the very innovation economy that our workers and our businesses—aided by smart Government investment—have worked so diligently to build.

Additionally, while we need to invest in our human capital and our economic environment, we also must take great care not to repeat the mistakes of the past that will decimate employment. Millions of Americans are still reeling from the after-effects of the financial crisis and Great Recession, including long-term unemployment and lost household wealth. In fact, the Council of Economic Advisers calculated that during this period, Americans lost more than $13 trillion in wealth. [51] So as a start, we must see through the landmark reforms from the Dodd-Frank Wall Street Reform and Consumer Protection Act to ensure that the era of "too big to fail" has truly passed and empower regulators with the tools they need to do the job required for the American people.

Conclusion

We know how the economy works: Securing America's middle class is the path to strengthening U.S. economic growth now and for the long term. If we are going to have a vibrant economy producing good-paying jobs, we need that economy to be fueled by a strong and growing middle class that can supply the human capital, entrepreneurship, and stable demand to drive our economy.

Some of the policies discussed today can have an immediate effect in driving job creation, such as investing in infrastructure and expanding apprenticeships. Others, such as investing in our next generation of workers who are just starting their educational journeys and funding research and development, will take decades to bear fruit. But the sooner we acknowledge that smart Government policies that support a strong and growing middle class are key to our economic success, the sooner we will see more Americans in good-paying, middle-class jobs.

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[47] Robert Lynch and Patrick Oakford, "The Economic Effects of Granting Legal Status and Citizenship to Undocumented Immigrants" (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/wp-content/uploads/2013/03/EconomicEffectsCitizenship-6.pdf;* Jennifer Erickson and Michael Ettlinger, "300 Million Engines of Growth: A Middle-Out Plan for Jobs, Business, and a Growing Economy" (Washington: Center for American Progress, 2013), available at *http://www.americanprogress.org/issues/economy/report/2013/06/13/66204/300-million-engines-of-growth/*.

[48] Michael J. Boskin and Lawrence J. Lau, "Generalized Solow-Neutral Technical Progress and Postwar Economic Growth", Working Paper 8023 (National Bureau of Economic Research, 2000), available at *http://www.nber.org/papers/w8023*; Robert M. Solow, "Technical Change and the Aggregate Production Function", *Review of Economics and Statistics* 39(3) (1957):312–320, available at *http://www9.georgetown.edu/faculty/mh5/class/econ489/Solow-Growth-Accounting.pdf*.

[49] Office of Management and Budget, "Historical Tables", available at *http://www.whitehouse.gov/omb/budget/Historicals* (last accessed May 2014).

[50] Linden, "It's Time To Hit the Reset Button on the Fiscal Debate".

[51] Council of Economic Advisers, The Economic Impact of the American Recovery and Reinvestment Act Five Years Later (Executive Office of the President, 2014), available at *http://www.whitehouse.gov/sites/default/files/docs/cea__arra__report.pdf*.

PREPARED STATEMENT OF DEREK SMITH

CHIEF EXECUTIVE OFFICER, CLEAN ENERGY WORKS OREGON

MAY 7, 2014

Mr. Chair, Members of the Committee, my name is Derek Smith. I am CEO of Clean Energy Works, based in Portland, Oregon. Thank you for the opportunity to speak with you this afternoon; and thank you, Senator Merkley, for your leadership on clean energy and economic development.

Clean Energy Works is a nonprofit, public–private partnership. Our mission is to create jobs and reduce energy waste through the facilitation of home energy retrofits. We coordinate and deploy public, private, and utility dollars to scale up the residential energy efficiency sector.

We were founded four years ago as a City of Portland pilot project seeded with Recovery Act dollars. I am here to report that this smart Federal investment is proving that residential energy efficiency can create quality jobs and unlock private capital to grow a vibrant marketplace.

To date, our statistics include:

- 12,000 sign-ups
- 3,700 homes upgraded in rural, suburban and urban communities
- 30 percent average energy savings per home
- More than $1.5 million put back into the pocketbooks of Americans instead of being spent on energy waste

As for jobs, we know through our work that, for every 10 homes upgraded, one job gets created. To date, we've enabled:

- 1,300 workers receiving paychecks
- 400 new-hires in the hard-hit construction industry
- $21/hour average wages across multiple trades, from weatherization to plumbing to electrical to HVAC
- 56 percent of work hours performed by women and people of color
- 36 veterans working on projects
- $65 million in economic development
- And counting . . .

Before we began our work, this market was 200 homes per year and workers were paid piece-rate wages averaging around $9/hour. We are now lifting people out of poverty and into career pathway professions.

How do we generate these numbers? It all comes down to making it easy for citizens to upgrade their homes for energy efficiency. The way it works for a homeowner is:

1. They sign up at our Web site
2. We arrange for an assessment of their home and pair them with a vetted contractor
3. A scope of work is drafted and agreed upon by the contractor and homeowner
4. We arrange financing from a local lender
5. We provide quality control and customer service throughout the project

Currently, more than 100 small- to medium-sized contracting firms are growing their businesses in the program. And multiple private lenders are providing unsubsidized financing. These lenders include several credit unions, a regional bank and a community development financial institution. Loan products include secured, unsecured, home equity and "on-bill," meaning customers can pay back their loans on their utility bills. So private investment is happening, initially spurred on by public investment.

As you know, retrofitting inefficient homes puts energy savings back into the wallets of American families and communities. A coordinated effort to retrofit America's housing stock would create hundreds of thousands of U.S. jobs in some of the hardest hit industries, including construction and manufacturing. These are primarily small business jobs that cannot be outsourced, using materials that are on average 90 percent made in the U.S.A.[1] In Oregon alone, we estimate there are 600,000

[1] Home Performance Resource Center: Manufacturing Shares of Common Energy Remodeling Products.

homes in need of weatherization, an $8 billion opportunity that could create 60,000 jobs.

Plus, energy efficiency is unique in that it creates its own cash flow—less money spent on energy means more money to purchase groceries and save for college. Simply put, saving energy pays for itself.

So I'd like to conclude by highlighting a few policy issues for your consideration.

National Policy Challenge—Utility Coordination

Utility dollars are regulated at a State level and are exclusively focused on energy savings, blind to economic opportunity, driven by lowest cost, and so they inadvertently foster cheap wages and minimal career advancement. Even though there may not be direct Federal jurisdiction, I point this out as a national policy issue because, when you send public dollars into the energy efficiency sector—a proven smart investment that creates jobs and unlocks private capital—public utility commission oversight formulas consider this leverage an unwelcome challenge. The result is the potential pullback of utility investment. It is our experience that continued growth in energy efficiency can be optimized when public, private and ratepayer dollars are effectively coordinated.

National Policy Opportunities—Real Estate Valuation

The Sensible Accounting to Value Energy (SAVE) Act, S. 1106, was introduced by Senators Bennet (D-Colo.) and Isakson (R-Ga.) in June of last year. This legislation would improve the accuracy of mortgage underwriting used by Federal mortgage agencies by including energy efficiency as a factor in determining the value and affordability of a home.

The SAVE Act is a prudent addition to Federal underwriting guidelines as it incorporates the second largest cost of home ownership—energy costs, which exceed both taxes and insurance as a monthly expense. It is not a mandatory addition to such policies, but only comes into play if the consumer is buying a new energy efficient home or seeking to improve the efficiency of an older home. In fact, consumers in older homes have been significantly allocated a larger part of their remodeling expenditures to energy efficiency according to the Harvard Joint Center. [2]

The inclusion of net energy savings in the debt-to-income calculation is not a liberalization, but a long overdue prudent addition to correct a "blindspot" in underwriting. A car loan or credit card debt is included in the debt burden, but not the energy cost, which may be higher. Although the SAVE Act does not call for a mandatory inclusion, it allows for the recognition of cost-effective savings from rated properties to be included. For example, if the monthly additional mortgage cost to obtain a new or improved home is $50 a month, but the monthly savings are $95, the residual $45 only can be recognized as a net energy savings. I would argue that it is not a coincidence that the Veterans Administration, the only federally insured entity that includes a proxy for energy costs, had the best mortgage performance over the recent housing crisis cycle. Although anecdotal, many housing counselors have reported that, in performing troubled homeowner counseling, energy costs were a large and relatively fixed component of monthly expenses that were harder to adjust relative to other expenses such as cutting down discretionary spending or selling a second car.

The appraisal feature of the bill has been supported by the Appraisal Institute and the Congressionally chartered Appraisal Foundation as consistent with generally recognized valuation methods and techniques.

It is also important to note how mortgages for such homes actually have actually performed over time. The University of North Carolina studied the performance of energy efficient homes versus a matched sample for the period from 2001 to 2012. [3] It found that the energy efficient homes foreclosed on average 32 percent less than their similar neighbors. Furthermore, they stayed in their homes on average 25 percent greater period of time possibly indicating greater satisfaction due to comfort and lower operating costs.

Over 50 national organizations have signed on as supporters of the SAVE Act. What is of interest is the diversity of the group, including leading organizations representing business (NAM and the Chamber), housing (NAHB, NAR, and LBA), industry (Dow, Johns-Manville, and BASF), as well as energy efficiency-focused NGOs (ACEEE, NRDC, and ASE) and Efficiency First, a home performance business trade association of which Clean Energy Works is proud to be a member. They all recognize the changes happening in the housing industry and agree on the benefits of

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[2] *http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/harvard_jchs_remodeling_report_2013.pdf*

[3] *http://www.imt.org/uploads/resources/files/IMT_UNC_HomeEEMortgageRisksfinal.pdf*

prudent underwriting support as well as savings to consumers and strengthening of the economy and job formation in our communities.

National Policy Opportunities—Financing

While I have noted here today how valuable home energy efficiency may be, despite its value, it is severely under-utilized. There remain significant market barriers that prevent this vital resource—energy efficiency—from being tapped more effectively. Homeowners are being asked to make these investments not only because we want them to save money on their utility bills, but because this reduces costs across the energy system as a whole, and also to achieve broader goals such as energy independence, pollution reduction, job creation. However, we are not properly valuing these very real public and resource benefits energy efficiency provides. Instead, we are asking homeowners to pay for the full cost of these improvements, often up front and out of pocket.

One of the key shifts to begin accounting for the multiple benefits of energy efficiency is to move towards accounting for energy efficiency as a resource, the demand reduction equivalent of supply-side energy production. Reducing demand on the grid through energy efficiency is akin to building power plants, only cheaper, 100 percent domestic and completely clean.

We know how to finance power plants. Due to the structure, protections and oversight in place, power plants supply a stable and predictable amount of energy to an established and reliable market. Utilities can raise capital to make investments in projects to increasing the Nation's energy supply, however, we lack the same mature capital sources and markets for energy efficiency, even though it is widely understood to be the most cost effective resource for meeting our energy needs.

We need to begin to treat residential energy savings as distributed demand-side power plants that will ultimately, at least in part, be paid for based on their ability to deliver an energy saving resource to the grid. To accomplish this, we must more rigorously measure and account for the performance of energy efficiency improvements.

Historically, energy efficiency incentives have largely been targeted at specific technologies and individual improvements. Transitioning these incentives to a performance-based paradigm that links incentives to actual savings allows for technology and business model neutrality. Rather than attempting to maintain an up-to-date list of equipment specification or picking winning technologies or special interests, offering incentives based on savings at the meter can free up the tax code from keeping pace with an ever-changing industry. Most importantly, it creates a system that is flexible and rewards innovation.

Senators Cardin, Feinstein, and Schatz introduced S. 2189, the Energy Efficiency Tax Incentives Act last month. This legislation includes the first performance based energy efficiency tax incentive—25E in the tax code. This tax incentive would provide between $2,000–$5,000 to homeowners based on their energy savings. And, public dollars would be targeted toward public goods, energy savings. This approach would let the market determine the technology put in the home. Tax dollars would be investing in those minipower plant savings and the multipublic benefits those savings provide.

Thank you very much for your support and consideration.

PREPARED STATEMENT OF EMIL H. FRANKEL

VISITING SCHOLAR, BIPARTISAN POLICY CENTER

MAY 7, 2014

Thank you, Chairman Merkley, Ranking Member Heller, and Members of this Senate Banking, Housing, and Urban Affairs Subcommittee on Economic Policy for the opportunity to address on the important issue of the economic returns and job growth benefits of investment in infrastructure. This has been a matter that has dominated our work on transportation and infrastructure policy at the Bipartisan Policy Center (BPC), where I am currently a Visiting Scholar. I directed BPC's National Transportation Policy Project (NTPP) that issued a series of reports and white papers between 2009 and 2012, which, among other matters, addressed the interrelationship between transportation and infrastructure investment and benefits to the broader economy.

Most relevant, in January, 2011, NTPP issued a white paper, entitled "Strengthening Connections Between Transportation Investments and Economic Growth", coauthored by two members of NTPP, Douglas Holtz-Eakin, a distinguished economist and former Director of the Congressional Budget Office (CBO), and Martin Wachs, one of America's leading scholars of transportation and urban planning during a long career at the University of California, Berkeley, UCLA, and RAND Corporation. I will refer to this white paper during my testimony this morning.

Increasingly, over the past 25 years, as a State and Federal transportation official, a consultant, teacher, and policy contributor on transportation and infrastructure issues, I have come to appreciate the role that these investments play in building economic growth and prosperity. Throughout American history, even before the birth of the Republic, investments in roads and canals (the so-called "internal improvements" that Henry Clay and Abraham Lincoln and their Whig colleagues espoused), railroads and ports, highways and aviation have characterized public policy and have influenced—perhaps, more than any other single thing—where cities are located and whether they grow or decline. From Albert Gallatin, Thomas Jefferson's Treasury Secretary, to Dwight Eisenhower, America's leaders have spoken of the economic and political significance of wise infrastructure investments. In the words of Gallatin, "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."

In my own teaching I have made extensive use of a book by a distinguished economist, Peter Bernstein, *Wedding of the Waters.* It's about the construction of the Erie Canal in the early years of the 19th Century. Its development was, of course, a marvel of surveying, engineering, and construction at the time, but what Bernstein is most interested in is the extraordinary impact that this infrastructure investment had on the economy of the State, the region, and the Nation. The Erie Canal connected the newly settled areas of the Mid-West and Great Lakes regions to the original States, and allowed the agricultural products and natural resources to reach Eastern and world markets, and for industrial products to reach what was then America's frontier. New cities were born, like Buffalo and Syracuse, and older cities took on new and prosperous economic functions, like Albany and, of course, New York City. The Erie Canal reinforced New York City's preeminent position, as America's center of finance, commerce, and international trade, a position that it has held for over 200 years. In a word, the Erie Canal created what we have known as the American economy.

Similarly, as William Cronan, distinguished University of Wisconsin historian, demonstrated in his monumental *Nature's Metropolis,* the coming of the railroads to Chicago fundamentally changed the economies and the natural and built environments of that great city and of the Plains and other western regions of America, by making it possible for the products of America's "Great West" to reach national and regional markets.

In a March 2012 report of President Obama's Treasury Department with the Council of Economic Advisors (CEA), it was noted that the United States has a rich history of investing in infrastructure and reaping the long-term benefits. Those benefits include both the short-term effects of stimulating the maintenance and creation of construction and construction-related jobs and long-term economic growth. It seems that every surface transportation authorization bill, at least since ISTEA in 1991 (and probably before), has been justified on the basis of stimulating construction employment, the so-called "jobs' multiplier" effect. Elected and appointed officials are fond of talking about 20,000 or 30,000 or 50,000 new jobs' being created for every $1 billion of investment, as justification for legislation. I have done so, myself.

While infrastructure investments play an important role, in stimulating construction jobs, quantifying the so-called multiplier effect is, perhaps, more difficult than it sometime appears. Certainly, infrastructure projects can be important, in stimulating new construction and construction-related positions, particularly, in times of severe unemployment in construction, as was the case during the "Great Recession," which America has recently endured. However, there are substantial uncertainties, in predicting such job growth, and therefore it should not be the sole basis for justifying public investment in infrastructure.

As Holtz-Eakin and Wachs noted in the BPC white paper, to which I have referred, "Spending on transportation is often justified on the basis of jobs impacts, but estimated multiplier effects carry substantial uncertainty. Generally, they are not purely data-driven; rather they rely on judgments and assumptions, may not take into account aspects of the structure or timing of an investment that would have an impact on its actual multiplier effects, and may miss qualities of the specific economic environment in which an investment is being made. These uncertain estimates about how many jobs will be created by a given increment of transportation spending too often obscure meaningful comparative assessment of different investment opportunities."

As the BPC white paper further noted, "Short-term job creation, while vitally important, must be viewed within the context provided by a long-term view. Over the long-term, higher productivity . . . is the key to higher labor earnings and improved standards of living." It is the long-term economic benefits, in terms of productivity, efficiency, access to markets, and labor force flexibility, which should be the goals and purposes of public investment in transportation and other infrastructure projects and programs. The March 2012 Treasury–CEA report noted that investments in infrastructure allow goods and services to be transported more quickly and at lower costs, resulting in both lower prices for consumers and increased profitability for firms. This report also concluded that infrastructure investment created middle-class jobs. It reached this conclusion, based on an analysis that 80 percent of the jobs created by investing in infrastructure would be in the construction, manufacturing, and retail sectors and that, by distribution of wages in these three sectors, 90 percent of these jobs would be defined as middle-class jobs, that is, between the 25th and 75th percentiles in the national distribution of wages.

However, selecting and supporting those infrastructure investments that promise the greatest short- and long-term economic benefits in a time of persistent budget deficits and stagnant public spending is a difficult challenge to public policy leaders. Public investment capital is constrained, not least by a political environment that often views "investment," as just another category of spending, and by a political process that seems incapable of establishing sustainable revenue streams for such investments.

Surface transportation funding at the Federal level has been stagnant for several years, and the motor fuels taxes, on which such funding depends, have not been increased in over 20 years. As BPC's transportation policy project noted in its June 2011 report, "The reality is that Federal transportation spending is likely to be under enormous pressure for some time to come, despite compelling evidence that we have been falling consistently short of making the infrastructure investments needed to sustain an efficient, safe, environmentally sustainable, and well-functioning transportation network." The same may be said about all other areas and categories of infrastructure.

The priority, then, needs to be on making "wise" infrastructure investments, that is, those that promise the greatest economic benefits, in terms of increased productivity, efficiency, and job creation. Unfortunately, although there are exceptions, America does not have in place an analytical, planning, and capital programming framework that allows such investment decision-making to occur. We need to be able to develop comprehensive strategic capital programs, in which investments are synergistic and prioritized, and, pursuant to which, scarce resources are directed to the most promising projects.

For many years, Edward Gramlich, a distinguished economist and former Federal Reserve Governor, argued that the greatest returns could be found with investments in existing assets. This view was consistent with the analytical approach of a report several years ago to the United Kingdom's Treasury and Department for Transport (DfT) by Sir Rod Eddington, former CEO of British Airways (the Eddington Report). The Eddington Report concluded that, generally, the most positive benefits, in relation to costs occurred with incremental improvements to existing facilities and networks, rather than from large "build-it-and-they-will-come" projects.

Most important, and relevant, about the Eddington Report, however, was its application of benefit-cost analyses to competing projects and its reliance on economic factors, in making choices about the investment of constrained public resources. For example, it found that, given the tremendously important role of the London metropolitan region to the national economy and of the movement of goods and services to, from, and through a national system deeply dependent upon global trade and finance, investments in the assets and networks critical to these elements of the British economy were, by far, the most beneficial.

Similarly, the decision about an enormous public infrastructure investment—about $20 billion (U.S.) for the development and construction of an entirely new subway line across metropolitan London—in a time of severe austerity was justified on the basis of a strong business case that completion of the new Crossrail line would serve to enhance mobility and access in London and benefit the agglomeration of financial and related services, on which the British economy has come to depend for economic growth and prosperity.

Of course, neither the Eddington Report nor the business case for Crossrail has perfect application to the decisions that America's public leaders have to make about infrastructure investments, but the analytical and decision-making processes that have been used in those cases do seem relevant to the United States. We need to be able to make better and "wiser" infrastructure decisions in the context of scarce public investment resources, stagnant Federal infrastructure funding, and the unwillingness of Congress to provide for sustainable revenue sources to support such investments.

Of course, these circumstances stimulate other significant Federal policy changes, in order to respond to the need for greater infrastructure investment. For one thing, as Federal infrastructure funding stagnates, the investment burden is falling more heavily on States and localities. Limited Federal funds have to be used more effectively to leverage greater public and private investment at those levels. My BPC colleague, Aaron Klein (a distinguished alumnus of this Committee staff) and I argued in an OP/ED a few months ago that the Federal role in infrastructure was, increasingly, moving from funding to financing. This calls for the expansion of existing Federal loan and credit enhancement vehicles, like TIFIA, as well as consideration of new ones, such as infrastructure banks and financing authorities. But expanded Federal financing requires the establishment of appropriate revenue streams at the State and local level to support Federal credit and provide returns to private investors. To that end, Federal barriers to State and local innovations to establish such sustainable revenue sources should be eliminated, and such State and local innovations should be incentivized by Federal policy.

None of these policy initiatives, however, remove the need to make better and wiser choices. Public capital resources at all levels will remain scarce for the indefinite future, so investments must be made in those infrastructure projects and programs that promise the greatest economic returns, both in the short-term and the long-term. Analytical and decision-making tools are available to us, in order to select the right infrastructure investments. It is critical that America's public officials use those tools on a consistent basis.

PREPARED STATEMENT OF ROBERT DIETZ

VICE PRESIDENT FOR TAX AND MARKET ANALYSIS, NATIONAL ASSOCIATION OF HOME BUILDERS

MAY 7, 2014

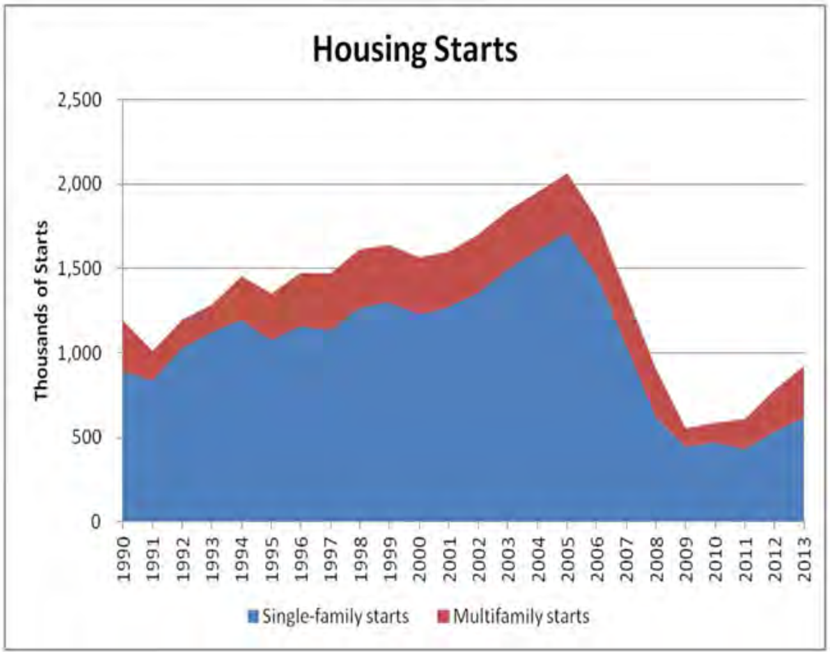
On behalf of the 140,000 members of the National Association of Home Builders (NAHB), I appreciate the opportunity to testify today. My name is Robert Dietz, and I am an economist and Vice President for Tax and Market Analysis at NAHB. My area of focus includes housing market and home building industry analysis, as well as tax and other policy issues. I received a Ph.D. in economics from The Ohio State University in 2003.

NAHB is a Washington, DC-based trade association whose broad mission is to enhance the climate for housing, home ownership and the residential building industry. We represent builders and developers who construct housing ranging from single-family for-sale homes to affordable rental apartments and remodelers. About one-third of NAHB's members are home builders and/or remodelers. The others are associates working in closely related specialties such as sales and marketing, housing finance, and manufacturing and supplying building materials.

The State of Employment in the Residential Construction Sector

After experiencing significant job losses during the Great Recession, the residential construction sector is adding jobs to the national economy as housing construction recovers. According to Census Bureau data, in 2005 total housing starts reached an historic high of 2.068 million: 1.716 million single-family and 352,000 multifamily homes. Leading into the housing crisis and the Great Recession, the pace of home construction declined significantly. Construction activity declined from 2006 to 2009, reaching an annual total of only 554,000 total housing starts in that year: 445,000 single-family and 109,000 multifamily.

Since that time, and particularly over the course of 2012 and 2013, home construction recovered as housing demand strengthened due to overall job growth and household balance sheet repair. For 2013, housing starts totaled 925,000: 618,000 single-family and 307,000 multifamily units.



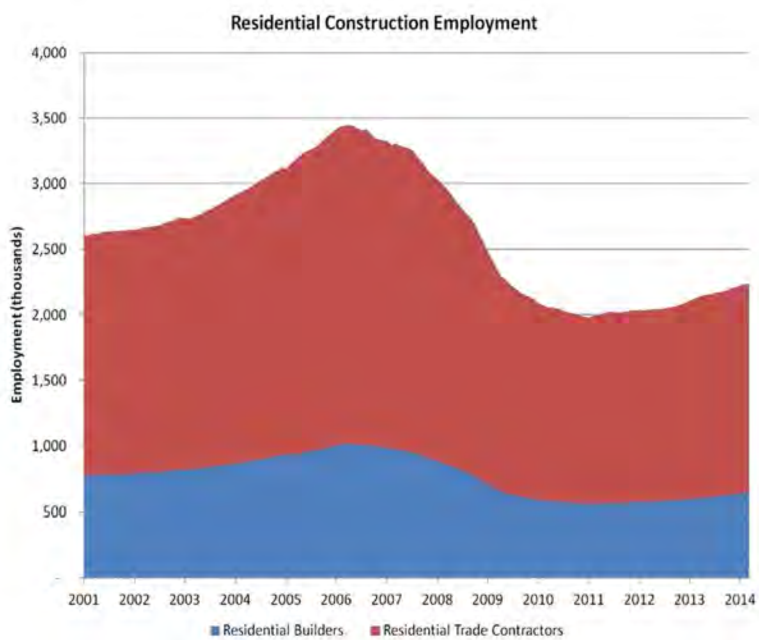
Driven by declines in home equity and the volume of existing home sales, remodeling activity also declined during the recession—although not as much—and has also begun to expand. In 2006, home improvement related spending peaked at $144.9 billion. As the pace of existing home sales declined during the recession, remodeling felt the impact, falling to $111.6 billion in 2010. For 2013, the sector expanded off cycle lows, reaching $134 billion for the year.

With activity declines in all three subsectors of the residential construction industry (single-family, multifamily, and remodeling), significant jobs losses were incurred. Data from the Bureau of Labor Statistics reveals that at peak employment in April 2006, the residential construction sector employed 3.45 million people (1.022 million builders and 2.428 specialty contractors). [1] From April 2006 until January 2011, the industry lost 1.466 million jobs.

Since that time, the expansion in home building and remodeling has added jobs back to the sector. Over the last two and half years, 274,000 jobs have been added by home builders and remodelers. Over the course of the last year alone, 108,000 jobs were added. [2] More are expected with continued gains in construction activity. Currently the industry employs 659,000 individuals in the builder category and 1.598 million as residential specialty contractors, for an industry total of 2.257 million.

[1] "Construction Job Openings Cool at the Start of 2014". NAHB Economics and Housing Policy blog post: *http://eyeonhousing.org/2014/04/08/construction-job-openings-cool-at-the-start-of-2014/*

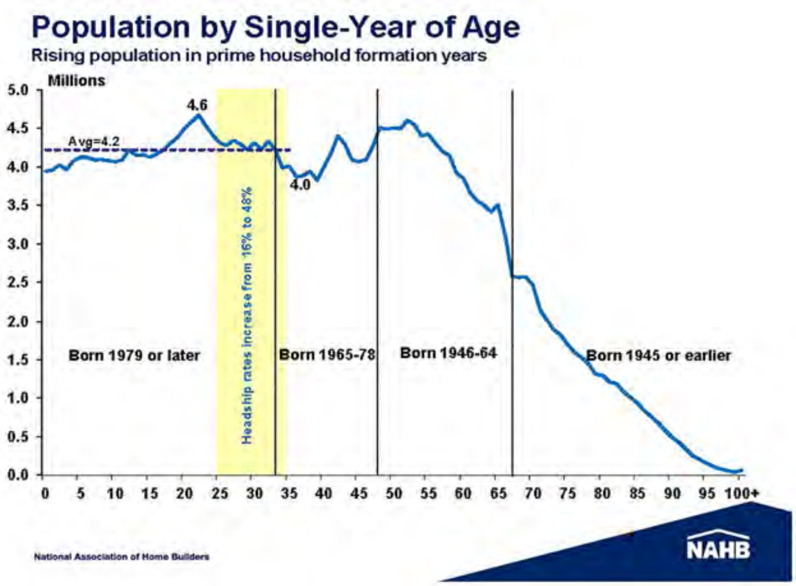
[2] ABLS Data and NAHB Calculations". April BLS Employment Report. May 2, 2014.



NAHB is forecasting that single-family construction activity will expand by 22 percent in 2014 to a total of 760,000 starts. The multifamily sector should see modest growth of 6 percent to a total of 326,000 starts. This represents a slightly cooling from the substantial growth witnessed during the 2011–2013 period. Finally, NAHB is forecasting that remodeling related activity will grow 3.1 percent during 2014, which represents a slowing of growth as existing home sales subside.

The industry still has room to grow. At its most fundamental level, the demand for new homes is determined by the growth of population and households, as well as the need to replace older housing stock or to accommodate changes in the location of regional economic activity. Thus, while the forecasted 2014 numbers for home construction represent substantial improvements over the lows set after the recession, these totals are still off from the potential or normal levels of activity.

As the following chart illustrates, the Nation can expect population growth and rising household formation in the years ahead. The yellow bar in the graph highlights key ages for household formation (25–35). We are currently entering a period in which the size of the population entering these key years is on the rise, with roughly 4 million currently aged 35 but 4.6 million aged 22. These "echo boomers" will increase demand for both rental and owner-occupied housing in the years ahead.



NAHB estimates that total housing construction should over the next few years return to a level just under 1.7 million combined single-family and multifamily starts per year. The forecasted first quarter 2014 level of single-family construction represents only 45 percent of this normal or expected level of activity. By the end of 2015, NAHB is forecasting that single-family activity will have improved to approximately 93 percent of this benchmark.

Virtuous Circle of Housing and Jobs

Housing and jobs form a virtuous circle in which employment growth for a local economy increases the demand for home construction, which in turn creates additional jobs. NAHB has developed a model that uses Government data to estimate the complete interactive economic benefits that arise with residential construction. [3] The model employs the input-output accounts from the Bureau of Economic Analysis to track the impacts from home construction on other sectors of the economy. These additional impacts are traced and summed to estimate the aggregate impacts on wages, business income, jobs, and taxes.

The 2014 estimates for this model find the following:

- Building an average single-family home produces 2.97 jobs (full-time equivalents) o $110,957 in Federal, State, and local taxes
  - $162,080 in wages and salaries
  - $118,354 in business income

Of the 2.97 jobs per home, 1.76 are in construction, with the remainder in other sectors including manufacturing, wholesale and retail trades and other industries.

- Building an average rental apartment produces 1.13 jobs (full-time equivalents)
  - $42,383 in Federal, State, and local taxes
  - $60,877 in wages and salaries
  - $46,838 in business income

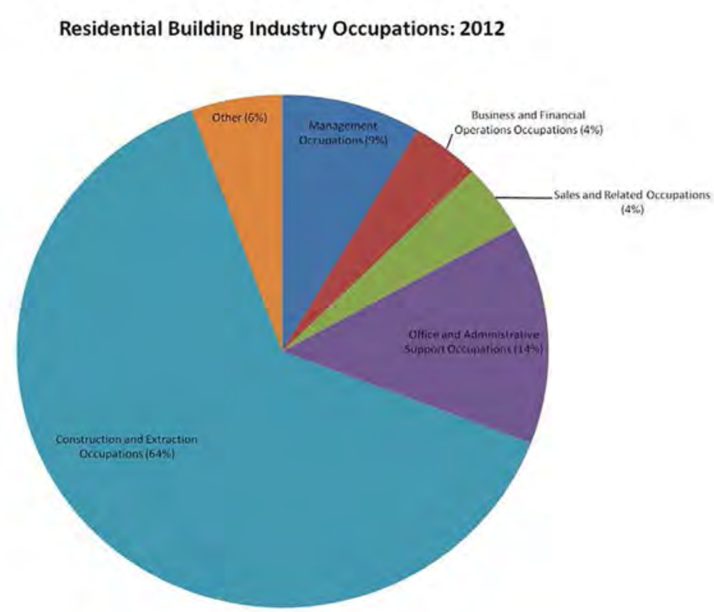
Of the 1.13 jobs per multifamily unit, 0.68 are in construction, with the remainder in other sectors including manufacturing, wholesale and retail trades and other industries.

[3] "Impact of Home Building and Remodeling on the U.S. Economy". NAHB Economics and Housing Policy. *http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=227858&channelID=311*

- $100,000 in remodeling expenditures produces 0.89 jobs (full-time equivalents)
  - $29,779 in Federal, State, and local taxes
  - $48,212 in wages and salaries
  - $35,190 in business income

Of the 0.89 jobs per multifamily unit, 0.55 are in construction, with the remainder in other sectors including manufacturing, wholesale and retail trades and other industries.

Additional data from the Bureau of Labor Statistics Occupational Employment Statistics (OES) provide details concerning the types of jobs created by home builders.[4] The OES survey defines employment as the number of workers who are classified as full- or part-time employees. The following profile examines the Residential Building Construction industry group, which includes builders of for-sale and owner/contractor built single-family and multifamily housing, as well as residential remodelers.



According to the 2012 OES, management jobs constituted approximately 9 percent of jobs in the residential construction industry, for a total of more than 48,000 positions. Office and administrative support made up the second largest category, which at just under 80,000 jobs represented 14 percent of sector employment. Sales staff and business/finance roles each made up about 4 percent of home building business jobs, each contributing approximately 24,000 jobs.

Other jobs in home building, generally representing about 6 percent in combination, include architects, lawyers, designers, building/grounds maintenance staff, security guards, drivers, and IT staff.

Not surprisingly, the largest share of home building/remodeling employment is concentrated in construction and extraction jobs. For 2012, more than 363,000 jobs were in such fields. The following chart provides a breakdown of these jobs.

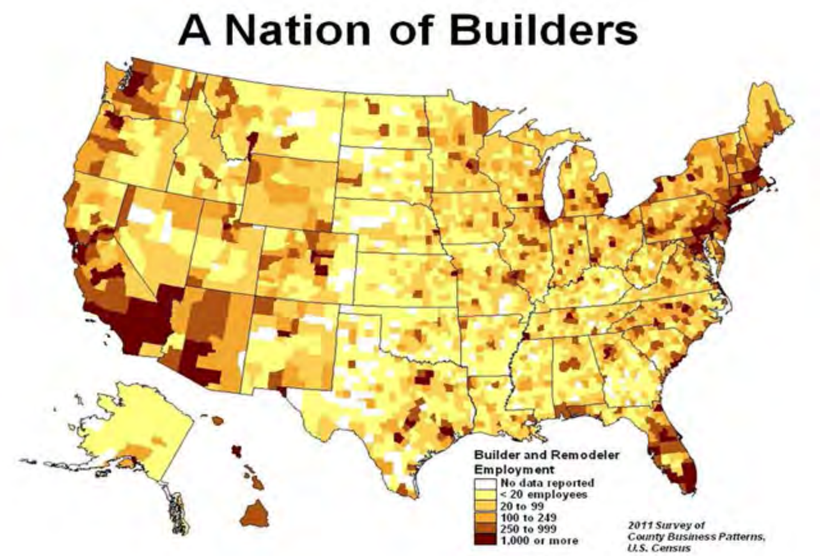
[4] "Jobs in Home Building and Remodeling". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/02/11/jobs-in-home-building-and-remodeling/*

Carpenters make up almost half of construction/extraction jobs (47 percent), for a total of more than 171,000 jobs. The OES defines carpenters as workers who construct, erect, install, or repair structures made of wood. It also includes workers who install cabinets, drywall, siding, and insulation. Approximately 30 percent of carpenters nationwide are employed by the residential building construction sector.

Rounding out the construction segment of industry employment are construction laborers, worksite supervisors, brickmasons, stonemasons, carpet/tile installers, cement masons, equipment operators, drywall installers, electricians, glaziers, insulation workers, painters, plumbers, plasters, rebar workers, roofers, and sheet metal workers.

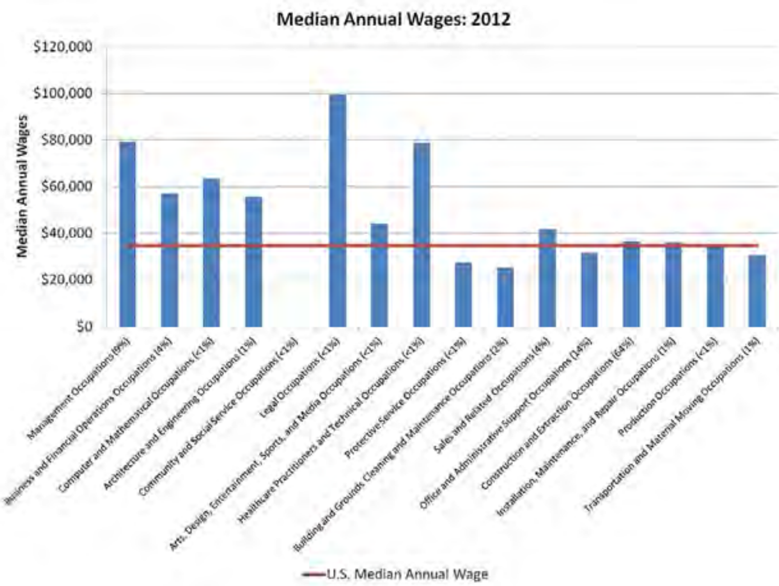
Besides involving a variety of occupations, this base of employment has wide geographic scope. The following map uses 2011 data from the U.S. Census to chart by county builder and remodeler employment across the Nation. [5]

[5] "A Nation of Builders". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2013/06/03/a-nation-of-builders/*

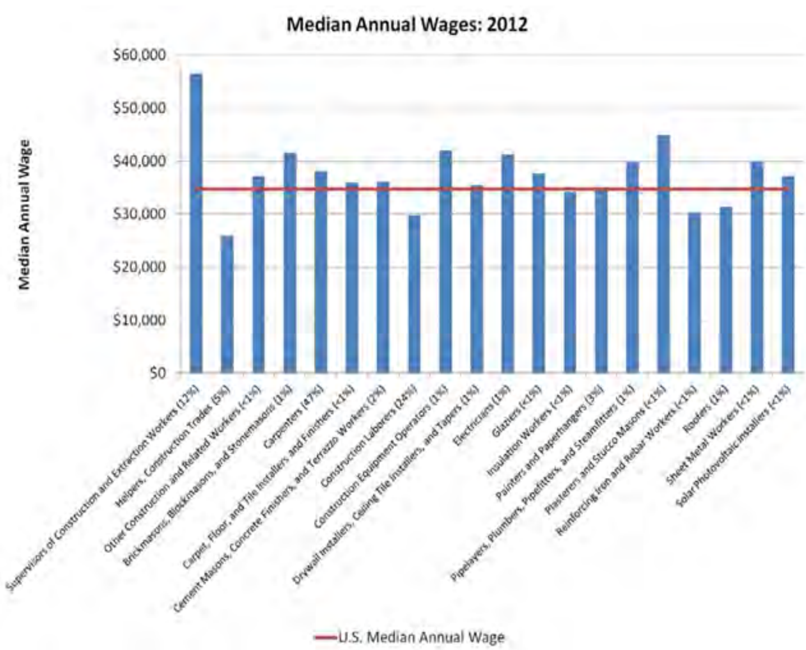


Additional data from the 2012 OES provides details concerning the wages paid by these occupations.[6] The following charts present median wages by occupations for workers in home building and remodeling. Annual wages are calculated, by the BLS, as the hourly wage paid on a 2,800 hour annual basis. Wages are measured on a gross pay basis, but certain bonuses and employer paid benefits are excluded. Occupations with median wages in excess of the U.S. median represent approximately 80 percent of total employees.

[6] "Wages in Home Building and Remodeling". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/02/12/wages-in-home-building-and-remodeling/*



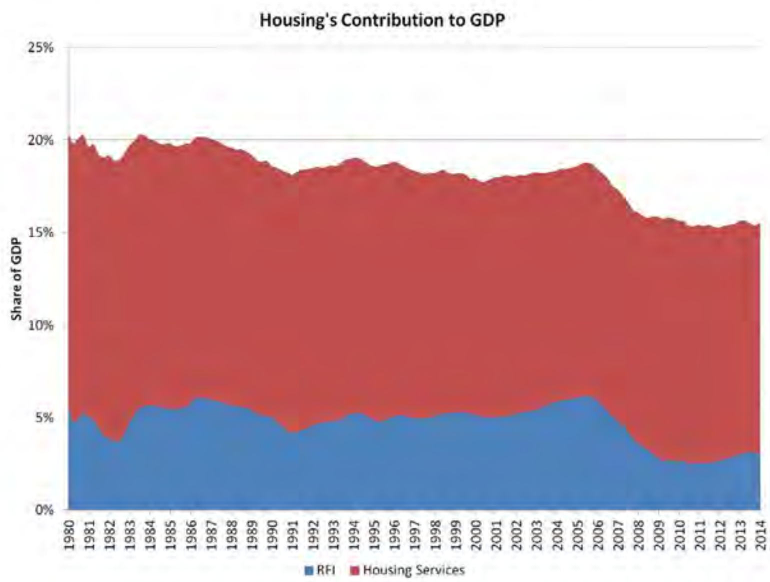
The second chart breaks out shares of the large element of the industry—construction and extraction occupations, which constitute 64 percent of industry employment. The percentages on this second chart are percentages of this 64 percent only.



Taken together, these data demonstrate that as the residential construction sector continues its post-Great Recession recovery, hundreds of thousands of jobs will be created within the construction sector and within other sectors of the economy. These jobs will, among other economic impacts, also boost demand for rental and owner-occupied housing. For example, given NAHB's forecast for significant single-family construction growth, approximately 420,000 jobs will be created for 2014 in the construction and related business sectors due to residential construction growth.

Housing's Contribution to GDP and National Wealth

From a macroeconomic perspective, housing plays a key role in our Nation's economy. As of the first quarter of 2014, housing's share of gross domestic product (GDP) was 15.5 percent, with home building yielding 3 percentage points of that total.[7]



Housing-related activities contribute to GDP in two basic ways.

The first is through residential fixed investment (RFI). RFI is effectively the measure of the home building and remodeling contribution to GDP. It includes construction of new single-family and multifamily structures, residential remodeling, production of manufactured homes and brokers' fees. For the fourth quarter, RFI was 3 percent of the economy.

While the first quarter of 2014 was the fourth strongest level of RFI after the Great Recession ($482 billion annualized pace), the slowing of the rate of growth for home building was a drag on quarterly GDP growth. This was the second consecutive quarter of drag after 12 straight quarters of boosting economic growth. Nonetheless, the trend in recent quarters indicates that RFI is growing faster than the economy as a whole. For example, over the last 2 years, the quarterly annualized measure of GDP has grown about 3.7 percent, while RFI is up 15.5 percent.

The second impact of housing on GDP is the measure of housing services, which includes gross rents (including utilities) paid by renters, and owners' imputed rent (an estimate of how much it would cost to rent owner-occupied units) and utility payments. The inclusion of owners' imputed rent is necessary from a national income accounting approach because without this measure increases in home ownership would result in declines for GDP. For the fourth quarter, housing services was 12.5 percent of the economy.

Historically, RFI has averaged roughly 5 percent of GDP while housing services have averaged between 12 percent and 13 percent, for a combined 17 percent to 18 percent of GDP. These data illustrate once again the room housing has to grow, increasing national income and creating jobs.

[7] "First Quarter 2014L Housing Share of the Economy at 15.5 percent". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/04/30/first-quarter-2014-housing-share-of-the-economy-at-15-5/*

Home ownership also represents the most important investment and source of savings that most middle class households will undertake.[8] Nationally, the primary residence represents the largest asset category on the balance sheets of households. At $20.7 trillion, the primary residence accounted for almost one-third, 30 percent, of all assets held by households in 2010. The primary residence represented 62 percent of the median homeowner's total assets and 42 percent of the median home owner's wealth. It is also a widely held asset. A greater share of households (67 percent) owned a primary residence than held a retirement account (50 percent) or stocks and bonds (16 percent).

Equity in residential property tends to be a particularly important component of wealth for lower income, older households. For age 75+ households with incomes under $35,000, the median share of net worth held as equity in a primary residence is 60 percent. Higher income households over age 75 have higher net worth and more equity in a home in absolute terms, but equity in a primary residence accounts for a smaller share of total net worth. The median residential equity share of net worth for households age 75 or older with total income between $35,000 and $60,000 was 47 percent and 36 percent for older households with income between $60,000 and $100,000. The median residential equity share of net worth for the highest-income, older households was 30 percent.

Housing's Social and Community Benefits

The impact of housing is not limited to savings and other economic outcomes. Be it rental or owner-occupied housing, the residential capital stock provides a basic need for shelter. There is a time to rent and a time to own a home, with the right decision determined by factors such as age, income, family size, expected length of stay in a given area, and other factors.

Hence, ensuring the availability of safe and decent rental housing is an important social policy objective. The Low-Income Housing Tax Credit (LIHTC), the Nation's only affordable housing production program, serves in a critical role in this regard. Since its inception, the LIHTC has produced and financed more than 2 million affordable apartments. As LIHTC properties must generally remain affordable for 30 years, they provide long-term rent stability for low-income households around the country. But the demand for affordable housing is acute and exceeds the availability of financing through the LIHTC program.

For those ready to meet the financial obligations of owning a home, home ownership offers a wide range of benefits to individuals and households.[9] These include increased wealth accumulation, improved labor market outcomes, better mental and physical health, increased financial and physical health for seniors, reduced rates of divorce, and improved school performance and development of children.

These beneficial financial and social outcomes are due to the stability offered by home ownership, as well as the incentives created by the process and responsibilities of becoming and remaining a homeowner.

An important motivating factor in the pursuit of home ownership is the investment opportunity it offers for many families. As noted earlier, despite recent price declines, equity in a home constitutes a substantial proportion of a typical American family's wealth. According to the 2010 Federal Reserve Survey of Consumer Finances (SCF), the median family net worth of a homeowner is $174,500; for renters, it was $5,100.

Home ownership also provides advantages for seniors. A significant proportion of a household's wealth is in the form of equity of owner-occupied housing, and this wealth provides significant advantages in retirement. Mayer and Simons (1994) indicate that equity in the home and the use of a reverse mortgage could increase liquidity for senior households by as much as 200 percent.[10]

These data illustrate the importance of housing wealth and suggest caution with respect to policies that would reduce these wealth holdings, based on decisions made over a lifetime, via direct policy changes or indirect changes.

Overall, economists, sociologists and other social scientists have found significant, positive home ownership-related impacts on a large set of outcomes associated with

[8] "Homeownership Remains a Key Component of Household Wealth". NAHB Economics and Housing Policy. *http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=215073&channelID=311*

[9] R.D. Dietz and D.R. Haurin, "The Social and Private Micro-Level Consequences of Homeownership", *Journal of Urban Economics* 54 (2003) 401–450.

[10] C.J. Mayer, K.V. Simons, "Reverse Mortgages and the Liquidity of Housing Wealth", *AREUEA Journal* 22 (1994) 235–255.

households and communities.[11] For these and other positive impacts, home ownership has and should continue to remain an important national policy objective.

Industry Headwinds

While the housing sector has considerable room to grow given population and household growth, the ongoing recovery has seen month-to-month volatility. In fact, recent data (particularly for existing home sales, but also for housing starts) indicate that the unseasonably cold winter sapped some of the momentum that the housing market carried into 2013. Beyond seasonal factors, other headwinds will challenge the recovery in home construction. These factors include access to building lots, rising building materials, access to builder credit, and labor shortages for some tasks in some markets.

As noted earlier, housing demand is recovering in most markets. However, to meet that demand, home builders must have access to developed, ready-to-build lots. The supply of lots in many markets is low, and for smaller builders this constraint is the primary reason for not being able to build homes. Partially, the lack of lots is connected to another headwind: lack of credit. Home builders and developers must have access to credit or equity to build homes or develop lots. Such lending, which typically comes from community bank,[12] is known as acquisition, development and construction (AD&C) financing.

AD&C lending was severely curtailed during the housing crisis.[13] At the low point for lending, the stock of loans was down approximately 80 percent. While lending conditions have begun to ease (according to NAHB industry surveys[14] and FDIC indicates that the stock of outstanding loans rose by approximately 7 percent over the course of 2013, a lending gap persists that is filled, when possible, by nontraditional sources of financing. Nonetheless, lending for smaller builders and developers represents a significant bottleneck for the ongoing recovery in home construction.

Rising building material prices are both a challenge and a sign of the recovery and growth in residential construction.[15] Gypsum prices have risen by 10 percent to 20 percent at the beginning of the last three years. And softwood lumber and oriented strandboard prices have risen significantly over the last three years, with occasional spikes in prices when demand exceeds manufacturing capacity. Some easing in building material prices has been seen when new factories and material sources come online, but the rising cost of construction is a factor that keeps some building projects from proceeding.

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[11] Two comprehensive literature reviews detailing the impacts of home ownership are: W. M. Rohe, G. McCarthy, S. Van Zandt, "The Social Benefits and Costs of Home Ownership: A Critical Assessment of the Research", Research Institute for Housing America, Working Paper No. 00-01 (2000); R. Dietz and D. Haurin, "The Social and Private Microlevel Consequences of Home Ownership", *Journal of Urban Economics* 54 (2003) 401–450.

[12] "Smaller Banks Are the Largest Source of AD&C Lending". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/04/21/smaller-banks-are-the-largest-source-of-adc-lending/*

[13] "Stock of AD&C Loans up More Than 7 Percent During 2013". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/02/27/stock-of-adc-loans-up-more-than-7-during-2013/*

[14] "AD&C Lending Conditions Ease Slightly at the End of 2013". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/02/24/adc-lending-conditions-ease-slightly-at-the-end-of-2013/*

[15] "Producer Price Index Up for March". Economics and Housing Policy. *http://eyeonhousing.org/2014/04/11/producer-price-index-up-for-march/*

Another significant headwind is local labor shortages, particularly for some skilled labor positions.[16] NAHB industry surveys report that securing workers for projects for specific time periods has become increasingly difficult as the pace of home construction accelerated. Data from the Bureau of Labor Statistics Job Openings and Labor Turnover Survey (JOLTS) provides an illustration of the degree to which the rate of unfilled job openings in the construction sector is rising.

As of February 2014, the 3-month moving average of the construction job openings rate stood at 2 percent, slightly lower than the 2.33 percent in December but a higher rate of unfilled jobs than any post-recession period before October 2013. Currently there are 273,000 unfilled jobs in the construction industry. The rate of open jobs in the construction industry has risen significantly since the spring of 2012.

[16] "Construction Jobs Openings Cool at the Start of 2014". NAHB Economics and Housing Policy. *http://eyeonhousing.org/2014/04/08/construction-job-openings-cool-at-the-start-of-2014/*

Finally, while housing demand should improve, given the sources of pent up demand and population growth, uncertainties with respect to the tax and finance rules that govern homebuying and home building act as additional business challenges to builders. These uncertainties include the future of housing tax rules in the Internal Revenue Code, including the mortgage interest deduction and the Low-Income Housing Tax Credit, as well as the future of the housing finance system and the secondary mortgage market. At the local level and Federal levels, regulatory burdens also increase the cost of building and deter job creation.

Policy Recommendations

The home building industry can be a key engine of job creation that this Nation needs. That said, certain policy decisions will help the industry play its traditional role as a job creator as the economy moves out of periods of weakness.

First, mindful of the job destroying potential of onerous regulations, ensuring that undue regulatory burdens do not hinder economic growth will ensure the sector can continue to create jobs. NAHB industry surveys and analysis shows the degree to which these regulations increase the cost of a home.[17] These estimates show that, on average, regulations imposed by Government at all levels account for 25 percent of the final price of a new single-family home built for sale. Nearly two-thirds of this—16.4 percent of the final house price—is due to a higher price for a finished lot resulting from regulations imposed during the lot's development. A little over one-third—8.6 percent of the house price—is the result of costs incurred by the builder after purchasing the finished lot.

Fostering skill training and ensuring young workers are interested in the construction trades is another policy that will increase the growth of the industry, while raising wages and employment of younger workers. Multiple approaches can be taken in this regard, including job centers and protecting the role of the community college system in our Nation. The BLS JOLTS data cited earlier indicates that there are currently many unfilled construction sector jobs waiting to be claimed by individuals with the right training.

At the Federal level, Congress should maintain its important and historic support of home ownership and affordable housing. Protecting policies like the mortgage in-

[17] "How Government Regulation Affects the Price of a New Home". NAHB Economics and Housing Policy. *http://www.nahb.org/generic.aspx?sectionID=734&genericContentID=161065&channelID=311*

terest deduction and the LIHTC are critical to ensuring the growth of the middle class and access to housing. The future of the housing finance system, including enabling a liquid secondary mortgage market that serves the entire country, is also key to how people buy homes in the future. Passing comprehensive housing finance reform is a part of this process. Providing certainty with respect to these housing-related policies is an important goal.

In the short-run, one element of certainty can be obtained by passing a tax extenders bill that would extend tax rules such as the minimum 9 percent credit rate for the LIHTC and the continued existence of residential energy efficient tax credits (45L for new construction and 25C for retrofitting existing homes).[18]

Summary

Residential construction plays a key role in creating jobs and generating economic growth, particularly as the economy emerges from recessions. After a multiyear transition period, housing is once again playing that role and the industry is ready to get back to work. Housing creates jobs, and job growth for builders and other sectors of the economy in turn foster demand for rental and owner-occupied housing.

Given the underlying demand for new homes in the county, the industry is poised to build on the 274,000 jobs created over the last 2½ years with hundreds of thousands more as housing starts return to more normal levels of production.

PREPARED STATEMENT OF R. THOMAS BUFFENBARGER

INTERNATIONAL PRESIDENT, INTERNATIONAL ASSOCIATION OF MACHINISTS AND AEROSPACE WORKERS

MAY 7, 2014

Thank you, Chairman Merkley, Ranking Member Heller, and Members of this Committee for the opportunity to testify before you today on the vital importance of manufacturing to the creation and preservation of American jobs. My name is Tom Buffenbarger and I serve as International President of the International Association of Machinists and Aerospace Workers, also known as the IAM. Our members work in a variety of manufacturing industries including aerospace, electronics, defense, shipbuilding, transportation, and woodworking. The IAM is a broadly diversified manufacturing union and the largest aerospace union in North America. We strongly believe that manufacturing is critical to our national economic recovery. Manufacturing is responsible for the good jobs that our Nation needs. It also generates the innovation and new technology which our Nation depends upon to ensure a healthy, robust, and sustainable economy in the future.

According to the U.S. Bureau of Labor Statistics, the manufacturing sector contributes $1.6 trillion in value to our economy, or about 9 percent of GDP. A recent study by the Congressional Research Service notes that manufacturers have been responsible for approximately 70 percent of all research and development conducted by businesses in the United States.

Manufacturing jobs are good jobs. Workers in the manufacturing sector enjoy an 8.9 percent compensation premium over other working Americans and are more likely to have employer paid health care and other benefits. Since the start of the 21st Century education levels for manufacturing workers have improved; nearly 30 percent have at least a college degree and the percentage with less than a high school diploma as shrunk to 10 percent. However, what has made manufacturing a source of middle class jobs has been the traditionally high rate of unionization within the sector. The Center for American Progress notes the disturbing correlation between the decline of union density and the share of the Nation's income going to the middle 60 percent of households, which has fallen from 52.3 percent to 45.7 percent since peaking in the late 1960s. If this trend continues then manufacturing work will not be the ladder to the middle class as it historically has been.

The effect of the manufacturing sector and the jobs that it produces can be found in the sector's multiplier effect. This can be seen in two ways; the Manufacturing Institute has found that every dollar of manufactured products supports $1.33 in output from other sectors, a larger multiplier than any other economic sector. In other words, manufacturing creates the wealth that drives much of our economy.

Moreover, manufacturing jobs support additional jobs, both direct and indirectly related to manufacturing, throughout the economy and the multiplier ratios from manufacturing vary from a low of 1:3 to high of 1:16. The difficulty in coming up

[18] *http://eyeonhousing.org/2013/10/23/housing-related-tax-provisions-expiring-at-the-end-of-2013-2/*

with a precise ratio derives from the changing nature of manufacturing jobs and what is counted as a manufacturing job. In the past, many manufacturing enterprises were vertically integrated operations that included a variety of support functions, such as, shipping and transportation, as well as professional and business services like accounting, legal, and consulting. If any of these functions are directly employed by a manufacturer, then they are counted as manufacturing jobs, otherwise the jobs are considered indirectly related to manufacturing. Other examples of indirect employment impacted by manufacturing activity include jobs in restaurants, retail, as well as local and State government.

According to last week's employment report, manufacturing employment currently stands at 12.1 million jobs, nearly 9 percent of U.S. payrolls. Significantly, even with the addition of 650,000 manufacturing jobs since the bottom of the Great Recession, the U.S. has still lost over five million manufacturing jobs since the start of this century. While a variety of factors, including technological changes and lean manufacturing practices, have reduced overall manufacturing employment, the lack of a comprehensive manufacturing policy that is directly related to jobs, our flawed trade policies and a ballooning trade imbalance, $475 billion in 2013, have also contributed to this decline.

This year marks the 20th anniversary of NAFTA, which increased our trade deficit with Canada and Mexico by $150 billion resulting in a loss of an estimated one million U.S. jobs. For our members at companies like Maytag and Freightliner who saw their work and jobs moved to Mexico, the harsh reality of this model of trade is not a theoretical discussion.

An even bigger killer of U.S. manufacturing jobs has been the implementation of Permanent Normal Trade Relations (PNTR) with China. When China PNTR was passed in 2000, the U.S. exported three times as many manufactured goods as China, but within a decade China surpassed the U.S. in exports and became the world's leading manufacturer and exporter. By 2012 our share of global manufacturing activity had declined to 17 percent from 30 percent just a decade earlier even as the value of our exports had more than doubled. Now, two-thirds of our global trade deficit is with China, a rapidly growing country that engages in a variety of unfair trade practices—illegal subsidies, forced technology transfer, currency manipulation, and an appalling lack of labor rights. The Economic Policy Institute estimates that over the last decade our trade imbalance just with China has cost the U.S. nearly three million jobs and put downward pressure on U.S. wages. And now, just two years after the passage of the U.S.–Korea FTA we have seen our exports to Korea drop and our trade deficit with that country grow with a loss of an estimated 60,000 American jobs, mostly in manufacturing.

Successful countries recognize the importance of a strong manufacturing sector and the true nature of global competition. These countries know that there is no such thing as a "free market," and provide strong support for critical wealth and job creating sectors like manufacturing.

The IAM has long called for the development of a national manufacturing strategy as our global competitors have done. This is not about picking winners and losers, but, rather, creating the foundation for future prosperity. We applaud the President for taking some important first steps to make this happen. The creation of the Office of Manufacturing Policy reporting to the National Economic Council, as well as the Advanced Manufacturing Partnership (AMP), which includes representatives from labor, industry, academia, and the Federal Government, has put a new focus on manufacturing at the highest levels of our Government.

We look for the Advanced Manufacturing Partnership to develop a national manufacturing strategy that links Government policies and investment to actual job creation. This could be accomplished by requiring employment impact statements as part of the decision making process for Government procurement contracts, grants, and awards. Simply stated, contracting agencies and policy makers should know how many good domestic jobs will be created and maintained by a contractor or grantee.

Our trade policies must be reformed to include enforceable labor rights and environmental protections. This is particularly important as the U.S. negotiates the Trans-Pacific Partnership (TPP) with countries like Vietnam and Brunei that lack free and independent labor unions. Also, enforcement action must be taken to end currency manipulation by our global competitors.

Other important steps to facilitate the growth of manufacturing jobs include strengthening and standardizing the measure of "Made in the U.S." and Buy American requirements for Government procurement contracts. In some cases, the domestic content requirement is as low as 51 percent and it is not always clear that agencies limit their calculation of domestic content to direct factors of production.

The American Society of Civil Engineers estimates that the U.S. has an infrastructure deficit of over $3 trillion. Infrastructure investments make our Nation more efficient and are crucial to our ability to compete globally. Strong Buy American requirements coupled with investments in our crumbling infrastructure would spur manufacturing growth. We have already seen this in mass transit as foreign rail manufacturers have set up production in the U.S. to meet domestic content requirements. This has spurred the creation of a domestic supply chain to meet the needs of these transplanted manufacturers. Ending the misguided policy of sequestration will enable the rebuilding of our infrastructure and protect our defense industrial base, a critical component of U.S. manufacturing and an ongoing source of innovation.

One Government initiative, the Export-Import Bank, stands out as a success. The Export-Import Bank provides critical financing for the export of American made goods and services. Last year, the Bank provided over $37 billion worth of export financing that supported over 200,000 American jobs, mostly in manufacturing, and returned over $1 billion to the U.S. Treasury. All of our important global competitors provide similar financing and Congress must reauthorize this important program this year.

Manufacturing plays a critical role in our economy. The sector is an engine of innovation and a source of middle class jobs. We must not, however, take the sector for granted. America needs to think strategically about how we prepare our workforce, what investments we make to remain globally competitive, and how we trade with other Nations. For too long our focus has been on meeting the needs of U.S.-based multinational corporations at the expense of working Americans. This culture must change. Only then will we see a rebirth of American manufacturing—a rebirth that is essential for our national and economic security, and the future of America's hard-working men and women and their families and communities.

I would be happy to answer any questions that the Committee may have.

Policies To Promote U.S. Manufacturing Jobs

1. Develop a comprehensive manufacturing strategy that reviews all Federal incentives to corporations to outsource manufacturing (tax policy, currency, trade, and investment policies).
2. Require that all contracting agencies adopt and implement employment impact statements. Policy makers and Government procurement officers should know how many domestic jobs will be created and maintained by each contractor/grantee who submits a proposal. Contractors should be accountable for making sure that they met their job estimates. If they do, then this should also be a factor in future contracts. If they do not, then they should be barred from future Government contracts.
3. All trade and investment deals must undergo a careful analysis to determine the jobs impact they will have on specific U.S. industries and communities before negotiations are commenced. In this vein the IAM continues to demand that all past trade and investment deals be reviewed to determine their specific job/community impact. Include enforceable labor and environmental protections in all trade agreements.
4. End currency manipulation by our global competitors.
5. Reauthorize the Export-Import Bank for 5 years and increase its lending cap.
6. Strengthen Buy American requirements and more limits on Buy American waivers, which are currently too vague and broad. Make certain that Made in the U.S.A. actually means Made in the U.S.A. Review all domestic content requirements to make certain that these requirements are directly related to jobs and do not contain intangibles not directly related to production costs.
7. Create a manufacturing development bank with below market loans for establishing manufacturing plants in this country that are directly related to creating American jobs.
8. End sequestration and make investments in our crumbling infrastructure.