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MANHATTAN INSTITUTE FOR POLICY RESEARCH

**Green Jobs in the U.S. Economy**

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**Testimony before the House Committee on Oversight and Government Reform**

**June 6, 2012**

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Chairman Issa, Ranking Member Cummings, members of the Committee, I am honored to be invited to testify before you today on the subject of BLS's efforts to measure green jobs. I am a senior fellow at the Manhattan Institute. From 2003 until April 2005 I was chief economist at the U.S. Department of Labor. From 2001 until 2002 I served at the Council of Economic Advisers as chief of staff. I have also been a senior fellow at the Hudson Institute and a resident fellow at the American Enterprise Institute. I have served as Deputy Executive Secretary of the Domestic Policy Council under President George H.W. Bush and as an economist on the staff of President Reagan's Council of Economic Advisers.

### Introduction

Many people take two ideas as a matter of uncritical belief:

- (1) Government "investment" in green jobs helps Americans and America's economy; and
- (2) Such "investment" will enable America to keep pace with economic rivals such as China.

Neither concept is true. Rather, government spending to promote green jobs harms the economy by raising energy prices. Such higher prices act in the same way as a tax, reducing production and employment. Some green jobs may be created, but many more manufacturing and energy-intensive jobs are eliminated or driven offshore. This makes Americans worse off, rather than better off, and puts America at a disadvantage compared to China and other countries that eschew uneconomic policies.

Green jobs are the most recent reappearance of a perennial idea – industrial policy to promote certain industries. Industrial policy has failed in the past, in America, Japan, Russia, and numerous other countries across the globe and across the centuries. Today, green jobs initiatives result in a higher cost of energy to businesses, driving them to locate in other countries, and to households, who can afford fewer goods.

## Federal Definitions of Green Jobs

As we have seen from the employment numbers for May, released on June 1, creating new jobs is hard work. The number of jobs in the economy increased by only 69,000 in May, following an increase of 77,000 in April. The unemployment rate rose to 8.2 percent, and has been above 8 percent for well over three years.<sup>1</sup>

The United States government may not be good at creating jobs, but it excels at relabeling existing jobs as green jobs. It is easier to simply redefine an existing job as a new job, a “green job.” How many jobs has our government relabeled as green? The Bureau of Labor Statistics at the Department of Labor decides which jobs are green and which are not. They have identified 3.1 million green jobs in 2010, the latest year available, released in March.<sup>2</sup> Many Americans may have toiled for decades at the same routine job, unaware that a federal agency may one day designate their job as “green.”

The Bureau of Labor Statistics is responsible for the federal definition of green jobs under Title X of the Energy Independence and Security Act of 2007, signed into law by President George W. Bush. The bill authorized funding for green-collar job training in the areas of retrofitting buildings, installing solar panels and setting up wind farms, and building energy efficient buildings, among others.

The bill authorized funds for states to offer grants for labor management training programs and apprenticeships, in order to coordinate green jobs programs with union officials.<sup>3</sup> Other sections contained incentives for construction of green buildings, with particular reference to federal buildings.<sup>4</sup>

BLS decides which jobs are green. Sometimes these jobs qualify for tax preferences or subsidies. For example, our transportation policy is based on green jobs, with 20 percent of Highway Trust Funds reserved for mass transit. Tax subsidies are given to electric vehicles, both for companies to produce them and Americans to buy them.

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<sup>1</sup> Bureau of Labor Statistics, "News Release: The Employment Situation-May 2012." Last modified June 1, 2012. Accessed June 1, 2012. <http://www.bls.gov/news.release/pdf/empst.pdf>.

<sup>2</sup> Bureau of Labor Statistics, "News Release: Employment in Green Goods and Services-2010." Last modified March 22, 2012. Accessed June 1, 2012. <http://www.bls.gov/news.release/pdf/ggqcew.pdf>.

<sup>3</sup> “Energy Independence and Security Act of 2007.” H.R. 6, 110<sup>th</sup> Congress, December 13, 2007. Section 1002 (2) (D) (ii) and Section 1002 (3) (A) (vi) [http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110\\_cong\\_bills&docid=f:h6eas2.txt.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_bills&docid=f:h6eas2.txt.pdf)

<sup>4</sup> Ibid, Section 431 and 432.

BLS has defined green jobs either as “jobs in businesses that produce goods or provide services that benefit the environment or conserve natural resources,” or as “jobs in which workers’ duties involve making their establishment’s production processes more environmentally friendly or use fewer natural resources.”

Included are long lists of potential jobs that might qualify. The BLS aggregated the number of jobs within the renewable sources industry, such as wind, biomass, geothermal, and solar. Within the private utility industry, there were a total of 65,700 jobs counted as green. Of these, 4,700 jobs were in renewable energy. Wind energy generated the most with 2,200 jobs. Biomass followed wind energy as the second highest producer of jobs with 1,100 jobs, followed by geothermal, with 600 jobs and solar power, with 400 jobs. The manufacture of energy efficient products, and those that pertain to pollution reduction and recycling, account for 45,791 green jobs across a range wide range of manufactured products. Jobs in conservation qualify, such as organic farming, land and water management.

BLS has compiled a list of 333 detailed industry groups that can be classified as green. Many jobs in those industries qualify as green jobs and those who are employed in those industries can be counted as “green workers.”<sup>5</sup>

In order for the firms in that industry to be considered “green” they have to meet one of five goals, namely (1) Energy from Renewable Sources, (2) Energy Efficiency, (3) Pollution Reduction and Removal, (4) Natural Resources Conservation, (5) Environmental Compliance, Education, and Training and Public Awareness. BLS describes examples of work that people in the particular industries could be performing to be classified as “green workers.”

In agriculture, for instance, one of the major categories of workers are 36,611 organic farmers and growers, whose workers are credited with accomplishing both natural resource conservation and creating energy from renewable sources. The biggest economic contributor from this category is likely to be producers of corn. When a farmer produces corn to eat this is not counted as a green job. But when he produces it for ethanol – the Department of Agriculture estimates that for the 2010/2011 marketing year 45 percent of the U.S. corn crop was used for ethanol – he has a green job.<sup>6</sup>

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<sup>5</sup> List of NAICS codes, and whether industry qualifies as green, accessed November 4, 2011, [http://www.bls.gov/green/final\\_green\\_def\\_8242010\\_pub.xls](http://www.bls.gov/green/final_green_def_8242010_pub.xls)

<sup>6</sup> “World Agriculture Supply and Demand Estimates,” USDA, last revised November 9, 2011, <http://www.usda.gov/oce/commodity/wasde/latest.pdf>

What if the farmer produces some corn to eat, and other corn to make ethanol, as countless corn producers do? By Agriculture Department definitions, the farmer has a green job. As long as the farmer sells at least some corn to ethanol producers, he is green.

A farmer who grows hundreds of acres of corn to feed Americans or starving people around the world has not yet risen to the sufficient moral level to be labeled a green worker. But if she were to sell some corn to a processor to produce ethanol to fuel a Cadillac SUV on the other side of America, the farmer is counted as a green worker.

The 20,605 organic producers of fruits and vegetables count as green jobs, but owners of large farms do not. Unlike most green jobs, many organic farmers are low-paid and unskilled. Measurement of the workers in this area is imprecise, since farming is a seasonal workforce with highly varying annual demand. Similarly, businesses that purchase locally produced food are considered green—but not if they import food from other countries.<sup>7</sup>

What if a business sells some locally-produced food, and some from overseas? Just as with corn producers, if even a few workers are engaged in selling local produce then the business can count itself as green. Calculations do not include self-employed workers, however. Hence, if an employee of a green farm strikes out on his own, and becomes self-employed, then a green job is lost—even if he is selling organic produce.<sup>8</sup>

With farming, it is possible to calculate the percentage of employment that is dedicated to ethanol or organic produce, but in other areas the numbers are not so clear. One example is “wood chips used for biomass.” How many workers are employed in the timber industry to create wood chips? Wood chips are largely a byproduct of milling, and milling is not considered a green job. Yet according to the Labor Department’s definition, the 33,214 wood product-manufacturing jobs are considered green because companies can sell the wood chips for biomass.

Electricity production is another gray area. The 4,665 men and women who produce renewable energy are clearly green. But what about increasing the efficiency of a power plant that uses fossil fuels, such as oil, coal, or natural gas?

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<sup>7</sup> “Measuring Green Jobs,” US Bureau of Labor Statistics, accessed November 10, 2011, <http://www.bls.gov/green/#faqs>

<sup>8</sup> List of NAICS codes, and whether industry qualifies as green, accessed November 4, 2011, [http://www.bls.gov/green/final\\_green\\_def\\_8242010\\_pub.xls](http://www.bls.gov/green/final_green_def_8242010_pub.xls)

After all, since the introduction of electricity, its production has been getting gradually more efficient, as new technology replaces old.

Those energy efficiency operations that qualify as green jobs include construction of Leadership in Energy and Environmental Design (LEED) certified structures, installation of energy efficient windows, and manufacturing and repairing Energy Star appliances. LEED certifications, granted by the U.S. Green Building Council, a non-profit organization,<sup>9</sup> and Energy Star certifications granted by the Environmental Protection Agency and the Department of Energy,<sup>10</sup> are national standards.

It is puzzling to say that any of the 81,950 “green” construction workers are doing any different job installing a gas insulated window, rather than a traditional pane window. Installing a “Lo-Flo” toilet is a green job, but a regular toilet is just plumbing.<sup>11</sup> Like many of the workers the government is trying to capture, these workers would still be needed, even if there was no concept of a green economy. What is different: the Labor Department may provide funding for “retraining” workers to install this different toilet.

Another baffling class of green workers is public transportation, which employs 241,877. Buses and trains are included, but not taxis. But in many cases building and operating a rail line uses more energy than buses. And in other cases it makes more sense to take a taxi than a bus. Further, if rail service is green, should not planes be included? The carbon emissions of planes per mile travelled are substantially less per mile of travel than those of cars.<sup>12</sup>

Many industries in the federal government’s categories border on the absurd. Table 1 shows a few examples.

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<sup>9</sup> “LEED Rating System Development.” U.S. Green Buildings Council. Accessed January 13, 2012. <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=2360>

<sup>10</sup> “About Energy Star.” Energystar.gov website. Accessed November 15, 2011. [http://www.energystar.gov/index.cfm?c=about.ab\\_index](http://www.energystar.gov/index.cfm?c=about.ab_index)

<sup>11</sup> McMahon, Brett. Testimony on The Green Jobs Debacle: Where Has All of the Taxpayers’ Money Gone?” before the Subcommittee on Regulatory Affairs, Stimulus Oversight and Government Spending. November 2, 2011. [http://oversight.house.gov/images/stories/Testimony/11-2-11\\_RegAffairs\\_McMahon\\_Testimony.pdf](http://oversight.house.gov/images/stories/Testimony/11-2-11_RegAffairs_McMahon_Testimony.pdf)

<sup>12</sup> “Carbon Calculator,” The Carbon Fund, accessed Nov 10, 2011, [http://www.carbonfund.org/site/pages/carbon\\_calculators/category/Assumptions](http://www.carbonfund.org/site/pages/carbon_calculators/category/Assumptions)

People who work in museums have green jobs, but only in environment and science museums. There are 22,510 people with these so-called green jobs. A job in an art gallery is not a green job. The securities and commodity exchange industry counts as green – but only for emissions allowance trading. News syndicates employing 23,197 people are green – as long as they publish environmental media. Book publishers are green, if they issue environmental books or training manuals. Does this testimony qualify as environmental content, since it is about green jobs, so does this make Congress a green organization? Am I, writing these words, doing a green job?

It is not clear why the federal government needs to make these distinctions between green jobs and other jobs. It might be less expensive for someone in the environmental movement to manage the classification system. This would mean that the green jobs movement could proceed without imposing the cost on the federal government. To cite one potential comparison, private Jewish religious organizations decide which foods can carry a kosher certification, then individuals decide which foods they want to purchase.

The green job designations have more psychological than economic effects. These labels are unlikely to change the behavior of businesses or consumers – although they do serve an advertising and public relations function. Businesses want to be more efficient to cut their costs, and consumers do the same, seeking products to help them reduce their fuel bills.

The entire exercise is an attempt to justify government initiatives, while in practice doing nothing to make America more efficient. The sector that has gained jobs is the federal bureaucracy, with taxpayer funds used for workers who create memos and manuals. This does not help to contribute to any of the major goals of green jobs outlined by the Bureau of Labor and Statistics.

### **Green Jobs in the States**

In addition to BLS, states also have their own methodologies of green job definitions. States have not done any better than the federal government at crafting green jobs definitions. Many states, including Arizona, Idaho, Maryland, and others drew upon or simply adapted the BLS definition, and others creating their own definitions.

The Department of Labor's Employment and Training Administration released a Solicitation for State Labor Market Improvement (LMI) Green Jobs Grants in July 2009,

which led many states to form consortiums and study the green jobs within their states and regions.<sup>13</sup>

The Rocky Mountain & Northern Plains Green Job Consortium (Utah, Montana, Wyoming, South Dakota, Nebraska and Iowa) defined a green job as “one in which an employee produces a product or service that improves energy efficiency, expands the use of renewable energy, and/or supports environmental sustainability.”<sup>14</sup>

Another consortium, the Mid-Atlantic Regional Collaborative, consisting of Maryland, Virginia and the District of Columbia, concluded that

“Green jobs are jobs involved in economic activities that help protect or restore the environment or conserve natural resources. These economic activities generally fall into the following categories: Renewable Energy; Energy Efficiency; Greenhouse Gas Reduction; Pollution Reduction and Cleanup; Recycling and Waste Reduction; Agricultural and Natural Resources Conservation; Education, Compliance, Public Awareness and Training.”<sup>15</sup>

Louisiana and Mississippi partnered in surveying green jobs in their states in 2009. To be a green firm in Louisiana or Mississippi, employees should spend more than 50 percent of their time in one of seven green activity categories, specifically renewable energy; energy efficiency; greenhouse gas reduction; pollution prevention and clean-up; recycling and waste reduction; sustainable agriculture; natural resource conservation and coastal restoration; and education, compliance, public awareness and training supporting the other categories.<sup>16</sup>

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<sup>13</sup> “Solicitation for Grant Applications - Labor Market Improvement Green Job Grants Consortium States Submittal Summary.” Employment Security Department, Washington State. July 2009. Accessed November 8, 2011. <http://www.wtb.wa.gov/Documents/LMEAconsortiumapps.pdf>

<sup>14</sup> “The Northern Plains & Rocky Mountain Consortium Final Report.” *Northern Plains and Rocky Mountain Consortium*. 2011. <http://researchingthegreeneconomy.org/docfolder/publications/The%20Northern%20Plains%20&%20Rocky%20Mountain%20Consortium%20Final%20Report.pdf>

<sup>15</sup> “What is a Green Job?” *MARC Regional Green Jobs* website. Accessed November 8, 2011. <http://www.marcgreenworks.com/gsipub/index.asp?docid=398>

<sup>16</sup> “The Greening of Louisiana’s Economy: Summary of Survey Results.” Louisiana Workforce Commission. September 2011. [http://lwc.laworks.net/sites/LMI/GreenJobs/Reports/Louisiana\\_Survey\\_Results.pdf#Method](http://lwc.laworks.net/sites/LMI/GreenJobs/Reports/Louisiana_Survey_Results.pdf#Method)

Alabama created its own definition of green jobs as those where jobs relate to the identifiable green activities of “increasing energy efficiency; producing renewable, clean transportation and fuels; agriculture and natural resource conservation; pollution prevention and environmental cleanup; and research, consulting and environmental support.”<sup>17</sup>

Other states which worded their own definitions include Pennsylvania and Oregon. Pennsylvania defines green jobs as “those that promote energy efficiency, contribute to the sustainable use of resources, prevent pollution and reduce harmful emissions or clean up the environment.”<sup>18</sup> Oregon has a similar definition.<sup>19</sup>

Some states have lengthy and highly-specific definitions. For example, California’s extensive working definition is based on the following **GREEN** acronym:

Generating and storing renewable energy  
Recycling existing materials  
Energy efficient product manufacturing, distribution, construction,  
installation, and maintenance  
Education, compliance and awareness  
Natural and sustainable product manufacturing

New Jersey perhaps has the most accurate definition, saying “It turns out that, in most cases, a green job is not an entirely new job, but a traditional job that contributes to reducing carbon emissions or pollution or otherwise benefiting the environment.”<sup>20</sup>

Some definitions of green jobs specify that they consider green jobs to be full-time positions which pay a living wage. For example, Wisconsin gave out grants to companies to create green jobs, defined as “full-time jobs in businesses that

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<sup>17</sup> “Alabama Green Definitions.” Alabama Department of Industrial Relations website. Accessed November 8, 2011. <http://www.greenjobsinalabama.com/gsipub/index.asp?docid=417>

<sup>18</sup> “The Pennsylvania Green Jobs Report Part 1.” Pennsylvania Workforce Development Commission. Accessed November 8, 2011. [http://www.portal.state.pa.us/portal/server.pt/directory/center\\_for\\_green\\_careers/134700?DirMode=1](http://www.portal.state.pa.us/portal/server.pt/directory/center_for_green_careers/134700?DirMode=1)

<sup>19</sup> “The Greening of Oregon’s Workforce: Jobs, Wages and Training.” Oregon Employment Department Workforce and Economic Research Division. June 2009. Accessed November 8, 2011. <http://www.qualityinfo.org/pubs/green/greening.pdf>

<sup>20</sup> “Green Jobs.” *New Jersey Next Stop...Your Career* website. Accessed November 8, 2011. <http://www.state.nj.us/njnextstop/home/greenjobs/>

manufacture clean energy products (for example wind, solar, biofuels, and advanced electrical storage systems) or otherwise help reduce the consumption of fossil fuels." <sup>21</sup> But most state definitions, following the lead of the Labor Department, do not clarify how much time must be spent on "green activities" to qualify a position as a green job. This means that either that the person's entire workday is focused on such green activities, or that having one green duty bumps a job into the green category.

A report of the Northern Plains and Rocky Mountain Consortium found that only 26 percent of employees reported spending all of their efforts on green activities, and only 48 percent of employees reported spending half or more of their time on green activities. In other words more than half of employees counted as green are not spending half their time on green activities.

Universities are examples of the easy creation of so-called green jobs. Many colleges have environmental studies programs and would therefore qualify as an industry where green goods and services are classified under NAICS code 611310, "colleges and universities." <sup>22</sup> Some have renamed their civil engineering departments "Departments of Environmental Engineering," and some ask their cafeterias to compost scraps. But these actions do not require hiring new employees.

Would the people who instituted composting be counted as new green jobs because they instituted this new system as one of their duties? Would the workers who now put food scraps in a compost heap rather than a trash bag count as green jobs? What about the social media coordinator who announces this practice as a victory for the environment on the college's Facebook page? The list of potential relabeled jobs goes on.

The ambiguity of the definitions of green jobs is one reason why efforts to create them have been so unsuccessful.

## **Conclusion**

Green jobs sometimes are eligible for government subsidies giving them an advantage over other jobs. Yet green jobs often are not economically viable. They are frequently a waste of taxpayer resources, a drain on the federal budget.

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<sup>21</sup> "State Energy Program - Recovery Act (SEP-ARRA) - Clean Energy Business Loan Program." Wisconsin Department of Commerce. Accessed November 8, 2011. <http://commerce.wi.gov/BD/BD-SEP-ARRA.html>

<sup>22</sup> "Green Goods and Services Industries by NAICS Code." Federal Register Notice For Public Comment: September 21 2010. Accessed November 8, 2011. [http://www.bls.gov/green/final\\_green\\_def\\_8242010\\_pub.pdf](http://www.bls.gov/green/final_green_def_8242010_pub.pdf)

For several years the public has been told that "green energy" – an expansive term that embraces renewable energy, pollution reduction, and conservation – will create jobs in America, lots of jobs. And that the federal government must subsidize green energy to create these jobs.

But no one knows what green jobs are.

Neither the federal government nor state governments can agree on the function or characteristics of a green job, although so many people seem to want them. Some green jobs, such as home insulators, have been around for decades and are being renamed as green jobs. Other jobs, such as manufacturing electric vehicles, are green jobs, but come at the expense of ending other auto industry jobs. Jobs in clean coal production are green jobs, but jobs in coal mining are not.

Not only is there no clear federal definition of a green job, but states have their own definitions. This means that federal grants to states to create green jobs don't produce even results.

Federal and state governments relabel traditional jobs, in an attempt to convince themselves and the public that such jobs exist. America has not succeeded in creating many green jobs, or many jobs that are not green. Last week's employment numbers show that we need a new approach.

Thanks very much for listening, and I would be glad to answer any questions.

**Table 1: Industries where Green Goods and Services are Classified**

NAICS 2007	Title	Examples
712110	Museums	Environment and science museums
712130	Zoos and botanical gardens	Botanical gardens, zoos
551114	Managing offices	Headquarters for environment-related companies
541810	Advertising agencies	Environmental advertising for public awareness
541820	Public relations agencies	Environmental public relations for awareness
541922	Commercial photography	Environmental photography
523130	Commodity contracts dealing	Emissions allowance trading
523140	Commodity contracts brokerage	Emissions allowance trading
523210	Securities and commodity exchanges	Emissions allowance trading
515120	Television broadcasting	Environmental content for TV broadcasting
515210	Cable and other subscription programming	Environmental content for cable distribution
519110	News syndicates	Environmental news media
511130	Book publishers	Environmental or training books/manuals
511140	Directory and mailing list publishers	Industry association directories or mailing lists
511199	All other publishers	Environmental or association calendars, etc

August 24, 2010. Source: Bureau of Labor Statistics: Industries where Green Goods and Services are Classified. [http://www.bls.gov/green/final\\_green\\_def\\_8242010\\_pub.pdf](http://www.bls.gov/green/final_green_def_8242010_pub.pdf)

Committee on Oversight and Government Reform  
Witness Disclosure Requirement - "Truth in Testimony"  
Required by House Rule XI, Clause 2(g)(5)

Name: Diana Furchtgott-Roth

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1. Please list any federal grants or contracts (including subgrants or subcontracts) you have received since October 1, 2009. Include the source and amount of each grant or contract.

Not applicable.

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2. Please list any entity you are testifying on behalf of and briefly describe your relationship with these entities.

Not applicable.

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3. Please list any federal grants or contracts (including subgrants or subcontracts) received since October 1, 2009, by the entity(ies) you listed above. Include the source and amount of each grant or contract.

Not applicable.

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I certify that the above information is true and correct.

Signature:

DE Furchtgott-Roth/CR

Date:

6/4/2012

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**Diana Furchtgott-Roth** is a senior fellow at the Manhattan Institute, a contributing editor of RealClearMarkets.com, and a monthly columnist for *Tax Notes*. Ms. Furchtgott-Roth was previously a senior fellow at the Hudson Institute, where she directed the Center for Employment Policy. Her areas of expertise include employment, taxation, education, pensions, unionization, and immigration.

From 2003 to 2005, Ms. Furchtgott-Roth was chief economist of the U.S. Department of Labor. From 2001 to 2002 she served as chief of staff of President' George W. Bush's Council of Economic Advisers. Ms. Furchtgott-Roth served as deputy executive director of the Domestic Policy Council and associate director of the Office of Policy Planning in the White House under President George H.W. Bush from 1991 to 1993, and she was an economist on the staff of President Reagan's Council of Economic Advisers from 1986 to 1987.

Ms. Furchtgott-Roth is the author of *Women's Figures: An Illustrated Guide to the Economics of Women in America* (AEI Press, forthcoming, 2012), and *Regulating to Disaster: How Green Jobs Policies are Poisoning America's Economy* (Encounter Books, forthcoming, 2012). She is the editor of *Overcoming Barriers to Entrepreneurship in the United States* (Rowman and Littlefield, 2008). Her articles have been published in the *Washington Post*, *Financial Times*, *The Wall Street Journal*, *Investor's Business Daily*, *the Los Angeles Times*, and *Le Figaro*, among others.

Ms. Furchtgott-Roth is a frequent guest on FOX Business News, and she has appeared on numerous other TV and radio shows, including The Diane Rehm Show, CNBC's Larry Kudlow Show, C-SPAN's *Washington Journal* and PBS's *The NewsHour* with Jim Lehrer.

Ms. Furchtgott-Roth was assistant to the president and resident fellow at the American Enterprise Institute from 1993 to 2001. From 1987 to 1991 she was an economist at the American Petroleum Institute, where she authored papers on energy and taxation.

Ms. Furchtgott-Roth received her B.A. in economics from Swarthmore College and her M.Phil. in economics from Oxford University.