Center for American Progress

POLITICAL ECONOMY RESEARCH INSTITUTE
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Green Economic Recovery Program

Impact on Massachusetts

Part of a National Program to Create Good Jobs and Start Building a Low-Carbon Economy

By Robert Pollin, Heidi Garrett-Peltier, James Heintz, and Helen Scharber

For the past year, the U.S. economy suffered through a serious economic slowdown caused by the collapse of the housing market bubble, the destabilizing effects of the housing implosion on financial markets, and the sharp rise in oil prices. The resulting increase in unemployment—reaching 5.7 percent in July 2008—is in fact even worse when taking into account a labor market where people are working fewer hours than they wish, taking pay cuts, or becoming discouraged from looking for work.

The fact sheet below details the impact on Massachusetts based on a national report that outlines a green economic recovery program to strengthen the U.S. economy over the next two years and leave it in a better position for sustainable prosperity. In the national report we propose policies to expand job opportunities by stimulating economic growth, stabilizing the price of oil, and making significant strides toward fighting global warming and building a green, low-carbon economy. This green economic recovery program—including investments in retrofitting buildings, expanding mass transit and freight rail, constructing smart energy grids, and expanding production of wind power, solar power, and advanced biofuels—would be a down payment on a 10-year policy program recommended by the Center for American Progress in its 2007 report "Capturing the Energy Opportunity: Creating a Low-Carbon Economy," by John D. Podesta, Todd Stern, and Kit Batten.

The decline in construction jobs clearly illustrates the need for a large-scale green economic recovery program in the United States. Employment in construction fell to 7.2 million in July 2008, down from 8 million in July 2006. A green infrastructure investment program would replace, at least, those 800,000 lost construction jobs over the next two years, and could result in renewed investment in the housing sector that is at the root of the current economic slump. This green recovery program provides a needed transfusion of new credit and investment into the construction industry, which could rapidly provide job opportunities that are badly needed. Our program would have similar, if somewhat smaller, effects in supporting U.S. manufacturing.

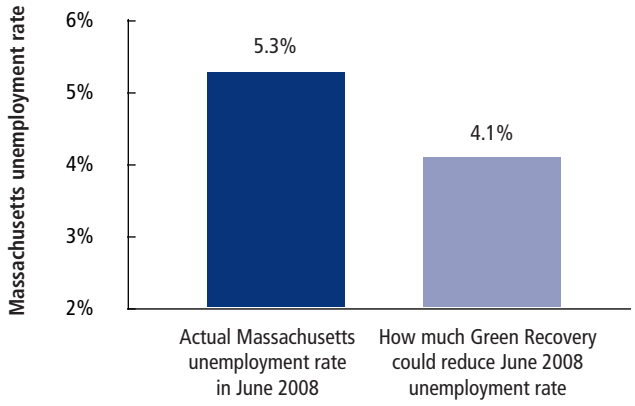
Features of national program

- Total U.S. green economic investment spending: $100 billion
- U.S. job creation: 2 million new jobs in two years
- Impact on U.S. labor market: could reduce unemployment to 4.4 percent in two years from 5.7 percent in July 2008.
- Six green infrastructure investment priorities: building retrofitting; mass transit and freight rail; smart grid electrical transmission systems; wind energy; solar energy; advanced biofuels.

Impact on Massachusetts

- Massachusetts's share of national green economic recovery program: $2.4 billion, based on combining state's population and gross domestic product (see technical appendix below for details).
- Massachusetts's net job creation through green economic recovery program: 42,530 jobs, based on Massachusetts unemployment figures in June 2008.
- Impact on Massachusetts's labor market: a net increase of 42,530 jobs would reduce Massachusetts's unemployment rate to 4.1 percent in two years from 5.3 percent in June 2008.

GREEN RECOVERY: IMPACT OF PROGRAM ON MASSACHUSETTS UNEMPLOYMENT



Massachusetts share of national $100 billion program = $2.4 billion

Total job creation = 42,530

Figure shows job impact in context of June 2008 Massachusetts labor market

Sources: See technical appendices to full study and state reports.

Major areas of new job creation in Massachusetts and across the nation

The vast majority of jobs created through a green economic recovery program are in the same areas of employment that people already work in today, in every region and state of the country. Constructing wind farms, for example, creates jobs for sheet metal workers, machinists, and truck drivers, among many others. Increasing the energy efficiency of

buildings through retrofitting requires roofers, insulators, and building inspectors. Expanding mass transit systems employs civil engineers, electricians, and dispatchers. More generally, this green recovery program will provide a major boost to the construction and manufacturing sectors throughout the United States through much-needed spending on green infrastructure. The table below provides a representative sample of the employment areas that will expand through the green stimulus program.

GREEN INVESTMENTS AND JOBS

STRATEGIES FOR GREEN ECONOMIC INVESTMENT	REPRESENTATIVE JOBS
Building Retrofitting	Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors
Mass Transit/Freight Rail	Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Bus Drivers, Dispatchers, Locomotive Engineers, Railroad Conductors
Smart Grid	Computer Software Engineers, Electrical Engineers, Electrical Equipment Assemblers, Electrical Equipment Technicians, Machinists, Team Assemblers, Construction Laborers, Operating Engineers, Electrical Power Line Installers and Repairers
Wind Power	Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors
Solar Power	Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers
Advanced Biofuels	Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors

In addition, all of these green energy investment strategies engage a normal range of service and support activities—including accountants, lawyers, office clerks, human resource managers, cashiers, and retail sales people. We have not listed these and other related occupations in the table above because these jobs are not directly linked to any of our six green investment strategies. But new employment opportunities will certainly open up in these areas as a result of the green investment program.

Massachusetts's green infrastructure investment allocations: Massachusetts's job estimates are based on this distribution of an overall $2.4 billion in green public- and private-sector investments:

- Energy efficient building retrofits: $939 billion
- Mass transit and freight rail: $469 million
- Smart grid: $235 million
- Wind power, solar power, and advanced biofuels: $704 million

These investment figures are meant to be broadly illustrative of investment possibilities in order to estimate job creation across sectors. Individual states could adjust their overall green stimulus budget to reflect different conditions or public policy priorities.

Technical Appendix: Method for Allocating Green Recovery Funds to States

When we consider the green economic recovery program on a state-by-state basis, we have to make some assumptions as to what share of the $100 billion should be allocated to each state. There is no obvious formula as to how this should best be done.

One way would be to make some assumptions as to which states have advantages in various investment areas, such as solar or wind power, or with agriculture to produce advanced biofuels. But whatever funding allocations we could establish on that basis would inevitably be largely arbitrary. Most importantly, we don't know an appropriate way to weigh the importance of geographic or climate advantages for any given state or region relative to the needs of the different states for the spending injection from the stimulus program.

With this in mind, there seemed to be two more reasonable approaches to assigning amounts of money going to each state from the overall stimulus budget of $100 billion. One is on the basis of each state's share of national GDP, and the other is in terms of each state's population. Assigning on the basis of population is, of course, the most egalitarian approach, with each person in the country having an equal dollar claim on the overall pool of investment funds. But proceeding in this way could also allocate an inappropriate share of funds to states that are at significantly different levels of development. Under a solely population-based approach, for example, a state with more developed industry and building stock might receive more investments from this program for retrofitting buildings and greater tax incentives for renewable energy than a less developed state. This would suggest that the funds should also be allocated with reference to each state's level of development.

We recognize that there are reasonable arguments in behalf of both a GDP-share and a population-based allocation of funds. As such, what we have done is to combine both approaches. We have calculated what the allocation of investment should be under both the GDP- and population-based approaches, and taken the midpoint of these two calculations as our figure for each state's allocation of the $100 billion for the overall green stimulus program.

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