Stimulating Geography

Most of the readers of this Newsletter know already how stimulating the study of geography can be. Congress now apparently agrees with us, for the $787 billion economic stimulus legislation recently signed into law by President Barack Obama offers many new funding opportunities for geography and geographers.

While many of the details regarding the implementation of the bill still remain ambiguous, time is of the essence for geographers wishing to participate in the research, education, and applications programs funded by this extraordinary legislation. As the bill’s stated purpose is to “stimulate” the economy, the government’s goal is to try to spend all of this money as quickly as possible. Here is where we geographers can help.

Because geography addresses so many of the pressing issues of today’s world — many of which are also addressed by the stimulus package — geographers are well positioned to engage these expanded programs which range from research on climate change to educating the next generation and from cutting-edge National Science Foundation research priorities.

However, as I indicated above, we must move quickly. Section 1602 of the Act, for example, places great emphasis on funding early start up activities. For infrastructure investment funds, recipients (government agencies) of funds provided in this Act should give preference to activities that can be started and completed expeditiously, with a goal of using at least 50 percent of these billions for activities that can be initiated within 120 days of enactment. Section 1603 of the bill provides that funds appropriated in this Act shall be available only until September 30, 2010, unless expressly provided otherwise in the Act.

At a recent meeting of the Coalition for National Science Funding (CNSF), of which the AAG is a member, Congressional staff said that they expected NSF will use its regular grant making procedures for most of the research funds.

“They need to get the funds obligated this year, and try to spend most of it by FY 2010 [September 30, 2010], though they may still be able to make some three-to-five year grants,” we were told. While it is possible that these early timelines may be moderated somewhat later, clearly the emphasis is on committing the bulk of these funds within a stunningly short window of time, and spending most of them within less than two years.

Formally known as the American Recovery and Reinvestment Act of 2009 (ARRA), the stimulus bill was described as “the first dramatic new investment in the future since the creation of the interstate highway system a half century ago” by House Speaker Nancy Pelosi. She described the stimulus bill’s goals as:

- Restore science and innovation as the keys to new American-made technology, preventing and treating disease, and tackling urgent national challenges like climate change and dependence on foreign oil.
- Invest in roads, bridges, mass transit, energy efficient buildings, flood control, clean water projects, and other infrastructure projects.
- Create and save 3.5 million jobs, rebuilding America, making us more globally competitive and energy independent, and transforming our economy.
- Give 95 percent of American workers an immediate tax cut.
- Invest quickly into the economy.

While remarkable in so many respects, at 1,073 pages the final ARRA bill enacted into law on February 17, 2009, makes for less than stimulating late night reading.

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For those of you who would like to read the entire bill, it is available at www.aag.org/ARRA. For everyone else, I have abstracted below some of this bill’s key provisions of potential significance for geography and geographers.

Science and Research
Geographers will benefit either directly or indirectly from approximately $21.5 billion for research grants and research facilities, most of which will eventually flow to academic institutions. That includes $3 billion for the National Science Foundation, $10 billion for the National Institutes of Health ($8.5 billion for research grants and $1.5 billion to renovate university facilities), and $2 billion for science and research programs at the Energy Department. Highlights include:

- $3 billion for the National Science Foundation for basic research in fundamental science and for research facilities, including $2.5 billion for research, $400 million for science infrastructure, $100 million for education.
- $1 billion for NASA, including $400 million for climate change research.
- $1.6 billion for the Department of Energy’s Office of Science, which funds research in such areas as climate science, cleaner energy, and biofuels, and $400 million for the Advanced Research Project Agency-Energy (ARPA-E) to support high-risk, high-payoff research into energy sources and energy efficiency.
- $1 billion for NOAA, including $400 million for research, operations, and habitat restoration.
- $580 million for the National Institute of Standards and Technology (NIST), for scientific standards research and the Technology Innovation Program.
- $10 billion to National Institutes of Health (NIH), including $8.5 billion for expanding research (which increasingly engages medical geographers and GIScience for disease research, epidemiology, and treatment programs), and $1.5 billion for NIH to renovate university research facilities.
- $140 million to the US Geological Survey (USGS) for its “Surveys, Investigations, and Research” account. Congress allowed for several uses of this funding, including: repair, construction, and restoration of facilities; equipment replacement and upgrades including stream gages, and seismic and volcano monitoring systems; and national map activities.

Education
The ARRA provides more than $100 billion in education funding and college grants and tuition tax credits, as well as billions more for school modernization. Education Secretary Arne Duncan emphasized the urgency of distributing the funds to states on an aggressive timetable in order to avert teacher and faculty layoffs. Citing a University of Washington study showing almost 600,000 education jobs at risk of state budget cuts, Duncan said that his office will publish timelines and initial guidance within a week so that states and districts can plan accordingly. This funding includes:

Making College More Affordable
- Increases the maximum Pell Grant by $500, for a maximum of $5,350 in 2009 and $5,550 in 2010.
- Adds $200 million to College Work-Study.
- Increases the higher education tax credit to a maximum of $2,500. Also makes it available to nearly 4 million low-income students who had not had any access to the higher education tax credit in the past – by making it partially refundable.

Providing Other Key Education Investments
- Provides $1.1 billion for Early Head Start and $1 billion for Head Start, which provide comprehensive development services to low-income infants and preschool children – thereby providing services for 110,000 additional infants and children.
- Provides $2 billion for the Child Care Development Block Grant to provide child care services to an additional 300,000 children in low-income families.

Investing in Early Childhood Development
- Provides $13 billion for Title I grants to help disadvantaged kids reach high academic standards – ensuring that in this period of tight state and local budgets these services are maintained.
- Provides $12.2 billion for grants for IDEA (Special Education) to increase the federal share of these costs, and prevent these mandatory costs from forcing states to cut other areas of education.

Infrastructure
The stated purposes of these expenditures is “to build a 21st century economy and create jobs rebuilding our crumbling roads and bridges, modernizing public buildings, and putting people to work cleaning up our air, water and land.” Special emphasis is also given to urban industrial core and rural economic recovery programs. Geographers have many roles in these programs, from research on environmental issues to planning to GIS for systems managing their implementation.
Prioritizing Clean Water/Flood Control/Environmental Restoration
- Provides $18 billion for clean water, flood control, and environmental restoration investments.

Improving Public Transit and Rail
- Provides $8.4 billion for investments in transit and $8 billion for investment in high-speed rail. Includes funds for new construction of commuter and light rail, modernizing existing transit systems, and purchasing buses and equipment needed to increase public transportation and improve intermodal and transit facilities.

Modernizing Roads and Bridges
- Provides $29 billion for modernizing roads and bridges. Requires states to obligate at least half of the highway/bridge funding within 120 days of receiving funds. States have over 6,000 projects totaling over $64 billion that could be under contract within 180 days.

Energy
The stimulus bill provides $4.4 billion for modernization of the electric grid. Other programs include:

Achieving Energy Conservation
- Provides billions to modernize public infrastructure with investments that lead to long-term energy cost savings, including about $4.5 billion to make buildings more energy-efficient. Includes a new bond-financing program for educational facilities construction, rehabilitation, and repair.

Developing Innovative Energy Technology
- Provides grants of up to 30 percent of the cost of building new renewable energy facilities. Provides $20 billion in tax incentives for renewable energy and energy efficiency over the next 10 years, including extensive tax credits for electricity derived from wind, biomass, geothermal, hydropower, landfill gas, and waste-to-energy facilities.

Other

U.S. Census Bureau
- The stimulus bill provides $1 billion in new funding to the Census Bureau “to hire additional personnel, provide required training, increase targeted media purchases, and improve management of other operational and programmatic risks to ensure a successful census.” Of the total, $150 million is targeted for “expanded communications and outreach programs to minimize undercounting of minority groups.”

U.S. Department of Labor
- The (DOL) was awarded $750 million in stimulus funding for a program of competitive grants for worker training and placement in high-growth and emerging industries. This is of special interest to geographers because DOL recently named geospatial technologies as one of the three key emerging high-growth industries. The legislation mandates that $500 million of the total is to be used for research, labor exchange, and job training projects that prepare workers for careers in energy efficiency and renewable energy industries.

Modernizing Health Care IT Systems
- Provides $19 billion to accelerate adoption of Health Information Technology (HIT) systems by doctors and hospitals. GIS components or data elements of these systems could help geographers and epidemiologists understand the etiology and spread of infectious or other diseases, and better predict, respond to, and treat new and existing diseases outbreaks.

- This section also strengthens Federal privacy and security law to protect personally identifiable health information from misuse and abuse.

Extending Broadband Services
- Provides $7 billion for extending broadband services to underserved communities across the country, including rural and inner-city areas. This should benefit educational institutions and individual geographers residing in or conducting research in these areas. This also includes substantial funding to create a broadband inventory map of the U.S.

Additional detail on these multiple programs and expenditures will become available in the months ahead as each federal agency sets its specific procurement policies and procedures for the bill. The AAG will continue to monitor the stimulus bill’s implementation progress, as well as the administration’s proposed 2010 budget for any relevant opportunities.

In closing, I would like to say thanks to all those AAG members who responded to our calls during the past few months to keep geography-related priorities in the forefront of the House and Senate versions of this stimulus legislation. To all of you, thanks a billion! ■

International Networking Reception
The International Networking Reception at the AAG Annual Meeting in Las Vegas will provide all conference participants with the opportunity to mingle with colleagues from around the world in an informal setting while enjoying hors d’oeuvres and drinks. The reception will take place in the AAG Exhibit Hall (Grande Ballroom C, Riviera Hotel, 1st Floor) on Monday, March 23, from 6:15 p.m. to 8:30 p.m. All are welcome.

Doug Richardson
drichardson@aag.org