Measuring the Results of Economic Stimulus Investments: Local Government Leading the Way

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Prepared on behalf of the Governmental Affairs and Policy Committee of ICMA

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Measuring the Results of Economic Stimulus Investments: Local Government Leading the Way

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Executive Summary

The American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act) presents city and county officials the opportunity to improve their communities, benefit their citizens, and demonstrate the value of local government as a partner in an endeavor of major importance to the nation. Although the nation’s attention focused first on congressional debates over the need for a stimulus package and its size, it turned subsequently to questions of how quickly funds could be delivered and how many jobs could be created or saved. Inevitably, attention will shift again—this time to the question of whether lasting benefits, beyond jobs and stimulus, were gained from the massive Recovery Act expenditures.

Current reporting requirements for recipients of Recovery Act funds, although extensive, are focused on jobs created or retained, project oversight, and the avoidance of waste, fraud, and abuse, with relatively little attention directed to outcomes. The resulting data will offer little rebuttal to critics who predictably will challenge the existence of lasting benefits. With few outcomes reported, the data collected from Recovery Act fund recipients will offer only a meager response to such challenges and also will deny municipal and county officials the opportunity to demonstrate the value of public investments being made through local government partners.

An alternate strategy is proposed in this paper—a strategy that recognizes the value of uniform outcome measures that can be aggregated across local governments but one that also is sensitive to the importance of avoiding burdensome additions to an already-extensive set of reporting requirements. This proposal does not suggest the establishment of a uniform set of outcome measures for all projects. Instead, it recommends the targeting of common project types (for example, road resurfacing, water and sewer line replacement or rehabilitation, and energy efficiency projects) and the establishment of uniform outcome measures that draw upon commonly collected data. Specific metrics are proposed. The quarterly reporting of these uniform outcome measures could be required of local government recipients of ARRA funds that engage in the selected common project types. The aggregation of these measures would not form a comprehensive report of all ARRA-funded projects managed by local governments (for it would exclude less common project types), but it would present a representative picture of the kinds of lasting gains achieved. The proposed measures will allow federal officials and local government spokespersons eventually to declare, for instance, the average percentage decline in line loss among local governments using Recovery Act funds for water line replacement and the average reduction in fuel consumption among local governments using Recovery Act funds to bring greater energy efficiency to public facilities and equipment.

This proposal also calls for the appointment of a committee of local government executives that would review the set of recommended measures; perhaps clarifying, expanding, reducing, or otherwise modifying the set, if deemed necessary; endorsing the set; and monitoring the results.
Introduction

Measuring the effects of stimulus spending by local governments under the American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act)\(^1\) differs from measuring their more routine municipal and county services in several important respects. Audiences, objectives, and timeframes are only a few of the key differences.

Many local governments are accustomed to reporting their performance to management officials, governing bodies, citizens of their communities, and occasionally to officials in state or federal agencies. Reporting on the effects of stimulus spending offers a new and much-expanded audience that includes the nation’s citizens, the media, and national policy leaders. The opportunity to demonstrate the value of investing in the government “closest to the people” is unprecedented.

The task of measuring and reporting the impacts of local government expenditures will be complicated by the varying objectives of the stimulus program. The goals of job retention and job creation overlap the goals of preserving public education and safety, maintaining the public infrastructure, protecting the environment, and reducing energy dependence, for example. Aggregating the effects of stimulus spending will require the identification of a suitable set of outcome measures. Such a set is proposed in this paper.

American Recovery and Reinvestment Act of 2009

The initiatives currently underway under the Recovery Act represent a mammoth, $787 billion effort to rescue the nation’s economy from near-collapse, protect its most vulnerable citizens, preserve public services, and establish a foundation for recovery. Programs and projects totaling $280 billion will be administered through states and localities (GAO, April 2009), making this an intergovernmental partnership of historic scale.

The important local government role in this partnership was emphasized in President Obama’s admonitions to the nation’s mayors three days after signing the economic stimulus package: “What I need from all of you is unprecedented responsibility and accountability—on all our parts. The American people are watching” (Shear, 2009; Stolberg, 2009). Placing them “on notice” to spend the money appropriately, he pledged to “call them out” if they did not.

Much of the initial funding directed through states and local governments—approximately $49 billion in FY2009—was allocated for increased Medicaid grants (i.e., an increase in the federal match), highway infrastructure investment (e.g., road and bridge repairs, safety improvements, and road widening), and the State Fiscal Stabilization Fund, mostly earmarked for education but also providing for public safety and other government services (GAO, April 2009). Even greater funding streams through state and local governments were planned for FY2010 and FY2011 (Figure 1). By FY2012, allocations through state and local governments will swing more toward spending on transportation, community development, energy, and the environment (GAO, April 2009).

Measuring the Recovery Act’s Progress and Impact

As recovery efforts advance, the attention of the media, national leaders, and the nation as a whole will shift from an initial focus on congressional enactment to a series of subsequent points of focus. The first shift came when attention moved from congressional debate and voting to a new focus on speed in project initiation and expenditure—getting the stimulus underway. Now the focus is shifting to actual job creation and retention, and the influence of the Recovery Act on the nation’s economic rebound. Almost inevitably, the focus will shift yet again, at least partially, as attention turns ultimately to assessing the societal benefits of this massive expenditure—benefits beyond jobs and economic stimulation.

The stated purposes of the Recovery Act are to:

- preserve and create jobs and promote economic recovery;
- assist those most affected by the recession;
- provide investments to increase economic efficiency by spurring technological advances in science and health;
- invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and
- stabilize state and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases.

\(^1\) Pub. L. No. 111-5, 123 Stat. 115 (February 17, 2009).
To track progress, directives on performance reporting were issued by the U.S. Office of Management and Budget (OMB) and by various federal agencies through which Recovery Act funds are being channeled. Guidance offered by mid-summer 2009 from these sources made it appear that performance reporting requirements would be extensive and that these requirements would be weighted heavily toward the tallying of jobs created and jobs retained, the tracking of dollars and project status, and compliance by funds recipients. Much less attention was directed toward societal benefits or results of the ARRA projects beyond jobs created or retained.²

Despite relatively little early attention to the benefits—long- or short-term—of Recovery Act expenditures beyond jobs and economic stimulation, such attention is likely to come eventually from the media and also from critics of the Recovery Act. Critics will challenge the effectiveness of the stimulus, question whether the program was worth the deficits it has created, and wonder what enduring—or even temporary—benefits accrued from the jobs created.

An imbalance of attention on spending speed, jobs created or retained, and avoidance of embarrassing gaffes may serve the program’s interests in the earliest stages of public scrutiny, but it will leave Recovery Act participants and proponents ill-equipped for the eventual shift to a focus on lasting benefits beyond jobs. Unless uniform outcome measures are established and required from the outset, proponents will be forced to rely on anecdotal stories of positive results. It will be impossible to report aggregated and cumulative benefits.

The ability of cities and counties individually and collectively to answer the question of lasting benefits not only will allow them to demonstrate progress on persistent local concerns but it also will enhance the value of local governments as program partners with the federal government. But to do so, the framework of performance measurement must be established now.

### Why Should Local Governments Be Concerned?

Fulfilling currently announced reporting requirements pertaining to compliance, project management, and the creation or retention of jobs will be difficult enough. Why should local governments be concerned if the tracking mechanisms of the Recovery Act give short shrift to measuring outcomes? Two reasons are prominent. Although avoiding waste is an important threshold for public programs, it is a threshold far too low to gain public approbation. The ability of Recovery Act participants to demonstrate enduring benefits individually and collectively—along with jobs created and saved—is a more worthy aim. Local governments

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² The authors of a recent Brookings Institution report express the imbalance this way: “ARRA’s welcome emphasis on transparency tilts too much toward curbing waste, fraud, and abuse and too little on establishing a clear, sensible focus on measuring outcomes” (Muro et al. 2009, 3).
have important objectives themselves—infrastructure maintenance and expansion, service enhancement, sustainability, and so forth—and it is in their self-interest to document progress toward achieving these objectives. Second, the scale of the Recovery Act and the prominent role of local government in its implementation make this brief initiative a rare opportunity for local governments to demonstrate their value as an intergovernmental partner for this and future initiatives.

Recovery Act Reporting Requirements

Current reporting requirements are extensive, encompassing a host of details pertaining to the following basic elements:

- Total amount of funds received; and of that, the amount spent on projects and activities;
- A list of those projects and activities funded by name to include
  - Description
  - Completion status
  - Estimates on jobs created or retained;
- Details on sub-awards and other payments (OMB, June 22, 2009a, p. 6).

Furthermore, states often impose additional reporting requirements on local governments for projects supported by federal funds passing through them.

Considerable attention has appropriately been directed toward the measurement and reporting of jobs created and jobs retained. The June 2009 guidance from OMB has clarified this task by declaring that Recovery Act fund recipients are to report only direct jobs created or retained (not “indirect” or “induced” jobs) and by providing detailed instructions for calculating and reporting jobs as full-time equivalents (FTEs). Still, as the GAO reports, many state and local officials desire further instruction and program-specific examples, especially where unusual circumstances exist (GAO 2009, p. 131).

The focus on effectiveness or impact of Recovery Act projects, beyond job creation/retention has been minimal. In fact, more attention appears to have been directed toward the effectiveness of internal control systems for ensuring compliance and avoiding fraud, waste, and abuse than toward the effectiveness or impact of Recovery-Act-funded projects (GAO, April 2009, 42; GAO, May 2009b; GAO, July 2009).

The GAO has recommended that in addition to providing further guidance on the reporting of jobs created and jobs retained, the OMB Director should “work with federal agencies—perhaps through Senior Management Councils—to clarify what new or existing program performance measures...that recipients should collect and report in order to demonstrate the impact of Recovery Act funding” (GAO, July 2009, 131).

In OMB’s June 2009 directive, the only reporting guidance that addresses project outcomes or results beyond job creation or retention is this:

Description of Project or Activity (brief narrative). A description of the overall purpose and expected outputs and outcomes or results of the award and first-tier subaward(s), including significant deliverables and, if appropriate, units of measure. For an award that funds multiple projects or activities, such as a formula block grant, the purpose and outcomes or results may be stated in broad terms (OMB, June 22, 2009b, p. 11).

In a single entry out of many in the reporting guidelines, local governments are encouraged to report activity or outcome measures pertaining to their specific projects. This encouragement is likely to yield a spotty and uneven response. Predictably, not all measures submitted in response to this directive will even address outcomes and those that do will not lend themselves to easy combination for a cumulative depiction of outcomes among local governments as a whole. Lack of uniformity will thwart efforts to simply add the measures of different communities.

OMB’s guidance to federal agencies directs them to provide instructions on the collection and reporting of performance measures beyond jobs created or retained—what OMB has described as the Recovery Act’s “marginal” performance impact (GAO, July 2009, 118). More specific directives have been slow in coming. GAO reports that “many state and local officials expressed concern about the lack of clear guidance on what other program or impact measures are required for evaluating the impact of Recovery Act funding” (GAO, July 2009, 123).

3 Section 1512(c)(3)(E) requires that state and local governments making infrastructure investments must provide information on the purpose, total costs, rationale for the infrastructure project and contact information of an individual.

4 Section 1512(c)(4) requires details on the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. 109-109).

5 Some of the “details” probe deeply, for example requiring “the names and total compensation of the five most highly compensated officers of the subrecipient entity” in some instances (OMB, June 22, 2009b, p. 20).
Drawing on Performance Measurement Lessons

A great deal about public sector performance measurement has been learned in recent decades. A few of the lessons most applicable to ARRA performance reporting are noted here.

Lesson 1: While some local governments are sophisticated in their ability to devise excellent measures and track performance, others are not. The practice of performance measurement has expanded dramatically at all levels of government in recent decades, but Ted Poister and Greg Streib (1999), assessing prior studies, note that the reach, sophistication, and use of performance measures are sometimes overstated in self-reported accounts. Not all local governments measure performance routinely and many do so only in a rudimentary fashion. Despite rosy self-reporting, follow-up examination of budget documents and performance reports suggest that the extent and quality of performance reporting among local governments is uneven. It is safe to predict that many local governments will be ill-prepared and a bit uncomfortable with the current federal guideline calling for them to suggest their own measures of the outcomes of their Recovery Act expenditures. The GAO reports that many are awaiting further instruction from federal agencies.

Lesson 2: Focusing on outcomes produces a more informative picture of performance than relying on inputs and outputs. Beyond the creation or retention of jobs, the lasting story of the Recovery Act will be the value of the work performed. That story will be told more compellingly if measurement extends past the shopping basket of items purchased and describes in hard facts and figures the gains that are made.

Lesson 3: Relying on only a few indicators of performance is risky; caution is warranted. Performance may be more fully and accurately depicted by a carefully developed set of measures addressing multiple dimensions of relevance rather than by a single measure. Scholars even warn of “pathologies” that can result when reliance on a single indicator of service quality leads to the restructuring of internal incentives (Ostrom, 1973; Kelly and Swindell, 2002). In the case of the Recovery Act where practicality is likely to force the use of a single or only a few outcome indicators for some projects, special care in selecting the most reasonable indicator or small set of indicators is warranted.

Objective of Measurement: Project Management or Accountability?

By OMB’s own acknowledgment, the purpose of its performance reporting schema is reporting rather than management (OMB, June 22, 2009a, p. 26). In other words, the aim is accountability—demonstrating the responsible use of Recovery Act funds and achievement of the Act’s objectives. Nothing in the Recovery Act precludes the establishment of performance management or project management systems to guide the management efforts of fund recipient, but the reporting requirements are focused on developing information for federal oversight and public information rather than project management.

Given the short duration of Recovery Act projects and the limited time span for mid-course corrections, the assumption that measures connected with these projects will be more useful for oversight and reporting than for management is understandable. However, the introduction of even a few key outcome measures could influence the management of these projects in beneficial ways—ways that will promote project benefits.

Achieving Needed Precision while Avoiding Burdensome Data Collection

Substantial administrative responsibilities, including reporting requirements, are required of Recovery Act fund recipients. These responsibilities cannot be absorbed easily into the existing workloads of current employees, especially at a time when many local governments have reduced their administrative staffs in response to their own budget crises. Without adequate administrative resources, performance could be impaired. Even before the Recovery Act projects were well underway, state officials already were expressing to GAO investigators “concerns about the reliability and accuracy of data [that would be] coming from localities” (GAO, April 2009, p. 37).

From the outset, state and local government officials expressed concern over what they feared was insufficient set aside funding to cover their accountability and administrative duties. Although recent guidelines have relieved some of these fears, it is important to remember that the provision of adequate management oversight and administrative support is essential for the success of these projects.
Uniform Measures of Impact for All Projects?

Given the broad array of programs and projects being funded under the Recovery Act, the task of designing and prescribing suitable outcome measures for every type of project would be daunting, even if granted adequate time to do so. Without such time the prospect of developing a comprehensive “template” of outcome measures for all projects, if not impossible, is at least impractical. Only with the measures of job creation and retention can officials hope to achieve that level of uniformity across all projects.

For outcomes beyond job creation and job retention, a practical strategy is needed that can combine the goal of accountability with the desire to avoid an especially burdensome data collection process. Such a strategy, as proposed here, will include the design of uniform outcome measures for a representative set of Recovery Act project types undertaken by local governments, including project types that are among those most commonly undertaken.

What types of projects are likely to be most common or of highest profile among those funded by the Recovery Act and managed by local governments? Early project applications—along with growing awareness of the well-documented deficiencies in the nation’s infrastructure—point to some of the leading candidates, but brick-mortar-and-asphalt capital projects will not dominate the array of recovery projects to the extent that some observers had anticipated at the outset of stimulus discussions.

The nature and mix of Recovery Act projects will differ from those of the Great Depression era, and so too will their legacy. As one writer pointed out soon after the stimulus package was approved, the portion of Recovery Act funding devoted to public works projects “is unlikely to transform the physical fabric of the nation as the New Deal did when it built hundreds of airports, tens of thousands of bridges, and hundreds of thousands of buildings and miles of roads” (Cooper, 2009, 6). Even with more than $100 billion directed to public works projects, these represent a relatively small portion of the Recovery Act total of $787 billion and only a fraction of the $2.2 trillion needed, according to the American Society of Civil Engineers, to fully restore the nation’s public infrastructure.

Recent inventories of the condition of the nation’s roads and bridges have reported major deficiencies. More than 18,000 bridges on state and interstate systems have been rated as “structurally deficient” by the U.S. Department of Transportation and “unsafe” by the American Society of Civil Engineers (Smart Growth America, 2009, 2). As shown in Table 1, pavement improvement projects made up almost half of the Recovery-Act-funded road and bridge improvement projects obligated by June 2009.

Many roadways in communities are also in poor repair. Much of the Recovery Act funding for roads and bridges, however, is likely to be claimed at the state level by transportation departments for roads and bridges under their maintenance. Nevertheless, significant amounts of funding for road maintenance will probably reach local governments in some states.

Table 1 Nationwide Highway Obligations by Project Improvement Type as of June 25, 2009

| Dollars in millions | Pavement projects | Bridge projects | Other | Total
|---------------------|------------------|----------------|-------|-------
|                     | New construction | Pavement improvement | Pavement widening | New construction | Replacement Improvement |                   |
|                     | $994             | $7,765          | $2,701          | $418             | $708                        | $851                      | $2,429           | $15,867       |
| Percent of total obligations | 6.3             | 48.9            | 17.0            | 2.6             | 4.5                         | 5.4                       | 15.3             | 100.0         |

Source: GAO analysis of Federal Highway Administration data.

a Includes safety projects such as improving safety at railroad grade crossings, transportation enhancement projects such as pedestrian and bicycle facilities, engineering, and right-of-way purchases.

b Totals may not add because of rounding.

Other common project types will include water and sewer service expansion, water and sewer line replacement or rehabilitation, water reuse and desalination projects, broadband initiatives, housing improvements, homelessness avoidance, public housing construction and rehabilitation, energy efficiency, weatherization, police force expansion, and public transit improvements.

All projects, of course, will report jobs created or retained, as prescribed by OMB. Under this proposal, local governments undertaking several common types of Recovery Act projects will also report uniform outcome measures designed for those projects. These measures may then be aggregated nationally across all local governments undertaking a given project type.

Outcome reporting for project types for which uniform outcome measures have not been designed—including less common project types—will depend on the output or outcome measures designed by individual local governments in response to OMB’s guidance of June 22, 2009 (OMBb, 11) or directives by federal agencies. Aggregation of these measures is unlikely to be possible.

**Recommended Metrics**

The stimulus program is designed to be quick-hitting. The opportunity to demonstrate the ability of local government, as a national partner, to deliver an extraordinary return on a major public investment will arrive and pass quickly. Although scholars and analysts will reflect on the effects of stimulus spending for years to come, judgments by pundits, policy leaders, and citizens will be rendered in real time. Complexity of measurement—both for data compilers and the recipients of measurement reports—would restrict its usefulness. Simplicity, while retaining data and message integrity, would be better.

Based on early evidence regarding likely programs and projects to be managed by local government recipients of Recovery Act funds, the following performance measures (printed in bold type) are proposed. Each should be required to be collected and reported by local governments undertaking that type of project. By aggregating these measures, federal officials and local government spokespersons will be able to make the broader statements of impact offered in italics.

**Street Resurfacing**

A desirable outcome measure for street resurfacing would show the improved condition of the street or road inventory of a city or county. Participants in ICMA’s comparative performance measurement program, for instance, report the following measure annually:

- **Paved lane-miles assessed as being in satisfactory or better condition as a percentage of total paved lane miles assessed** (ICMA, 2008, pp. 276–277)

To report this measure, a local government must have a condition inventory already or the ability to compile one quickly. To avoid imposing this burden on cities and counties without such an inventory, the above measure should be requested only of those local governments possessing such an inventory. The following measure could be required of all local governments using Recovery Act dollars for resurfacing work:

- **Lane-miles resurfaced, by decade of most recent paving/resurfacing (e.g., prior to 1950, 1950–1959, 1960–1969, etc.)**

The aggregation of these measures across all cities and counties would permit federal officials and local government spokespersons to report the average percentage upgrading of local street and road conditions among local governments using Recovery Act funds for resurfacing (among those able to report this measure) and the percentage of resurfacing work that restored streets that had been last resurfaced prior to the 1990s (or other specified decade). Although not actually gauging an outcome, a measure that reveals the age of road surfaces prior to Recovery Act resurfacing will answer critics’ charges that these were merely make-work projects.

**Water and Sewer: Service Expansion**

Some local governments will use Recovery Act funds to reduce the number of citizens who depend on small and often unreliable private water systems and inadequate sewage disposal by connecting them to the government’s systems. For the purpose of reporting relevant metrics, “marginal systems” could be defined as:

a) water systems that

- consistently fail to comply with environmental regulations regarding maximum contaminant levels (i.e., those exceeding specified maximums at least once annually for the past three years), or
- serve fewer than 500 people or have fewer than 200 connections (including reliance on individual wells)

6 Even when they comply with environmental regulations, some small water systems are especially vulnerable in periods of drought.
b) wastewater systems that are not connected to a centralized treatment plant (including reliance on septic systems).

Local governments using Recovery Act funds to reduce the number of marginal systems could be required to report the following:

- **Number of households on marginal water systems within or in close proximity to the jurisdiction**
- **Number of households removed from marginal water systems by connecting them to the water distribution network using ARRA funds**
- **Number of households on marginal sewerage systems within or in close proximity to the jurisdiction**
- **Number of households removed from marginal sewerage systems by connecting them to the wastewater collection system using ARRA funds**

The reporting of these statistics should begin with the quarter prior to beginning a project.

When aggregated, these measures will permit spokespersons to report the average percentage reduction of households on marginal systems among local governments using Recovery Act funds for moving households from marginal to reliable centralized water systems and similarly the average percentage reduction from marginal sewer conditions.

**Water Line Replacement**

Many local governments are expected to replace old and leaky water lines using ARRA funds. Those local governments could be required to report the following:

- **Number of feet of line replaced**
- **Percentage of line loss**

Line loss is the amount of water that seeps from water lines during transmission. It may be gauged roughly by comparing the volume of water that is treated to the volume of water sold to customers to see how much is lost in transmission. Replacement of a portion of a system’s water lines will not necessarily cure a line loss problem; but if targeted at areas with the most badly deteriorated lines, it should reduce the problem overall. The reporting of line loss should begin with the quarter preceding water line replacement.

The aggregation of these measures across all cities and counties will permit spokespersons to report not only the number of miles of water lines replaced by all of the systems using funds for this purpose, but also the average percentage decline in line loss among local governments using Recovery Act funds for water line replacement.

**Sewer Line Replacement or Rehabilitation**

Local governments are also using Recovery Act funds to replace or rehabilitate old and leaky sewer lines that pose a threat to public health and the environment. The governments doing so could be required to report the following:

- **Feet replaced/rehabbed, by age of sewer line replaced/rehabilitated (e.g., 1900–1909, 1910–1919, 1920–1929, 1930–1939, etc.)**
- **Sewer stoppages per 100 miles of sewer line**
- **Percentage of inflow during rain events**

The reporting of statistics on sewer stoppages and inflow should begin with the quarter preceding sewer line replacement.

When aggregated, these measures will permit spokespersons to report not only the number of miles of sewer lines replaced or rehabilitated and the percentage of new or rehabilitated lines replacing lines installed prior to a given decade by all of the systems using funds for this purpose, but also the average decline in the rate of sewer stoppages and the average decline of inflow among local governments using Recovery Act funds for sewer line replacement.

**Water Reuse and Desalination Projects**

The Department of the Interior has directed more than $134 million in Recovery Act funds to a variety of innovative water reuse and desalination projects. Where local governments are managing such projects, they could be required to report the following:

- **Recycled water as a percentage of all treated water**
- **Desalinated water as a percentage of all treated water**

The reporting of these statistics should begin with the quarter prior to initiating a project.
These measures will permit spokespersons to report the impact of recycling and desalinating water as a means of expanding water availability.

Broadband Initiatives
Section 6001(k) of the Recovery Act calls for the Federal Communications Commission (FCC) to develop a plan to expand broadband coverage, ensuring that everyone across the nation has access. A variety of broadband projects will receive $7.2 billion in ARRA funds, including some proposed by local governments.

As the FCC develops the national plan and receives comments, it will establish performance measures to track progress and assess results. Pending the establishment of the FCC’s measures, these four are proposed for assessing the benefits of broadband initiatives funded by the Recovery Act and implemented through local government partners:

- **Percentage of broadband penetration** (i.e., the percentage of the local government’s jurisdiction having access to broadband)
- **Percentage of households subscribing to broadband service**
- **Price per Mbps (megabit per second)**
- **Average household internet connectivity speed**

Additionally, each recipient local government should respond to the following question:

- **Is real-time data entry by public safety personnel possible?**

The reporting of these statistics and the answer to the above question should begin with the quarter preceding the broadband initiative.

The aggregation of these measures across all cities and counties undertaking ARRA-funded broadband initiatives will permit federal officials and local government spokespersons to report the average percentage increase in broadband penetration (i.e., access), the average percentage increase in broadband users, the broadband project’s influence on price, the change in average speed experienced by internet customers, and the extent to which broadband projects reached public safety operations among local governments using Recovery Act funds for broadband projects.

Housing
Any local governments that use Recovery Act funds for projects designed to bring housing into compliance with minimum standards could be required to report the following:

- **Substandard housing units as a percentage of all housing units**

The reporting of this measure should begin with the quarter preceding the ARRA-funded project.

By aggregating this measure across all cities and counties, spokespersons will be able to report the average percentage upgrading of housing stock among local governments using Recovery Act funds to bring housing up to standard condition.

Avoiding Homelessness
The Recovery Act’s $1.5 billion Homelessness Prevention and Rapid Re-Housing Program is designed to help at-risk individuals and families avoid homelessness and help others who are experiencing homelessness regain stability and housing. The purpose of this program differs sharply from programs directed entirely toward rescuing persons from the street by providing shelter and food. Accordingly, the terminology appropriate for these measures will differ from the measurement language normally associated with homeless shelters. Program elements focus on vulnerable families and individuals who are on the brink of homelessness or have only recently become homeless. Assistance can include, for instance, credit counseling, security or utility deposits, utility payments, short- or medium-term rental assistance, moving cost assistance, and case management. Local governments using Recovery Act funds for this purpose could be required to report the following:

- **Persons saved from homelessness**
- **Recovery Act expenditures per person saved from homelessness**

When aggregated, these measures will permit spokespersons to report the number of persons saved from homelessness across all ARRA-funded projects and the average expenditure per person.

Public Housing
Some local governments will use Recovery Act funds to rehabilitate public housing units. A rough, but...
easily compiled, measure of the condition of public housing stock would report the percentage of all units constructed or rehabilitated within a reasonable period of time, perhaps the last 10 years:

- **Percentage of public housing units constructed or rehabilitated within the past 10 years**

The reporting of this measure should begin with the quarter preceding the ARRA-funded project.

When aggregated, this measure will permit spokespersons to report the average improvement of public housing stock among Recovery Act projects.

**Energy Efficiency**

A variety of Recovery Act projects will be directed toward achieving greater energy efficiency in public facilities, vehicles, and equipment. Local governments undertaking such projects could be required to report:

- **Reduction (or increase) in energy consumption, when compared to same quarter of the year prior to initiating the Recovery Act project**
- **Percentage of vehicles and heavy equipment using alternative fuel**
- **Average fuel efficiency of all sedans in fleet** (miles per gallon)
- **Average fuel efficiency of all pickups in fleet** (mpg)

The reporting format should accommodate various energy units (e.g., gallons of gasoline, kilowatt-hours of electricity, etc.) and should require the local government to indicate whether the reported reduction is confirmed; anticipated but not yet confirmed; or estimated because actual figures are and will remain unavailable. The reporting of the second, third, and fourth measures should begin with the quarter preceding the ARRA-funded project.

By aggregating these measures across all cities and counties, spokespersons will be able to report the average reduction in fuel consumption, the average percentage of vehicles and heavy equipment using alternative fuel, and the average gains in fuel efficiency of the sedans and pickups in the fleets of local governments using Recovery Act funds to bring greater energy efficiency to public facilities and equipment.14

**Weatherization**

Requirements established by the Department of Energy (DOE) call for states participating in the Recovery Act’s weatherization program to report not only the number of housing units weatherized and jobs created but also the resulting energy savings (GAO, July 2009, 94). Compliance with these requirements at the local government level will permit aggregated statistics on results.

**Police Force Expansion**

Recovery Act funds are being used in some communities to avoid the loss of current police officers or to hire additional officers. Guidance in calculating jobs created or retained has been provided by OMB.

Although normally considered merely an input measure, the number of police officers hired or retained with Recovery Act funding deserves different treatment in the context of the ARRA. Because of the Recovery Act’s job creation/retention objective, this input measure may justifiably be regarded as at least an output in this instance.

- **Police officer positions created or retained using Recovery Act funds**

Public officials and the public in general often regard greater police presence or visibility as a public value in and of itself. Nevertheless, the hiring of additional police officers is about more than just creating jobs. It is also about preserving or increasing public safety. Therefore, local governments using ARRA funds to hire additional officers (not simply to retain current jobs) could be required to report:

  - **Police officer positions created or retained using Recovery Act funds**

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  - **Part I crimes per 100,000 persons, as a percentage of the average quarterly rate of the year prior to using ARRA funds to employ police officers**

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12 For instance, the GAO reports that some public housing agencies are using Recovery Act funds to increase the energy efficiency of housing units, for example, installing energy efficient lighting and appliances. They intend to track energy usage to report impact (GAO, July 2009).

13 Reported annually by participants in ICMA’s comparative performance measurement program.

14 A reviewer of this paper correctly observed that projects aimed at the energy efficiency of municipal and county facilities and equipment will produce outcomes that are “just a drop in the bucket” compared to the potential outcomes of broader efforts directed toward community efficiency enhancement. These broader outcomes (e.g., increased reliance on renewable energy communitywide, reduction of the load on the national grid, reduced greenhouse gases) should be added to the required metrics, if it becomes apparent that a substantial number of local governments intend to use ARRA funds for projects with these or similar objectives.
Analysts hoping for a quick and easy assessment of the impact of new officers are likely to be disappointed. Lag time in hiring and training new officers is only one of the many complicating factors in assessing impact. The fact that even several new officers in a community may constitute only a small fraction of the overall force is another. Their effect may be neither immediate nor readily apparent. Still, critics and proponents will ask about the effects on crime and it is wise to gather these statistics.

Although local governments using Recovery Act funds for police officers should report the above measures quarterly, those hiring additional officers should also be directed to submit a follow-up report upon the release by the Federal Bureau of Investigation of a given year’s annual Uniform Crime Report. The follow-up report by the responding local government should compare the change in the local crime rate with the average of all cities/counties in the same population cluster and region.\(^{15}\)

### Public Transit

Substantial ARRA expenditures will be made for light-rail, streetcar, and high-speed bus projects designed to increase ridership, reduce traffic congestion, and boost downtown revitalization efforts (Cortese, 2009). Although these projects will have a variety of specific objectives deserving of individualized focus, the common denominator is a desire to make public transit a more viable and desirable transportation option.\(^{16}\)

Accordingly, a results-oriented measure that would span the variety of projects and minimize the data collection burden would focus on ridership. Local governments receiving Recovery Act funds for public transit could be required to report:

- **Passengers per service mile**
- **Passengers per service mile, as a percentage of the same quarter of the prior year**

By aggregating these measures across all cities and counties, spokespersons will be able to report *the average increase in passengers per service mile among local governments using Recovery Act funds for public transit.*

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\(^{15}\) Although it would be desirable to exclude from the comparison other local governments using ARRA funds to hire additional officers, it may be impractical to do so.

\(^{16}\) Vehicle replacements for energy efficiency may be expected to influence results here and also in the “Energy Efficiency” category.

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A host of other project types, less suitable for aggregate measures, will be undertaken by local governments. Outcome measures should be designed and reported in each instance, even if their usefulness in documenting the Recovery Act performance of local governments as a whole is not as great as for the more readily combined measures listed above.

### Recovery Act Projects as Contributors to Desired Outcomes

The task of isolating ARRA-funded impacts will be relatively simple in some cases but exceedingly difficult in others. For example, if a city expands its police force in hopes of reducing crime, how much of any subsequent drop in the crime rate should be attributed to the additional officers and how much to an improving economy and other factors? Sorting out the answer with precision would be a vexing problem for the most skilled of analysts and a challenge seemingly well beyond the realm of a reporting system designed to minimize undue burdens.

In many cases Recovery Act funds will supplement other federal, state, or local funds being used for a similar purpose. It will be important to keep these funds separate for all project-specific reporting as prescribed by OMB and other federal agencies; however, for the reporting of outcomes, the isolation of a Recovery Act project’s contribution to an improving overall condition might be a complicating factor not altogether necessary if demonstrating an impact *approximately* is almost as valuable as demonstrating an impact *precisely.* Some cities will only hire new police officers for whom they receive ARRA funds, for instance, while others will hire some officers using ARRA funds and other officers with local funds. Will it be enough to report that in cities and counties receiving ARRA funds for additional law enforcement officers the crime rate declined by a given average percentage or must the attribution be more precise? Similarly, Recovery Act funds will be a major contributor—but not the only contributor—to the improved condition of the roadways, water and sewer system, housing inventory, and public transit system in various communities. Will it be enough to report the average percentage improvement among local governments using ARRA funds for that purpose, while carefully acknowledging that other programs and other factors may have contributed as well? The objective of minimizing burdensome reporting requirements would lean in favor of arguing that it is.
Reporting Frequency

Recipients of Recovery Act funds are required to report on the use of those funds, including the creation or retention of jobs, on a quarterly basis. The measures proposed in this paper could be reported simultaneously.

Administrative Costs

From the outset state and local government officials have been concerned about resources to pay for the administration of ARRA-funded projects, including compliance with measurement and reporting requirements (Brodsky, 2009; Towns, 2009). Many of these governments were forced to trim their administrative staffs in response to revenue shortfalls and now find themselves ill-equipped to properly administer new projects and meet federal reporting requirements.

Early OMB guidelines were vague about allowances for administrative expenses, but recent signals about allowable uses of ARRA funds are more encouraging. To secure proper management of this massive investment, administrative funding must be provided.

Local Leadership Roles

Local government leaders can advance the important work of gauging the benefits of Recovery Act projects in two significant ways. First, a committee of local government executives should be appointed for the purpose of reviewing the set of measures proposed in this paper; perhaps clarifying, expanding, reducing, or otherwise modifying the set, if deemed necessary; endorsing the set; and monitoring the results.

Second, all local government managers receiving ARRA funds can exert important leadership in their own communities to ensure that these funds are used properly and to maximum effect. Furthermore, they can examine the procedures in place to measure results, making certain that their government’s reports will be accurate. Finally, they can express to subordinate administrators and employees their own convictions about the importance of tracking and reporting the results of their work.

Conclusions

Through the Recovery Act local governments have an opportunity to demonstrate to federal and state officials their value as an intergovernmental partner. They have a high-profile opportunity to demonstrate to citizens across the nation their ability to deliver results.

Predictably, the nation’s attention eventually will turn to the reinvestment aspects of the American Recovery and Reinvestment Act and the public will ask what it gained from this massive expenditure beyond jobs created or retained. Compliance with the reporting guidelines announced to date will provide at the end an inventory. Federal, state, and local officials will be able to declare the number of projects of various types that were completed and they will be able to recite selected inventory statistics—for instance, the number of miles of water line replaced and miles of roadway paved—but they will be able to report relatively little in the way of aggregate outcomes.

The measures proposed in this paper will demonstrate the value of local government efforts individually and collectively through the aggregation of individual measures. They will allow government officials to respond to the public’s questions with more than an inventory of projects. For an important portion of those projects they will be able to say much more, describing, for instance, the reduction of water losses attributable to water line replacement, the portion of resurfaced roadway last resurfaced in the 1980s or earlier, and the growth in public transit ridership.

These measures are practical choices, sometimes compromising the ideal metric in order to secure the “do-able.” The conscientious reporting of these measures will provide a response to pundits and critics. More importantly, measurement will allow dispassionate reporting to the public in what increasingly has become a highly charged atmosphere. As Marc Holzer and Kaifeng Yang write about public sector perfor-
mance measurement more generally and in more normal times:

Measurement provides an opportunity to present evidence that the public sector is a public bargain, to highlight the routine but important services that public servants quietly provide and to answer the public’s sometimes-angry questions and implicit suggestions on a dispassionate basis. Measurement helps to move the basis of decision-making from personal experience to proof of measurable accomplishment or lack thereof (2004, 16).

The same opportunity exists with regard to the Recovery Act.

The proposal expressed in this paper is offered in the spirit of intergovernmental partnership and cooperation. Local government officials have been favorably impressed by the willingness of their federal and state counterparts to listen to their concerns. The executive director of the National League of Cities has praised the intergovernmental cooperation associated with the Recovery Act, calling the Administration’s “genuine desire” to take state and local officials’ perspectives into account “laudable” (Borut, 2009). Similar attention and regard should be given to the need to establish measures that will demonstrate enduring Recovery Act benefits but will do so in a manner that is sensitive to already formidable administrative and reporting burdens.

As the focus on Recovery Act results intensifies, local governments can demonstrate their value as an intergovernmental partner, perhaps to their benefit for future initiatives. However, demonstrating benefits beyond the initial objective of job creation and retention will require local government initiative beyond that called for by the Recovery Act itself and initial reporting guidelines. Responding to the nation’s ultimate focus on societal benefits beyond jobs and economic stimulation will require performance measurement not currently required by the Act, with steps taken early in the process to ensure adequacy and the ability to demonstrate aggregated and cumulative benefits.

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