Methods and Tools to Use Performance Data at the State Level: Key Terms, Definitions & How They Connect

April 26, 2016

Overview

To improve outcomes while making government more cost-effective in a time when resources remain tight, spending demands grow, and technology continues to advance, states across the country are working to increase their use of data and evidence to inform budget and policy. In recent years, NASBO has convened state budget officials on numerous occasions to discuss this important topic, share experiences and lessons learned, and work together to come up with solutions to address some of the common challenges associated with data-driven, evidence-based efforts in state government. At these meetings, various terms are commonly referenced: performance management, Lean, results-based accountability, budgeting for outcomes, Results First, performance budgeting, Pay for Success, program evaluation, State Stat, and so on. Each of these terms describes a method or tool focused on increasing the use of data and evidence in state government. However, they are not all synonymous, and a number of states are engaged in more than one of these approaches. This brief aims to define these terms, how they differ and where they intersect, using real state examples to help illustrate these various approaches. In particular, the brief focuses on four major areas of data-informed decision-making – (1) performance management, (2) program evaluation, (3) process improvement, and (4) performance budgeting – and the various methods and tools used in these areas.

Performance Management

Among all the terms that come up when talking about using data to inform decisions, performance management is perhaps the broadest in scope and therefore most inclusive. In fact, a state may use this phrase as an umbrella term to describe a variety of tools and methodologies to tie evidence, data and performance information to decision-making. "There is no one way to do performance management, which allows governments to readily tailor the approach to their leadership styles, circumstances, and cultures."[1]

Utah's SUCCESS Framework provides a good example of a statewide performance management system – "a set of tools and concepts…designed to achieve concrete results."[2] With the governor's overarching goal of improving government performance (or capacity) by 25 percent, the SUCCESS Framework sets out to align state agencies' goals, strategic plans, performance measures, processes, policies and so on to maximize government efficiency and effectiveness.

Described below are several commonly used terms that fall under the "performance management" umbrella, including certain tools or components (e.g., Performance Measurement and Balanced Scorecard), as well as specific forms or types of a performance management system (e.g., Results-Based Accountability and "Stat" System).

"Stat" System

The "PerformanceStat" or "-Stat" technique refers to a performance management and leadership strategy, whereby an "ongoing series of regular, periodic meetings" are held for executive leaders and agency directors/managers to "use data to analyze the agency's past performance, to establish its next performance objectives, and to examine its overall performance strategies."[3] PerformanceStat may be best distinguished from other performance management frameworks in that it "shifts responsibility for action from an organization to an individual."[4] It was first created as "CompStat" in the New York City Police Department, and was subsequently adopted by numerous police departments. Baltimore's CitiStat became the first

NASBO
The National Association of State Budget Officers
444 N. Capitol Street NW, Ste. 642, Washington DC 20001 | (202) 624-5382 www.nasbo.org

example of applying this approach to a whole jurisdiction. It has also been used in various forms by states such as Washington (Government Management Accountability and Performance or GMAP) and Maryland (StateStat).

Results-Based Accountability (RBA)

Results-Based Accountability™ (RBA), also known as Outcomes-Based Acountability™ (OBA), "uses a data-driven, decision-making process to help communities and organizations get beyond talking about problems to taking action to solve problems." This performance management framework, developed by Mark Friedman, starts with the end goals and conditions that a jurisdiction wishes to achieve, and then uses those desired results to make decisions. This framework has its own set of key terms and definitions, with "results and indicators" representing the "ends we want for children and families," while "strategies and performance measures" represent the "means to get there."[5] Within a state context, the RBA process begins by looking at the entire state population – or a subset of that population (e.g., children, disabled adults, etc.) – and defines the results or "conditions of well-being" sought for that group. The next step is determining how these conditions would be recognized – that is, measured – which entails establishing indicators for the desired outcomes, as well as baselines against which to compare them. After this, the state can begin to assess why the baselines are what they are, research strategies and interventions that evidence shows would improve upon these baselines, and then develop a long-term action plan and budget to implement these strategies. At this point, performance measures are established to track how well these strategies and programs are serving their customers.[6]

Minnesota has been using the RBA framework throughout state government as one of several approaches to performance management and improvement, as part of Governor Mark Dayton's "Better Government for a Better Minnesota" initiative. More than 2,000 state employees are trained in this framework, and the Management Analysis & Development division of the Minnesota Management & Budget (MMB) office offers consulting services to agencies seeking assistance in applying the RBA approach to enhance their effectiveness. Additionally, for the FY 2016-17 Biennial Budget cycle, agencies were instructed by MMB to use RBA to frame their budget narratives and provide information on performance.[7] Since RBA also includes a results-based budgeting component, it may also be considered as one approach falling under the "performance budgeting" umbrella, to be discussed later in this brief.

Balanced Scorecard

The Balanced Scorecard is a performance management tool that aligns activities with strategic goals, and monitors and reports on key performance indicators to measure progress towards achieving those goals. "The Balanced Scorecard is a performance-based, results-oriented management tool that allows employees, managers, stakeholders, and the public to focus on the agency's priority performance outcomes and the relationship between the strategies that underlie and are deployed to achieve those outcomes."[8] Therefore, this tool places great emphasis on transparency, as well as performance management and accountability. Various entities in the public, private and nonprofit sector use this tool. For example, New Hampshire's Department of Transportation employs a Balanced Scorecard approach to measure performance of the transportation system and connect these measures to the agency's overall strategy. "The Balanced Scorecard was chosen because it is a tool that effectively reports performance, links performance to strategic management, and, most importantly, communicates this information to taxpayers, the owners of the system, elected officials, and transportation partners," explains New Hampshire's Transportation Commissioner.[9]

Performance Measurement

What's the difference between performance management and performance measurement? According to an issue brief by the National Governors Association (NGA), performance *measurement* "is the process of setting indicators and then identifying metrics and reporting progress," while performance *management* "is the use of performance information to drive decisions and manage state agencies."[10] In this way, one can view performance measurement as a technical tool and critical component of any performance management system or framework. Performance measurement can also be thought of as a tool for program evaluation, "designed to provide useful feedback on performance in order to strengthen decision making and improve program and organizational performance."[11]

Program Evaluation

There are a variety of research methods and tools that play an important role in facilitating the use of data and evidence in state government. "Program evaluation is the application of systematic methods to address questions about program operations and results. It may include ongoing monitoring of

a program as well as one-shot studies of program processes or program impact."[12] Under this broad definition, program evaluation "should not only assess program implementation and results but also identify ways to improve the program evaluated."[13] There are numerous forms of program evaluation that rely on different research designs and serve diverse information needs. They can range from formative or rapid feedback evaluations conducted early in implementation and designed to improve program delivery, to comprehensive impact evaluations using randomized controlled trials (RCTs) to demonstrate the effects of a well-established program. Many state legislatures have an entity dedicated to conducting evaluation projects to assess the efficiency and effectiveness of programs.

Integrated Data Systems (IDS)

An Integrated Data System (IDS) pulls together data from multiple agencies to allow for more effective tracking of how government services are being used and what impact they are having on the populations served. Accordingly, IDS can be a valuable technology tool to facilitate program evaluation, as well as other data-driven approaches discussed in this brief. Actionable Intelligence for Social Policy (AISP), an initiative sponsored by the John D. and Catherine T. MacArthur Foundation and based at the University of Pennsylvania, aims to improve and expand the use of IDS by state and local governments by promoting a professional network, sharing best practices, and demonstrating the value of integrated data systems.

South Carolina has an integrated data system that collects administrative data from more than 20 agencies and other organizations across program areas, including legal/public safety services, education, health/behavioral health, social services, and others. The system is housed in the Office of Research and Statistics (ORS), formerly part of South Carolina's Budget and Control Board and now part of the Revenue and Fiscal Affairs Office due to restructuring. By linking client data across programs, South Carolina's IDS demonstrates to agencies "how their program outcomes were tied to program outcomes across other agencies" and allows for "a variety of integrated data projects to promote policy-driven research and analyses."[14] For example, ORS used the system to examine services used by vulnerable youth statewide and identified how state agencies were providing similar services to this population in some cases.[15]

Predictive Analytics / "Big Data"

Predictive analytics can refer to "a broad range of methods used to anticipate an outcome."[16] Such methods may include statistical modeling, data mining, and machine learning techniques. Whereas most forms of program evaluation are retrospective, focusing on assessing program effectiveness during or following implementation, predictive analytics (also sometimes called "predictive program evaluation") attempts to predict future program performance. This can be a great tool to gain actionable insights into where targeted budget and/or policy changes might help improve outcomes. A great example of this can be found in Indiana, which used a centralized data sharing model (known as the "Management and Performance Hub") to examine information on infant mortality. By running predictive models, analysts found that the number of prenatal visits of a mother was a strong predictor of adverse birth outcomes – roughly 65 percent of infant deaths were to mothers who had fewer than 10 prenatal visits. Moreover, the data showed that younger mothers insured by Medicaid are less likely to receive sufficient prenatal care. Together, these findings helped the state of Indiana identify appropriate interventions aimed at reducing infant mortality, as well as target these interventions most efficiently.[17]

Process Improvement

A number of states have created programs or initiatives centered on improving government operations by streamlining processes, eliminating waste and duplication, and fostering a culture of continuous improvement. In some cases, the state may adopt a specific management method such as Lean, while in others, the state may use a variety of approaches to improve government efficiency. These efforts are often linked in some way to a state's performance management framework, or may be regarded as one component of that effort. Some states have found process improvement efforts to be particularly effective as a beginning step to transform the culture of state government to become more data-driven and focused on continuous improvement. Once this cultural transformation is well underway, introducing other activities such as assessing program performance and return on investment may go more smoothly.

North Carolina's Government Efficiency and Reform program (NC GEAR) is a good example of a statewide, comprehensive effort to improve government operations and business processes. Described as "a data-based approach to improving

state government processes, enhancing customer service and realizing cost savings and cost avoidance," NC GEAR was also meant to serve as a catalyst for longer-term strategic transformation of state government.[18] This effort resulted in a series of recommendations to enhance government efficiency, effectiveness and customer service, including both program-specific reforms and broader changes such as implementing program budgeting.

Lean

Perhaps the most popular and well-known process improvement method being adopted by public sector organizations across the country, Lean can be defined as a "systematic approach to continuous improvement that aims to make processes more efficient, effective, and elegant by eliminating waste."[19] Colorado's Governor's Office of State Planning and Budgeting (OSPB) conducted a national survey in fall 2012, finding that Lean was being used by 21 state governments, including Colorado, at that time.[20] How does Lean relate to performance management? Generally speaking, performance management tends to focus more on strategy (setting goals and priorities, and using data to measure progress and improve performance towards achieving those goals), while Lean and other process improvement techniques focus more on operations (streamlining businesses processes to enhance efficiency and maximize value). "While the fundamental goals of performance management and Lean are similar, their dynamics are different. Performance management's focus on outcomes encourages a dynamic of building: What activities can we undertake that will best lead to these outcomes? Lean, in contrast, deconstructs: How can we eliminate as much waste as possible?" [21]

In Colorado, the Governor's Office of State Planning and Budgeting (OSPB) launched the state's Lean Program as a first step in a broader cultural transformation of state government. "Lean and performance management are closely linked and should be leveraged together to achieve significant and long term gains."[22] Indeed, performance management and Lean can complement and reinforce one another. "Both rely on data for learning and improvement; both require rigor in their application; and both depend on leadership for change management and support."[23] Since implementing Lean, Colorado has gone on to develop a multifaceted performance management system, toolkit, and employee training program, and has also partnered with the Pew-MacArthur Results First Initiative to implement Results First – a benefit-cost analysis framework designed to help states use evidence to assess a program's return on investment, which can then be used to inform funding decisions. (See discussion of Results First in the next section on "Performance Budgeting.")

Numerous other states have made significant strides in improving government efficiency and customer service through Lean in recent years. For example, New York State first launched a Lean Initiative in 2013 with ten pilot projects. Today, with nearly 400 projects in 38 agencies, the program has helped to improve state agency performance while keeping average annual spending growth in agency operations to one percent. The success of New York State's Lean Initiative recently earned the program the 2016 Citizens Budget Commission's Prize for Public Service Innovation.[24]

Performance Budgeting

NASBO's *Budget Processes in the States* report defines performance budgeting as a budget approach that "uses programs or activities as budget units, and presents information on program goals and performance. This budget system places emphasis on incorporating program performance information into the budget development and appropriations process, and allocating resources to achieve measurable results."[24] This definition is rather broad deliberately in recognition of the multitude of ways in which states (and other entities) may utilize performance data and evidence to inform budget decisions. Described below are a few specific approaches that represent forms of "performance budgeting."

Budgeting for Outcomes (BFO)

The Budgeting for Outcomes (BFO) approach may be viewed as a form of performance budgeting, with strategic planning components as well. In its purest form, Budgeting for Outcomes eliminates the budget "base," so in this way, it can resemble zero-base budgeting as well. The process, as laid out in *The Price of Government* by David Osborne and Peter Hutchinson more than a decade ago, consists at a high level of three steps:

> (1) "Determine the priorities of government: the outcomes that matter most to citizens.
>
> (2) Decide the price for each outcome.
>
> (3) Decide how best to deliver each outcome at the set price."[25]

In other words, this budget model seeks to identify the most effective and efficient way to deliver the measureable outcomes citizens want within certain resource constraints. Washington State is viewed as the pioneer among jurisdictions that have employed this approach to budgeting, which was referred to as "Priorities of Government" or POG and debuted in the governor's fiscal 2003-2004 biennial budget proposal. Several other states, as well as numerous local jurisdictions, have since adopted various iterations of this approach to allocating resources.

Just as with other forms of performance budgeting, a BFO approach should be well integrated with other performance management techniques:

> "To use it effectively…organizations need to use other tools such as performance measurement, process improvement, and program evaluation. For example, to decide the degree to which a stated priority has been achieved, organizations need performance measures to evaluate results, both at the program level and the community level. Process improvement strategies such as Lean can also help make sure individual programs are working as efficiently as possible and that they are focusing on appropriate outcomes."[26]

Washington State has since adapted its POG approach to become part of a broader performance management framework, known as "Results Washington," which integrates aspects of a BFO approach with a new emphasis on Lean, performance measurement, and regular results review meetings akin to the CitiStat or StateStat approach.

Results First (Benefit-Cost Analysis or BCA)

Since 2011, the Results First Initiative, a project of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, has been working with states and localities to help them implement a benefit-cost analysis (BCA) model to inform policy and funding decisions. This model, developed by the Washington State Institute for Public Policy (WSIPP), enables a state to calculate a program's likely return on investment – that is, for every dollar invested by the state in the program, how many dollars in benefits will be achieved.

The first step in the model is for the state to create an inventory of state-funded programs, including information on each program's budget, design, capacity and other key information. Then, the state identifies which programs have been rated in terms of effectiveness by at least one of the national research clearinghouses made available in the Results First Clearinghouse Database.[27] In other words, the state leverages existing national program evaluation studies to use in its analysis. This database contains information on programs in numerous policy areas, including adult criminal justice, juvenile justice, child welfare, mental health and substance abuse, education, and public health. Typically, the state begins by looking at adult criminal justice programs, and then branches out to some of the other related policy areas for which evidence is available.

The state can only run programs through the model that have been evaluated for effectiveness. Using program benefit estimates based on the number of people served and expected effects according to the clearinghouse data, along with state-specific cost estimates, the state can calculate the expected long-term return on investment of evidence-based programs. The state can then use these findings to help inform the allocation of scarce resources and target investments in programs that will yield the greatest benefits at the lowest cost. As of February 2016, 22 states were participating in the Results First initiative.

Pay for Success (PFS)

"Pay for Success" (PFS) contracts (also known as "social impact bonds" or "social innovation financing") have emerged as an alternative financing mechanism for state and local governments to fund innovative, evidence-based social policy interventions when taxpayer funds are not available. Under this model, the government generally contracts with a private or nonprofit entity to provide a program, and only pays for the program if it achieves its performance targets. The service provider and/or the state typically selects a financial intermediary to raise working capital from philanthropic or commercial firms to cover upfront costs, and these "investors" may earn a return or incur a loss depending on the success of the program, as determined through rigorous program evaluation. In this way, PFS can be viewed as a tool designed to support performance budgeting, by providing a means of financing evidence-based programs.

New York State became the first state to set up a Pay for Success contract in December 2013 with its "Employment to Break the Cycle of Recidivism" project. The project expanded evidence-based employment services to 2,000 formerly incarcerated individuals, aiming to increase employment and reduce recidivism. Social Finance and Bank of America

Merrill Lynch (BAML) raised the funds necessary to cover the intervention and administrative costs. Based on the project's social impact, as determined by program evaluation using a randomized controlled trial, New York State would make payments to the investors through the intermediary.[28]

Connecting the Dots

The above descriptions of various methods and tools that states can apply to use data and evidence to inform decision-making convey both how these terms differ as well as how they are related. While the relationships among these approaches are fluid and subject to interpretation, the chart below provides one view of how they intersect. The items in circles indicate "methods" or "approaches" that states use. The smaller circles are specific forms of the larger circles with which they overlap. For example, Lean is one systematic method for process improvement, while Results-Based Accountability (RBA) can be viewed as one form of performance management and performance budgeting. Meanwhile, the items in rectangles represent various tools that support the approaches that they overlap with in the chart. For example, an integrated data system (IDS) is a tool that primarily supports program evaluation and performance management. Moreover, all four main areas (performance management, program evaluation, process improvement and performance budgeting) naturally overlap because they can help to inform and reinforce one another. For example, the findings from performance management, program evaluation, and process improvement methods can all in turn support performance budgeting by informing the allocation of scarce resources.

Again, these relationships are fluid, and this chart should not be construed as comprehensive or absolute. Certainly, there are additional methods and tools being used by states that are not captured here, as well as other potential connections not shown. What this chart – and this brief – aim to do is provide one interpretation of how these various pieces are connected, in an effort to help states think through how their existing or potential initiatives to use data in decision-making can work together and reinforce one another.

Designing an Approach Using Purpose as a Guide

The focus of this brief has been on identifying and defining various methods and tools developed and implemented by states to use performance data and evidence in decision-making. However, this broad range of approaches may leave readers wondering – which method or tool is best for my state? To answer that question, it should first be emphasized that these various approaches are not mutually exclusive, as explained in the previous section. Rather, they can – and often should – overlap and work together in different ways. These methodologies and tools should be viewed as opportunities that can be adjusted and tailored to the needs of your state, rather than one-size-fits-all systems that operate in a vacuum.

When designing a data-informed approach or process for your state, it is important to consider for what purpose(s) you wish to use performance data and evidence. Robert D. Behn, an executive leadership expert who has focused his work on improving public sector performance, put forth a list of purposes for performance measurement in public management as follows:

1. *Evaluate*: "How well is this government agency performing?"
2. *Control*: "How can public managers ensure their subordinates are doing the right thing?" (i.e., internal accountability)
3. *Budget*: "On what programs, people, or projects should government spend the public's money?"
4. *Motivate*: "How can public managers motivate line staff, middle managers, nonprofit and for-profit collaborators, stakeholders, and citizens to do the things necessary to improve performance?"
5. *Promote*: "How can public managers convince political superiors, legislators, stakeholders, journalists, and citizens that their agency is doing a good job?"
6. *Celebrate*: "What accomplishments are worthy of the important organizational ritual of celebrating success?"
7. *Learn*: "Why is what working or not working?"
8. *Improve*: "What exactly should who do differently to improve performance?"[29]

All of these purposes are valid and can call for different measures and approaches. Some of these are more applicable to other parts of state government besides the executive budget office. Within the context of state budgeting, the State of Minnesota has put together a one-page summary of some of the most common uses of performance information and other relevant data to inform resource allocation decisions in a way that produces measurable results. These applications overlap considerably with the list above – particularly *evaluate*, *budget*, *learn* and *improve* – and include:

1. Defining and understanding the problem (budget, learn)
2. Understanding how much of the problem will be solved (budget, improve)
3. Understanding capacity to implement a proposal (budget)
4. Understanding/comparing program results (budget, evaluate)
5. Diagnosing program flaws and opportunities for improvement (budget, evaluate, learn, improve)

These applications can be tied to the methods, tools and state examples discussed in this brief. For example, Indiana used predictive analytics to better define and understand the problem of infant mortality in the state. The Results First benefit-cost analysis model helps states use existing evidence to understand how much of a problem will be solved by investing in a particular program. South Carolina's integrated data system allows the state to understand and compare program results for key outcomes. And Utah's SUCCESS framework and Colorado's Lean Program both help state agencies diagnose program flaws and opportunities for improvement.

Where to Start: Setting the Stage for Success

What are some key considerations for your state – and your office – to increase the likelihood of success in effectively leveraging performance information and evidence to inform

decisions and, ultimately, to improve outcomes? Below are some recommendations and things to keep in mind to help you get started, based on the discussions in this brief and other lessons learned shared by states.

On designing your state's data-informed approach:

- Understand the different methods and tools available for states to promote data-informed decision-making, and how they can work together to foster a culture of continuous improvement.
- To guide your state's approach, consider the range of purposes for which performance data can be used.
- Design an approach that is flexible, able to adapt over time, and not overly prescriptive or one-size-fits-all.

On working with state agencies:

- Executive leadership and commitment are critical to getting agency buy-in.
- Do not frame approach as a budget-cutting or punitive exercise for agencies.
- Show agencies how they can use data to manage their programs and demonstrate program benefits.

On building capacity:

- Build data and evaluation capacity within state government, possibly through partnerships with public universities.
- Provide agency staff with training and support on performance measurement, and how to select measures that are useful and provide actionable information.
- If at all possible, obtain or reassign dedicated staff resources in the budget office, with the right skill sets, to oversee this type of work.
- Explore opportunities to integrate disparate data systems to enable more useful analysis.

Other considerations:

- Educate legislators and legislative staff on how they can interpret and use performance data.
- Work closely with legal counsel when dealing with data that includes personally identifiable information.
- When investing in an evidence-based program, follow up to make sure the program is being implemented most effectively.

For more discussion on the use of performance data at the state level and key lessons learned, see NASBO's 2014 report, *Investing in Results: Using Performance Data to Inform State Budgeting*, available at www.nasbo.org/investing-in-results.

Endnotes

[1]Michael Jacobson and Jim Chrisinger, "Performance Management and Lean: Frenemies?", *GFOA Government Finance Review* (June 2013), p. 63-66.

[2]Utah Governor's Office of Management & Budget, "Overview of SUCCESS," available at http://gomb.utah.gov/operational-excellence/overview-of-success/.

[3]Robert D. Behn, "What All Mayors Would Like to Know About Baltimore's CitiStat Performance Strategy," IBM Center for the Business of Government (2007).

[4]John M. Kamensky, "The '-Stat' Movement Turns Twenty," IBM Center for the Business of Government (August 12, 2014).

[5]Mark Friedman, The Results and Performance Accountability Implementation Guide, http://raguide.org/index-of-questions/

[6]For a more detailed description of this process, see Mark Friedman, The Results and Performance Accountability Implementation Guide, http://raguide.org/index-of-questions/

[7]Minnesota Management & Budget, "FY 2016-2017 Biennial Budget Development: Statewide Outcomes and Results Based Accountability Instructions" (June 2014), available at http://mn.gov/mmb/images/RBA-Instructions.docx.

[8]Texas Education Agency, "Balanced Scorecard," available at http://ritter.tea.state.tx.us/stplan/bsc.html.

[9]New Hampshire Department of Transportation, "Balanced Scorecard," available at http://www.nh.gov/dot/org/commissioner/balanced-scorecard/.

[10]Jennifer Brooks and Meghan Wills, D*ata-Driven Approaches to Delivering Better Outcomes* (Washington, DC: National Governors Association Center for Best Practices, July 24, 2015).

Endnotes continued

[11]Theodore H. Poister, "Performance Measurement: Monitoring Program Outcomes," in Handbook of Practical Program Evaluation, Third Edition, eds. Joseph S. Wholey, Harry P. Hatry, and Kathryn E. Newcomer (San Francisco, CA: Jossey-Bass, 2010).

[12]Joseph S. Wholey, Harry P. Hatry, and Kathryn E. Newcomer (Eds.), I, Third Edition, eds. (San Francisco, CA: Jossey-Bass, 2010).

[13]Ibid.

[14]Erika M. Kitzmiller, *IDS Case Study: The Circle of Love: South Carolina's Integrated Data System* (2013), Actionable Intelligence for Social Policy (AISP), University of Pennsylvania.

[15]Ibid.

[16]Scott Cody and Andrew Asher, *Smarter, Better, Faster: The Potential for Predictive Analytics and Rapid-Cycle Evaluation to Improve Program Development and Outcomes* (June 2014), Brookings Institution.

[17]KSM Consulting, Indiana Management and Performance Hub, and Indiana Office of Technology, *A Summary of Findings and Quantitative Investigation Targeted at: Reducing Infant Mortality in Indiana* (December 2014).

[18]State of North Carolina, *NC GEAR Report to the Joint Legislative Commission on Government Operations* (March 5, 2015).

[19]The Governor's Office of State Planning and Budgeting, *State of Colorado Lean Program Office Progress Report: Pursuing Effective, Efficient and Elegant Government Services* (December 2013).

[20]Ibid.

[21]Michael Jacobson and Jim Chrisinger, "Performance Management and Lean: Frenemies?", *GFOA Government Finance Review* (June 2013), p. 63-66.

[22]The Governor's Office of State Planning and Budgeting, *State of Colorado Lean Program Office Progress Report: Pursuing Effective, Efficient and Elegant Government Services* (December 2013).

[23]Michael Jacobson and Jim Chrisinger, "Performance Management and Lean: Frenemies?", *GFOA Government Finance Review* (June 2013), p. 63-66.

[24]New York State Governor's Office (April 2016), *Governor Cuomo Announces New York State's Lean Initiative Wins Citizens Budget Commission's Prize for Public Service Innovation* [Press Release], available at https://www.governor.ny.gov/news/governor-cuomo-announces-new-york-states-lean-initiative-wins-citizens-budget-commissions-prize.

[25]NASBO, *Budget Processes in the States* (Spring 2015)

[26]David Osborne and Peter Hutchinson, *The Price of Government: Getting the Results We Need in an Age of Permanent Fiscal Crisis* (2004), New York: Basic Books, p. 67.

[27]Michael J. Mucha, "Budgeting for Outcomes: Improving on a Best Practice," *GFOA Government Finance Review* (December 2012), p. 45-46.

[28]See The Pew Charitable Trusts, "Results First Clearinghouse Database," (June 23, 2015), available at http://www.pewtrusts.org/en/multimedia/data-visualizations/2015/results-first-clearinghouse-database.

[29]New York State Division of the Budget, "Investing in What Works: 'Pay for Success' in New York State: Increasing Employment and Improving Public Safety" (March 2014).

[30]Robert D. Behn, "Why Measure Performance? Different Purposes Require Different Measures," *Public Administration Review* (September/October 2003, Vo. 63, No. 5), p. 586-606.

If you would like additional information, please contact Kathryn Vesey White (kwhite@nasbo.org or 202-624-5949).