Evidence-based Innovation:

Creating a Statewide Initiative

Developed for the Utah Governor's Office of Management and Budget

Eva Witesman, Ph.D.

Romney Institute of Public Management

Brigham Young University

Executive Summary

The purpose of this paper is to outline an evidence-based approach to innovation in the Utah state government. The focus is specifically and explicitly on how state government can encourage and incentivize innovation in state agencies and programs while protecting the public trust and minimizing public expenditures on programs that don't work or fall behind the demands of the time. To this end, the paper examines the following:

- The need for evidence in government in innovation, which is emphasized using an example of how data is necessary for determining whether we can claim state programs are effective by appealing to the objectives for which they were created (see page 4).
- The principles of evidence based practice, which include identification of core program objectives, assembly of the best evidence, rigorous peer review, and the employment and promotion of proven practices (see page 8).
- Utah's potential for leadership, including principles and practices that have been introduced through the state's SUCCESS model and efforts to engage agencies in strategic measurement of their core activities (see page 11).
- The cornerstones of a state evidence-based innovation plan, which include creating a culture of evaluation, independent review of data and other evidence of program success, and standardized impact annotations to aid in development of policy (see page 12).
- A roadmap to successful implementation of the evidence-based innovation initiative, including seven key milestones to achieve in working toward a more data-driven approach to public sector decisionmaking (see page 17).

The essential components of evidence-based practice can be practically and cost-effectively implemented in every aspect of government function, giving public managers and policymakers access to more and better data for making decisions based on evidence rather than theory. In addition to the potential for evidence-based practice to enhance the innovative capacity of state government, there are a variety of other benefits of an evidence-based approach that have the potential to achieve wide-reaching positive effects, including enhanced communication about best practices with other governments, improved government effectiveness, refined objectives of state departments and agencies, and less political and ideological gridlock.

Introduction

State government is charged with providing a wide and diverse range of public services to the citizens it serves. In order to accomplish this task, public agencies must simultaneously innovate to keep pace with the changing needs of citizens and of a rapidly evolving marketplace and maintain stability in the face of this extraordinary change. This tension between innovation and stability is dynamic and challenging. Government agencies and programs must be in a state of constant renewal and improvement in order to keep pace with the demands of the citizenry, but must simultaneously protect the public from risky and expensive ventures that drain the public purse and fail to add public value.

The purpose of this paper is to outline an evidence-based approach to innovation in the Utah state government. The focus is specifically and explicitly on how state government can encourage and incentivize innovation in state agencies and programs while protecting the public trust and minimizing public expenditures on programs that don't work or fall behind the demands of the time. "Put simply, evidence-based policy is policy based on evidence of its efficacy. This use of the word evidence is the scientific one, where evidence distinguishes data from theory" (Staley 2008, 5).

The approach outlined in this paper is based on the principles of evidence-based practice that are already applied in many disciplines and some state and federal agencies. This paper proposes an expansion of the application of the principles to a systematic statewide approach to the incorporation of evidence-based innovation including fields where evidence-based practice is not already well-established. To this end, we will endeavor to answer the following critical questions:

- What is evidence-based practice, and can these principles apply across all state agencies?
- What are some of the major barriers to public sector innovation?
- What strategic advantages support our effort to become a national leader in innovative reform?
- What are the cornerstones of a state-level evidence-based innovation plan?

The intended outcome of this approach is a flexible and innovative state government that can quickly and effectively adapt to the rapidly changing needs of the state populace while maintaining government stability, high levels of citizen satisfaction, and directing public funds to those programs that are most effective at achieving the public aims for which they were supplied.

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Government Innovation: The Need for Evidence

By definition, innovations are new and untested practices. Given the role of the public sector in maintaining the stability of both markets and social institutions, it is not surprising that standard government program delivery operations have not typically been viewed as laboratories of innovation. Rather, innovation and entrepreneurism have been viewed as a more appropriate role for market-based organizations where some level of volatility resulting from the process of research and development can be less systematically damaging.

However, in a sector-based economy in which a large portion of social services and other public goods are provided primarily—and in some cases exclusively—by the public sector, government must have the flexibility to adapt or it runs the risk of becoming inefficient, expensive, and ultimately ineffective. If government does not see fit to innovate, particularly in areas where government entities have monopolies on particular types of goods and services consumed by the public, there is no other entity that will be able to innovate in its stead. In the words of Mulgan and Albury, "Innovation should be a core activity of the public sector: it helps public services to improve performance and increase public value; respond to the expectations of citizens and adapt to the needs of users; increase service efficiency and minimize costs" (2003, 2).

One example of innovation in Utah state government particularly highlights the importance of not only innovation, but *evidence-based* innovation. In cooperation with the Pew Charitable Trust, the Utah Commission on Criminal and Juvenile Justice and the Department of Corrections are piloting a new program of decreased incarceration for "low risk offenders," thereby maintaining a more constant inmate population and decreasing state expenditures. A strong body of theory suggests that this will be an effective approach to both rehabilitating offenders and decreasing the cost of Utah prisons—a potential win-win. However, it should be obvious that such a program should not just be taken on theory—it will be important to gather data not only on cost savings, but also the recidivism rate of the non-incarcerated offenders and crime rates in general. In other words, we cannot know whether or not this is a *good* program until we have tested it and evaluated whether or not it achieves all of its intended objectives.

Despite the need for public sector innovation, there are legitimate barriers to innovation in the public sector. One commonly attributed cause of this shortage of public sector innovation is the lack of a profit

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motive. Private sector entrepreneurs can develop good ideas, investing heavily in research and development, knowing that these costs may ultimately be recovered when the newly developed product or procedure is marketed and sold. In other words, people in the private sector innovate because they hope to financially profit from the development and implementation of good ideas. The public sector, however, is said to have no such profit motive, thus stifling both the ability to hire entrepreneurial innovators and to encourage a culture of innovation. Thus, potential barriers to innovation in the public sector are limited capacity and motivation to innovate.

Perhaps the greatest factor that limits public sector innovation is the cost associated with risk. In order to innovate, organizations must try new approaches and procedures that are untested. At best, such innovations can improve the effectiveness and/or efficiency of achieving core public objectives. However, innovation also comes with the risk of failure. At best, failed innovations in the public sector may cost taxpayer dollars and political capital on projects or programs that simply do not work; at worst, failed programs may actually cause harm to the very citizens and institutions government is commissioned to preserve and protect. Critics of "social experiments" in public policymaking point to these potential failures in actively discouraging the adoption of unproven practices in the public setting.

The risks inherent in piloting new and innovative programs may be largely political and professional. Good evaluation procedures suggest that pilot programs should be both relatively small and very carefully and thoroughly observed, thereby limiting the actual risk to both the public and the public purse. However, the political and bureaucratic implications of trying something innovative that *doesn't* work still carries an unnaturally negative stigma, making the risk associated with unproven programs politically and professionally challenging. Public servants who once dreamed of "making a difference" in the lives of their fellow Utahns by improving the business of government may be prevented from doing so merely because the culture of government prevents such innovations from ever being tested. By embracing a new culture that is open to data-driven policy and innovative pilot programs, we may unlock the hidden potential of our public workforce.

One approach to the mitigation of risk in the public sector has been the increasing adoption of evidence-based practice and program evaluation. By developing a strong body of evidence about programs and practices that work, governments can limit risk when engaging in new and innovative programs. By using pilot studies and small-scale implementation models to observe the outcomes of new

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programs, government agencies and departments can use evidence to determine which programs are truly innovative and which may be problematic. Open sharing of data about both program failures and successes prevents the same mistakes from being made in other jurisdictions, and promotes the use of practices that have proven effective. This evidence-based approach is most effective when it is embraced by all actors in a policy field, including both public and private entities: "Central to the implementation of evidence-based policy formation is the prioritization of a research friendly policy environment. This requires the widest possible collection and dissemination of relevant data so that researchers within the public sector, academia and the private sector have the tools to test policy options. Just as competition drives private sector innovation, multiple sources of policy ideas enhance innovation in policy formation" (Staley 2008,5).

Whereas the demand for government stability and avoidance of public risk has limited innovation in the public sector, a culture of evaluation and evidence-based practice can mitigate the challenges of public sector change. Rigorous and systematic program evaluation provides hard evidence about the impacts of program changes and can provide public managers and policymakers with the data necessary to implement programs and practices that are effective and efficient at achieving public objectives. The same data can provide vital information about the potential risks of implementing any given program or practice, and thus assist in maintaining government stability in the face of even rapid change. This data about the effects of public programs has the potential to reduce the barriers to innovation by decreasing the cost and risks associated with potential failure.

Evidence-based practice can also enhance government stability by reducing the extent to which political and ideological debates affect decisions about specific programs. In an interview with Michael Keegan of *The Business of Government Hour*, federal advisor on evidence-based innovation Kathy Stack said "I have been struck by how similar decisionmaking is for OMB leadership regardless of a Republican or Democratic administration. When OMB leaders are presented with very compelling data and evidence they're going to reach similar if not identical conclusions. When you don't have data and evidence, ideology tends to fill that gap" (Keegan 2014). By appealing to evidence rather than ideology, public administrators and policymakers can make decisions based on what works, rather than on what people with diverse opinions and ideologies believe.

"One approach to the mitigation of risk is the increasing adoption of evidence-based practice."

In addition to reducing the barriers to innovation, evidence-based practice can also incentivize public sector innovation by providing public agencies and employees with incentive structures that appeal to three key motives: financial, political, and public service motives. Centrally, when agencies are evaluated based on outcomes, they have incentive to improve those outcomes. Evaluation information can be consumed both by those managing financial allocation decisions—as in the case of executive budget processes and government grant decisions—and by policymakers. Thus, a political and financial interest in achieving key public objectives aligns the public interest with the actions of public agencies and government employees. Systematic program evaluation and the incorporation of the principles of evidence-based practice provides funding motives for agencies that can seek to increase future funding by improving the quality and/or quantity of the public goods they deliver. Likewise, evidence-based practice can increase the long-term viability, utility, and visibility of state programs, thus providing a political incentive to innovate public programs and services. Finally, evidence-based practice allows public servants to capitalize on their desire to improve the lives of citizens in ways that really matter, giving them concrete and quantifiable goals and objectives toward which to innovate.

"Preference for proven methods incentivizes the development and testing of new approaches."

The Principles of Evidence-based practice

Evidence-based practice is a scientific approach to the selection, implementation, and evaluation of practice that applies the rigorous proving ground of the scientific process to identify demonstrable effects of programs or practices. Evidence-based practice is most common in policy fields that involve clinical practice (such as social work and medicine), and whose practitioners are typically trained in research methodologies, experimental design, and rigorous hypothesis testing. The core principle of evidence-based practice is that practitioners should engage in practices that have been proven to be effective, rather than engaging in practices purely based on the expectation that they will work.

The essential principles of evidence-based practice are patterned after the scientific method and involve the following essential components:

1. Identification of the core objectives of a program or practice to determine the outcomes, impacts, or results against which the program or practice should be evaluated.
2. Assembly of the best available evidence demonstrating the effectiveness of the program or practice in achieving the core objectives, ideally through randomized controlled trials, pre-post analysis research designs, and/or carefully designed statistical analysis of objective quantitative evidence.
3. Rigorous peer review of the evidence by qualified reviewers who are experts in both subject matter for the topic of interest and analytic methodology.
4. Employment and promotion of proven practices that are, based on the scientific evidence, demonstrably most effective at achieving the core objectives of interest.

A culture of evidence-based practice favors proven methods and practices over those that are unproven and untested. However, this preference for proven methods simultaneously encourages innovation by incentivizing the development and testing of new approaches, innovations, practices, and programs. In this way, evidence-based practice both protects against the use of ineffective practices and encourages continuous improvement of methodologies already developed.

Once primarily a principle of clinical practice, evidence-based practice is slowly becoming a more common approach in the broader practice of social policy, nonprofit management, and public

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management, particularly under the rubric of program evaluation. Public and private funders are increasingly interested in the impact of their investments in social programs and policies, frequently demanding evidence of program effectiveness as a condition of both initial and ongoing funding. Access to public grants and continuing appropriations is increasingly contingent on demonstrated effectiveness of public programs, and this culture shift can be noted in the change from both federal and state fiduciary agencies from focus exclusively on "accounting" to the broader, performance-based rubric of "accountability."

The concept of evidence-based innovation is a new but growing linkage between evidence-based practice and public sector innovation. The trend of evidence-based funding for social programs and services has long been adopted and promoted by private funders of pro-social activity, including major providers of foundation grants to nonprofit organizations. Despite the trend toward demands for increased evidence about the effectiveness of government programs, there are costs associated with program evaluation and development of strong evidence about the effectiveness of programs can be somewhat expensive. While such costs of evaluation can be borne by private entities with large research and development budgets and the expectation of high financial return on evaluative investments, government does not have the same access to time, expertise and resources that are more common in some fields that commonly engage in data-drive practice, such as the medical field.

For evidence-based innovation to reach its potential in the state government setting, approaches to the incorporation of evidence-based practice in the public sector should adhere to the principles of being scaled, practical, appropriate, and continuous. Each of these principles is discussed in turn below.

- Scaled. Because risk in public sector programs has potentially impactful detrimental effects, innovations should be applied in appropriately sized pilot studies. Such pilot studies should be sufficiently large to provide sufficient statistical power to draw appropriate conclusions about the effectiveness of the piloted program or practice, but sufficiently small to limit the risks posed both to the citizens who rely on continuous provision of public services and taxpayers whose money funds government work and should be guarded against inefficiencies and unnecessary expense.

"Public and private funders are increasingly interested in the impact of their investments."

- Practical. Any implementation of a program evaluation rubric must be practical. Evaluation costs—in time, effort, and money—are highly dependent on the nature of the program evaluation design and the level of integration the evaluation itself has with normal program procedures and practices. To the extent possible, evaluation costs should be kept to a minimum while maintaining appropriate levels of scientific rigor. Evaluation protocols should be designed that balance the demands of evaluation validity with the practical demands of running public programs.
- Appropriate. Appropriate evaluation protocols depend on the lifecycle of a particular program or practice, and not all evaluations can or should be outcome evaluations. Evaluation procedures should be appropriate to the lifecycle of the program, the methods necessary to answer the relevant evaluation questions, and should be matched in scope and objective to the purpose of the project or program. Appropriate program evaluations are valid and unbiased, using reliable and objective measures for program outcomes and impact.
- Continuous. One-time evaluations are not sufficient to demonstrate program effectiveness, particularly in the face of changing environments, populations, and demands on programs. Ongoing and systematic performance measurement is key to determining whether programs continue to be effective over time. Similarly, repeated outcome or impact evaluations add to the body of evidence about the effectiveness of a particular program or practice.

A practical approach to program evaluation in the public sector allows for rapid development of evidence-based practices while balancing the potential costs of evaluation. Data quality and the purpose of the data should be balanced to answer essential questions about appropriate state policy, and the overall purpose of evidence-based practice—to keep government engaged in policy and programs that work—should be the primary focus of data collection and evaluation efforts.

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The State of Utah: Opportunity to lead

The implementation of evidence-based practice and evidence-based innovation has remained largely piecemeal at various levels of government and continues to operate primarily in disciplines with a tradition of clinical practice and strong links to academic evaluation. No state has yet systematically incorporated principles of evidence-based innovation across all agencies, though most states have at least some agencies that operate on the principles of evidence-based practice in particular service and topic areas.

The state of Utah is uniquely positioned to become a leader in the practice of evidence-based innovation. Its recent implementation of an ambitious performance measurement system based on the SUCCESS model gives Utah an advantage in that every state agency is currently engaged in a culture shift toward identifying and quantifying the objectives it was created to achieve. The model encourages departments and agencies to use analytic tools to set strategic goals and create engaging, synchronized, and focused organizations and policies. This approach is imminently compatible with a focus on program evaluation and evidence-based practice and innovation.

In addition to engaging all department and agency heads in significant training on the SUCCESS model and the principles of performance measurement, the initiative is accompanied by a significant incentive issued by Utah governor Gary Herbert—a goal that all agencies demonstrate a 25 percent improvement in their performance. This quantifiable goal has incentivized the development of quantitative performance measures using a consistent statewide performance formula.

The SUCCESS initiative has involved the deployment of significant training and support resources, helping agency heads to think quantitatively about the work they do. This explicit executive focus on effectiveness and efficiency is supported by a management structure with the skills and resources available to continue large-scale innovations to the culture of management in the state. If we can capitalize on this new approach to quantifying the impact of government operations, we can lead not only in our development of evidence-based practice, but we will also be better poised to broaden our impact to other state, federal, and local agencies by sharing the evidence of our successful programs.

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Cornerstones of a state evidence-based innovation plan

A statewide evidence-based innovation initiative must have the capacity to operate across disciplinary lines, functional service areas, and yet be consistent enough to involve the same core language and procedures for all agencies and departments. There are three cornerstones for such a state-level evidence-based innovation initiative that allow for effective communication across agencies and departments, and between agencies and funding actors such as the governor's office and state legislature. These three components are 1) a culture of evaluation that incentivizes testing of existing programs and proposed innovations, 2) an independent review process, 3) standardized annotations regarding the level of evidence-based practice.

Cornerstone 1: A culture of evaluation

A culture of evaluation is a culture of innovation. When a cultural expectation of evidence-based practice exists, individuals and organizations have incentive to innovate and demonstrate the effectiveness of new ideas. A culture of innovation can be facilitated through training and support, and is bolstered by systems that rely on evidence to make important funding and implementation decisions. However, ultimately, a culture of evaluation must be perpetuated by the training and expertise of employees at every level of the organization, including among entry-level workers.

A culture of evaluation means that program evaluation and performance measurement are naturally integrated into the day-to-day systems of operating state programs. Every action is focused on achieving the specific outcomes for which the agency or program was created to achieve. These outcomes are naturally observed, measured, and tracked over time. When employees identify potential innovations, the innovations are pilot tested and compared with standard procedures to identify which is most effective

Though the trend toward evidence-based practice and evidence-based innovation is clearly accelerating, the approaches to incorporating evidence-based principles across government units has been relatively unsystematic. Tasked with enhancing the use of evidence-based innovation in government agencies, Kathy Stack, Advisor for Evidence-Based Innovation, Economic Policy Division, Office of Management and Budget says that the federal initiative is "all about creating partnerships and coalitions of the willing who can try to make things happen together." She identifies ways in which the culture shift

"A culture of evaluation means that evaluation is naturally integrated into day-to-day systems."

is uncomfortable for some agencies and departments because the culture of data and analysis is somewhat new for them. "I am rediscovering how important it is to build trust with agencies. Many are not used to sharing information. Making progress on my agenda requires encouraging people to be candid about the challenges they face or their lack of expertise" (Keegan 2014).

Stack's experience at the federal level underscores the need for clear alignment of cultural and institutional components of an evidence-based innovation initiative. Kamensky (2013) suggests five steps for the development of evidence-based culture in government. These are: 1) building agency-level capacity for evaluation and data analytics, 2) investing in increasing the amount of evidence and data, 3) making greater use of existing administrative data, 4) creating incentives to use evidence, and 5) creating agency-level "what works" repositories.

While these five steps are indeed essential for creating a strong culture of innovation, they should be supplemented with a linkage to the unique public trust associated with government work, and with the extremely motivating potential of government to improve the lives of the citizens it serves. Sutherland (2004) suggests that the best way to create a culture of evaluation is to incorporate systematic training of government employees, with a particular appeal to their intrinsic motivations for using improved evidence. For many government workers, this requires an appeal to the purposes for which they were hired and the broader purpose of their departments, agencies, and even government itself. By aligning the objectives of evidence-based innovation with these broad social goals, state employees are more likely to engage in the processes necessary to achieve evidence-based government innovation. Appeals to civil servants' opportunity to achieve more positive impact may be more motivating than threats to agency budgets.

Cornerstone 2: Independent review

An independent review process ensures that the conclusions drawn from a particular pilot study or program evaluation are valid and meet the standards necessary to establish evidence-based practice. Reviewers should be either subject matter experts or methodological experts (or both) and free of conflicts of interest including political and professional affiliations that might compromise their objectivity and judgment. Because such review is most similar to an audit or accreditation process, the protocol for review of program evaluation information for establishing evidence-based practice should follow similar

"An independent review process ensures that the conclusions drawn from evaluation are valid."

protocols and standards to those carried out during auditing or accreditation procedures. Thus, it is recommended that an independent and apolitical committee be developed for the review and certification of both proposed and completed evaluations.

Clearly, creation of a single committee for the review of all state activities would create significant bottlenecks and require an unrealistic diversity of subject matter expertise in committee members. Thus, it is recommended that the state create and support a voluntary appointment structure that is hierarchical and multifaceted, with 1) an executive committee that is primarily responsible for the development and detailed articulation of statewide standards, 2) various subject-matter subcommittees which address issues of particular concern for different disciplines, service areas, and service types and are equipped with appropriate subject matter credentials, and 3) a cadre of trained volunteers who apply the detailed rubrics and instructions generated by the general committee and subject-matter subcommittees.

In the structure outlined above, the executive committee would be primarily responsible for establishing policies, rubrics, and protocols to be applied across the state, and subject-matter committees would help to make the requirements and guidelines more explicitly applicable to specific service areas, service types, and disciplines. This intermediate body would also hear appeals. Both the executive committee and the subject matter subcommittees would engage in quality control practices to ensure that the standards are clear and being understood and applied in a fair and consistent manner in determining the level of evidence-based practice of particular programs or practices.

The most direct consultation with agencies and departments on the development of evidence-based practice protocols and application of standards from both the general state committee and the state subject matter subcommittees could occur by a rotating panel of properly trained volunteers who apply the rubrics and determine the extent to which the evidence supports given programs or practices. One way to populate this essential component of the evidence-based review process is to engage undergraduate and graduate students in appropriate fields of study, who have been trained in social science methods and/or program evaluation and are thus qualified to apply the standards and rubrics developed by the executive committee and subject matter subcommittees. Engaging university students would allow the state to permeate a culture of evaluation by working with potential entry-level workers,

“Engaging university students would allow the state to permeate a culture of evaluation.”

and these students would simultaneously gain practical education regarding the principles of evidence-based innovation while relieving potential bottlenecks in the review process.

Independent and systematic review of evidence produced by government agencies can aid in the verification and validation of findings, but also incentivizes systematic, written communication about practices that have proven effective. This can enhance not only the legitimacy of the evidence-based practice by appealing to the expertise of independent and apolitical committee members, but also promotes documentation that allows application of previously reviewed evidence-based practices in other state agencies and, ideally, in other governments and nonprofits as well. Thus, the systematic review process both legitimates the evidence-based innovation pipeline and provides broad access to information about programs that work, contributing to a positive culture of evaluation and innovation.

Cornerstone 3: Standardized impact annotations

One useful outcome of systematic review of state practices and programs is the potential to identify those practices that are evidence-based and those that are not demonstrably effective. Such information is invaluable in the process of planning complicated state and agency budgets and determining which programs should have priority when multiple programs serve the same target objectives. To this end, the state committee on evidence-based practice would generate standardized impact annotations regarding the extent to which state programs are evidence-based. These annotations could then be used in making management, policy, and budgetary decisions. Impact annotations should identify the following:

- The specific target population affected by the program or practice, including the unit of analysis (individual, household, business, city, etc.) and any defining characteristics that specify the particular population of interest (including risk levels and indicators, qualifications, or selection criteria)
- The specific outcome(s) of interest, identifying the explicit outcomes for which a particular program or practice has been evaluated and found effective
- A broad classification regarding the status of evidence-based knowledge regarding the program or practice, including the nature of the evidence-based designation (e.g. whether the program has been evaluated locally or whether the program is based on evidence-based practice that was evaluated elsewhere) and the quality of the evidence.

“Impact annotations could be used in making management, policy, and budgetary decisions.”

Impact annotations would be the result of evaluation by the independent review committee and should be standardized across all evaluations. This standardization allows for clear communication with policy and budget decision makers who may not be subject matter experts but will be consumers of evaluation information. These standard annotations provide significant incentive for state agencies and departments to engage in systematic evaluation procedures and demonstrate the effectiveness of their programs and practices.

"Standardization allows for clear communication with policy and budget decision makers."

The Way Forward

Implementation of a statewide evidence-based innovation initiative requires flexibility to accommodate a broad array of public services and activities. An ambitious and broad initiative, it will require a phased approach and clear project plan to implement it systematically. In order to accomplish this, several important milestones must be reached to create practical, coordinated, and practice-informed policies and procedures. The following roadmap suggests key milestones in achieving this effort:

1. **Engage key stakeholders** including cabinet members, legislators, and agency representatives in developing and implementing the strategic plan for the evidence-base innovation initiative.
2. **Create a definitional framework** for what will qualify as evidence-based practice, including both general qualifications for each level of evidence-based practice and specific requirements for achieving each of these levels.
3. **Generate application and annotation procedures** for identifying evidence-based practice as it relates to specific program objectives and outcomes. This should include both the form and content of fiscal annotations and the application and review procedures necessary for assigning specific evidence levels to public programs and practices.
4. **Identify the skills and qualifications necessary** for those who will review applications, including prerequisites and course content requirements for academic resources that may incorporate review of state applications as a component in collegiate courses.
5. **Create an independent review board** comprised of practitioners and skilled evaluators to approve, oversee, and maintain the policies, standards, and procedures outlined above, in addition to performing quality checks on the consistency of impact annotations.
6. **Pilot and evaluate the procedures** in a wide array of service areas to ensure that the program evaluation initiative itself is an effective, refined, evidence-based practice.
7. **Enhance capacity of state agencies and departments** to design, collect, and analyze data for the evaluation of public programs and practices. This may include both in-service training to develop skills in current state employees and a heightened interest in hiring new employees with quantitative and analytic skills and/or a background in program evaluation and data analysis.

"Several milestones must be reached to create practical, coordinated, and practice-informed policies."

Conclusion

Evidence-based innovation in government is an idea whose time has come. The sophistication in program evaluation methodology has developed to the point that the essential components of evidence-based practice can be practically and cost-effectively implemented in every aspect of government function, giving public managers and policymakers access to more and better data for making decisions based on evidence rather than theory. In addition to the potential for evidence-based practice to enhance the innovative capacity of state government, an evidence-based approach have the potential to achieve wide-reaching positive effects. These include:

- Enhanced communication about best practices. State agencies will be better able to communicate about effective approaches with other agencies, both intra-governmentally and inter-governmentally. This has the potential of accelerating the degree to which government can engage in demonstrably effective programs and practices.
- Improved government effectiveness. By increasing focus on measuring the effectiveness of government programs, Utah will have the ability to promote programs that have proven effective and reduce expenditures on programs that do not work. Over time, this will yield a net increase in the effectiveness of state government as a whole.
- Refined objectives of state departments and agencies. In order to evaluate programs based on the objectives for which they were created, departments, agencies and programs will be given an opportunity to consider and refine their goals and objectives, allowing for more efficient and targeted use of state resources.
- Less gridlock. A systematic appeal to evidence can help to resolve ideologically driven debates about what programs are effective and what programs are not effective, enhancing stability in government and improving the promotion of effective practice.

The state of Utah is uniquely poised to continue its focus on data-driven management and develop a comprehensive, statewide evidence-based innovation initiative. By building on the foundation of the SUCCESS program and executive support for data-driven government, Utah can implement the three cornerstones of a statewide evidence-based innovation plan and achieve significant gains in the effectiveness and efficiency of state government.

"Utah can achieve significant gains in the effectiveness and efficiency of state government."

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