

Managing Survey Quality through Performance Management: Building a Performance Management Capability

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Abstract

This paper describes how the U.S. Census Bureau implemented Performance Management for measuring and reporting on the American Community Survey (ACS or the Survey). The paper provides the rationale for implementing Performance Management; the challenges along the way; and key lessons learned. The ACS is a nationwide survey that collects and produces information on demographic, social, economic, and housing characteristics about U.S. population every year.

Prior to this effort, ACS did not have a formal process for reporting and managing the performance of the Survey. As a U.S. federal statistical program, it collected and reported on a variety of measures, but the program used none of these measures for the ongoing management of Survey operations. In addition, the measures provided limited insight when balancing competing elements of cost, data product timeliness, and respondent burden against survey quality. Senior Staff recognized the need to establish a broader and deeper understanding of the Survey's execution and performance from a sampling and non-sampling perspective. Performance management allowed them to manage survey execution in near real-time, to keep sight of important mission factors like public support for and perceived value of the survey, to facilitate a richer discussion with stakeholders, to assess the impact of program and environmental changes, and to provide data users with a quality product.

Keywords: survey quality, performance management, strategy, value trade-off, strategy execution

1. An Overview of the American Community Survey (ACS)

The ACS is a nationwide survey that collects and produces information on demographic, social, economic, and housing characteristics about our nation every year. This information

helps communities understand how they are changing. Responses to the ACS help leaders use the best data available to make decisions about the future of their communities.

Over a four-year period, the ACS worked to implement strong strategic management capabilities. It initially introduced ongoing strategic planning as a way to define priorities and guide decisions and designed a portfolio management process to approve investments to best direct finite resources. To improve decision-making and manage for results, the ACS developed the performance management capability described in this paper. These strategic management capabilities are enabled by the ACS' underlying governance structure, which clarifies decision-making roles and the program management calendar. See Figure 1 for the relationships among these capabilities.

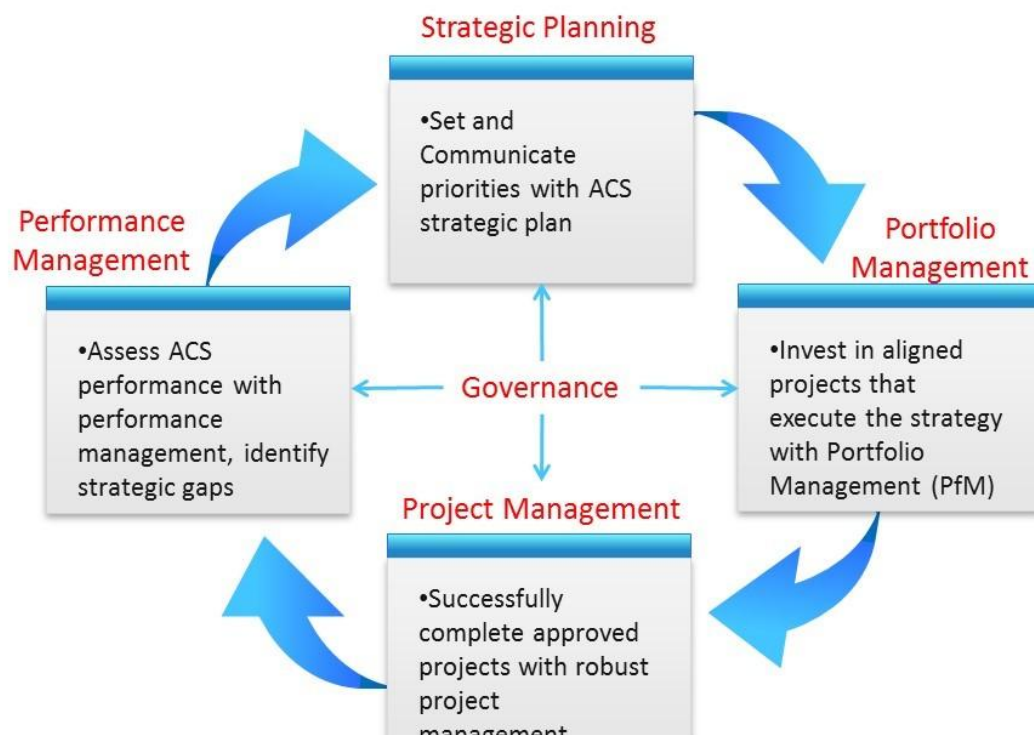


Figure 1: Strategic Management Framework

2. ACS's Implementation of Performance Management

In designing the approach, ACS Senior Staff drew upon their prior experiences and lessons learned from other federal, state, and local performance management efforts.

a. Definition of Performance Management

ACS defines performance management as the use of performance measures to drive evidence-based decisions and actions to maintain or correct organizational (not individual) performance. Performance management helps ACS optimize execution on an ongoing basis and assess its progress against its mission.¹

b. Performance Management Roles and Responsibilities

Because performance management is about decision-making and action, the ACS considered carefully how to encourage both leadership and staff in using performance data.

| Role | Typical Owner | Responsibility |
|---------------------------------------|---|--|
| ACS Senior Staff | Division Chief, Assistant Division Chiefs (ADCs), Branch Chiefs | Holds the decision authority to develop the performance framework, identify measures, and prioritize measures for implementation. Continuously reviews performance data to make decisions about the appropriate response. |
| Measure Development Coordinator (MDC) | ADCs | Leads the development of the detailed measure definition. Manages the activities of the measure analyst, validates performance data, and contributes to the measure analysis report. |
| Measure Analyst | Analyst | Supports the development of the detailed measure definition; identifies data sources, collection and reporting frequency and report distribution. Collects and analyzes the measure on a periodic basis and presents the measure report to Senior Staff. |
| Program Management Office (PMO) | PMO members | Supports the performance management process, coordinates regular performance management meetings, documents and shares actions and decisions from the meetings. |

Table 1: Performance Management Roles and Responsibilities

¹ ACS Mission Statement: “The American Community Survey is trusted and valued by the nation as the source for quality demographic, social, economic, and housing information on small areas and small populations.”

As shown in Table 1, the ACS defined four roles within the process: ACS Senior Staff as the presiding governance body; two new roles, the Measure Development Coordinators (MDCs) and Measure Analysts; and the Program Management Office (PMO).

c. Implementation Steps

ACS' approach involved five major steps:

- 1) Develop a performance framework
- 2) Define and prioritize the performance measures
- 3) Design and approve sample reports
- 4) Establish regular data-driven performance management reviews
- 5) Conduct an annual review

1) Develop a Performance Framework

The development of a performance framework is not a common practice. Typically, U.S. federal agencies and programs focus on measures tied to time-bound priorities, such as those emerging from a strategic plan. The performance framework, in contrast, acknowledges that, while near-term priorities may change, the basic characteristics of mission success typically do not. For example, the ACS will always care about the quality of the data and the use of the statistical products to inform decision-making. Since all organizations are systems, networks of interdependent processes that work together to accomplish the organization's aims, the goal should be to optimize the overall system, not its component parts. The framework makes the attributes of mission success explicit for a timeless view of mission performance; and it allows the Survey to identify time-bound priorities within that framework to accommodate the changing environment and demands on the Survey—for example, making a trade-off between data quality and cost. The ACS Performance Framework is depicted in Appendix A.

ACS Senior Staff defined the mission outcomes and then decomposed each into a number of operational elements. The framework shows the complex interdependencies of these operational elements to achieve the mission outcomes; for instance, the mission outcome of “Be trusted and valued by internal & external customers” emerges from a number of

operational elements, including the expectations to produce accurate statistics, build customer awareness, and minimize burden. For each operational element, the framework identifies multiple performance measures that act as indicators of progress toward the operational elements and, ultimately, the mission outcomes. Multiple measures for each operational element work together to overcome the common challenge of measuring outcomes and the complexity of the underlying operations that together achieve the mission outcomes. By capturing multiple measures, ACS can get a more balanced and complete view of the Survey's work and understand the relationship between different elements of the operation in driving ACS mission results; this in turn helps ACS anticipate and make trade-offs in execution and performance.

2) Prioritize and Define the Performance Measures

Senior Staff first prioritized which measures within the framework to implement first. Their prioritization considered factors such as *urgency* (does the measure inform an urgent issue) and *usefulness* (is the measure likely to provide useful, actionable insight).

For each prioritized measure, ACS formed a measure team, made up of managers and staff, to define the measures. Measure teams drew from the Senior Staff's vague measure ideas and general guidance to answer a series of thought-provoking questions that helped them develop content with rigor so that they could implement measures properly to inform decision-makers.

To define the performance measures, each measure team identified the measure data source, the specific data elements, the ongoing measure analyst, the formula the analyst would calculate to deliver the defined measure, and the recommended frequency of reporting to enable actionable decision-making. Given ACS' emphasis on having actionable information, they also identified the report recipients, the potential types of decisions that the measures could help inform, and other measures that might move in relation to the given measure (e.g., if response rate drops, one would expect data quality to drop).

Some of the measures proved to be more complicated, requiring greater detail about various dimensions. These became what ACS refers to as a "family of measures" that is consistently reported together for Senior Staff deliberation and decision-making.

3) Design and Approve Sample Reports

The next step in the effort was to design the reports. Continuing its emphasis on decision-making, ACS wanted to be sure that the design of each report best conveyed the information in a way that the Senior Staff could readily absorb, discuss, and act on from a shared understanding. Each measure team used fictional or incomplete data to develop an initial model report for discussion with Senior Staff. Through the discussions, Senior Staff and the teams developed shared understanding of the purpose and use of the measure and came to agreement on how best to represent the information, in graphical and/or tabular formats. Senior Staff also validated the calculation method and the proposed frequency of reporting.

4) Establish Regular Data-Driven Performance Management Reviews

ACS took a deliberate and strategic approach to designing the performance management reviews in order to create active engagement between leadership and staff and provide benefits to both: Senior Staff benefited from deep staff expertise; and managers and staff benefited from exposure to different aspects of the Survey and to the strategic thinking and discussions of the Senior Staff.

The Program Management Office scheduled the discussion of the measures across the annual Senior Staff calendar, drawing on the recommended reporting frequency for each measure. In the Reviews, the Measure Analysts present the measure reports, explain the trend, and help Senior Staff consider the implications. The Measure Development Coordinators are present to help provide further context in the discussion and typically are responsible for any actions that Senior Staff assign during the measure discussion. Senior Staff review the data, inquire about implications for the Survey, assign action items, and provide input for programmatic decision making. They focus their discussions on understanding the context of the data, considering whether they need to act to address an issue, assessing alternatives, and choosing the appropriate path forward.

5) Conduct an Annual Review

As part of maturing the performance management capability, Senior Staff annually review and revise the performance management framework and priority measures. To conduct an

annual review, Senior Staff follow step one, above, to determine whether the performance framework needs to be refined. If, during their deliberations, they choose to add a new priority measure, Senior Staff follow steps two through four just as with the original measures.

In the first annual review, Senior Staff assessed the first year of the framework and considered whether they should prioritize measures differently in light of a changing mission environment. In future reviews, Senior Staff also will consider whether it is desirable to set a target level of performance for any of the priority measures. ACS approaches the definition of targets with caution, since so much of management is about optimizing execution in the face of changing demands and constraints, and setting up potentially competing or conflicting targets might inhibit desirable management flexibility and potentially drive the wrong behaviors and results (e.g., an overemphasis on cost-cutting at the expense of survey quality).

3. Benefits Realized from ACS' Performance Management Process

Senior Staff have realized a number of benefits from these efforts, including: more effectively managing the Survey on an ongoing basis; meeting increased oversight requirements; developing Survey staff; and showing the value of the Survey to stakeholders, particularly in a dynamic environment with extreme budget pressures. A better understanding of the factors driving performance also enables ACS to better characterize the potential implications of budget cuts on survey quality, data utility, timeliness, and respondent burden.

One specific example is a decision the Survey made that involved the trade-offs between respondent burden, survey cost, and quality. ACS traditionally has invested in extensive follow-up with the sampled households in order to encourage responses to the survey: ACS used to require up to 25 phone calls to make initial contact with a household before referring a subset to field follow-up for in-person visits to gather the survey data. Recognizing the respondent burden and perception of intrusiveness of making so many calls, ACS analyzed whether to adjust the number of calls made. The performance framework reinforced the need to consider the implications for cost and data quality of such a change. ACS' analyses revealed a nominal difference in cost per response, but did anticipate a negative effect on the survey response rate and, thus, the reliability and confidence of the survey estimates generated.

Weighing these tradeoffs, ACS reduced the number of call attempts and continues to monitor survey quality over time to determine whether the modified outreach approach should be further refined. This is an example of using multiple performance measures, defined within the performance framework, to make management trade-offs amidst changing mission conditions.

4. Lessons Learned from Implementing Performance Management

a. Encourage Wide Staff Engagement

ACS designed its approach to developing the performance management framework and individual measures with the explicit intent to engage employees, including junior staff, in the use of measures to manage program performance. To accomplish that, Senior Staff deliberately bounded their own engagement. For example, when they began the process, Senior Staff simply identified the kinds of things they were interested in understanding (e.g., “sample error”), but they didn’t try to develop a detailed definition. Rather, they explained their interests and purpose to the staff most knowledgeable about the relevant operations. They asked those staff to apply their expertise, investigate the available data, and recommend the appropriate definition of the measure and the frequency of its reporting and use, based on the underlying operational cadence and the timing of meaningful decisions.

The report template itself formally built in staff engagement, providing a space for the Measure Development Coordinator and the Measure Analyst to offer their respective observations about the measure results for discussion with the Senior Staff. By including more junior staff in the performance management reviews, ACS has been helping these future leaders begin to think more strategically about the challenges the Survey faces and how to manage the operations toward strategic ends.

b. Encourage and Demonstrate Data-Driven Decision Making

Most ACS staff thought of performance management only in the context of their own individual employee annual performance assessment. Staff may have seen some operational measures “reported up,” and they may have seen some directives filtered down through management, but they weren’t typically privy to—or in a position to inform—the thought

process by which agency leadership interpreted the meaning of performance measures to determine an appropriate course of action.

ACS designed the performance management reviews to facilitate open and rigorous engagement with each measure. The reviews help all participants develop a more in-depth knowledge of the nature and challenges of the Survey's operations. This sharing of knowledge has initiated numerous cross-functional discussions to overcome previously little-understood challenges. Moreover, it has helped prevent future problems because managers and staff have a better understanding of the interrelationships and the potential consequences of different courses of action.

c. Build a Shared Understanding through Simple Visuals

An important element of the process was the design and use of the performance measure report. The report (initially developed in consultation with the full Senior Staff) fostered a shared understanding of the data, which in turn enabled appropriate and well-informed discussions and decisions. For example, ACS has a highly sophisticated approach to measuring quality that staff document for each release cycle in an extensive report that takes months to produce. Distilling that complex information into a simple graph and report that can be understood by all staff has helped overcome legacy silos within the Survey.

d. Recognize and Influence the Culture

Senior Staff knew they needed to set the right tone in order for performance management efforts to take root and be successful. Especially important was to avoid a punitive approach that sought to assign blame for bad results—Senior Staff recognized that Survey results were and are a team effort. The performance framework helps keep the focus on *mission success* as represented through the performance measures, in context, within the framework. The inquiry-oriented, problem-solving tone set by Senior Staff during the reporting sessions remains a critical success factor. Finally, recognizing that targets can be misleading and absolutes can result in unintended (and undesirable) consequences, Senior Staff emphasized the use of the measures to understand and manage progress over time, rather than aim for arbitrary targets.

Appendix A: ACS Performance Framework

ACS Mission: "The American Community Survey is trusted and valued by the nation as the source for quality demographic, social, economic, and housing information on small areas and small populations."

ACS Performance Management Framework – V15

