

Ranking Portfolio Management Maturity^{1,2}

Susan Hostetter and Sherri Norris

U.S. Census Bureau, Washington, DC, USA

Executive Summary

This paper continues the work of developing a maturity model for portfolio management we first presented at the 2016 UMD Project Management Symposium. In this paper, we will present:

- Discussion of how we created the scorecard and evaluated the maturity model
- Feedback from professionals involved with portfolio management processes across the U.S Census Bureau
- Our Implementation Scorecard, a tool designed to measure and rate the maturity of portfolio management programs against the model
- An updated maturity model

Important topics that emerged from the development of this scorecard and review of different portfolio management programs are:

- A maturity model should not understate the process development phase.
- Portfolio management programs come in a variety of structures and usually manage more than one type of investment.
- Successful movement across the maturity levels is dependent on several universal factors outside the maturity model.
- Ongoing portfolio management programs will experience positive and negative changes in maturity over time.

Introduction

We introduced a maturity model in the paper, *Evaluating and Building Portfolio Management Maturity* that we created to be a tool for assessing portfolio management programs in an “apples to apples” format. In this paper, we discuss the scorecard we created for use by portfolio management professionals to assess the performance of their programs against the model and

¹ *Second Editions are previously published papers that have continued relevance in today's project management world, or which were originally published in conference proceedings or in a language other than English. Original publication acknowledged; authors retain copyright. This paper was originally presented at the [4th Annual University of Maryland PM Symposium in May 2017](#). It is republished here with the permission of the authors and conference organizers.*

² *This paper is released to inform interested parties of ongoing operations and to encourage discussion of work in progress. Any views expressed on operational issues are those of the authors and not necessarily those of the U.S. Census Bureau.*

our evaluation of the maturity model and scorecard against a variety of portfolio management programs.

Scorecard Development and Evaluation Participants

In the first paper, we included a list of questions for each portfolio management characteristic section. These questions did a good job framing the scope of each characteristic but proved to function poorly as questions on a scorecard. We found that answering the mostly yes/no questions to be burdensome and did not provide results that allowed us to place a response into a single maturity level. Our solution was to convert the questions into a list of conditional statements, organize them by characteristic and add an instruction for the respondent to select all statements that applied to their portfolio management governance program.

Our next step was to find portfolio management professionals to complete our scorecard and evaluate the maturity model. Since 2012, the Census Bureau has made portfolio management a strategic priority across the enterprise with a few program areas ahead of the enterprise push. This meant that programs have been functioning with varied success for at least 4 years with a few running over 6 years. We interviewed 13 people from eight different governance programs with experience varying from 2 months to over 6 years. We were fortunate to interview people who have seen their programs evolve and change with leadership turnover as well as people who have participated in more than one governance program. Most of our participants managed portfolio management processes from a program management office but some were program managers whom had driven the development of a board or were participating as a board member during its development. We also had broad representation of differing portfolio types and functions and were involved in the following areas:

- The enterprise level governing board and development efforts.
- Directorate level programs over hundreds of investments.
- Division level boards over smaller focused portfolios.
- A program-level board over large, multiyear, multi-billion dollar investments.

They represented differing governance structures and control over funds and their governing responsibilities included IT projects, operations work, reimbursable work, research projects, large enterprise initiatives, and contracts.

Evaluation of Maturity Model and Scorecard

We selected participants for our evaluation with the intent of getting knowledgeable portfolio management professionals from a variety of areas to fill out the scorecard and provide feedback on the maturity model. We planned a debriefing interview of the participants for after they completed the scorecard to help us evaluate our materials and maturity model. We developed participant instructions, materials, and a script to standardize the debriefing interview. For each

scorecard section, we asked if they found the statement relevant, if they could see themselves in the statement and if anything was missing. For the model, we asked for feedback on the maturity levels and the characteristics we included in the model.

In the following sections, we divided the evaluation feedback into three parts for discussion purposes. In the first section, we shared the universal factors we uncovered during our evaluation that seemed to impact movement across maturity levels. In the second section, we discussed the participant feedback we received on the model maturity levels and the adjustments we made to the model and scorecard. In the third section, we reviewed participant feedback on the model characteristics and provided detailed scorecard content.

Factors Driving Maturity

Our conversations with portfolio management professionals provided a good look across multiple programs and helped us to understand some of the factors that drive a program to maturity. We were not looking specifically for this information. The model and scorecard measure maturity at a point in time and do not predict how well a program will move across the maturity levels. However, in our conversations with the different programs we uncovered three common factors that were affecting movement across the maturity levels. No single factor was unexpected but all are worth noting because we consistently found these factors in the successful programs and missing from the struggling programs. They are:

Leadership engaged in portfolio management – Strong leadership that is actively engaged in the portfolio management is essential to the board functioning. The board chair sets the pace and expectations for the board members and support staff and drives staff engagement and funding decisions. When there is no leadership engagement, the whole portfolio management process will drift. Board members will not participate in the process, the work of the board goes undone and staff will make investment decisions outside of the portfolio management process.

Authority over funding and resources – Leadership must delegate control over funding or resources to the portfolio management governing board. Staff will only follow a process that leads to funding and not surprisingly, staff will not participate in a process with no real control over funding and resources. If a board does not function as a gate to resources or have authority over resources, then the process will never get traction within the organization.

Sufficient resources to support the process – All processes require support to be successful. We found that the programs furthest along on maturity got there by investing resources in the process. These programs had staff dedicated to the process whereas the less mature programs typically had little to no staff dedicated solely to portfolio management.

Portfolio Management Maturity Levels

In the evaluation, we asked the participants about the maturity levels in our model. The participants told us that the level divisions in the model made sense to them. A couple participants noted that the stand-up level seemed to describe the absence of maturity versus standing up of processes. Overall, we got very few comments the levels themselves. It was not until we covered the characteristic scorecard statements that we got comments on the content within the levels. That is where we received feedback on how we should be leveling maturity. This feedback helped us to define the boundaries for each maturity level so that each level would be distinct and consistent across all of the characteristics. Figure 1 provides an overview of the revised maturity levels and the sections following describe the definitional changes we made to each level.

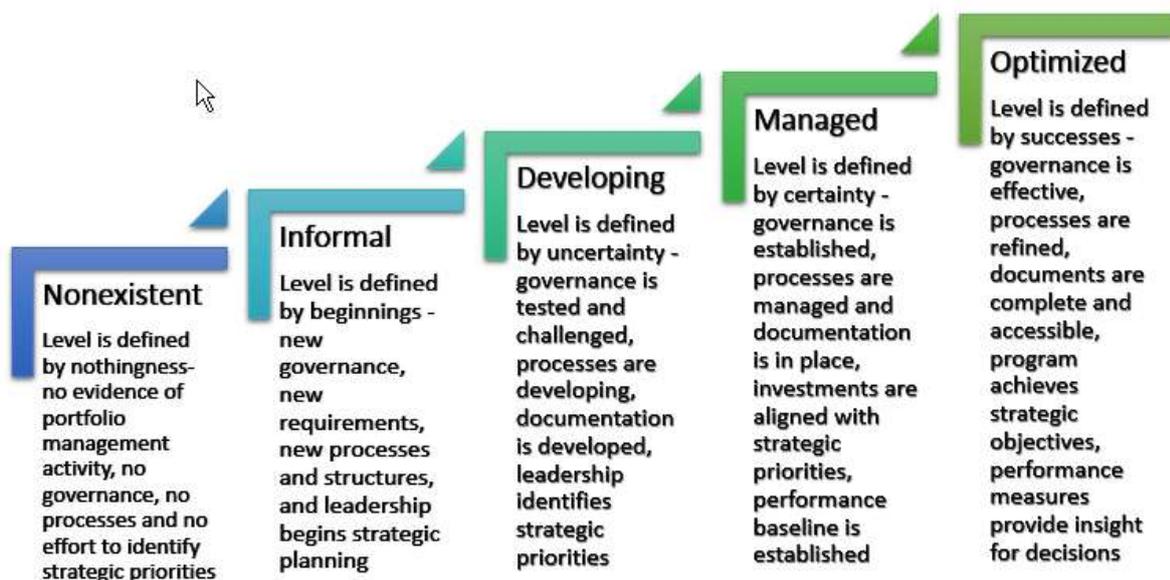


Figure 1. Portfolio Management Maturity Levels

Maturity Level 1 – Nonexistent

During the interviews, a couple of the participants observed that we were describing the absence of portfolio management processes in this level. Therefore, we changed the name from “Stand-up” to “Non-existent” and clarified the section to reflect a level of nonexistent maturity. We also added statements to the scorecard, such as “The process has not identified reporting requirements,” so that respondents would have an item to select for level 1 maturity.

Maturity Level 2 - Informal

Once we set level 1 to “nonexistent” we had to revise this level to be defined by beginnings. We kept the label the same for this level and revised the statements to describe activities where the program is beginning to define processes. This is the level where a program is exploring its portfolio, its goals and laying a foundation for managing its investments.

Maturity Level 3 - Developing

We had a few comments noting that we had the characteristics maturing too fast and did not adequately capture the “storming” phase of development. We kept the label the same for this level and revised the statement to reflect the project management office and the board working through the details of portfolio management. This level is now recognizable by its uncertainty and is an important level because this is where processes attempt to move from informal to formal. For example, this level is where one would find the board is asking itself “What do we want to achieve?” and “How do we achieve it?”

Maturity Level 4 - Managed

We got feedback that this level did not have enough clear distinction from the Optimized level. By strengthening the Developing level, we had more room on the maturity continuum to provide more distinction between levels 3, 4 and 5. We kept the label the same for this level and revised the statements to define it clearly in terms of certainty. This level is where the governance structure becomes ingrained into the organization. The program has formalized processes, projects complete documentation, leadership implements strategies and staff cooperate with the process. The participants we interviewed said they had one or more characteristic at this maturity level and many would be happy if they achieved this level of function and stability for most of the characteristics.

Maturity Level 5 - Optimized

We got feedback that this level lacked a clear distinction from the managed level and therefore, some questioned why this level was better than the managed level. We kept the label the same for this level and revised the statements to represent clearer steps to success. We deliberately set the bar high to encourage growth but also realize some programs may never fully achieve this level for some of the characteristics.

Feedback on Model Characteristics

As part of the evaluation, we asked the participants to review the model and tell us if any of the characteristics we used were not valid and if we were missing any significant aspects of the portfolio management process. The participants were unanimous in saying that the model content was appropriate for their programs. When we asked about missing elements, we learned that we should have included two others. First, we had participants from several areas indicate that they conducted risk review as part of their process so we added a risk element to the model. Second, several indicated that they added tools and platforms to support their processes so we added a management tool element to the model and removed mention of tools and platforms from other elements. We received many good comments on the characteristics from our participants and organized them and the updated scorecards statements in the sections below.

Governance Structure

The governance structure characteristic represents governing boards and the scope of investment authority delegated to those boards. Our original model focused on the existence of one governing board and our discussions with the evaluation participants revealed that this was too narrow a view. Some of our participants came from programs that had to create a system of boards to handle challenges such as extensive stakeholder involvement, high volume of investments and external oversight requirements. Our discussions also helped us to clarify that every portfolio management program has implicit or explicit boundaries for what is in scope and out of scope of its authority. Additionally, we found that portfolio management boards failed to gain traction in the organization if they were not gatekeepers or directly in control of investment resources. To account for these discoveries, we added a statement to the Informal level covering the formal delegation of decision authority and a statement to the Developing level for governing boundary lines.

Non-Existent	Portfolio management governance structure is not defined
Informal	Portfolio management governance structure is formally defined Investment decision authority is formally delegated to governance structure
Developing	Portfolio Management Governing Bodies are chartered and meeting infrequently Decision authority is being established Governing boundary lines are being developed
Managed	Portfolio Management Governing Bodies are completing processes Portfolio Management Governing Bodies are meeting on a scheduled basis Decision authority is rarely circumvented Governing boundary lines are defined
Optimized	Portfolio Management Governing Bodies are completing all processes on time Portfolio Management Governing Bodies are completing all decisions on time Governing authority is established and respected by organization leadership

Table 1 Scorecard Maturity Levels for Governance Structure

Board Members

The participants told us this section of the scorecard was hard to complete due to a spectrum of behavior exhibited by the board members. They explained that a board would have some members who never attend and some whom attend but were unprepared. In our conversation, it became clear that the chairperson directly influenced the level of participation of the board members. For example, if the chairperson expected the board members to show up prepared and to ask probing questions, then the members would. We found that the maturity of this characteristic is also very sensitive to leadership and member changes. Frequent changes to leadership or board members would prevent the board from becoming functional. Additionally, when a new chairperson came in or the board membership changed the board maturity would drop down a level until the new members gained experience.

Non-Existent	PMGB members are not identified
Informal	PMGB members are identified PMGB members are educated on their roles
Developing	Most to all PMGB members are attending meetings
Managed	Most to all PMGB members are prepared and ask probing questions
Optimized	PMGB members actively refine and improve the portfolio management process

Table 2 Scorecard Maturity Levels for Board Members

Portfolio Management Process

One participant questioned whether this section was different from the sum total of all the process characteristics. We discussed this and decided this characteristic did not represent a summary activity but was a deliberate effort on the part of the program to plan, develop and document the whole portfolio management process. We kept the characteristic the same with the only changes being to adjust the content to the revised maturity levels.

Non-Existent	Portfolio management (PfM) process requirements are not defined
Informal	PfM process requirements are being identified and discussed
Developing	PfM process is developing
Managed	PfM process is partially developed and documented
Optimized	PfM process is fully functioning and documentation is updated regularly

Table 3 Scorecard Maturity Levels for Portfolio Management Process

Investment Portfolio

One participant mentioned the importance of the funding cycle to their program. This is an important consideration because, ideally, the portfolio management process should be in front of the funding cycle to activate approved investments when funds become available. Our original model did not account for alignment with the funding cycle so we added it to the Managed and Optimized levels. The original model also did not specify governance boundaries so we added them to clarify that portfolio management programs only need to identify investments within their scope of governance.

Non-Existent	New and existing investment projects are not identified
Informal	PfM process is working to identify new and existing investment projects
Developing	PfM process has identified most new investment projects within its governance boundaries PfM process has identified most existing investment projects within its governance boundaries
Managed	PfM process has identified most new projects for the current funding cycle PfM process has identified all existing investment projects within its governance boundaries
Optimized	PfM process has identified most new projects for the current funding cycle PfM process has identified most new projects for future funding cycles PfM process has identified all existing investment projects within its governance boundaries

Table 4 Scorecard Maturity Levels for Investment Portfolio

Investment Review

We found that all of the participants we interviewed conducted some sort of investment review in their portfolio management programs. We kept the investment review characteristic the same with the only changes being to adjust the content to the revised maturity levels.

Non-Existent	Investment review requirements are not identified
Informal	Investment review requirements are identified
Developing	PMGB conducts investment management reviews for investment projects
Managed	PMGB provides direction to investment project managers during investment review
Optimized	PMGB provides direction and assigns and tracks progress on action items from investment reviews

Table 5 Scorecard Maturity Levels for Investment Review

Key Investments

We found that key investments characteristic was not universal across the programs so we eliminated that section from the characteristics.

Status Reporting

We found that status reporting, while not universal in its existence in the portfolio management programs was a component desired by all of the programs. Much of portfolio management focus is typically on the investment of promising projects but the completion of those projects is equally important to achieving strategic goals. The status reporting process informs leadership on project progress and when project managers know leadership is watching, they are more likely to finish on time and within budget.

Non-Existent	Reporting requirements are not identified
Informal	PfM report requirements are defined
Developing	PfM reports are developing
Managed	Some PfM reports are completed
Optimized	PfM reports updated on regular basis

Table 6 Scorecard Maturity Levels for Status Reporting

Project Documentation

All participants indicated that project documentation was an important part of their portfolio management process. In fact, many said that they would not allow projects to receive consideration for funding before their documentation was complete. One area said that they had achieved maturity in this characteristic by providing support for completing documentation. Several areas had lower level boards in their governance structure with the responsibility of reviewing project documentation and making recommendations on which projects were ready to move forward for funding consideration.

Non-Existent	Project documentation requirements are not identified
Informal	Project documentation requirements are identified
Developing	Developing document templates Assessing existing documentation for new and existing projects
Managed	Completing project documentation for new and existing investments
Optimized	90-100% of new and existing investment projects are documented

Table 7 Scorecard Maturity Levels for Project Documentation

Management Tools

Management tools is a new characteristics element for the maturity model and includes platforms and tools for managing project documentation, meeting notes, action items and reports. The participants indicated that management tools were very valuable to the process and represented growth in maturity for their portfolio management programs.

Non-Existent	Management tool requirements are not identified
Informal	Management tool requirements are identified
Developing	Developing management tools Beginning to incorporate use of management tools into processes
Managed	Some management tools are completed and incorporated into processes
Optimized	Management tools are fully operational and incorporated into portfolio management processes

Table 8 Scorecard Maturity Levels for Management Tools

Risk Management

Risk management is a new characteristics element for the maturity model. Several of the participants told us our model should include risk management because it was an important part of their portfolio management process. Some of the larger programs used separate boards in their governance structure to review risk exposure and feed this information to the portfolio management governing board.

Non-Existent	No risk identification or management for investment projects
Informal	Some investment projects practice informal risk identification and management
Developing	Developing processes for risk identification and management
Managed	Some investment projects practice formal risk identification and management processes
Optimized	Most to all investment projects practice formal risk identification and management processes

Table 9 Scorecard Maturity Levels for Risk Management

Strategic Planning

All participants considered the strategic planning characteristic part of portfolio management and many of them admitted that maturity in strategic planning was difficult to achieve and keep current. We kept the characteristic the same with the only changes being to adjust the content to the revised maturity levels.

Non-Existent	No strategic planning process
Informal	Leadership engages in strategic planning
Developing	Leadership completes strategic plan and shares with staff and stakeholders
Managed	Leadership uses strategic plan for program planning
Optimized	Leadership updates strategic plan as needed

Table 10 Scorecard Maturity Levels for Strategic Planning

Performance Management

The participants considered performance management relevant to their portfolio management programs but also a process that required a higher level of resources to achieve maturity. We kept the characteristic the same with the only changes being to adjust the content to the revised maturity levels.

Non-Existent	No tracking of strategic performance
Informal	Informal tracking of strategic performance
Developing	Development of formal performance measures
Managed	Formal performance measures in place Baseline performance is being captured
Optimized	Performance measures track effectiveness of strategic investments

Table 11 Scorecard Maturity Levels for Performance Management

Strategic Priorities

Participants considered strategic priorities relevant to their portfolio management programs. They noted that board leadership drives strategic priorities. We revised this section to reflect leadership's influence and to add in the development stage.

Non-Existent	No discussion of strategic priorities or strategic projects
Informal	Leadership informally discusses strategic priorities and strategic projects
Developing	Leadership is developing strategic priorities Leadership is identifying strategic projects
Managed	Leadership has formulated and communicated strategic priorities and projects
Optimized	Leadership uses strategic priorities to guide investment decisions

Table 12 Scorecard Maturity Levels for Strategic Priorities

Staff Acceptance

Participants considered staff acceptance relevant to the success of their portfolio management programs. Feedback suggested that the board’s level of authority directly influenced staff acceptance and support of the portfolio management process. If participating in the process was the only way staff could get funding and resources, then they were quick to accept and follow the process.

Non-Existent	Staff do not communicate on new and existing projects
Informal	Staff informally communicate on projects as work begins
Developing	Staff beginning to learn and follow process for communicating investment project proposals
Managed	Staff communicate investment proposals before work begins
Optimized	Staff communicate proposals for investments one to two years in advance

Table 13 Scorecard Maturity Levels for Staff Acceptance

Staff Training

Participants considered this section relevant to their portfolio management programs. However, they did not always think that they needed to develop formal training or were directly responsible for all training. Some noted that staff encountered their process so infrequently that it was easier to train and support the participant at the time when they interacted with the portfolio management process.

Non-Existent	No training for portfolio management processes
Informal	Informal training on portfolio management processes
Developing	Developing formal training for portfolio management processes
Managed	Formal training for portfolio management processes (as needed)
Optimized	Staff involved in portfolio management have access to training

Table 14 Scorecard Maturity Levels for Staff Training

Conclusion and Next Steps

The debriefing evaluation conducted about the Portfolio Management Maturity Model and Scorecard was very helpful. By seeking input from other project management professionals with portfolio management experience, we were able to gain a much broader view of the portfolio management process and encounter differing governance structures and portfolio responsibilities. Our resulting maturity model and scorecard are more inclusive and subsequently, more useful to a wider group of portfolio management programs and professionals.

Our next steps in the development of the scorecard and maturity model will be to:

- Revise questions and scoring for the scorecard.

- Investigate the use of the maturity model and scorecard as an enterprise-level tool to evaluate portfolio management at the U.S. Census Bureau.
- Evaluate maturity model and scorecard using portfolio management programs outside of the U.S. Census Bureau.

Appendix A - Revised Maturity Model

		Level 1: Nonexistent	Level 2: Informal	Level 3: Developing	Level 4: Managed	Level 5: Optimized
Portfolio Management Process	Governance Structure	Portfolio management governance structure is not defined	Portfolio management governance structure is formally defined, investment decision authority is formally delegated to governance structure	Portfolio Management Governing Bodies are chartered and meeting infrequently, decision authority is being established, governing boundary lines are being developed	Portfolio Management Governing Bodies are completing processes and meeting on a scheduled basis, decision authority is rarely circumvented, governing boundary lines are defined	Portfolio Management Governing Bodies are completing all processes and decisions on time and governing authority is established and respected by organization leadership
	Board Members	PMGB members are not identified	PMGB members are identified and educated on their roles	Most to all PMGB members are attending meetings	PMGB members are prepared and ask probing questions	PMGB members actively refine and improve the portfolio management process
	Portfolio Management Process	Portfolio management (PFM) process requirements are not defined	PFM process requirements are being identified and discussed	PFM process is developing	PFM process is partially developed and documented	PFM process is fully functioning and documentation is updated regularly
	Investment Portfolio	New and existing investment projects are not identified	PFM process is working to identify new and existing investment projects	PFM process has identified most new and existing investment projects within its governance threshold	PFM process has identified most new and existing investment projects within its governance boundaries for the current funding cycle	PFM has identified most new and all existing investment projects within its governance boundaries for the current and future funding cycles
	Investment Review	Investment review requirements are not identified	Investment review requirements are identified	PMGB conducts investment management reviews for investment projects	PMGB provides direction to investment project managers during investment review	PMGB provides direction and assigns and tracks progress on action items from investment reviews
	Status Reporting	Reporting requirements are not identified	PFM report requirements are defined	PFM reports are developing	Some PFM reports are completed	PFM reports updated on regular basis
	Project Documentation	Project documentation requirements are not identified	Project documentation requirements are identified	Developing document templates, assessing existing documentation for new and existing projects	Completing project documentation for new and existing investments	90-100% of new and existing investment projects are documented
	Management Tools	Management tool requirements are not identified	Management tool requirements are identified	Developing management tools, beginning to incorporate use of tools into processes	Some management tools are completed and incorporated into processes	Management tools are fully operational and incorporated into portfolio management processes
Risk Management	No risk identification or management for investment projects	Some investment projects practice informal risk identification and management	Developing processes for risk identification and management	Some investment projects practice formal risk identification and management processes	Most to all investment projects practice formal risk identification and management processes	

Strategic Planning and Tracking	Strategic Planning	No strategic planning process	Leadership engages in strategic planning	Leadership completes strategic plan and shares with staff and stakeholders	Leadership uses strategic plan for program planning	Leadership updates strategic plan as needed
	Performance Management	No tracking of strategic performance	Informal tracking of strategic performance	Development of formal performance measures	Formal performance measures in place, baseline performance is being captured	Performance measures track effectiveness of strategic investments
	Strategic Priorities	No discussion of strategic priorities or strategic projects	Leadership informally discusses strategic priorities and strategic projects	Leadership is developing strategic priorities and identifying strategic projects	Leadership has formulated and communicated strategic priorities and projects	Leadership uses strategic priorities to guide investment decisions

Organizational Acceptance	Staff Participation	Staff do not communicate on new and existing projects	Staff informally communicate on projects as work begins	Staff beginning to learn and follow process for communicating investment project proposals	Staff communicate investment proposals before work begins	Staff communicate proposals for investments one to two years in advance
	Staff Training	No training for portfolio management processes	Informal training on portfolio management processes	Developing formal training for portfolio management processes	Formal training for portfolio management processes (as needed)	Staff involved in portfolio management have access to training

About the Authors



Susan Hostetter

Washington, DC, USA



Susan Hostetter, PMP, is a project management professional with over twenty years' experience with Federal Statistical programs. Ms. Hostetter has been instrumental in standing up and managing risk management, project management, portfolio management, strategic planning, and performance management processes for large survey and Census programs. She has a Master's Degree in Management with a Project Management emphasis from the University of Maryland's University College, a Master's Certificate in Program Management from George Washington University and a Bachelor's Degree in Business Administration from Mary Baldwin University. Susan can be reached at susan.lynn.hostetter@census.gov.



Sherri Norris

Washington, DC, USA



Sherri Norris is a project management and statistical professional with over twenty years of public policy, project management and operations experience. Ms. Norris has coordinated and implemented schedule, requirements, performance management, and governance processes for survey and Census Programs. She has a Public Policy Master's Degree in Justice: Law and Society from American University, a Master's Certificate in Program Management from George Washington University and a Bachelor's Degree in Criminal Justice from University of Delaware. Sherri can be reached at sherri.j.norris@census.gov.