The Facilitating PMO: How to Implement Project Success Across the Organization[1, 2, 3]

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Executive Summary

This paper explores the Project Management Office's (PMO) role of facilitating project success within an organization. This paper will cover challenges a PMO has to overcome to effectively facilitate project success such as: staying informed of project progress; developing and documenting effective project management processes; developing effective tools and communicating with stakeholders.

This paper will cover the tools that the Demographic Statistical Methods Division PMO has developed to facilitate project success in the division. These tools include: deliverable based schedules and timesheets, cost estimation processes, the project management best practice program and project status reports for stakeholder communication.

Additionally, this paper will cover the benefits of facilitating project success. These benefits will include: supporting many projects at once; maintaining standards for project management practices across the organization; relieving subject matter experts of project management tasks and improving project reporting and stakeholder communication across the organization.

Introduction

The Project Management Institute defines the Project Management Office (PMO) as "a strategic driver for organizational excellence, which seeks to enhance the practices of execution management, organizational governance, and strategic change leadership." The term "driver" implies aggressive force that is sometimes required but, for the day-to-day operations, the PMO has a greater role as a facilitator for the project manager. Merriam Webster defines facilitation as "to make easier: help bring about" and it is in this role of the supporter and helper where the PMO

[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 13th Annual University of Texas at Dallas Project Management Symposium in May 2019. It is republished here with permission of the author and conference organizers.

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[3] The views expressed in this paper are those of the authors and do not necessarily represent those of the U.S. Census Bureau.

can affect project success across the organization. Stated simply, the PMO can affect project success by the support processes and tools it creates and implements for its project managers.

The PMO in the Demographic Statistical Methods Division (DSMD) at the U.S. Census Bureau has been working to understand the challenges faced by its project managers. The PMO found that the project managers struggled to stay informed of project status due to poor access to project data, functioned from word of mouth instructions for important processes, spent a lot of their time developing and updating status reports, needed guidance on how to integrate schedules and timesheet reporting, struggled with the many details of creating accurate cost estimates and lacked tools for communicating project information to stakeholders. To better support its project managers and facilitate their success, the PMO evaluated their work environment and developed products to help project managers overcome their work challenges. The sections below provide details into the facilitative tools developed by the DSMD PMO to support their project managers.

Best Practice Documentation

PMOs support a complex project management process across the organization and the best way to facilitate success is to encourage best practices across the organization. To do this, the PMO must first understand their project management processes and then document the best version of those processes within the organization they are managing. To that end, the DSMD PMO has worked over the past two years to identify its project management best practices and document those practices for all of its project managers.

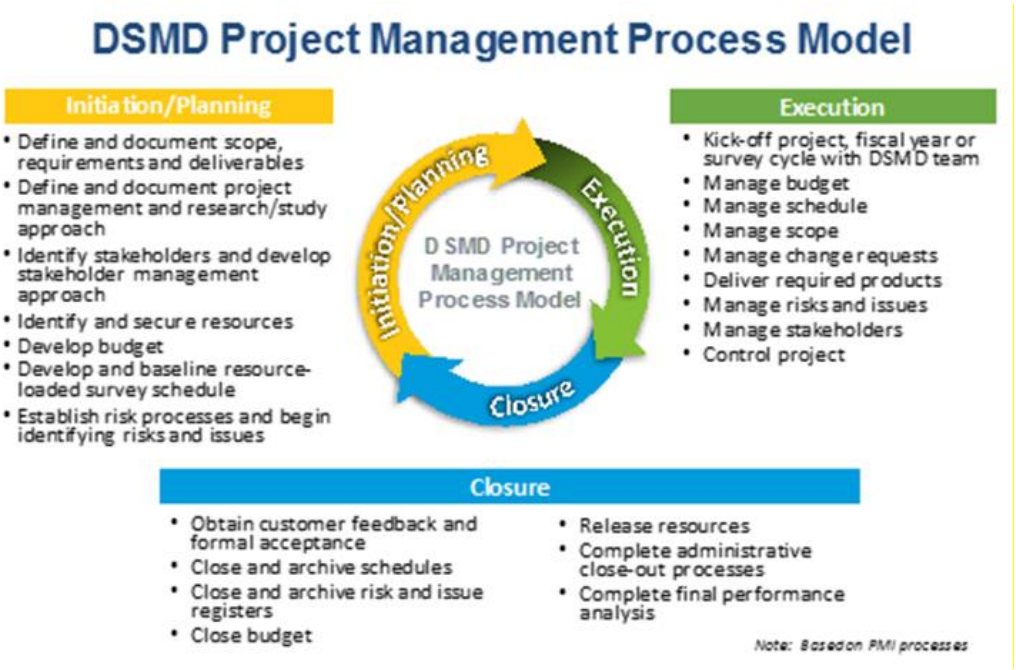


Figure 1 Project Management Process Model

The PMO first worked to organize the project management processes into a process model. This helped us to understand the scope of the work being done within our PMO. Figure 1 shows how the scope was separated into three main project phases: Initiation/Planning, Execution, and Closure, with processes listed for each phase. We then created a document we called the DSMD PMBOK (Project Management Body of Knowledge) after the well-known Project Management Institute's PMBOK. The PMO supports different project types so the PMBOK was broken out by project type in the detailed document. For each project type section, the document identifies the Key Inputs, Tools and Processes, and Key Outputs at the beginning of each section.

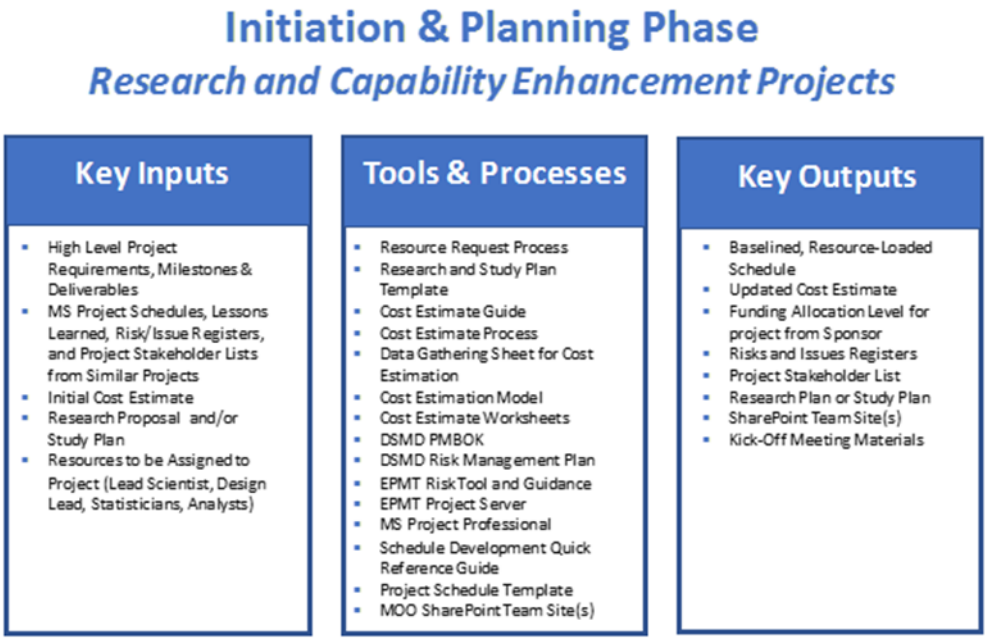


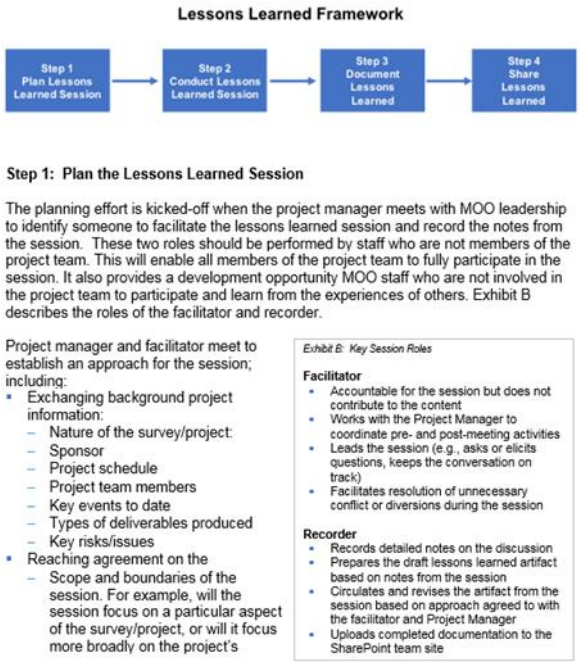
Figure 2 Key Inputs, Tools and Processes

Figure 2 shows an example of the details of this section and the similarities to the PMI PMBOK. The main body of each section contains a table showing the activity, the steps and additional guidance for each of the processes the PM is to execute during that phase for each project type. The information in the table is meant to give an overview of the processes and to point the PM to the more detailed process document. For example, in Figure 3, the additional guidance points the PM to the Schedule Development Guidelines document and the Risk Management Plan.

Activity	Steps	Additional Guidance
Develop and baseline resource-loaded survey schedule	▪ Create the survey schedule; refer to the DSMD Schedule Development Guidelines for guidance ▪ Review schedule with LS and MOO leadership before formally baselining the schedule ▪ Baseline the survey schedule; refer to DSMD Schedule Development Guidelines for baselining schedules	▪ Baseline schedule is developed using work estimates from the cost estimate documentation, staffing estimates provided by the LS(s), list of product, work packages and activities ▪ The DSMD Schedule Development Guidelines documents DSMD's approach to developing and maintaining schedules in Project Server and MS Project Professional
Establish risk processes and begin identifying risks and issues	▪ Establish risk management processes for the project that are consistent with the DSMD Risk Management Plan ▪ Identify initial risks and issues and document them using the Risk Tool in the Enterprise Project Management Tool ▪ Review risk management processes and initial risk and issue registers with LS or Project Lead and MOO leadership	▪ DSMD Risk Management Plan documents DSMD's approach to identifying and managing risks for projects/surveys ▪ Risk and Issue registers and risk dashboard are located in the project schedule's project site on Project Server

Figure 3 PM Process Overview

Whereas the PMBOK provides a general overview or roadmap to the project management processes, the PMO also produced detailed guidance to facilitate the learning for new project managers and serve as a reminder for the experienced project managers. Figures 4 and 5 are examples of two such documents. Tips and Tricks for Baselining Schedules shows the project manager step-by-step instructions for baselining a schedule and the Lesson Learned Framework shows the steps for conducting a lessons learned session. Both the documents provide specific guidance while also instituting specific project management policy within the organization.



Lessons Learned Framework

Step 1 Plan Lessons Learned Session → Step 2 Conduct Lessons Learned Session → Step 3 Document Lessons Learned → Step 4 Share Lessons Learned

Step 1: Plan the Lessons Learned Session

The planning effort is kicked-off when the project manager meets with MOO leadership to identify someone to facilitate the lessons learned session and record the notes from the session. These two roles should be performed by staff who are not members of the project team. This will enable all members of the project team to fully participate in the session. It also provides a development opportunity MOO staff who are not involved in the project team to participate and learn from the experiences of others. Exhibit B describes the roles of the facilitator and recorder.

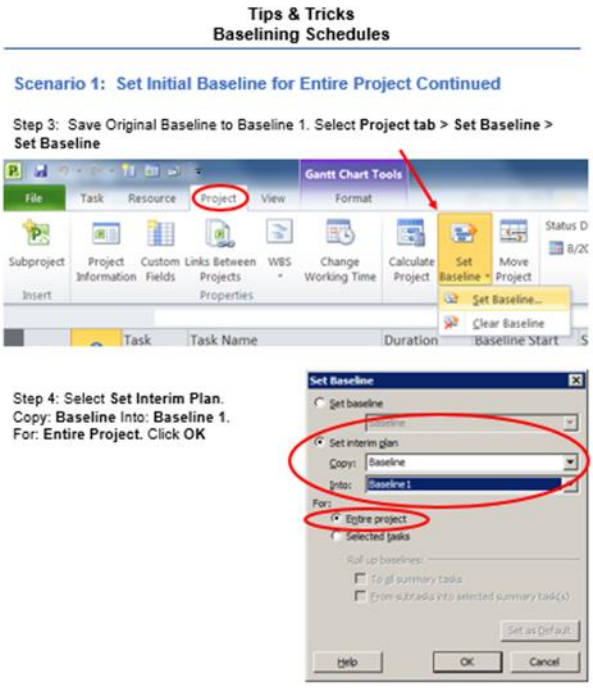
Project manager and facilitator meet to establish an approach for the session; including:
- Exchanging background project information:
  - Nature of the survey/project:
  - Sponsor
  - Project schedule
  - Project team members
  - Key events to date
  - Types of deliverables produced
  - Key risks/issues
- Reaching agreement on the
  - Scope and boundaries of the session. For example, will the session focus on a particular aspect of the survey/project, or will it focus more broadly on the project's

Exhibit B: Key Session Roles

Facilitator
- Accountable for the session but does not contribute to the content
- Works with the Project Manager to coordinate pre- and post-meeting activities
- Leads the session (e.g., asks or elicits questions, keeps the conversation on track)
- Facilitates resolution of unnecessary conflict or diversions during the session

Recorder
- Records detailed notes on the discussion
- Prepares the draft lessons learned artifact based on notes from the session
- Circulates and revises the artifact from the session based on approach agreed to with the facilitator and Project Manager
- Uploads completed documentation to the SharePoint team site

Figure 4 Guidance on Lessons Learned



Tips & Tricks
Baselining Schedules

Scenario 1: Set Initial Baseline for Entire Project Continued

Step 3: Save Original Baseline to Baseline 1. Select **Project tab > Set Baseline > Set Baseline**

Step 4: Select **Set Interim Plan**. Copy: **Baseline** Into: **Baseline 1**. For: **Entire Project**. Click **OK**

Figure 5 Guidance on Baselining Schedule

Schedule and Timesheet Processes

One of the primary ways the PMO processes reached staff and stakeholders was through the standardized schedules and timesheets that the PMO implemented across its portfolio of projects. Accurate and prompt timesheet reporting allowed progress on tasks and projects to be captured in real time which in turn enabled project managers to provide status updates-based data reported directly to the schedules. The facilitation process began with the development of a tailored Work Breakdown Structure (WBS) to capture the full portfolio of the work and structure the data into usable building blocks. The PMO used the Census Bureau's deep-seated focus on data collection and data-driven decision-making culture to design the WBS. The PMO organized the WBS in a hierarchy that mirrored the structure of Census Bureau data tabulation making the structure familiar and immediately understood by leadership. The Figure 6 below shows the level of detail that drives the structure of the individual schedules.

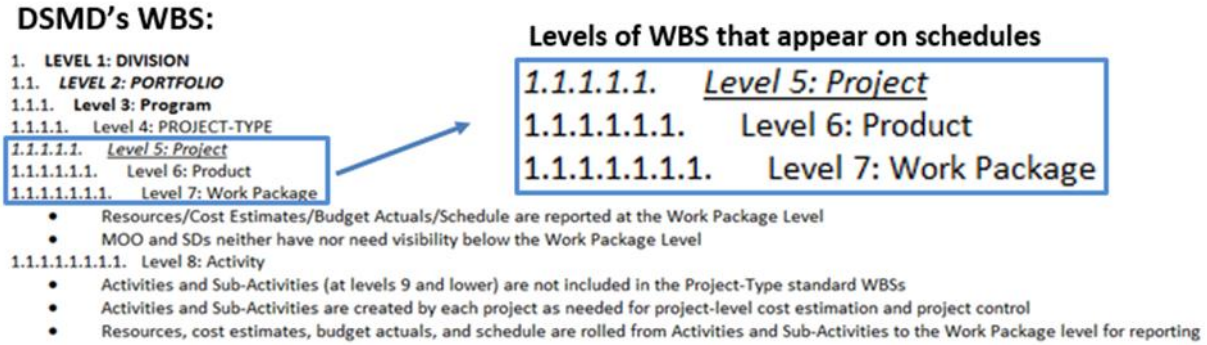


Figure 6 Work Breakdown Structure

Facilitating successful timesheet reporting started with finding the sweet spot between ease of reporting and capturing true project effort and progress. The PMO used resource-loaded schedules to populate employee's timesheets to capture project progress and labor costs. WBS level 7, the work package, is the only level in the schedule that was resource loaded and appeared on timesheets. Figure 7 below, the arrows indicate the work package level tasks that will appear on an employee's timesheet.

DSMD_RP19_NSCH_Screener Card Experiment	**1,791 hrs**	**343 days**	**Mon 7/16/18**	**Mon 11/25/1**
NSCH Screener Card Experiment Kick-Off	*0 hrs*	*0 days*	*Mon 7/16/18*	*Mon 7/16/18*
NSCH Screener Card Experiment Operations Plan	**39 hrs**	**20 days**	**Mon 7/16/18**	**Fri 8/10/18**
Develop NSCH Screener Card Experiment Operations Plan	39 hrs	20 days	Mon 7/16/18	Fri 8/10/18
NSCH Screener Card Experiment Materials	**476 hrs**	**69 days**	**Mon 7/16/18**	**Mon 10/22/18**
Draft NSCH Screener Card Experiment Materials	140 hrs	24 days	Mon 7/16/18	Thu 8/16/18
Submit OMB Package for Cognitive Testing	*0 hrs*	*0 days*	*Thu 8/23/18*	*Thu 8/23/18*
Receive OMB Clearance for Cognitive Testing	*0 hrs*	*0 days*	*Fri 9/28/18*	*Fri 9/28/18*
Conduct NSCH Screener Card Cognitive Interviews	276 hrs	10 days	Mon 10/1/18	Mon 10/15/18
Revise NSCH Screener Card Experiment Materials	60 hrs	10 days	Tue 10/9/18	Mon 10/22/18

Figure 7 Detailed Schedule Tasks

As staff report on the tasks the updates are submitted to the PM and are reviewed and accepted (or denied). At that point, schedule progress is updated and timesheets can be refreshed with new or revised tasks.

Cost Estimation Process

There is a direct line between the quality of the micro-data produced in the schedule process and the quality of cost estimates developed for future projects. As with the scheduling process, the PMO's facilitation of accurate and detailed cost estimates and budget formulation directly affected the likelihood of success on a given project. Since the cost model for DSMD is primarily labor based, with many of the indirect costs formulated as a function of direct labor, the quality of the cost estimates was historically dependent on participation and input from the subject matter expert staff. The inclusion of reliable reported actual data from schedules of comparable projects was able to help derive better estimates without further taxing the subject matter experts.

The DSMD cost estimate process usually begins with a data gathering activity, where the PM's work with the subject matter experts and program managers to collect input on scope, timing, tasks to be performed, associated effort of those tasks, assumptions of the work and known risks. To facilitate the process the PMO designed a template to collect all of the inputs for the cost estimates in a similar fashion. The Project Manager starts the conversation by breaking down the cost estimate request into internal deliverables. Figures 8 and 9 below show how the data request is translated into terms that are familiar to the subject matter staff.

FY19	GS-12 Hours			GS-13 Hours			Confidence
	Optimistic	Most Likely	Pessimistic	Optimistic	Most Likely	Pessimistic	
Review Datasets and Information Gathering (including learning analysis methods)	50	75	100	50	75	100	Low
Draft Analysis Plan	30	45	60	30	40	50	Medium
Final Analysis Plan	5	10	15	5	10	15	Medium
Analysis	100	150	225	100	150	225	Low
QA	75	100	150	75	100	150	Low
Preliminary Results	30	45	60	30	45	60	Medium
Draft Report	30	40	50	30	40	50	Medium
Final Report	10	15	25	5	10	20	Medium

Figure 8 Data Gathering Template for Research Deliverables

Survey Deliverables	Grade 9 (vacant)	Staff #1 Actuals	Grade 9 (Staff #1)	Staff #2 Actuals	Grade 13 (Staff #2)	Grade 11 (Vacant)	Grade 11 (Staff #1)	Grade 13 (Staff #2)
Monthly Area and Unit Frame Sampling of Listings		36	36			20	36	
Update sample code assignment requirements for File A					0	48		48
Verify sample code assignments for File A				12	12	12		12
Update sample code assignment requirements for File B	48				48	48		48
Verify sample code assignments for File B					12	12		12
Total Hours	730		378		1258	1254	375	1258
Total Days	122		63		210	209	63	210
Leave	28.0		14.5		48.2	48.1	14.4	48.2
Training	1.5		0.8		2.5	2.5	0.8	2.5
Total Estimate	151		78		260	260	78	260

Figure 9 Data Gathering Template for O&M Deliverables

Once the deliverable level information is gathered and verified, the project manager completes the cost estimate by adding appropriate time and costs for collateral duties, leave, training, and other items required to produce a complete cost estimate. The total cost is then completed and submitted for approval. After approval, the Project Manager uses the cost estimate input to update or create a new schedule with timesheet deliverables to match the estimate and the schedule reporting process can continue.

Project Status Reporting

One of the more important ways for the PMO to facilitate project success is to support project status reporting through the development of reports. These reports help leadership see where they are with budget spend down, resource usage and completion of important deliverables. These tools help standardize project data used in reports, help leadership focus on the most useful project data and facilitate report generation for busy PMs.

The PMO staff are working to create tools that access and display important project information. Every tool that the PMO develops is first tested by the PMs and then socialized across the different stakeholder groups. For example, one tool developed by the PMO is the Variance Report Dashboard. Figure 10 shows the tool and chart. This tool takes budget variance data and displays it in a planned to actual chart so that the project manager can make a quick visual assessment of where they are on their project spending. The tool allows a PM to develop reports through project codes or program managers. A quick look at this chart will show where actual spending is in comparison to planned spending.

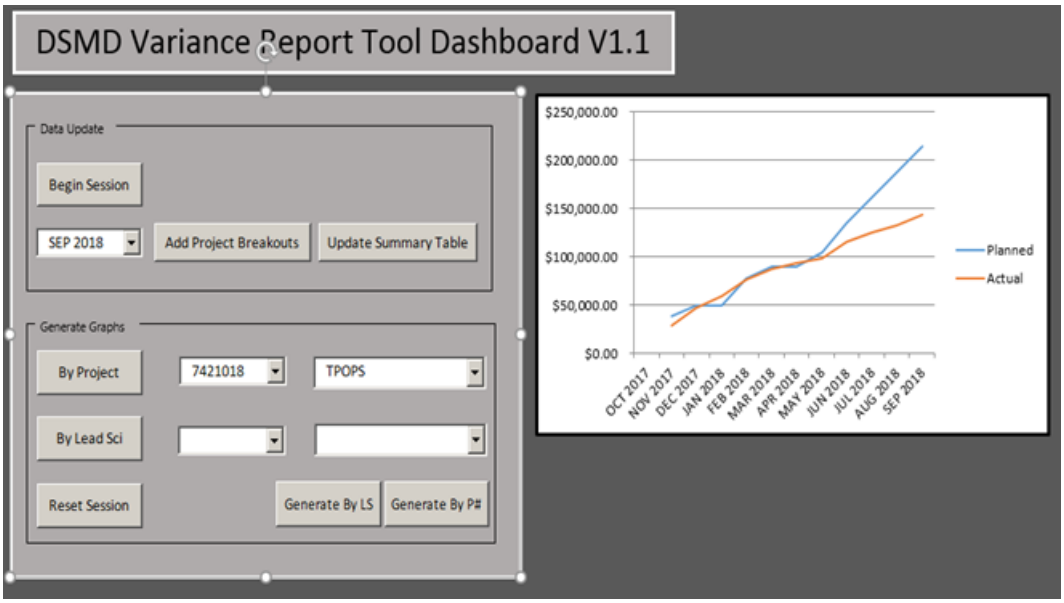


Figure 10 Variance Report Dashboard

Another project status tool developed by the PMO is the Resource Use Report. This report uses the resource data from the budget planning process and the timesheet data reported by staff on Microsoft Project Server®. The PMO produces tables and charts for the PM to use in their review of resource allocation and to plan future use. The chart, shown in Figure 11 provides a quick summary of resource usage and the tables provide details for planning.

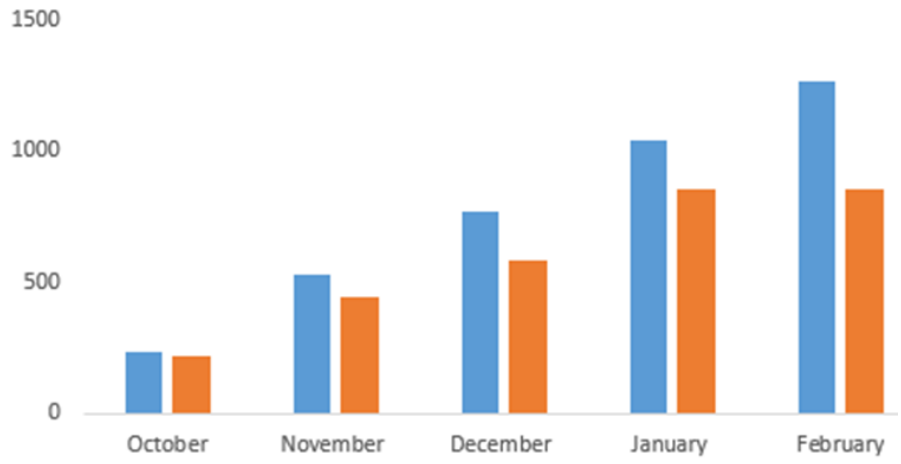


Figure 11 Chart from Resource Use Report

The PMO manages almost 30 programs and many of these programs have multiple schedules. While Microsoft Project® has many useful reports for a single schedule, those reports do not provide information for a whole program. Microsoft Project Server® provides the ability to summarize schedule information across multiple schedules and that data is available to the PMO via a database. The PMO is currently developing a Microsoft Excel® application to access the Project Server database and create a summary variance report for schedule deliverables across an

entire program or portfolio. The report below shown in Figure 12, displays data with conditional formatting applied to the variances. The report is still in development and, when complete, will utilize schedule information to supply leadership with a view of ongoing work across multiple projects and programs and allow PMs and leadership to resolve problems with product deliveries before they miss deadlines and upset customers.

ProjectName	TaskName	Percent Completed	Finish Variance	Start Variance	Work Variance	Baseline Start Date	Actual Start Date	Baseline Finish Date	Actual Finish Date	Baseline Work	Actual Work
DSMD_2017FY_NSSRN	2008 NSSRN Documentation Reading/Review	100	0	0	0	4/6/2017	4/6/2017	7/5/2017	7/5/2017	14	14
DSMD_2017FY_NSSRN	Review NSSRN Frame File	100	48	18	-8	9/19/2017	10/16/2017	11/6/2017	1/18/2018	185	176
DSMD_2017FY_NSSRN	Create Sampling Plan	100	107	0	30	5/16/2017	5/16/2017	11/6/2017	4/12/2018	370	400
DSMD_2017FY_NSSRN	Create Sampling Specification/Verification	100	79	8	122	11/7/2017	11/20/2017	11/27/2017	3/22/2018	100	222
DSMD_2017FY_NSSRN	Send Sampling Specifications to DSD	100	56	56	0	11/27/2017	2/16/2018	11/27/2017	2/16/2018	0	0
DSMD_2017FY_NSSRN	Verify Sample File	100	59	24	6	12/18/2017	1/24/2018	12/22/2017	3/21/2018	40	46
DSMD_2017FY_NSSRN	ADMIN - Meetings (Bureau Related)	100	0	0	2		4/9/2018		4/9/2018		2
DSMD_2017FY_NSSRN	Create Weighting Plan	100	214	9	730	1/16/2018	1/29/2018	2/12/2018	12/18/2018	40	770
DSMD_2017FY_NSSRN	Create Weighting and Variance Specs	78	269	63	986	2/13/2018	5/14/2018	4/3/2018		80	826
DSMD_2017FY_NSSRN	Develop and Verify Replicate Weights	0	209	152	32	6/22/2018		6/28/2018		8	0

Figure 12 Table from Schedule Variance Tool

Planned Process Improvements

A PMO's success can be affected by its ability to access its project data. The DSMD PMO, like many PMOs, works in an organization that has its business data distributed across multiple legacy systems and each system provides data in a different format and platform. To simplify access to the data and to provide a stable environment for automated report production, the PMO's next step is to establish a data repository. A little version of "Big Data" that would use established feeds to populate the database and update project status information on a flow basis. The data repository would be a platform to integrate data from these different systems of record thereby creating a holistic view of a project's status and enabling the PMO to quickly respond to data calls. It would allow the PMO to reduce the amount of manual interaction and coordination currently required to generate project status reports and allow PMs to respond to sponsor's and management's needs for timely information.

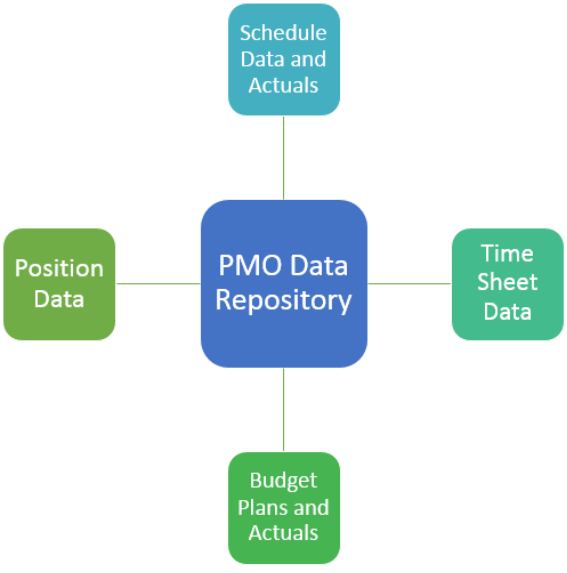


Figure 13 PMO Data Repository

As an offshoot of the status reports and data repository, the PMO is designing a dashboard that can be customized for multiple survey sponsors and will highlight the status reports and other performance measures. The dashboards will provide a continuous program status update platform for stakeholders and can be shared in whole or in part depending on the need. Figure 14 below shows a prototype dashboard produced in the Microsoft PowerBI® application.

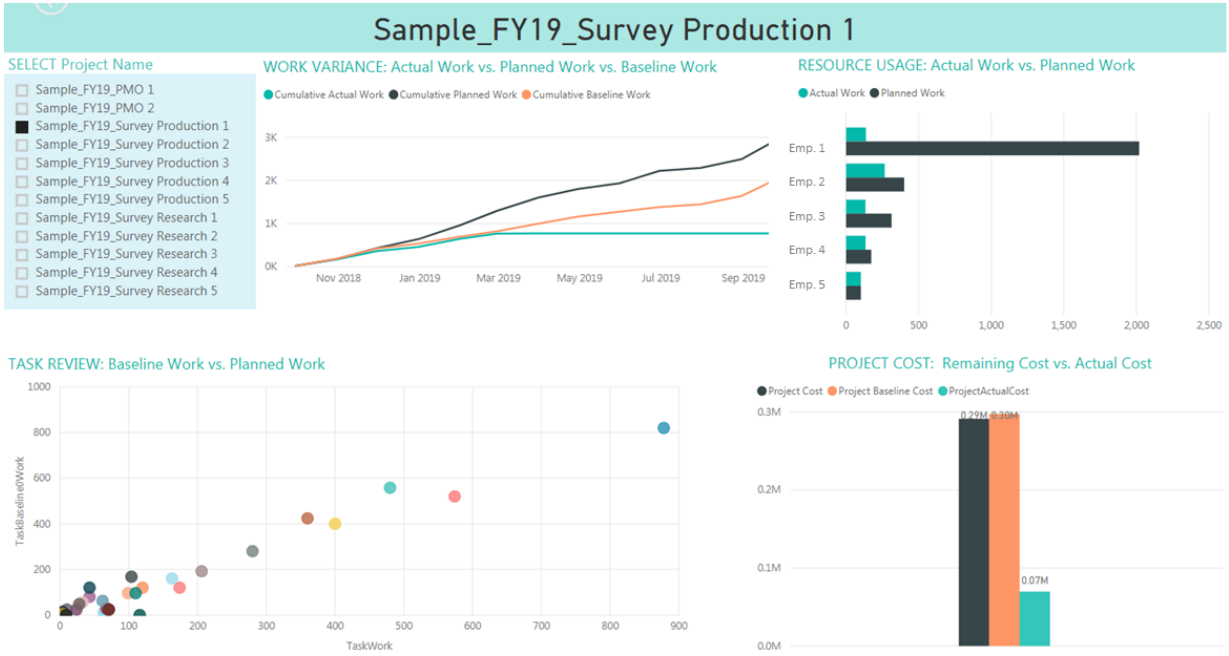


Figure 14 PMO Dashboard

Conclusion

The PMO can enhance its role by facilitating the job of the project manager. Small efforts to change the PMO processes and a few well-designed tools will reap great rewards for the organization through creating a facilitative environment for the project manager. Success across the organization comes through the many instances of improving project management processes and tools.

- Improvements to the schedules and timesheets increases the collection of important project data.
- Better processes for cost estimation improve the accuracy of project budgets and the management of customer expectations.
- New tools for project status improve project visibility and facilitate the communication across functional areas.

The creation of tools for the project manager not only helps the project manager do a better job but also helps the PMO do a better job managing projects, which leads to greater project success across the organization.

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Susan Hostetter, PMP, is a Project Manager at the U.S. Census Bureau in Washington, DC, USA. As a data analyst and project management professional, she has been instrumental in standing up and improving PMO processes for risk management, project management, portfolio management, schedule management, cost management, performance management and strategic planning. Her papers have been published in the PM World Journal and she has presented project management topics at PMI chapter events and at the University of Maryland's and University of Texas at Dallas' PM Symposiums. She has a Master's Certificate in Project Management from George Washington University, a Master's Degree in Management with Project Management emphasis from University of Maryland's University College and a Bachelor's Degree in Business Administration, with a minor in Economics, from Mary Baldwin College. Susan can be contacted at susan.lynn.hostetter@census.gov

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