

Government-wide Category Management Key Performance Indicators

Definitions and Guidance

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1 Introduction

The U.S. Federal Government is the world’s largest buyer, spending over \$300 billion annually on common good and services. These procurements are made by over 500 separate federal departments and agencies leading to inefficient buying patterns, unnecessary duplicative contracting actions increasing administrative costs, and significant variance in pricing for the same goods and services. Category management aims to help executive branch agencies make more informed purchasing decisions through collaboration and shared business analytics. This will better equip executive branch agencies to buy common goods and services using a combination of government-wide, agency and local contracts that are best suited for the need. Category management will allow agencies to leverage the government’s large purchasing power to buy common goods and services more like an enterprise to eliminate redundancies, increase efficiency, and deliver more value to taxpayers.

The Government-Wide Category Management Program (GWCM) has defined 10 common categories of goods and services. These categories are Facilities and Construction, Professional Services, Information Technology, Medical, Transportation and Logistics Services, Industrial Products and Services, Security and Protection, Human Capital, Office Management and Travel. The Category Management Leadership Council (CMLC) is the governing body for category management with each category having a category manager -- experts in their respective fields, responsible for developing category strategies and acting as change agents. These categories have supporting category teams with representatives from various federal agencies and are coordinated by the GWCM Program Management Office (PMO), which provides overall program management support to these groups and individuals in the governance structure and facilitates the development and implementation of business rules and processes.

[The CAP Goal Action Plan](#) has defined a series of cross agency priority goals to meet the objectives laid out by the [President’s Management Agenda](#):

CAP Goal Metric	FY 2016 Baseline	FY 2017 Actuals	FY 2018 Goal	FY 2019 Goal	FY 2020 Goal
Cumulative cost avoidance	\$5.8B	\$13.5B	\$15B	\$17B	\$18B
Cumulative percent of common spend that is under management, aligned to category management principles	44%	42%	50%	55%	60%
Cumulative percent of addressable spend through Best In Class solutions	10%	24%	35%	37%	40%
Cumulative percent reduction number in unique contracts	425k	-3%	-10%	-12%	-13%
Meet or exceed category management small businesses goals *	30%	30%	30%	30%	30%
Number of individuals trained on category management	0	776	1,110	1,365	1,540

* The government-wide socioeconomic prime contracting goals are: SDB @ 5.0%, WOSB @ 5.0%, SDVOSB @ 3.0%, and HUBZone @ 3.0%.

These goals will be achieved by the collective work of the category management teams in setting strategic plans and initiatives, and by agencies in managing their procurements and spending accordingly. By the end of FY 2020, the government will achieve \$18 billion in cost avoidance for taxpayers by applying category management principles—or smart decision-making where agencies buy the same kinds of goods and services through best value contract solutions—to 60% of common spend. In addition, the government will reduce duplicative contracts by 50,000, potentially reducing administrative costs by hundreds of millions of dollars.

2 Scope

The purpose of this document is to formalize and fully define the key performance indicators (KPIs) that will be used to measure success for the GWCM program. These KPIs have been specifically developed to meet the CAP Goals set by the President's Management Agenda and will be measured within each fiscal year beginning in 2018. The specific targets for each KPI have been developed from a Fiscal Year 2016 baseline and deemed attainable from previous performance and trends.

The KPIs detailed in this document will be communicated in monthly reports, using online tools and dashboards created by the PMO to allow ongoing monitoring and reporting of data. These reports and dashboards will provide agencies with actionable intelligence and insights into their procurements and buying behaviors to allow them to make the necessary adjustments to improve performance. The PMA goals outlined above may be adjusted accordingly in line with the program performance as measured by these KPIs.

As the single authoritative repository for federal procurement award data, the Federal Procurement Data System (FPDS) will be the primary data source for these KPIs. As such, it is imperative that contracting officers are inputting timely and accurate information into the system so the data for the GWCM program is reliable. These KPIs have been formalized and established; however, can evolve to account for new initiatives, better data availability, more precise measurements, etc. As such, this is a living document subject to periodic version updates.

The six KPIs in this document will apply to the 10 common-spend categories and be measured government-wide across executive branch agencies. The baselines and goals laid out are for the GWCM program as a whole, while individual categories and agencies have specific objectives and targets laid out in their category plans that are outside the scope of this document. Defense-centric categories, internal category or agency KPIs, and other targets such as agency small business goals determined by the SBA are not addressed by these KPIs.

3 Principles

Defining and tracking KPIs for a complex program and across many organizations is challenging, and requires all participants to deliver to both the detailed guidance and the principles outlined. Where applicable, program stakeholders (category managers, the PMO, OMB, etc.) can make recommendations for improvement as the program develops over time. The aim of the program-level KPIs is to demonstrate fundamental improvements across Federal government, to demonstrate trends and the absolute impacts resulting from initiatives, and to track impacts over time.

The key principles built into this guidance document are:

- Methods of recording and reporting results are evidence-based;
- KPIs are measured and reported at both program and category level;
- Guidance and reporting is transparent and auditable;
- Baselines and benchmarks are robust and realistic;
- Reported impacts are a direct result of category management activities (e.g., sourcing, demand management, contract and supplier management); and,
- Defining, maintaining, and reporting KPIs requires a coordinated approach across agencies, the category teams, the PMO, OMB, and the CMLC.

4 Key Performance Indicators

The KPIs were selected because of their alignment to program priorities, and because the reporting of those KPIs can be used to refine and improve category initiatives. Currently, there are six KPIs for government-wide category management. They are defined briefly below, and in greater detail in subsequent dedicated sections:

- **Spend Under Management (SUM):** the total dollar amount of obligations through contracts that are actively managed in compliance with the SUM contract tiered maturity model
- **Best in Class Obligations Against Addressable Market:** the total dollar amount of obligations tracked via FPDS through BIC solutions
- **Cost Avoidance:** demonstrates the extent to which the program is delivering increased value for the goods and services acquired by agencies, measured in dollars
- **Tier 0 Contract Reduction:** demonstrates the extent to which the program is reducing the number of Tier 0 (“open market”) contracts, defined as those contracts not aligned to category management principles
- **Small Business Utilization:** demonstrates the extent to which the program maintains or increases government use of small businesses (measured as a percentage) while implementing category management strategies
- **Category Management Training:** tracks the number of individuals trained in the aspects and components of category management

5 Roles and Responsibilities

Entity	Strategic Roles / Responsibilities	Operational Roles and Responsibilities
Executive Branch Agencies	<ul style="list-style-type: none"> • Devise strategies for moving spend from Tier 0 to SUM-aligned or BIC contracts • Identify possible areas of training focus for future courses • Prepare business case and submit through OMB Max. Include analysis of alternatives for contracts over \$50M with scope overlap to existing vehicles 	<ul style="list-style-type: none"> • Review contract inventory for accuracy and work to resolve any identified issues • Enter small business and acquisition information into FPDS accurately and promptly • Use dashboards to identify Tier 0 and expiring contracts for target-setting • Review reported contract counts • Send agency representatives to GWCM training events and ensure survey participation • Align new contracts to the BIC criteria whenever possible (Or use BIC whenever possible)
Senior Accountable Officials (SAO)	<ul style="list-style-type: none"> • Ensure category management processes and policies are in place at their agency • Set agency targets for SUM and spend through Best in Class solutions and ensure their agency meets these targets • Establish a plan yearly with their Chief Acquisition Officer (CAO) and Senior Procurement Executive (SPE) to outline how the agency will reduce unmanaged spend and increase use of Best in Class solutions 	<ul style="list-style-type: none"> • Review SUM dashboard and update OMB senior leadership semi-annually on their agency's efforts to bring more spend under management • Liaise and coordinate with agency and Government-wide category managers • Review their agency's Spend Under Management (SUM) and related metrics that reflect the agency's use of smart buying practices
BIC Solution Owners	<ul style="list-style-type: none"> • Develop solution-specific methodologies for cost avoidance • Identify and/or assist in identifying category/ solution SMEs for solution review 	<ul style="list-style-type: none"> • Provide transactional and cost avoidance data to the GWCM PMO via a secure file transfer portal. • Provide necessary information for the BIC designation process • Provide inputs to the BIC quarterly and annual solution reviews
GWCM PMO	<ul style="list-style-type: none"> • Manage KPI definitions, evidence and measurement requirements • Ensure reporting standards are applied consistently • Evaluate and propose improvements to capturing and reporting data for KPIs 	<ul style="list-style-type: none"> • Generate and provide quality assurance (QA) on monthly KPI reports • Complete quarterly reviews of approved cost-avoidance reporting methods and provide amended or additional guidance and examples as required

Entity	Strategic Roles / Responsibilities	Operational Roles and Responsibilities
	<ul style="list-style-type: none"> • Manage and coordinate any external audit of the KPIs, if required • Establish program-level reporting and a standardized approach to category-level reporting • Review and make recommendation to OMB on proposed cost-avoidance calculation methods • Provide preliminary approval to KPI and reporting approach and changes 	<ul style="list-style-type: none"> • Document all KPIs and ensure they are version-controlled and updated when changes are made • Manage a repository of all methodologies and definitions for program level KPIs, including cost-avoidance methodologies reported by category teams • Maintain and update a contract inventory of all government contracts aligned to the SUM maturity matrix • Manage a repository of evidence / management information that supports each month's KPI reporting to ensure that there is an audit trail of all KPI reporting • Develop and issue monthly KPI reports including progress of the major initiatives and KPI tracking • Issue a program monthly report to key stakeholders / stakeholder groups
Category Team PMs	<ul style="list-style-type: none"> • Develop cost-avoidance initiatives and associated targets with BIC solution owners and PMO • Coordinate any category-specific initiatives 	<ul style="list-style-type: none"> • Review monthly reports, resolve any issues and add qualitative input • Use KPI reporting data to monitor and identify changes to existing initiatives • Provide recommendations to category managers about any category elements that require attention or about potential new opportunities
Category Managers	<ul style="list-style-type: none"> • Ensure that all KPI approaches and calculations are compliant with the program-level definitions and guidance • Recommend new KPIs or changes to the existing KPI definitions and guidance • Identify candidate solutions for BIC designation • Manage the category leadership review of the Best-in-Class package from the solution manager • Adjudicate the requests from agencies to stand up new contract vehicles that are duplicative in scope (i.e. following 	<ul style="list-style-type: none"> • Approve the relevant category data included within the monthly reports • Use KPI reporting data to monitor progress and identify any changes to existing initiatives • Report, via category PMs, category progress and initiative delivery • Lead the review and analysis of the proposed changes to PSCs within a specific category, • Document the PSC analysis, recommend changes, and state the rationale for recommendations, • Provide final changes (numbering,

Entity	Strategic Roles / Responsibilities	Operational Roles and Responsibilities
	<p>the mandatory for use or consideration policy)</p>	<p>definition, and naming) to PSCs,</p> <ul style="list-style-type: none"> Notify stakeholders of PSC changes and update the PCE and other stakeholders on the proposed changes, especially issues related to the collection, use, dissemination, and display of procurement data.
<p>Office of Management and Budget (OMB)</p>	<ul style="list-style-type: none"> Approve cost-avoidance calculation methods Approve KPI changes (scope or reporting) Provide notice to CMLC of KPI changes Manage the business case process through OMB Max 	<ul style="list-style-type: none"> Establish government-wide and agency-level performance goals, and report performance against these goals Provide enterprise-level performance reporting to external stakeholders (e.g., Congress, White House, etc.) Review additional SUM contracts not currently captured in contract inventory Issue any updates to CAP goals based on data and program performance Provide final approval for BIC designation
<p>CMLC</p>	<ul style="list-style-type: none"> Review approaches to measuring and reporting performance and provide feedback Review and approve/disapprove KPI changes and supporting methodology 	<ul style="list-style-type: none"> Work with OMB to establish KPI goals specific to their agencies and drive attainment of those goals at the agency level Engage with agencies on their planning and achievement of KPI goals

Table 1 KPI Roles and Responsibilities

6 Spend Under Management

Bringing spend under management is a priority of the GWCM program. Generally speaking, spend under management (SUM) is the amount of an organization’s spend that is actively managed according to category management principles—or smart decision-making where agencies buy the same kinds of goods and services through best value solutions. Increasing SUM will eliminate redundancies, increase efficiency, and deliver more value. Within the context of the GWCM initiative, OMB defines SUM as spend on contracts that demonstrate defined attributes for management and data-sharing maturity. The following tier ratings are used to annotate contracts and assess agency spend through those contracts:

Tier Rating	Contract Type	Agency Spend Assessment
Tier 3	Best-in-Class (BIC) Solutions	Spend Under Management
Tier 2	Multi-Agency Solutions	FPDS obligations transacted through contracts that meet defined criteria for Tiers 1-3 is deemed “under management.”
Tier 1	Mandatory-Use Agency-Wide Solutions	
Tier 0	All other contracts	Spend NOT Aligned to Category Management Principles Spend on contracts that are not aligned to category management principles is rated Tier 0 as it represents opportunities for adopting higher-tier solutions.

Table 2 SUM Tiers

With the exception of Tier 3 ratings—which are reserved for BIC vehicles—solution owners assign tier ratings to their respective contracts based on attribute standards detailed in the [Appendix H: SUM Maturity Matrix](#). A vehicle must meet all five attribute standards to qualify for a Tier 1 or 2 rating. For example, if a vehicle meets Tier 2 requirements for Leadership, Strategy, Metrics, and Tools, but not does meet Tier 2 Data attribute requirements, it would be rated Tier 1.

Overall tier ratings are input into a master [Contract Inventory](#) which assigns that tier to contract obligations tracked via FPDS. The contract inventory also tracks parent-to-child relationships between vehicles, such as a BPA on a Multiple Award Schedule. This inventory is not static and allows input of new contract vehicles and is adjusting to the current state of contract solutions, updating constantly. SUM will be consistently changing, along with FPDS and any improvements to the contract inventory.

6.1 Baselines and Goals

In 2016, OMB asked agencies to identify and provide information on well-managed contracts. This data request served as the basis to build the contract inventory which when completed with additional agency feedback, became the FY16 baseline for SUM of \$115.8B. The President’s Management Council provided CFO ACT agencies with specific dollar goals for increasing SUM by 20%, based on their FY16 baseline. The President’s Management Agenda has set the goal to bring half of overall GWCM spend to be under management by the end of FY18

6.2 Data Source and Reporting

Spend under management is primarily sourced from FPDS information, augmented by SUM tier information from the contract inventory, which is detailed more in depth below. The complete contract inventory with SUM tier ratings is updated on an ongoing basis and the data is reported on the web-based FPDS Spend and SUM Analysis Dashboard. The

contract inventory and dashboards will reduce the burden to agencies and enable ongoing monitoring and reporting. A detailed contract inventory example can be found in [Appendix D](#).

The main components for tracking SUM are:

6.2.1 Contract Inventory

The master contract inventory is maintained by the PMO data team, and contains the FPDS contract information provided by agencies for contracting vehicles they have reviewed and designated as ‘under management’. This inventory is based upon previous OMB requests for well-managed vehicles and contains necessary details for SUM contracts like master contract names, managing agencies, and the agency-designated SUM maturity tier. The contract inventory also contains necessary FPDS tracking information, such as unique Procurement Instrument Identifiers (PIID) and master contract PIIDs for linking back to such vehicles as Multiple Award Schedules (MAS). The contract inventory is the basis for both SUM and BIC obligations and serves as a resource for categories, agencies, solution owners, and other internal General Services Administration (GSA) teams. [The Contract Inventory Exploration Tool has been created to let categories and agencies explore the current information.](#)

6.2.2 IDV Table

The Indefinite Delivery Vehicle (IDV) table has been created to capture relationships and hierarchies between IDVs and awards. This fills gaps where agencies did not report connections from awards to schedules, either in submissions to the contract inventory or in their FPDS entry in the *IDV* field. Building the IDV table required capturing FPDS data on IDVs and tying them together based on *piid* and *reference_piid* numbers of IDVs. This table was then joined with the existing GWCM table, which previously only captured award entries, on the *reference_piid* of the awards.

It is important to note that different award types have different IDV lineages. For instance, a BPA call is an award based off a blanket purchase agreement (BPA). That BPA is based off a schedule. Thus, a BPA call is a product of two IDVs – the BPA and the schedule. Alternatively, a delivery order is an award off a standalone IDV (e.g. a blanket order agreement (BOA)). The GWCM table, with additions from the IDV table, captures relationships between an award and all the IDVs from which it is derived. [Appendix D](#) details the relationship between IDVs and award types.

6.2.3 Tier Logic

Business-rule tier logic has been developed to assign SUM tier ratings from the contract inventory and apply them to various types of FPDS awards. This logic is intended to apply the associated SUM tier for a contract to any of its dependent contracts such as a BPA based on a multiple award schedule. The tier logic has four components:

1. If there is a related master IDV, what is its SUM tier?
2. If there is a related derivative IDV, what is its SUM tier?
3. If the award does not relate to an IDV, what is the SUM tier of the award type?
4. Compare 1-3 and take the highest SUM tier

The full tier logic can be found in the [SUM/BIC Data Sources Appendix](#).

6.3 Ensuring Accuracy

The GWCM PMO and data team will continue collaborating with categories and agencies to improve and update the master contract inventory and SUM tier ratings. Routine updates should reflect creation or recognition of new IDVs, and revisions to SUM tier ratings of existing IDVs particularly, in the case of BIC designations. Should agencies or categories discover incorrect or mislabeled contracts, the GWCM data team will review and resolve the root causes. New contracts or contracts that have matured in terms of SUM tier will require review by OMB, to ensure they meet all the necessary metrics before being added or updated in the contract inventory.

SUM as a key category management metric will help incentivize agencies to move spend from unaligned contracts to agency-wide and government-wide solutions. Monthly reporting for SUM and BIC will improve the transparency and provide insights into agency spend and contracting actions. To help support this effort, the GWCM PMO will continue developing and improving the dashboards and associated tools, to help categories and agencies identify opportunities to move spend into more mature contract vehicles.

7 Best-in-Class Obligations Against Addressable Market

A key mechanism for returning greater value in acquisitions is increasing the usage of government-wide contracts designated as Best-in-Class. [OMB Memo M-17-26](#) instructs agencies to use existing government-wide vehicles “to the maximum extent practicable,” specifically identifying GSA Schedules, government-wide acquisition contract (GWACs), multiple-award contracts, and Best-in-Class contracts. Because they have been thoroughly reviewed according to rigorous criteria, widespread adoption of BIC solutions will:

- Maximize the government’s shared purchasing power, allowing agencies to leverage volume discounts;
- Help agencies operate more efficiently, by reducing administrative costs and contract duplication; and,
- Expand collection and sharing of government-wide buying data, leading to better informed business decisions.

[Full information regarding the Best-In-Class program, criteria, and resources can be found here.](#)

The ‘BIC Obligations Against Addressable Market’ KPI measures the amount of FPDS obligations through solutions designated as Tier 3/BIC in the contract inventory against BIC addressable obligations (BAO), which can be thought of as the government market for the PSC and NAICs codes offered on that contract. BIC obligations will be tracked by agency, total government-wide BIC obligations, and by each individual BIC solution.

7.1 Baselines and Goals

BIC obligations were 10% of the addressable market in FY16. The President’s Management Council has prescribed specific BIC dollar targets for CFO ACT agencies -- totaling \$20.3B based on their baseline FY16 addressable market. The CAP Goal action has set a government-wide target of 35% of addressable obligations to go through BIC solutions in FY18.

7.2 Data Source and Reporting

Best-in-Class Obligations Against Addressable Market is based primarily on the SUM framework with the addition of BAO. For BICs, the [SUM framework](#) tracks FPDS obligations through contracts designed as Tier 3/Best in Class in the contract inventory and related IDV table and tier logic. BAO has been determined by the GWCM data team using the combination of Product Service Codes (PSC) and North American Identification Codes (NAICs) utilized by an official BIC vehicle. The addressable market is calculated from historical data and subject matter expertise from the vehicle owners.

The Best-in-Class Obligations Against Addressable Market KPI will be reported monthly based on FPDS-NG and reported data via [SUM/BIC and Executive Summary Dashboards](#).

8 Cost Avoidance

Cost avoidance is broadly defined as the extent to which a program is delivering increased value for goods and services they acquire by paying less, using less, or obtaining more for the same cost. Tracking and measuring cost avoidance is important as it allows agencies to more effectively manage suppliers, users, or program delivery, and serves as the basis for future analyses into total cost of ownership or asset utilization. The cost-avoidance KPI will be measured with the transactional data provided by BIC solutions, and will create a framework for measuring costs and outcomes over time. Although cost avoidance currently is being calculated using different methodologies and baselines, varying by BIC solution, they all serve the same purpose -- measuring value for goods and services acquired. This KPI will help improve agencies' mission effectiveness and service delivery to American taxpayers, by redirecting spend and resources away from common goods and services and toward delivery of the mission.

8.1 Baselines and Goals

The GWCM program has established a \$5.8B baseline in historic cost avoidance. This baseline is a combination of cost avoidance reported via OMB's original SUM data call, FSSI cost avoidance from 2010-2016, and reported cost avoidance that was reviewed by the PMO in response to the FY15 SUM data call. Best-in-Class solutions reported an additional \$7.7B in FY17 cost avoidance, bringing the cumulative total to \$13.5B.

Source	Cost Avoidance
Historic / FSSI Cost Avoidance	\$2,183,730,037
FY15 SUM Data Call	\$3,617,675,724
Cost Avoidance Baseline:	\$5,801,405,761

[The CAP Goal Action Plan](#) has set a target of \$15B in cumulative cost avoidance through FY18 with additional increases in subsequent years. Based on the baseline \$5.8B cost avoidance detailed above and \$7.7B cost avoidance in FY17, the in-year target for FY18 is \$1.5B. These goals are government-wide and agencies will contribute towards reaching these targets by increasing their utilization of BIC contracts.

8.2 Requirements for Applying Cost-Avoidance Methodologies

To report cost avoidance claimed through BIC solutions, cost-avoidance methodologies must:

- Be specific to a BIC solution;
- Have a documented basis for a cost-avoidance rate;
- Have the cost-avoidance rate applied to actual expenditure;
- Be evidenced via transactional data provided from known, auditable system(s);
- Be reported on a net present-value basis; and
- Be calculated in the fiscal year for which it occurs.

8.2.1 Specific Cost Avoidance

Cost avoidance will be reported directly from the solutions that have achieved BIC designation. The GWCM PMO and data team will review the solution's proposed methodology to ensure it meets the requirements outlined above, as well as provide any guidance to strengthen or refine the methodology. These BIC solutions will have undergone a rigorous review of their proposed methodology and also will provide detailed transaction-level data to the GWCM PMO, on the agreed schedule, to provide sound evidence for its cost-avoidance reporting.

8.2.2 Documenting Cost Avoidance

Cost avoidance must be documented with supporting evidence demonstrating how the spend was incurred and calculated. For example, if a contract vehicle has a cost-avoidance model based on labor-rate cost avoidance, evidence would demonstrate that this contract's labor rates were X% lower than the labor rates of comparable contracts or an agreed baseline. For the comparison to be meaningful, the legacy vehicles used for comparison should account for at least a preponderance, and preferably a majority, of spend in the functional area in question. Using outlier contracts with unusually high labor rates overstates the cost-avoidance rates and brings the cost avoidance claims into question; the goal in establishing the basis of cost avoidance is that it should withstand reviews for traceability and reasonableness.

8.2.3 Evidence of Cost Avoidance

Solutions being evaluated for BIC designation will be required to provide sample data to ensure they provide the required fields for calculation of cost avoidance, if performed by the GWCM data team or provides enough detail for the auditability of reported cost avoidance if calculated by the BIC solution owners themselves. If solutions choose to calculate and report their cost avoidance to the PMO, the provided methodology must be detailed enough and data provided to make the reported cost avoidance figures auditable.

If category teams are concerned about the reliability of data being used to report cost avoidance – for example, cost avoidance is based on FPDS, but it is known that data entry of transactions lags from the actual transaction date, or that incomplete data entry will understate cost avoidance -- the concern should be documented but not "corrected" via some sort of arithmetical adjustment. The required [methodology documentation](#) and data elements are included in the BIC capture file with examples provided in the appendix.

8.3 Accepted Types of Cost Avoidance Assessment Methodologies

There are a variety of ways to calculate cost avoidance. The most robust method is based on actual prices paid for goods and services, so it clearly demonstrates how much was saved per unit acquired. The methods listed below are not an exclusive list; however, an alternative proposal should meet the same general requirements as these methods. The methods described in this section are presented in order of preference:

- Previous Prices Paid
- Average Prices Paid
- Average Rate of Cost Avoidance
- Discounted Contract Rates
- External Benchmarking
- Administrative Cost Avoidance

Ideally, cost avoidance will be reported based on prices paid compared to a baseline of previous prices paid for the same goods or services. However, the GWCM PMO recognizes that the range of vehicles and sub-markets, along with the maturing nature of supporting tools, will mean that the other methods should be accepted. The GWCM PMO will intermittently revisit whether less rigorous methods are no longer helping to drive program success and recommend retirement of those methods to OMB.

8.3.1 Previous Prices Paid

Costs avoided based on previous prices paid demonstrate the clearest possible cost avoidance. The cost avoidance is calculated by looking at unit prices paid for goods and services before a new contracting vehicle was put in place, comparing the legacy prices to the new prices, and multiplying the difference by the number of units acquired or services consumed in each period. For example, if a new contract results in laptops being acquired for \$100 less than in a prior fiscal year, and 200 laptops are acquired, then the cost avoidance achieved would be \$20,000. This approach is better suited to instances when there is a clear cost-per-unit and there is accurately reported data for the number of units acquired. Two examples are included below:

	Baseline Price	Unit Price Paid	Quantity	Total Paid	Avoided Costs
Lightweight laptop	\$1,200	\$1,050	25	\$26,250	\$3,750
Basic laptop	\$750	\$715	30	\$21,450	\$1,050
Laptop upgrade 1 (memory)	\$850	\$810	45	\$36,450	\$1,800
Laptop upgrade 2 (memory, processor)	\$950	\$890	40	\$35,600	\$2,400
Laptop upgrade 3 (memory, processor, HD)	\$1,100	\$1,000	35	\$35,000	\$3,500
High-end laptop	\$1,250	\$1,225	12	\$14,700	\$300
Total paid and saved				\$169,450	\$12,800

Table 3 Costs avoided based on prices paid

	Baseline Price / Hour	Price Paid / Hour	Total Hours	Total Paid	Avoided Costs
Senior HR manager	110	105	160	\$16,800	\$800
Senior HR specialist	90	85	2200	\$187,000	\$11,000
Journeyman HR specialist	75	68	4016	\$273,088	\$28,112
Junior HR specialist	65	57	2008	\$114,456	\$16,064
Total paid and saved				\$591,344	\$55,976

Table 4 Notional labor costs avoided based on prices paid

8.3.2 Average Prices Paid

Cost avoidance can be reported based on the comparison of current year prices paid against average prices paid. This approach can be used when there is prior-year data for a good or service with normal market variations within the course of a year, or when there is not available data for each transaction completed. It could also apply when multiple products and services are acquired together. For example, when hardware and implementation services are combined with different discounts, an average cost-avoidance figure can be determined to simplify cost-avoidance calculations over multiple instances. An example for average airline market prices compared to government prices is shown below.

ATL – DCA Market	FY16
FY16 average fare paid	\$212
Q1 average commercial fare	\$475
Q2 average commercial fare	\$500
Q3 average commercial fare	\$400
Q4 average commercial fare	\$325
FY16 average commercial fare	\$425
Costs avoided per segment	\$213
Total trips in FY16 for selected market	17,432
FY16 total costs avoided in market	\$3.7M

Table 5 Average prices paid for airline fares

8.3.3 Average Rate of Cost of Avoidance

Reporting cost avoidance based on average-rate cost avoidance conceptually merges elements of average prices paid and maximum contract rates. Category teams can generate a sample of representative transactions against vehicle costs (for example, selecting contracts that reflect the distribution of spend by scope and vendor size within a sub-category) and then use paid contract rates versus vehicle contract rates to determine an average rate of contract cost avoidance. This approach allows category teams to capture cost avoidance beyond what would be identified using the maximum contract rates approach, but carries a small risk of misstating cost avoidance, depending upon how representative the selected contracts are.

An example of this -- by comparing the labor rates for a vehicle against the equivalent labor rates for blanket purchase agreements written against the vehicle, reflecting discounting from the vehicle rates by the vendor:

	Senior HR Manager	Senior HR Specialist	Journeyman HR Specialist	Junior HR Specialist
MAS Rates	\$125.00	\$105.00	\$98.00	\$84.00
BPA 1	\$113.00	\$98.00	\$91.00	\$73.00
BPA 2	\$115.00	\$95.00	\$86.00	\$76.00
BPA 3	\$114.00	\$100.00	\$92.00	\$76.00
BPA 4	\$119.00	\$89.00	\$84.00	\$79.00
Average BPA LCAT rate	\$115.25	\$95.50	\$88.25	\$76.00
LCAT cost avoidance % versus MAS	8%	9%	10%	10%

Overall average % cost avoidance 9%

Table 6 Average contract rate of cost avoidance

Based on this comparison, the cost avoidance rate for spend against this vehicle is 9% - so if the total throughput for FY17 were \$10M, the reported cost avoidance would be \$900k.

8.3.4 Discounted Contract Rates

A significant proportion of government spend is through services contracts, which tend to have initial contract rates (for example, hourly costs by labor category) that are subsequently discounted. If a category’s initiative is undertaken using contracts that meet strategic needs but do not have specific prices-paid information available, then cost avoidance can be based on the difference between maximum contract rates between the targeted vehicle and the vehicles that it is replacing. In the example below, the labor rates from a MAS are compared to the rates from a BPA against the MAS to claim cost avoidance.

	MAS	BPA	Costs Avoided per Hour	Hours Used	Total Costs Avoided
Senior HR manager	\$125.00	\$119.00	\$6.00	2008	\$12,048.00
Senior HR specialist	\$105.00	\$100.00	\$5.00	2008	\$10,040.00
Journeyman HR specialist	\$98.00	\$95.00	\$3.00	2008	\$6,024.00
Junior HR specialist	\$84.00	\$79.00	\$5.00	2008	\$10,040.00
Costs avoided					\$38,152.00

Table 7 Comparison of unadjusted contract-labor rates

The challenge with using unadjusted contract rates is in justifying how realistic both the initial rates and the revised rates are for the market in question. It’s possible that beginning rates for both MAS and BPA contracts may be inflated, as suppliers and customers understand there may be additional competition or negotiations that further lowering the prices. The example above indicates cost avoidance from one vehicle to the next; however, category teams are encouraged to develop a cost-avoidance calculation that is closer to market pricing.

8.3.5 External Benchmarking

Category teams can propose cost-avoidance rates based on external cost benchmarking. This would require that the teams identify an external source of data about trends in prices paid for comparable initiatives, based on reported or sampled costs gathered by a third party. This is more likely to be applicable for commodity goods, where there is limited variation between government and commercial sector requirements. Using an external benchmarking approach for services presents additional challenges, given the variations between commercial contracting practices and federal contract prices. If a category team can demonstrate that the data from external benchmarking is for comparable scope and methods, then it can be used to calculate cost avoidance. This approach should be developed in close coordination with the GWCM PMO data team to ensure that the business justification is clearly documented, and that standards for

calculating cost avoidance, especially those of auditable data, are met. In the example below, it is shown how a program similar to GSA’s wide-area network (WAN) compares negotiated prices to average commercial prices compiled by Gartner Research.

Service	GSA Price	Commercial Price	% Costs Avoided	Business Volume	Costs Avoided
IPS	\$38	\$47	19%	\$1,500,000	\$287,234
Voice Services	\$12	\$19	37%	\$2,350,000	\$865,789
Toll Free Services	\$23	\$32	28%	\$800,000	\$225,000
Managed Network Services	\$47	\$70	33%	\$720,000	\$ 236,571
Total Cost Avoidance:					\$1,614,595

Table 8 External benchmarking example

8.3.6 Administrative Cost Avoidance

Administrative cost avoidance is generally defined as avoided administrative costs in terms of avoided transaction fees, reduced overhead, reduced processing times, and lower labor costs associated with utilizing existing government-wide solutions, as opposed to pursuing open-market procurements. Administrative cost avoidance is particularly useful in relation to service contracts, where per-unit pricing cannot be easily obtained.

8.4 Cost-Avoidance-Assessment Methodologies Management

8.4.1 Establishing and Managing Cost-Avoidance-Assessment Approaches

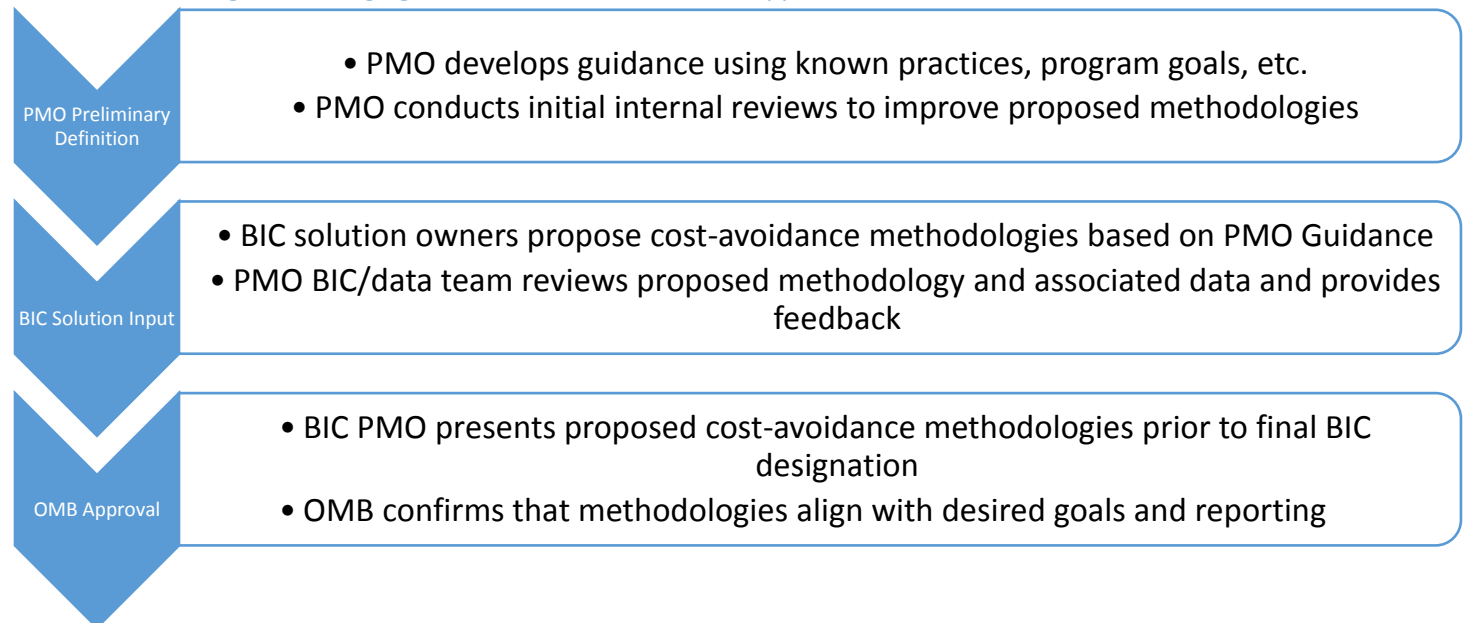


Figure 1 Defining and Approving Cost Avoidance Assessment Approaches

8.4.2 Establishing and Managing Individual Benefit Calculations

The GWCM PMO (BIC and data teams) will review all [proposed methodologies](#) for calculating cost avoidance for each BIC solution. The basis of evaluation will be the guidelines in this document, with particular emphasis on ensuring that the basis for cost-avoidance rates and calculations is data-driven and repeatable. Cost-avoidance-assessment methodologies reviewed by the BIC and data teams will be provided a confidence rating based on their baseline comparison, volume comparison, data availability, baseline update, and incorporation of any outside factors into the cost avoidance calculation. The full confidence-ranking system can be found in [Appendix G](#).

The GWCM PMO data team will work with BIC solution owners and category teams to address any shortcomings, recognizing that in the early stages of this program there are limits as to what can be achieved with available systems and data. Where possible, the GWCM PMO will document a path to address known weaknesses, including dependencies for making improvements (for example, instituting contract vehicle reporting and ensuring that transaction data is properly collected and validated). Cost-avoidance-assessment approaches, in addition to those reported via BIC transactional data such as demand management, will be considered and reviewed on a case-by-case basis.

The GWCM PMO BIC and data teams review cost-avoidance methodologies with BIC solution owners and category teams during annual performance reviews, to determine if there were any business or data changes that need to be reflected in the individual cost-avoidance calculations. It is the category teams' responsibility to identify any changes such as new contracts, new transaction reporting, changing baselines, etc. This is critical if there is an issue that is distorting performance reporting.

In addition, the GWCM PMO data team will work with the category teams as needed to address unexpected changes such as sudden spikes in costs (for example, increases in fuel costs for reasons outside of the control of the Federal government), as well as to document any new cost-avoidance calculations driven by new inputs and data, retirement of older calculation methods, etc. The GWCM PMO data team will focus otherwise on issue resolution that impacts the program, such as irregular transmission or quality issues with prices-paid data, claimed cost avoidance that doesn't match accepted calculation approaches, etc.

8.5 Data Input and Reporting

Cost avoidance and associated BIC transactional data will be submitted to the BIC team via the [Telecommunications Services Category \(TSC\) portal](#). The TSC portal is secure, scalable, provides automated updates for document upload and allows for a single, secure, centralized on-line cloud-based repository. The BIC team will work with solution owners during the BIC designation process to develop and assign roles and responsibilities for data uploads and review on predetermined intervals, usually quarterly. [Cost avoidance figures will reported via the Executive Summary and BIC performance dashboards](#).

9 Tier 0 Contract Reduction

Tier 0 contracts do not align to the SUM contract maturity matrix, or they have not been designated as spend under management. The Tier 0 contract reduction KPI measures the reduction in Tier 0 definitive contracts, indefinite delivery vehicles, and purchase orders. Contracts below the micro-purchase threshold will be excluded from the contract count. Tier 0 contract reduction will be measured as the current Tier 0 contract count in comparison to the same time period during the baseline year. This KPI is focused on reducing duplicative contracting in areas where solutions may have

overlapping scope. By reducing Tier 0 contracts, categories should be able to improve efficiencies, reduce unnecessarily duplicative contracts, encourage aggregation, and realize opportunities to increase SUM and use of BIC solutions.

9.1 Baselines and Goals

The FY16 baseline for Tier 0 contract reduction is 425K Tier 0 contracts. There was an overall reduction of 3% for these contract types in FY17. The President's Management Agenda has set a more aggressive goal for FY18, targeting a 10% reduction for Tier 0 contracts government-wide.

9.2 Data Source and Reporting

Progress against reduction goals is reported monthly by extracting data from FPDS and comparing the number of unique Tier 0 contracts signed in the current fiscal year to date to the number of unique Tier 0 contracts for the same period in the baseline fiscal year, on a category, sub-category, and department basis. The unique Tier 0 contract count in a specific time period is the aggregate of the unique Tier 0 count of IDV contracts and the unique Tier 0 count of open market awards:

- The unique count of an IDV contract is a single counting within FPDS of the reference piid in a specified time period. Multiple actions against an IDV such as task orders or BPAs will use the same reference piid and will therefore not increase the count of unique contracts.
- The unique count of an open market contract (definitive contract or purchase order) is a single counting within FPDS of the award piid in a specified time period. Contract actions such as modifications and/or de-obligations will use the same award piid and will therefore not increase the count of unique contracts.

Tier 0 purchase orders and definitive contracts generally do not have any information recorded for a referenced indefinite delivery vehicle (IDV) -- meaning that the contract is not based on any government-wide contracts which typically have better terms, conditions, controls, and discounting.

This KPI will be reported monthly through the Executive Summary Dashboard, as well as through multiple views on the GWCM dashboards. To prevent inaccurate contract counts, Tier 0 contract reduction will be reported for the months where there are complete contract counts to incorporate the Department of Defense's FPDS reporting lag (90 days). To facilitate the success of this KPI, the GWCM data team has created a [Tier 0 reduction playbook](#) which leverages the [Contract Inventory Exploration, Top 20 Analysis, and Awards Exploration](#) tools to identify opportunities for agencies to take action to reduce their Tier 0 obligations.

9.2.1 Ensuring Accurate Statistics

Tier 0 contracts are not aligned to Tiers 1-3 in the master contract inventory. As the primary data source for this KPI is FPDS, correct input of award and IDV information is necessary to produce accurate contract counts. The accuracy of each data element is important and can impact category, SUM, and other views. Additionally agency, category, and solution stakeholders should be monitoring the GWCM contract inventory to ensure their contract information is accurate and up-to-date, to ensure obligations that may be tied to a Tier 2 or Tier 3 solution are not being rated as Tier 0. The GWCM PMO data team has produced a suite of dashboards and tools designed to help stakeholders identify and action Tier 0 awards.

9.2.2 Accounting for Market Trends

Declining markets create a potential issue for setting goals. For example, if a category already shows signs of “natural” decline in spending and has low levels of open-market spend, then emphasis should be focused on better management of the portfolio of strategic contracts. This drives performance against the KPI while also reflecting the market in question. Other areas to consider could include using purchase cards when there is little opportunity for consolidation, specialized supply of mission-critical materials and services where there are reduction limits, etc.

10 Small-Business Utilization

The small-business utilization (SBU) KPI measures the percentage of spend awarded to small businesses as prime contractors on contracts in FPDS. This measure accounts for small-business exclusions in alignment with the Small Business Administration’s annual goaling reports. [SBA’s full exclusion criteria can be found at this link.](#)

Agencies are expected to pursue category management & small business contracting together: [The President’s Management Agenda](#) expects agencies to improve their acquisitions of common goods and services using category management principles and continue to meet their small business goals.

10.1 Baselines and Goals

Within the GWCM scope, FY16 and FY17 had SBU of 31.1% and 30.1%, respectively. The PMA SBU goal is 30% to maintain or improve upon that level. The GWCM PMO is also committed to setting SBU baselines by category for all small-business set-asides and developing associated targets, where appropriate.

10.2 Data Source and Reporting

SBU will be reported monthly as percentage of the total year to date spend that went to small businesses divided by the amount of total spend that was deemed eligible by the Small Business Administration to be obligated to a small business. SBU will be reported from the perspective of the program as a whole, as well as by category.

The calculation is based on FPDS data, as follows:

- $CO\ Small\ Business\ Size\ Determination = S\ (Small)\ AND\ SBG = Y / All\ \$\ also\ where\ SBG = Y$
 - The variable SBG is a GWCM produced variable provided by the PMO data teams application of SBA’s goaling exclusion rules. In practice, stakeholders will need to execute those same goaling rules against FPDS-NG records or request a copy of the GWCM Data team’s enriched data set to follow the logic being described.
- Small businesses are identified by the value “S” in the Federal Procurement Data System (FPDS) field *vend_contofbussizedeterm* (which captures value of “S” for small businesses, or “O” for “Other than small businesses”)
- Transaction date is based on the FPDS field *signeddate* (which captures the date upon which the action was signed by the contracting officer, this is used to align the transaction to the fiscal year in which it happened)
- The summed obligations are based on the FPDS field *obligatedamount* (this field captures a dollar amount for the obligation for the transaction)

Monthly reporting data will be obtained by taking a standard data extract of FPDS data and applying a standard set of filters and calculations from Tableau to correctly align data to the correct period and categories, as well as reported at

the program level. It is understood that monthly reporting small-business participation results can result in significant fluctuation from month to month, and also that the final target may not be met until almost the end of the fiscal year or when final year end data has been submitted into FPDS. The GWCM PMO data team will monitor these fluctuations to determine if the frequency of the report is negatively impacting category and program reporting, and propose changes if that would provide a business benefit to the program.

11 Category Management Training

Program success for category management ultimately depends on individual acquisition professionals planning and executing acquisitions consistent with category strategies and guidance. To better facilitate this, the GWCM PMO has developed a series of "workforce education events" including online and face-to-face courses, demos, panels, and live events designed to help Federal employees with government-buying responsibilities implement category management principles. These events focus on key category management aspects: What category management is and why the government is instituting it, efforts to drive broader adoption of Best-in-Class solutions, and tactical tools that acquisition professionals can share, learn from, and use in their day-to-day work.

For an event to qualify toward this KPI, it must meet three requirements: live presentation (synchronous), announced through the Federal Acquisition Institute (FAI) or Defense Acquisition University (DAU), and be "well-received" as indicated by the participant evaluation data. "Well-received" is defined as an average rating of 4.2 or higher on the standard five-point Federal Acquisition Institute Training Application System (FAITAS) post-course survey.

11.1 Baselines and Goals

As FY18 is the first year for GWCM training as a formal KPI for the category management program, there is no baseline for comparison on previous year's performance. OMB has set a goal for 776 individuals trained for the year. This target was developed by reviewing the planned GWCM training sessions and the associated number of individuals signed up to attend. As the goal was set on preliminary scheduled sessions and attendance, it may be revised by OMB.

11.2 Data Source and Reporting

The quantitative measure for this KPI is the total number of individuals trained on category management principles through the FAI that meet the agreed minimum standard. The training KPI will be reported for both number of courses and individuals trained, and the data for training will be pulled from attendance records and course survey results. This number of participants trained will be compiled every month for the previous month's training events and reported via the [Category Management Executive Summary Dashboard](#).

Appendix A: Document Change Control Tracking

This section records the status of changes made to the KPI Control Document. During the draft stage, major versions will be tracked here until the document is approved. Once the document has entered approved status, the preceding work will be removed and updates to the approved version (1.0) will be tracked until it is superseded by a new approved version (2.0), etc.

Version	Date	Change Description	Author
2.0 DRAFT v1.8	April 12, 2018	Initial Draft for PMO review	Michael Orta
2.0 DRAFT v1.9	April 19, 2018	Incorporating changes from ESD feedback as well as updates from PMO team	Rachel Gillerlain, Kristen Wilson, Issa Abboud, David Shields, Kelly Seacrist, Michael Orta
2.0 DRAFT v2.0	April 27, 2018	Incorporate feedback from OMB-Expand agency/BIC roles and responsibilities, rework introduction and scope sections	Michael Orta, Issa Abboud, David Shields
2.0 DRAFT v2.1	May 1, 2018	Formatting and grammatical issues. Confirmation of data sources.	Michael Orta,
2.0 DRAFT v2.2	May 8th	PMO review	Kelly Seacrist
2.0 DRAFT v2.3	May 25, 2018	Incorporated feedback from PMO	Issa Abboud
2.0 DRAFT v2.4	May 30, 2018	Removed highlighted text and prepared for review and approval by the CMLC	Issa Abboud
2.0 DRAFT v2.5	June 6, 2018	Added Roles and Responsibilities for SAOs from category team input	Michael Orta
2.0 DRAFT v2.6	June 11, 2018	Incorporated feedback from DHS, Treasury, and NASA (updated language, fixed appendix formatting, clarification on how KPIs are tracked)	Michael Orta
2.0 DRAFT v2.7	June 15, 2018	Added footnote to CAP chart in section 1	Issa Abboud
2.0 DRAFT v2.8	June 27, 2018	Incorporated feedback from DOE	Issa Abboud
2.0 Publication	July 13, 2018	Publish 2.0 KPI Guidance	Michael Orta

Appendix B: Executive Approval of Versions

This section records executive approval of major version iterations of the KPI Control document.

Approval Stage	Role	Signee	Date
Category Concurrence	Categories		July 03, 2018
OMB Approval	OMB	Meredith Romley	July 03, 2018

Appendix C: Data Sources

This appendix identifies the data sources used for KPI reporting.

Source	KPI Supported	Use of Source for KPI
FPDS-NG	Small Business Utilization	<ul style="list-style-type: none"> Identify vendors classified as small businesses Identify vendors classified as other than small businesses Identify obligations by order (e.g. Delivery/Task orders) and contract for small and other than small businesses, for a given period of time
	BIC Obligations Against Addressable Market SUM	<ul style="list-style-type: none"> Track obligations for contract vehicles aligned to Tier 3/BIC in Contract Inventory Track obligations for contract vehicles aligned to Tiers 1 and 2
	Tier 0 Contract Reduction	<ul style="list-style-type: none"> Identify Tier 0 unique contracts (contracts with no Reference IDV) Identify contracts with a reference IDV Obtain count of unique and non-unique contracts, for a given period of time
Contract Inventory	SUM	<ul style="list-style-type: none"> Aggregate obligations by maturity tier, category, and sub-category Additional updates from agencies through their contract inventory
	BIC Obligations Against Addressable Market	<ul style="list-style-type: none"> Aggregate BIC obligations by category, and sub-category Update for newly designated BICs
Addressability Matrix	BIC Obligations Against Addressable Market	<ul style="list-style-type: none"> Define the addressable market for BICs based upon PSC/NAICs codes
IDV Table	BIC Obligations Against Addressable Market	<ul style="list-style-type: none"> Capture relationships and hierarchies between IDVs and awards
	SUM	<ul style="list-style-type: none"> Capture relationships and hierarchies between BICs and their child contracts
BIC Transactional Data	Cost Avoidance	<ul style="list-style-type: none"> Total transaction spend for reported cost avoidance, not used to track award information Baselines used for the calculation of cost avoidance against prices paid
FAI/LMS Registration System	GWCM Training	<ul style="list-style-type: none"> Identify user agencies Track number of individuals trained Track number of total trainings events performed

Appendix Table 11-1: Data sources

Appendix D: SUM/BIC Data Sources

Master Contract Inventory

The image below provides a detailed example of the design and fields in the Master Contract Inventory.

uPleid	idv_type	idv_contract_name	idv_managing_agency	master_contract_idv_type	master_contract_piid	master_contract_contract_name	master_contract_managing_agency	business_rule_tier
W31P4Q07A0008	IDC			FSS	GS10F0260W			TIER 2
HHSD2002015M88159B	BPA	PROFESSIONAL SERVI	HHS	FSS	GS00F010CA	PROFESSIONAL SERVICES SCHEDULE (IGSA		TIER 2
HHSI242201300001B	BPA			FSS	V797P3458K			TIER 2
HHSN263201600139B	BPA			FSS	GS02F017CA	SCHEDULE 76 - PUBLICATION MEDIA	GSA	TIER 2

Appendix Table 11-2: Master contract inventory fields

IDV Table

IDV Award-Type Relationships

Master IDV Type	Derivative IDV Type	Award Type Description
FSS	BPA	BPA CALL
BPA	-	BPA CALL
BOA	-	DELIVERY ORDER
IDC	-	DELIVERY ORDER
FSS	-	DELIVERY ORDER
GWAC	-	DELIVERY ORDER
-	-	DEFINITIVE CONTRACT
-	-	PURCHASE ORDER

Appendix Table 11-3: IDV Award-type relationships

Relationship between IDV and Award Tables

FPDS Entry

FPDS				
award_or_idv	award_type_description	idv_ref_idv_piid	reference_piid	piid
IDV	FSS			GS35F4797H
IDV	BPA		GS35F4797H	AG3142B120010
AWARD	BPA CALL	null	AG3142B120010	AG3144K150074
AWARD	BPA CALL	GS35F4797H	AG3142B120010	AG3144K150074
IDV	BPA			GS00P96BSD0029
AWARD	DELIVERY ORDER		GS00P96BSD0029	GSP1106ZG0117
AWARD	PURCHASE ORDER			05GA0A17P0035

Award Table Output

AWARD			
award_type_description	idv_ref_idv_piid	reference_piid	piid
BPA CALL	null	AG3142B120010	AG3144K150074
BPA CALL	GS35F4797H	AG3142B120010	AG3144K150074
DELIVERY ORDER		GS00P96BSD0029	GSP1106ZG0117
PURCHASE ORDER			05GA0A17P0035

IDV Table Output

IDV				
master_idv_piid	master_idv_type	derivative_idv_ref_piid	derivative_idv_piid	derivative_idv_type
GS35F4797H	FSS	GS35F4797H	AG3142B120010	BPA
GS35F4797H	FSS	GS35F4797H	AG3142B120010	BPA
GS00P96BSD0029	BPA	null	null	null
null	null	null	null	null

Appendix Table 11-4: IDV and Awards

Tier Logic

Master IDV Tier Logic

```

WHEN master_designated_tier = 'BIC' THEN 'BIC'
WHEN master_idv_type in ('GWAC', 'FSS') THEN 'TIER 2'
WHEN master_agency_designated_tier = 'TIER 1' THEN
'TIER 1'
WHEN master_agency_designated_tier = 'TIER 2' THEN
'TIER 2'
WHEN master_agency_designated_tier = 'TIER 0' THEN
'TIER 0 - IDV'
WHEN award_type_description = 'BPA CALL' THEN 'TIER 0
- IDV'
WHEN award_type_description = 'DELIVERY ORDER'
THEN 'TIER 0 - IDV'
WHEN award_type_description = 'DEFINITIVE
CONTRACT' THEN 'TIER 0 - DEFINITIVE CONTRACT'
WHEN award_type_description = 'PURCHASE ORDER'
THEN 'TIER 0 - PURCHASE ORDER'
ELSE 'TIER 0 - OTHER'
    
```

Derivative IDV Tier Logic

```

WHEN derivative_agency_designated_tier = 'BIC' THEN
'BIC'
WHEN master_idv_type in ('GWAC', 'FSS') THEN 'TIER 2'
WHEN derivative_agency_designated_tier = 'TIER 1' THEN
'TIER 1'
WHEN derivative_agency_designated_tier = 'TIER 2' THEN
'TIER 2'
WHEN derivative_agency_designated_tier = 'TIER 0' THEN
'TIER 0 - IDV'
WHEN award_type_description = 'BPA CALL' THEN 'TIER 0
- IDV'
WHEN award_type_description = 'DELIVERY ORDER' THEN
'TIER 0 - IDV'
WHEN award_type_description = 'DEFINITIVE CONTRACT'
THEN 'TIER 0 - DEFINITIVE CONTRACT'
WHEN award_type_description = 'PURCHASE ORDER'
THEN 'TIER 0 - PURCHASE ORDER'
ELSE 'TIER 0 - OTHER'
    
```

Compare Master and Derivative Tier

```

WHEN derivative_tier = 'BIC' AND master_tier <> 'BIC' THEN derivative_tier
WHEN derivative_tier = 'TIER 2' AND master_tier not in ('BIC', 'TIER 2') THEN
derivative_tier
WHEN derivative_tier = 'TIER 1' AND master_tier not in ('BIC', 'TIER 2', 'TIER 1')
THEN derivative_tier
ELSE master_tier
    
```

Appendix Table 11-5: FPDS Tier Logic

Appendix E: Travel Cost Avoidance Calculations - ERRC

This appendix provides a sample of the format used to document cost-avoidance methodologies, using the Employee Relocation Resource Center (ERRC) as an example. This appendix is a living document which will be updated to reflect improvements in gathering, maintaining, and calculating cost avoidance.

Travel Cost Avoidance Assessment Example

Contract Basics	
Name	Employee Relocation Resource Center Homesale Assistance Services SCHEDULE 48 TRANSPORTATION, DELIVERY AND RELOCATION SOLUTIONS SINs 653 - 1/5
Agency Owner	General Services Administration
Component Owner (if applicable)	Federal Acquisition Service Office of Travel, Employee Relocation, and Transportation
Contract / Program Scope	<p>Schedule 48 Homesale Assistance Services is designed to assist Federal agencies to relocate key personnel quickly and to minimize the financial impact to employees that result from an expedited move. Federal agencies offer homesale assistance to approximately 15% of relocating Federal employees annually. The assistance is used predominantly by the law enforcement and intelligence communities, medical and scientific agencies, and agencies with employees in extremely remote areas. Agencies offer Homesale Assistance to ensure that relocating home-owning employees will not have to bear the expenses of homes in their origin locations for an extended period after moving to their new duty stations.</p> <p>Through Schedule 48 Homesale Assistance, GSA's Employee Relocation Resource Center (ERRC) has embedded proven industry best practices into requirements and leveraged the volume of more than 80% of Federal civilian transferees' homesale transactions to obtain competitive pricing and high-quality service that result in widely recognized value for the government. ERRC offers subject matter expertise to coalesce and inform a highly engaged government relocation community of interest that continually seeks to assure compliance and improve service and pricing.</p>
Contract / Program Start Date	There is no start/end date for the Multiple Award Schedule (MAS), Schedule 48, per se. Approved Multiple Award Schedule, Schedule 48 vendor contract periods are typically 5 years with start and end dates that vary by vendor. Most agencies procure GSA Schedule 48 employee relocation services via Blanket Purchase Agreements that allow for a one-year base term and four one-year option periods. Schedule 48 Employee Relocation Special Item Numbers 653-1 and 653-5 are refreshed twice annually at six-month intervals.
Contract / Program End Date	See above
Contract Ceiling	
Category	Travel
Sub-categories	Employee Relocation - Homesale

Cost Avoidance Overview	
Cost Avoidance Measure	Cost avoidance will begin to be reported in FY18. FY16 baseline cost avoidance = \$22,246,740
Description of Cost Avoidance Measure	Prices-paid comparison against catalog ceiling pricing, which is negotiated on a per-vendor basis as part of the MAS contract award process. Based on each vendor's Commercial Sales Practice (CAP) pricing for services specific to each SIN. For Homesale Assistance, service-fee pricing is expressed as a percentage of the value of the home.
Calculation of Cost Avoidance	<p>Formula: Cost Avoidance** = (Vendor Catalog Price - Actual Price Paid by Vendor Agency Customers) X Average Home Value X Number of Transactions</p> <p>Step 1: Create subsets of the vendor report database for each Homesale SIN, transaction type and pricing option.</p> <ul style="list-style-type: none"> • There are two Homesale SINs: SIN 653-1 for regular transactions and SIN 653-5 for properties anticipated to require special services outside the scope of 653-1 (hard to sell due to extremely remote location, extended marketing period, etc.). • There are three transaction types: Buyer Value Option (BVO), Amended Sale, and Appraised Value Sale. • There are four pricing options: Full Choice with Mortgage Pay-Off, Full Choice with Mortgage Servicing, Managed Buyout with Mortgage Pay-Off, Managed Buyout with Mortgage Servicing. Each vendor has been approved for distinct catalog ceiling prices for each SIN, transaction type and pricing option. • There are 13 vendors approved for Homesale Assistance. <p>Total number of possible subsets = 2 SINs x 3 Transaction Types x 4 Pricing Options x 13 Approved vendors = 312 potential subsets</p> <p>Step 2: For each subset, Calculate Difference Between Catalog Ceiling Pricing and Actual Price Invoiced (SIN Pricing Option by Transaction Type by Vendor) = Subset Average Cost Avoidance Percentage</p> <p>Step 3: Multiply the Subset Average Cost Avoidance Percentage by Subset Average Home Value = Average Costs Avoided per Transaction</p> <ul style="list-style-type: none"> • Subset Average Home Value is calculated by aggregating the Home Values sold in each subset, and dividing by the quantity of Homes Sold within that subset <p>Step 4: Multiply Average Costs Avoided per Transaction by Number of Transactions in each subset = Average Costs Avoided for all Transactions within a Subset</p> <p>Step 5: Sum Average Costs Avoided for all Subsets = Total Homesale Assistance Costs Avoided</p> <p>**Calculated by vendor by Agency for each SIN and pricing option and aggregated</p>
Cost Avoidance Rate (if applicable)	N/a

Cost Avoidance Calculation Details	
Data Elements Used for Cost Avoidance Calculation	<ul style="list-style-type: none"> • Homesale Prices Paid (transaction-level data reported by Vendors via FSS19) • Vendor Catalog Ceiling Price (Ceiling Prices by type of transaction and Pricing Option) • Average Home Value (transaction-level data reported by Vendors via FSS19) • Transaction Type • Transaction Count (aggregated from transaction-level data reported by Vendors via FSS19) • Vendor Name • Agency Name • SIN • Homesale Pricing Option
Business Rules and Assumptions	The more that we teach our agency customers to purchase smarter, the less revenue we will bring in, due to lower fees charged to our agency customers upon which our IFF is based.
Manual / Automated Calculation(s)	Cost avoidance is manually calculated by a FAS program analyst in an Excel file.
Frequency of Reporting	Cost avoidance will be reported quarterly starting in FY18.

Cost Avoidance Assessment Data Source(s)	
Data Source for Cost Avoidance Assessment	<ul style="list-style-type: none"> • Prices Paid, Homesale Transaction Counts and Average Home Value: Vendor-reported data into GSA's FSS19 system and reported vendor prices-paid reports (quarterly): GSA's Multiple Award Schedule master contract requires vendors to report schedule contract sales to GSA quarterly. • ERRC implemented detailed transaction-level reporting requirements in 2010. • Catalog Ceiling Pricing: Required by Schedule 48 at the master-contract level, reviewed by GSA contracting personnel during offer reviews and contract renewals, and audited by contract personnel is the basis for schedule catalog price negotiations. Reported annually at contracting personnel's discretion.
Data Storage	The data comes in from the suppliers in pre-formatted Excel spreadsheets. The data is then combined with other suppliers and every column is checked for errors or outliers.
Data Transformation / Manipulation	Cost avoidance is manually calculated by a FAS program analyst in an Excel file.
Availability of Data	<ul style="list-style-type: none"> • Data is maintained internally by the FAS Employee Relocation - Homesale team • Cost avoidance will be reported quarterly starting in FY18

Cost Avoidance Baselines	
Baseline Comparison - Spend	Catalog ceiling price
Baseline Comparison - Volume	Because the fee is a percentage of home value, increased transaction volume will not result in an increased cost-avoidance percentage.
Frequency of Baseline	Annual

Updates	
Tracking Baseline Drivers (e.g. market)	The baseline rates are updated when the catalog prices are updated and reported by contracting.

Contact Information					
Point(s) of contact		Julie Blanford			
Data point(s) of contact		Reid Salvette			
	Price Paid	Catalog Price	Average Homesale Value	Total Transactions	Total Cost Avoidance
VENDOR A					
AGENCY 1	23.50%	34.95%	\$406,038	26	\$1,208,775
AGENCY 2	23.60%	34.95%	\$414,664	29	\$1,364,867
VENDOR A Total Cost Avoidance		\$2,573,642 (653-1 Option 1 Only)			

Appendix F: BIC Data Elements

Required Data FPDS Solution

Data Element / Short Name	Definition / Description	Notes / Comments
Award vehicle	Data source name in English for filtering with the Acquisition Gateway, the IDIQ, GWAC, MAS or contract vehicle	
Contract number (IDVPIID)	Base contract number, if applicable, e.g. Multiple Award Schedule, GWAC or BPA	If there are a significant number of contracts that comprise the solution (e.g. more than 10), contract numbers can be provided in a separate Excel file; please note the name of the file in the response.
Contract number (Award PIID)	Base contract number, if applicable, definitive contract from an agency	If there are a significant number of contracts that comprise the solution (e.g. more than 10), contract numbers can be provided in a separate Excel file; please note the name of the file in the response.
Order number (Award PIID)	Requisition, order or BPA call number	On transactional basis, i.e., prices paid, should have combination of IDV and Order Award PIID or only Award PIID, not trying to capture base IDV awards
DUNS	Data Universal Number System (DUNS) number of the prime contractor, i.e., the unique identifier for the business entity holding the government contract referenced by the PIID	Can also be derived from order number (FPDS data)
Department (funding Agency)	Department/Agency funding the purchase	Can also be derived from order number (FPDS data)
Order date/date of award	Date order was awarded, i.e., the contract or order signed date	Can also be derived from order number (FPDS data)
Quantity of item sold	Total number of units (e.g., 1, 10, 100 etc.)	Required unless only summary-level data is available and PMO has approved an exception
Contract price per unit	Cost/price per each single unit of measure as identified on the base contract (may be the ceiling price)	Required unless only summary-level data is available and PMO has approved an exception
Award price per unit	Awarded Price per unit (may equal the contract price)	Required unless only summary-level data is available and PMO has approved an exception
Unit of measure	Represents how the quantity of item sold is counted (e.g., each, lot, hour, year, pound, etc.)	Required unless only summary-level data is available and PMO has approved an exception
Total price	The award price per unit multiplied by the quantity of item sold, i.e., the total extended	Required unless only summary-level data is available and PMO has approved an exception

	price	
Description of Deliverable	Description of item or service purchased	
Frequency of Update	Data can be provided by the third week of the month for the month prior. For quarterly reporting, data can be provided three weeks after the end of the quarter.	

Required Data Non-FPDS

Data Element / Short Name	Definition / Description	Notes / Comments
Solution name	Data source name in English for filtering with the Acquisition Gateway, the IDIQ, GWAC, MAS or contract vehicle	
DUNS	Data Universal Number System (DUNS) number of the prime contractor, i.e., the unique identifier for the business entity holding the government contract referenced by the PIID	
Department (funding Agency)	Department/Agency funding the purchase	
Order date/Date of award	Date order was awarded, i.e., the contract or order signed date	
Quantity of items sold	Total number of units (e.g., 1, 10, 100 etc.)	Required unless only summary-level data is available and PMO has approved an exception
Contract price per unit	Cost/price per each single unit of measure as identified on the base contract (may be the ceiling price)	Required unless only summary-level data is available and PMO has approved an exception
Award price per unit	Awarded price per unit (may equal the contract price)	Required unless only summary-level data is available and PMO has approved an exception
Unit of measure	Represents how the quantity of item sold is counted (e.g., each, lot, hour, year, pound, etc.)	Required unless only summary-level data is available and PMO has approved an exception
Total price	The award price per unit multiplied by the quantity of item sold, i.e., the total extended price	Required unless only summary-level data is available and PMO has approved an exception
Description of deliverable	Description of item or service purchased	

Frequency of update	Data can be provided by the third week of the month for the month prior. For quarterly reporting, data can be provided three weeks after the end of the quarter.	
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BIC Prices-Paid Data Fields

Award Vehicle	
Contract Number / IDV_PIID (If Applicable)	
Contract Number / Award PIID	
Order Number	
Funding Department	
Description of Deliverable	
Unit of Measure	
Contract Price per Unit	
Award Price per Unit	
Quantity of Item Sold	
Total Price	
DUNS	
Award Date	

Appendix G: Cost-Avoidance-Confidence Matrix

In addition to assessing the methods and data for calculating cost avoidance, the GWCM PMO will apply a confidence ranking for five criteria outlined below. For each criterion, the contract/program is given a compliance rating as follows: Low: 1, Medium: 2, High: 3, and No data: 0. The ratings are summed to provide a range of confidence: Low: 0 – 5; Medium: 6 – 10; and High: 11 – 15

	Not applicable or No Rating (0)	Low (1)	Medium (2)	High (3)
Baseline - Volume	No data is available	Baseline volume for comparison is "unit of one" with no allowance for equivalent volume	Baseline pricing reflects discounting for lower volumes than program purchased	Baseline is to comparable / equivalent volumes
Baseline - Comparator	No data is available	Baseline cost comparison is to a non-representative or non-market price. For example, the comparison is to a GSA schedule price or to a generally available list price.	Baseline cost comparison is to comparable but composite pricing (e.g. periodic average or basket of goods / services)	Baseline cost comparison is to equivalent previous prices paid (e.g. comparing cost of laptops of similar specification on a per-laptop basis)
Baseline - Timeliness	No data is available	Baseline is more than 24 months old.	Baseline is 13 - 24 months old	Baseline is no more than 12 months old
Availability of Evidence to Support Cost-Avoidance Calculation and Volume Uptake	No data is available.	Partial data available	Supporting data is available but not verifiable (e.g. FPDS)	Data available and verifiable (e.g. publically available data, commercial databases, trend analysis), ideally transactional level data
Tracking Price Drivers	No data is available	No adjustment for price changes (inflation, deflation, commercial lists prices)	Infrequent adjustments for price changes (no more than once every 24 months)	Frequent adjustments that accurately reflect the market place (12 - 24 month cycle)

Appendix Table 11-6: CA Confidence Assessment Matrix

Appendix H: SUM Maturity Matrix

Attributes	Tier 1 Agency-wide Mandatory Solutions	Tier 2 Multi-Agency Solutions & Agency-wide Best-in-Class Solutions	Tier 3 Government-wide Best-in-Class Solutions
Leadership: Do individuals and organizations have clear category management responsibilities?	<ul style="list-style-type: none"> Designated Agency category lead with specific category expertise and day-to-day management and oversight responsibility (i.e. program manager for IT software contract; this is not agency CIO). Clear understanding of category manager, category lead, commodity team roles. 	<ul style="list-style-type: none"> Designated Agency category lead; and Active participation in increasing usage of Agency BIC vehicles and government-wide BIC vehicles 	<ul style="list-style-type: none"> Designated full-time government-wide category manager (appointed by OMB); and Government-wide Category Management Council staffed by senior-level Agency staff (endorsed by category manager); and Active category teams; and Government-wide PMO support.
Strategy: Are category management practices in place?	<ul style="list-style-type: none"> Existing agency-wide solutions are being used, per mandatory use or consideration policies; and Policies are implemented and adopted that drive behavior changes (e.g., double sided printing). 	<p>Meets one of three criteria:</p> <ul style="list-style-type: none"> Government-wide solutions in use, per mandatory use or consideration policies in place; and/or Implements government-wide policies that drive behavior changes; and/or Agency-wide mandatory-use BIC meets all of Tier 2 and Tier 3 requirements, but not available government-wide. 	<ul style="list-style-type: none"> CMLC approved category management strategy that endorses a limited number of “Best-in-Class” solutions in accordance with CMLC approved criteria and guidance; and CM strategy developed to increase adoption of BICs and Tier 2 government-wide solutions.
Data: Is analysis conducted and shared?	<p>Conducted and documented high-level analysis for establishing a baseline assessment, including:</p> <ul style="list-style-type: none"> Total spend (how much is spend on the service and / or commodity); Vendors (what is the pool of vendors meeting this requirements); Market dynamics (for example, trends in pricing, requirements, typical configurations or skill sets, etc.); Small-business participation (how do they match performance targets and goals). <ul style="list-style-type: none"> A shares relevant contract terms, condition, saving methodologies, and prices data across government when requested by the category manager, preferably via the Acquisition Gateway¹, within 90 days. 	<p>In addition to meeting Tier 1 criteria, agency collects data on contract administration performance and benchmarks other internal/external processes:</p> <ul style="list-style-type: none"> Pricing (either previous pricing, discounts, or a similar metric as laid out in KPI Guidance Document Agency use (at least the dollars obligated via the contract, and units acquired if possible) Solution performance (for example, reduced delivery times, consistently lower pricing, meeting or achieving delivery dates, etc.) <p>Agency collects customer feedback data:</p> <ul style="list-style-type: none"> Vendor performance (timely delivery, quality of contract administration, etc.) Offerings (does the vendor make an effort to propose improvements for future efforts, keep technology fresh, etc.,) Value (does the vendor offer market competitive pricing, how does pricing align to delivery results, etc.) Appropriate data that supports reported cost avoidance Customer support. 	<p>In addition to Tier 1 and 2 criteria, fully meets requirements of Best-in-Class criteria, guidance and reporting, including:</p> <ul style="list-style-type: none"> Commodity management analysis: pricing, supply chain analysis, market information, agency use, solution performance, validated cost avoidance, demand management strategies, other activities to drive better acquisition. Vendors analysis: prices-paid data collected in a way that supports comparative analytics (i.e., normalizes for quantity or delivery term variances); feedback on modification time, terms and condition issues, and customer service. Customer analysis: customer profiles to understand what is being purchased, from whom, when and why; and customer/user feedback on vendor performance, offerings, value, and customer support; and Analysis spend (outstanding vs. actual). Undertakes spend analysis comparing contract utilization against addressable spend Providing mandatory data fields as per BIC guidance document.

¹ <https://hallways.cap.gsa.gov/>

Attributes	Tier 1 Agency-wide Mandatory Solutions	Tier 2 Multi-Agency Solutions & Agency-wide Best-in-Class Solutions	Tier 3 Government-wide Best-in-Class Solutions
Tools: Are tools in place to share information and reduce duplication?	Tools (e.g., DHS Connect, DoD FedMall, GSAdvantage!) are in place and shared to capture and share information on the category, such as contract vehicles, availability, terms/conditions, pricing, etc.	Works with category manager to populate the Acquisition Gateway with requested information on the solution and best practices.	Acquisition Gateway includes only solutions (acquisition vehicles and/or policies) that are endorsed by government-wide category manager as “Best-in-Class”
Metrics: Are metrics defined, tracked, and publicized?	<ul style="list-style-type: none"> • Metrics are in place, including at a minimum, spend, cost avoidance and small-business participation; • Agency has a documented methodology for tracking these metrics (internal or at servicing agency). 	<p>In addition to meeting Tier 1 criteria:</p> <ul style="list-style-type: none"> • Agency tracks metrics quarterly on contract duplication reduction, adoption (dollars and percent of addressable spend), cost avoidance, small business participation, and appropriate efficiency metrics for demand management solutions. 	Fully meets requirements of Best-in-Class criteria, guidance and reporting, including tracks and publishes on the Acquisition Gateway metrics quarterly on spend, adoption (dollars and percent of addressable spend), duplication reduction, cost avoidance and small-business participation.

Appendix Table 11-7: SUM maturity matrix