



Defense Logistics Agency MANUAL

DLAM 5309
Effective September 18, 2012
Certified Current February 12, 2013

HQ DLA J5

SUBJECT: Standards *to Validate* Financial *and Mission* Benefits for Continuous Process Improvement Projects

References: (a) DoD Directive 5010.42, “Continuous Process Improvement (CPI)/Lean-Six Sigma (LSS) Program,” May 15, 2008
(b) DoD Instruction 5010.43, “Implementation and Management of the Continuous Process Improvement (CPI)/Lean Six Sigma (LSS) Program,” July 17, 2009
(c) DLA Instruction 5309, “Continuous Process Improvement,” February 7, 2013
(d) OMB Circular No. A-76 (Revised), May 29, 2003
(e) DoD Manual 4100.XX-M, “A-76 Costing Manual,” March 14, 2001

1. PURPOSE. This document provides a standard process *to determine*, report and validate financial benefits of Continuous Process Improvement (CPI) projects. DLA leadership supports the accurate collection and measurement of project financial results with standard reporting formats and assumptions common throughout DLA. This document provides standard definitions for financial benefits; a standard methodology *to calculate* and *validate* the benefits; and an approach for using and reporting the benefits. More specifically, this document provides DLA Finance (J8) representatives with a basis for *to validate* CPI financial benefits, when they exist and the J8 representative deems it possible to track the benefits as outlined below. *Additionally, this document provides a standard process for validate mission benefits.*

2. APPLICABILITY. This DLA manual applies to all DLA organizations. This manual provides standard procedures *to calculate and report* financial benefits when present from CPI projects performed under the auspices of the Headquarters DLA and local CPI offices. Not all CPI projects target or produce financial benefits. This manual *also addresses validation of mission benefits.* ~~does not address non-financial benefits.~~

3. DEFINITIONS.

a. Financial Benefits. There are three types of CPI financial benefits: cost savings, cost avoidance and revenue generation.

(1) Cost Reductions. Cost reductions are reductions in the number of dollars needed to meet a customer-established requirement by improving a process or function.

(2) Cost savings are cost reductions wherein funds can be removed from a Budget Line Item or moved elsewhere in the program/budget.

(3) Cost avoidances are any cost reduction which is not a cost savings. This can be because funds have been previously removed from the budget, or they do not exist in the budget as an explicit line item, or they result from process improvements that prevent a future unbudgeted cost.

(4) Revenue generation is an increase in revenue received by the Agency, over and above appropriated funds or from the expected amount of customer funding. This could be through billing of external parties for supplies and services, or through Public Reimbursable efforts or through the Defense-wide Working Capital Fund.

b. CPI Terms.

(1) Define, Measure, Analyze, Improve and Control (DMAIC) Projects. A DMAIC project is a Lean Six Sigma (LSS) gated project with five gated phases: Define, Measure, Analyze, Improve and Control.

(2) Rapid Improvement Event (RIE). A RIE is a project with three phases: Pre-event, preparing for the event by defining the problem and developing a baseline; the Event itself, *when* the process is improved; and Post-event *when* the new process is monitored and controls are introduced to ensure the improvements *are retained*.

(3) ~~Just Do It (JDI) and Other~~ Non-Gated Projects.

(a) Non-gated events/projects: Non-gated events are a broad category of improvement efforts that do not follow the strict process of a Rapid Improvement Event or a DMAIC project. These can range from a senior executive's good idea to local application of a variety of LSS tools, without the effort being identified as a CPI event/project.

(b) JDIs: A subset of non-gated projects. These activities are characterized by leadership having a clear perception of a well-defined problem (metric, current performance level, and expectation are both known & currently measured); the solution is known, ready to implement, and resourced; implementation can be done quickly (typically 1-5 days for complete implementation); and the team size is very small (3 people or less). These are *uncomplicated, local changes with* low risk of failure.

(4) The CPI Administrative Project and Event Repository (CAPER) *is* the data base of record for DLA’s CPI practitioners and projects. This web-based automated system is designed to track and report CPI data and benefits. It is also a project management tool, tailored for CPI. Through CAPER, project data can be shared, information can be viewed in real time, and, most importantly, benefit metrics can be captured and rolled up to any level. The CAPER web-site is <https://dla.hqda.pentagon.mil/DLA>

c. Budget Years in Planning, Programming, Budgeting, and Execution (PPBE) Process. The names of budgetary years, “Execution,” “Budget” and “Future Years Defense Program (FYDP)” come from the PPBE process. At any given time during a calendar year, activities involving different fiscal year budgets overlap. While one fiscal year budget is being executed, other fiscal year budgets are being worked in the Program Objectives Memorandum (POM)/Program Budget Review (PBR) process and planning for future years are being worked as part of the FYDP. For purposes of this document, the following terms apply.

(1) Execution year is the fiscal year in which the project is completed and financial benefits begin to accrue.

(2) Budget year is the fiscal year following the Execution Year.

(3) FYDP years are the two fiscal years following the “Budget Year”.

d. Mission benefit categories recognized by DLA CPI include those cited in reference a: namely- productivity, performance against mission, safety, flexibility to meet mission needs and energy efficiency. They also additional benefits cited in reference b: namely- environmental and people. Of these categories, DLA CPI considers “flexibility to meet mission needs” to be non-quantitative, whereas the other categories are quantitative. Only mission benefits in quantitative categories are subject to validation.

4. RESPONSIBILITIES.

a. Headquarters, DLA Strategic Plans and Policy Director (J5). The DLA Strategic Plans and Policy Director shall endorse the ~~financial~~ procedures identified in this manual for use in ~~all~~ CPI projects throughout DLA with financial benefits which ~~may can~~ be validated.

b. Headquarters, DLA Finance Director (J8). The DLA Finance Director shall endorse the financial procedures identified in this manual for use in all CPI projects throughout DLA with financial benefits which can be validated.

c. Headquarters, DLA Continuous Process Improvement Branch (J532). The Headquarters DLA CPI Branch Chief:

(1) Shall publish a CPI Financial *and Mission* Benefits *Validation* Manual and update the manual periodically based on field input and lessons learned in previous years.

(2) Shall maintain a database of record of CPI projects *which have financial benefits or validated mission benefits:*

(a) Financial Benefits. *For projects with financial benefits,* the database shall include identification of the project team's financial representative, identification of the type of financial benefit, costs and/or revenue summaries of the project's baseline and post-improvement processes, ~~and~~ data sets supporting the cost/revenue summaries, *and a summary of costs incurred in performing the project.*

(b) *Validated Mission Benefits. For projects with validated mission benefits, the database shall include identification of the individual who validated the benefits, identification of the type of mission benefit, metric values of the project's baseline and post-improvement processes, and data sets supporting the metric value summaries.*

(3) Shall track active projects with *anticipated* financial benefits to *assist in* compliance with this manual's procedures. This office will track and report bi-monthly to local CPI offices throughout the Agency discrepancies between CPI project descriptions in the CPI database of record and procedures of this manual.

(4) *Shall track completed projects requiring validation of financial or mission benefits to identify and assist with compliance with this manual's procedures. This office will report level of compliance to the project's respective CPI organization's Point of Contact.*

(5) Shall provide the CPI Community of Practice (CoP) periodically, at least quarterly, with annual Agency-wide CPI financial goals and projections.

(6) Shall provide the DLA Executive Board with an update, as requested, of Agency-wide CPI financial goals and projections.

d. Headquarters, DLA Finance (J8). Headquarters DLA Finance shall ensure the following.

(1) ~~Update-Endorse for use in CPI projects the annual updates~~ of the following data tables listed in Enclosure 2 early in each calendar year: *This office will promulgate updated tables (through electronic mail) when changes occur; these will be followed by updated tables in this manual.*

(a) Table 1: Military/Military/Uniformed Services Composite Pay Rates

(b) Table 3: Cost Factors/Rates

(c) Table 4: FTE Available Work Hours/Pay Conversion Hour

(2) For active CPI projects at Headquarters, DLA with expected benefits of ~~\$100K~~ *\$500K* or more per year, ensure a J8 financial analyst is available to serve as a member of the project team through project completion.

(3) For completed CPI projects at Headquarters, DLA with expected benefits of ~~\$100K~~ ~~\$500K~~ or more per year which are supported with baseline and post-improvement data, ensure a DLA Finance (J8) representative *performs* an initial assessment whether the benefits can be validated. If the DLA Finance (J8) representative does not think benefits can be validated, validation efforts for that project will stop. If the initial assessment indicates validation is possible, a DLA Finance (J8) representative shall review the project's previous year's financial benefits at the end of each Fiscal Year (for up to three full Fiscal Years). If validation is successful, the DLA Finance (J8) representative shall validate the benefits in writing. Otherwise the DLA Finance (J8) representative shall provide feedback to the project ~~sponsor~~ *Champion to explain* why the benefits cannot be validated.

e. DLA Finance (J8) Offices at Primary level Field Activities (PLFAs). For each CPI project performed at a local PLFA which has expected benefits of ~~\$100K~~ ~~\$500K~~ or more per year, the local PLFA Finance (J8) Office shall ensure the following:

(1) For active CPI projects at the PLFA with expected benefits of ~~\$100K~~ ~~\$500K~~ or more per year, ensure that a financial analyst is available to serve as a member of the CPI project team through project completion.

(2) For completed CPI projects at the PLFA with expected benefits of ~~\$100K~~ ~~\$500K~~ or more per year which are supported with baseline and post-improvement data, ensure a DLA Finance (J8) representative *performs* an initial assessment whether the benefits can be validated. If the DLA Finance (J8) representative does not think benefits can be validated, validation efforts for that project will stop. If the initial assessment indicates validation is possible, a DLA Finance (J8) representative shall review the project's previous year's financial benefits at the end of each Fiscal Year (for up to three full Fiscal Years). If validation is successful, the DLA Finance (J8) representative at the PLFA shall validate the benefits in writing *using the "Validation Template for CPI Financials" form provided in CAPER and in the J532 CPI folder in e-workplace*. Otherwise the DLA Finance (J8) representative shall provide feedback to the project ~~sponsor~~ *Champion to explain* why the benefits cannot be validated. Note: Financial benefits less than ~~\$100K~~ ~~\$500K~~ will be addressed in paragraph 7.b.(4) of this document.

5. PROCEDURES.

a. Cost Incurred to Perform\ Project. Labor and non-labor costs incurred to execute a project should be calculated using the "Validation Template for CPI Financials" form. These costs should be included in the financial metric tables in CAPER for all completed projects and a PDF copy of the template should be uploaded as a project document in CAPER.

b. Identification of CPI Financial Benefits. At early stages of the project, the project ~~Champion sponsor~~ (with input from the process owner and ~~Champion sponsor~~) should identify a rough estimate of anticipated financial benefits (if any). This shall be done not later than the Define phase of a DMAIC project or not later than the Pre-event phase of an RIE. At this time, a "Rough Order of Magnitude" (ROM) estimate of the benefit shall be inserted in the appropriate text field in CAPER. Once a project with expected financial benefits is under way, a DLA

Finance (J8) or other financial representative shall review and approve the benefit estimates at the Measure phase of a DMAIC project (or the Pre-event phase of a RIE). For projects with expected financial benefits greater than ~~\$100K~~ \$500K per year, the financial representative member of the CPI team shall be from DLA Finance (J8). This ~~\$100K~~ \$500K threshold does not preclude DLA Finance (J8) involvement in other CPI projects with expected financial benefits less than ~~\$100K~~ \$500K. The DLA CPI community welcomes any DLA Finance (J8) involvement. *However*, for projects with relatively large financial benefits (namely, greater than ~~\$100K~~ \$500K expected per year), the CPI community requires DLA Finance (J8) participation (either from DLA Headquarters or the PLFA).

c. Financial Benefits Methodology. The standard financial assumptions and procedures are based on the methodology for generating cost estimates for Federal Services Management (FSM) competitions. This methodology is embedded in OMB Circular No. A-76 (Revised) May 29, 2003, particularly Attachment C of the Circular “Calculating Public-Private Competition Costs” and the “A-76 Costing Model.” Details of the FSM assumptions and procedures are at Enclosure 1. Although the FSM approach provides the standard methodology, exceptions to use of the methodology, assumptions and procedures are acceptable, provided the financial representative in the project team agrees to the exceptions.

d. Financial Benefits Algorithm. Financial cost reductions are calculated for each CPI project by subtracting end-state “TO-BE” process costs together with costs to do the project and non-recurring investment costs from the baseline cost of the “AS-IS” process. Non-recurring costs include any investments necessary to improve the process under review. Examples of investments include the automation of a process previously performed manually (e.g., software or hardware costs associated with process improvement). These investment costs are subtracted from the project’s financial benefits.

$$\begin{aligned} &\text{FINANCIAL COST REDUCTION OF IMPROVED PROCESS} = \\ &\text{Recurring Cost of “AS IS” Process} - [(\text{Recurring Cost of “TO BE” Process}) + \\ &(\text{Cost of Performing Project}) + (\text{One-time Investment Costs to implement the “TO BE”} \\ &\text{Process})] \end{aligned}$$

Revenue generation benefits are calculated by subtracting the baseline revenue of the “AS IS” process together with project and non-recurring investment costs from the “TO-BE” process revenue.

$$\begin{aligned} &\text{REVENUE GENERATION BENEFITS OF IMPROVED PROCESS} = \\ &\text{Revenue of “TO BE” Process} - [(\text{Revenue of “AS IS” Process}) + \\ &(\text{Cost of Performing Project}) + (\text{One-time Investment Costs to implement the “TO BE”} \\ &\text{Process})] \end{aligned}$$

e. Fractional Reduction of Resources. A fractional reduction of resources is typically not counted as *an actual* cost savings or avoidance. For example, a fractional reduction in Full Time Employees (FTEs) is not counted as a cost savings or avoidance. A labor cost savings requires a whole number of FTEs eliminated from the budget. Similarly, labor cost avoidance requires a

re-allocation of the position(s): i.e., a whole number of FTEs transferred out of their current position(s), and the current position(s) eliminated.

f. Retention of Cost Savings. In most cases, the organization responsible for developing and implementing a process improvement initiative will also be the organization that experiences the cost reductions and benefits from the savings. In practice, this means the ~~sponsor's~~ *Champion's* organization will typically decide how to reuse the savings within their organization. As always, however, the Director, DLA or Director, DLA Finance (J8) will assess priorities and can allocate limited funds to competing requirements to ensure DLA makes the best possible use of constrained resources.

g. Considerations for Total Cost and FYDP Projections. When calculating CPI financial benefits and projecting budget impacts, the project ~~sponsor~~ *Champion* and the financial representative must be mindful to examine the total effect to DLA. For instance, a gain in a customer account may affect a DWCF account. DWCF rates are set with the submission of a President's Budget and changes to workload will affect the operating position of the DWCF activity. Additional overarching principles *to calculate and report* financial benefits include the following.

(1) Similar Costs. If costs for elements of the "AS IS" and "TO BE" processes are the same, they should be excluded from the analysis.

(2) Pro-rated Costs. If costs of the process are shared among organizations, some of which are not impacted by the CPI project, then the CPI portion of the costs should be prorated based on the proportion of organizations impacted by the project. Quantification of this "proportion" should be based on a metric appropriate to the process, for example electricity usage for an environmental project focusing on energy consumption.

(3) Process-level Costs. Financial benefits should be quantified at "process-level," by the change in cost or revenue in the overall process. If the project is cross-functional, a successful financial project could result in some organizations with increased costs (or less revenue). (See Example 3 in Enclosure 3.) There *may* be no financial benefit for DLA, at an enterprise-level. (See Example 4 in Enclosure 3.) There might be no financial benefit for DoD as a whole. (See Example 9 in Enclosure 3.) Each of these considerations is independent of whether the cost of the process decreased at process-level (or net-revenue increased).

(4) Enterprise-level Reporting. As a corollary to the previous principle, enterprise-level reporting of aggregated CPI benefits should exclude results of CPI projects which generate financial benefits at process-level but have no financial benefit for DLA as an enterprise; e.g., Example 4 of Enclosure 3.

(5) Be Conservative. Since reported CPI financial benefits are subject to misinterpretation and misuse, with little heed to nuance or caveats, it is generally best to be conservative in reporting financial benefits.

h. Financial Benefits which Cannot Be Validated. This manual is specifically intended to guide the calculation and reporting of financial benefits which DLA Finance (J8) can validate. There might be occasions when there are apparent financial benefits which do not meet the rigor of this manual. These cases are outside the scope of this manual.

6. INFORMATION REQUIREMENTS.

a. Baseline Cost Estimate (BCE). Baseline costs are the current annual costs of the process being improved. Ideally, the costs are determined by evaluating the 12-month period prior to the start of the CPI project. In practice, the baseline costs should include a complete natural business cycle of the process, regardless whether the business cycle ends at the beginning of the CPI project. Typically, data from a longer period is preferred to a shorter period; *however*, the data set should be from at least a three-month period. All relevant costs associated with the process under review, *to include* labor and non-labor elements, shall be considered. Labor elements are further *identified* by Civilian and Military.

b. Cost of “AS IS” Process. The BCE provides the basis of the “AS IS” process cost. The end of the Control phase (or the equivalent) typically marks the beginning of a financial benefit evaluation period. This period typically consists of the remaining time in the current fiscal year, plus three additional fiscal years. Costs within the current year of execution are drawn directly from the BCE, prorated by the remaining number of days which fall in the year of execution. Costs from the BCE for the following 36 months, in the next year (i.e., Budget Year) and future years, are adjusted for inflation using the inflation factors at Table 3 in Enclosure 2.

c. Cost of “TO BE Process. The “TO-BE” process end-state costs are the costs of the new process after improvements have been implemented. They are typically determined by evaluating the 36+ month period after the CPI project has been completed. All relevant labor and non-labor costs associated with the process will be included in these calculations.

d. *Financial* Benefits Reporting. All financial benefits from CPI projects shall be posted in CAPER. The initial rough estimate of anticipated financial benefits (prior to launching the project or at the beginning of the project) shall be entered in the text field “Rough Outcome Estimate” in CAPER. The more refined summary of financial estimates and actual results shall be uploaded in the financial metric tables in CAPER as the project progresses, typically starting with the Measure phase or its equivalent. For the duration of the project, the Baseline data of the old process can be used to populate both the Estimated and Actual views in CAPER; the Actual view when there is an assured Baseline data set. Post-Improvement data of the new process should be used to populate the Actual view of the Post-Improvement metrics, only when they are validated (typically after project completion).

e. Mission Benefit Validation. If the project Champion decides to validate mission benefits, information requirements are similar to those for financial validation. There must be baseline data of the “AS IS” process and post-project data showing improvement in the “TO BE” process (including control and run charts).

7. INTERNAL CONTROLS. ~~During the project, For active projects with financials,~~ the project team lead is responsible *to collect* financial data, ensure these data are current and the best available and generate financial summaries. ~~After project completion, the process sponsor is responsible for collecting new data from the post-improvement process.~~ At project completion, a DLA Finance (J8) or other financial representative assures the project's gatekeeper the financial data sources, assumptions and procedures are credible (provided they are credible). At the end of subsequent fiscal years (up to three full fiscal years) a DLA Finance (J8) or other financial representative will attempt to validate actual benefits *if* credible financial data are available. The DLA Finance (J8) representative has final responsibility and authority to validate the financial benefit of a CPI project. If the DLA Finance (J8) representative states in writing that net costs have been reduced or net revenue increased due to a CPI project, this by itself is sufficient to validate the benefit. *For projects with mission benefits that the Champion decides to validate, the Champion must annually validate whether the benefits have been sustained.*

a. Assurance of *Financial* Estimates When Project Is Active. At each tollgate *when* data assurance is required, the project lead assures the project gatekeeper the baseline financial data are current and are the best available. The financial representative assures the gatekeeper the data sources, financial assumptions and procedures are credible. This endorsement typically shall be done by making the financial representative a co-gatekeeper in CAPER at required tollgates. For these tollgates, both the project gatekeeper and the financial representative will have to approve, in CAPER, going to the next phase. The required financial tollgates are at the end of the measure and control phases of a DMAIC and at the pre- and post-event phase of an RIE (or the equivalent).

b. Validation of *Financial* Actuals after Project Completion. Once the project has been completed, the Sponsor is responsible to periodically monitor the improved process to ensure the process remains under control. At the end of each fiscal year after project completion, if post-improvement data indicate sufficiently large financial benefits still accrue from the project, then a financial representative will assess whether the benefits can be validated. If a DLA Finance (J8) representative does not think that benefits can be validated, validation efforts for that project will stop. The DLA Finance (J8) assessment will be based on: project documentation in CAPER, baseline data in CAPER and post-improvement data in CAPER.

(1) Local PLFA/J-code Responsibility: Initiating Financial Workshops. It is the responsibility of the local PLFA and J-code CPI office to ensure annual financial validation meetings *occur*. Typically, these meetings will involve the local CPI office, a financial representative, someone familiar with the CPI project and someone familiar with the post-improvement data. If one person from the local CPI office can perform multiple functions, the number of personnel needed to validate a project's financials could be as few as two, the person from the local CPI office and the financial representative. Workshop meetings should occur after each fiscal year, not later than 1 March of the subsequent year. The purpose of the meeting is to review the previous year's financial benefits from CPI projects. If the financial representative can validate the benefits, based on information presented at the meeting, then the local CPI office and the financial representative should describe the benefit from the project in a short document using the "*Validation Template for CPI Financials*" found in the CAPER and in the J532 CPI folder in e-workplace. *The document should be signed by* the financial

representative. The document should have an estimate of the cost of doing the project (including a rough estimate of man-hours spent), along with a gross and net benefit. If the financial representative needs additional information, or prefers a supervisor sign the document, the validation could be delayed. *When signed, it should be uploaded in CAPER as a project document.* For projects which had financial benefits reported in the previous fiscal year *that* were not assessed and/or validated at a financial workshop by 1 March of the subsequent year, then the Headquarters DLA CPI office will assist in scheduling and facilitating a financial workshop.

(2) ~~Sponsor's~~ *Champion's* Responsibility. For projects with expected benefits greater than ~~\$100K~~ *\$500K* per year, the ~~sponsor~~ *Champion* shall ensure data are collected for up to three full fiscal years after project completion. Financial summaries should be entered in CAPER metric tables and supporting data files should be uploaded in CAPER. The ~~sponsor~~ *Champion* shall ensure the financial data of the new, improved process are current and the best available. For projects with benefits expected to be less than ~~\$100K~~ *\$500K* per year, the ~~sponsor~~ *Champion* will assess whether *there is value in* tracking the benefits. If the ~~sponsor~~ *Champion* deems it worth the effort, they will ensure a qualified financial analyst validates the benefit. The sponsor's assessment will be based on the expected amount of financial benefits, the difficulty and resources required to track the benefits, the *value to determine* validated benefits and other considerations important to the ~~sponsor~~ *Champion*.

(3) DLA Finance (J8) Responsibility. If there are post-improvement financial data available and the data indicate benefits of ~~\$100K~~ *\$500K* or more per year, a DLA Finance (J8) representative will assess whether the benefits can be validated. If the J8 representative does not think benefits can be validated, validation efforts for that project will stop. If the initial assessment indicates validation is possible, a DLA Finance (J8) representative shall review the project's previous year's financial benefits at the end of each Fiscal Year (for up to three full Fiscal Years). If validation is successful, a DLA Finance (J8) representative shall validate the benefits in writing. Otherwise the DLA Finance (J8) representative shall provide feedback to the project ~~sponsor~~ *Champion explaining why* the benefits cannot be validated. The successful validation should typically assert, implicitly or explicitly, that:

- (a) The source of the financial data is credible.
- (b) The financial assumptions and cost procedures used are credible.
- (c) The financial data are correctly summarized.

In any event, the DLA Finance (J8) representative states in writing that net costs have been reduced or net revenue increased due to a CPI project that is sufficient for validation of the financial benefit.

(4) Validation of Benefits Less Than ~~\$100K~~ *\$500K*. If the financial benefits are less than ~~\$100K~~ *\$500K* per year, the financial analyst identified by the ~~sponsor~~ *Champion* shall try to validate the benefit. If the validation is successful, the analyst shall validate the benefits in writing, asserting that:

- (a) The source of the financial data is credible.
- (b) The financial assumptions and cost procedures used are credible.
- (c) The financial data are correctly summarized.

c. Validation of Mission Benefits. DLA’s validation procedures are consistent with the DoD references (a) and (b). If the Champion decides to validate mission benefits, then the Sponsor will ensure and the Champion will validate that the post-improvement metric data are collected from the same data source used in project and the assumptions and procedures used in aggregating the data remain as those as used in the project. Further, the Champion will validate that the benefits have been sustained; namely, the data remain in tolerances as specified in the Control Plans established at the Control Phase of the project. If data are out of tolerance, the Champion will not be able to validate that benefits have been sustained. This validation document and supporting control charts (for Black Belt projects) or run charts (for Green Belt projects) should be uploaded in CAPER. If the Champion decides to validate mission benefits, they are committed to tracking performance and trying to validate benefits for three full fiscal years.

*d. (5) CAPER. At the end of each fiscal year, the sponsor will ensure the summary financial results for the previous fiscal year are entered in the Actual **Financial** metric tables in CAPER ~~metric tables~~. For projects with mission benefits that the Champion wants validated, the Sponsor will ensure the summary metric data for the previous quarter are entered in the Actual **Performance** metric tables in CAPER. (There is no intent to require sponsors themselves to enter the data in CAPER; however, the sponsor is responsible for ensuring the CAPER financial tables are updated.) ~~These~~ **Financial** results should include the total costs *and revenue* of the new, improved process, by cost category and fiscal year. *Mission benefit results should include summary statistics by type benefit and by Quarter (for the previous year), as well as control or run charts should be uploaded in CAPER as project documents.* There are two data-fields in CAPER which summarize how well the project achieved its target. Data-field “4.5 Project Metric Target” specifies the project’s primary metric and data-field “4.6 Project Achievement” summarizes the percentage achievement, up to 100% if the project meets or exceeds the target. If the project does not achieve the original financial target or goal, this is not necessarily problematic. Typically, it is better to set aggressive targets and make substantial improvements than to set middling targets which are easily achieved but do not substantively improve the process.*

*e. Validation of actual **financial** benefits typically will be data-driven. The **BCE baseline** should be based on empirical data of the actual cost or *metric tables* of the “AS IS” process, accurately documented. For the out-years, the **BCE financial baseline** will be updated with accurate inflation factors. The “TO BE” process costs *or metric tables* should be based on empirical data of the actual costs of the improved process, accurately documented, after the project’s controls have been implemented. Without baseline and post-improvement process data, benefits typically cannot be validated. ~~Financial benefits are typically considered to be actual benefits only if:~~*

~~(1) They are summarized in the financial metric tables in CAPER; there are data sets in CAPER supporting the baseline summaries; and there are data sets in CAPER from the new, improved process, after project completion, which show that costs have been reduced or revenue increased (compared to the baseline).~~

~~(2) A DLA Finance (J8) or other financial representative has validated in writing the aggregated summary of the baseline and post-improvement data and the net financial benefit. For projects with financial benefits greater than \$100K per year, the financial representative shall be from DLA Finance (J8).~~

8. RELEASEABILITY. Unlimited. This Manual is approved for public release and is available on the Internet from the DLA Issuance Website at <http://www.dla.mil/DLAPS/>.

9. EFFECTIVE DATE. This Manual is effective upon its publication to the DLA Issuances Website.

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Director, DLA Strategic Plans and Policy

Enclosures

Enclosure 1 – Financial Assumptions & Procedures

Enclosure 2 – Data Tables

Enclosure 3 – Examples of CPI Financial Benefits

ENCLOSURE 1

FINANCIAL ASSUMPTIONS & PROCEDURES

1. DLA Federal Services Management (FSM) Procedures and Assumptions. FSM financial assumptions and procedures are summarized below. For more complete descriptions of each cost element, please see the OMB Circular No. A-76 (Revised) May 29, 2003, particularly Attachment C of the Circular "Calculating Public-Private Competition Costs" and the "A-76 Costing Module."

a. Labor costs. A fractional reduction in Full Time Equivalent (FTE) employees is not counted as a cost savings or avoidance. A cost savings requires a whole number of FTEs eliminated from the budget. Cost avoidance requires a re-allocation of the position(s): i.e., a whole number of FTEs transferred out of their current position(s), and the current position(s) eliminated.

(1) Elimination of General Schedule (GS) Positions. In many, if not most, CPI projects which result in reduced labor costs, the type of position eliminated is a GS-position. The FSM methodology for a GS-position distinguishes the GS-level and geographic location; but not the Step-level. The methodology assumes a Step-5 for a specific GS-level at a specific geographic location (including "Rest of US").

(a) The FSM methodology separates labor costs into two parts: First, "Salary" and "Other Entitlements," which include full fringe benefits; and second, "Other Pay" which has only a Federal Insurance Contribution Act (FICA)-factor applied to it. An example of "Other Entitlements" is "Environmental Differential Pay" which workers earn when exposed to specific hazardous working conditions defined by the Office of Personnel Management (OPM). Examples of "Other Pay" are overtime and holiday pay. The FSM methodology combines a person's "Salary" and "Other Entitlements" and calls this total the person's "Basic Pay." The current full fringe factor, e.g., 36.25 percent, is applied to the Basic Pay. The FICA-portion is applied to the remaining Other Pay.

(b) For example, suppose a CPI project was able to eliminate two positions from an organization in Philadelphia in CY 2010; and the two GS-11 employees were moved from their old position to a new position in Philadelphia. Suppose further the two employees typically earned around 100 hours of overtime per year, over the past five years. Using the OPM CY 2010 GS pay schedule tables at <http://www.opm.gov/oca/> for a GS-11 Step 5 in Philadelphia, each employee earned \$69,409 per year in salary and had an overtime rate of \$40.07 per hour.

(c) The employee's "Basic Pay" in this case is restricted to their salaries: \$69,409/year. Applying a full fringe factor of 36.25 percent to this basic pay, their fully burdened salary was \$94,569 per year. Their annual overtime pay was (100 hours) * (\$40.07/hour) = \$4,007 per year. Applying the FICA factor of 7.65 percent to this generates

\$4,313.54 in overtime with FICA. The cost avoidance benefit of moving the employees to another position was $\$94,569.76 + \$4,313.54 = \$98,883$ per employee per year.

(2) Elimination of Federal Wage Scale (FWS) Positions. The FSM methodology for FWS employees is similar to that for GS-employees. Instead of a GS-Step 5, however, the methodology assumes a Step 4 for a specific FWS-level at a specific location. The DoD FWS hourly pay tables are at <http://www.cpms.osd.mil/wage/>. For most FWS positions, the hourly rate is multiplied by the annual number of productive hours a FWS employee works (1,776 hours per year) to generate an annual salary. The exception is with intermittent employees, who do not have a prearranged regular tour of duty. Intermittent employees are assumed to work 2,007 hours per year. As with the FSM approach to GS-employees, the full fringe benefit factor is applied to the worker’s Basic Pay (namely, the annualized salary plus “Other Entitlements”). The FICA factor is applied to the worker’s “Other Pay”. And the labor cost is the sum of the fully burdened Basic Pay and the “Other Pay” (with a FICA factor applied).

(3) Elimination of Military Positions. The FSM approach to labor costs for military personnel is simpler in terms of annual salary with fringe factors. The annual compensation for military positions is determined by the standard military composite rates for each Service. These composite rates are at “Military and Uniformed Services Composite Pay Rates” at Table 1 of Enclosure 2 of the manual. Military positions have 1,818 productive hours available per year.

(4) Details of FSM Methodology for Labor. Fringe and other benefits for civilians depend on the type of position and the cost category. Position codes for types of positions are shown in Table 1 below.

Table 1. Position Type Codes.

| Code | Abbreviated Name | Full Name |
|----------|------------------|---|
| A | FT/PT | Appropriated Fund Full-Time or Part-Time |
| B | Int | Appropriated Fund Intermittent Position |
| C | Temp | Appropriated Fund Temporary Position |
| D | NAF-R | NAF Regular Position |
| E | NAF-F | NAF Flexible Position |
| F | FN FT-PT | Foreign National Full-Time or Part-Time Positions |
| G | FN Int | Foreign National Intermittent Position |
| H | FN Temp | Foreign National Temporary Position |

(a) For full or part-time “Appropriated Funds” civilian positions, the salaries, wages and entitlements are subject to Full Fringe benefits. Full fringe benefits for civilians include Medicare benefits, Survivors Death Insurance, Retirement benefits, FICA, Health Insurance, and miscellaneous benefits (workman’s compensation, bonuses, awards, and unemployment programs). Factors for these benefits are at Table 2 of Enclosure 2 of the manual. The fringe benefit for the cost category “Other Pay” is limited to the FICA tax. Military fringe and other benefits are already included in the Composite Pay Rates for military personnel at Table 1 of Enclosure 2. The tables at Enclosure 2 originate at the OPM; they are vetted through the

Headquarters DLA Financial Operations (J8); and are updated annually at the beginning of each Calendar Year.

(b) The cost category “Other Entitlements” refers to pay which civilian personnel are entitled to, based on the time of day (e.g., shift work differentials for FWS positions) and/or the type of work they perform (e.g., environmental for FWS positions). “Basic Pay” refers to the sum of annual salary or wages and other entitlements. “Other Pay” includes premium pay that does not earn fringe benefits other than FICA taxes. Examples of “Other Pay” include night and hazardous duty pay for GS employees, overtime pay, holiday pay, category-one civilian awards, civilian bonuses, and uniform allowances.

(c) The OPM/FSM methodology assumes an additional 12 percent overhead cost for personnel (excluding military and uniformed services personnel). This overhead factor includes salaries, accounting, and other common services performed in support of the specific organization, but from organizations outside of it. If the CPI project is part of a FSM initiative, then the 12 percent overhead cost should be included in the cost analysis; otherwise, it is not included for CPI projects.

(d) Table 4 of Enclosure 2 lists the available work hours per year per FTE civilians: 1,776 hours for Full Time, Part Time and Temporary civilians; 2,007 work hours per year per FTE for Intermittent civilians. The total paid hours for each of these civilians is 2,087 hours per year per FTE.

(e) For DLA budget documents (including the CAPER metric tables), labor costs will be categorized under “Labor”.

b. Capital costs. The OPM/FSM methodology defines Capital Equipment as equipment costing \$25,000 or more. For DLA, the threshold is an order of magnitude higher: Non-ADP Equipment, ADP Equipment and Software Development over \$250K are considered Capital. (Note: DLA considers Minor Construction over \$100K and less than \$750K as Capital. There is also an allowance for Minor Construction up to \$1.5M in cases of life/health threatening or security threatening situations.) The determination as to whether costs are treated as Capital costs should be made in conjunction with a local PLFA/Headquarters DLA Finance (J8) member of the project’s financial group.

(1) The calculation of depreciation uses straight line accounting methods, with standard factors for the useful life and disposal value of capital equipment, by Federal Supply Class. There are also factors for the Cost of Capital, for variable numbers of Performance Periods. These standard factors can be overwritten by different factors, if the latter are more accurate for a specific project, provided the financial representative on the project team agrees to the exceptions.

(a) Annual depreciation costs of capital equipment are not indexed for inflation. They are computed as:

ANNUAL DEPRECIATION COSTS =

$$\frac{((\text{Acquisition Cost} + \text{Transportation Cost} + \text{Installation Cost}) - \text{Residual Value})}{(\text{Useful Life})}$$

(b) The annual cost of capital for the capital equipment is not indexed for inflation. It is computed as:

$$\text{ANNUAL COST OF CAPITAL} = (\text{Acquisition Cost} + \text{Transportation Cost} + \text{Installation Cost}) * (\text{Cost of Capital Factor})$$

(c) Insurance costs of capital equipment are based on the Net Book Value of the equipment, which is the original acquisition cost less its accumulated depreciation. Insurance costs, when applicable, are typically indexed for inflation.

$$\text{NET BOOK VALUE} = (\text{Acquisition Cost} + \text{Transportation Cost} + \text{Installation Cost}) - (\text{Annual Depreciation} * \text{Asset Age})$$

(2) The OPM/FSM methodology does not have standard factors for the maintenance of capital equipment. The annual maintenance costs should be based on actual maintenance costs for the time period or through an appropriate Cost Estimation technique. The maintenance costs typically will be indexed for inflation.

(3) Capital improvements, as opposed to purchasing new capital equipment, will be treated as a separate asset in cost estimates, with a separate date of improvement. For example, if the useful life of a capital asset is extended through a capital improvement program, the cost of this program will be listed separately from the cost of the original capital equipment, using the date of the improvement program versus the date of the original acquisition.

(4) New facilities which are not provided to the DLA organization as a Government Furnished Program (GFP) shall be treated in the same way as Capital Equipment. The OPM/FSM methodology assumes the Useful Life Expectancy as shown in the table below. If non-DLA organizations share the space of the facility, the cost of the facility shall be shared in the cost estimate among the organizations based on floor space usage or a similar metric. For DLA budget documents (including the CAPER metric tables), Capital costs will be categorized under "Capital."

| Facility Useful Life Expectancy | |
|--|--------------------|
| Facility Category | Useful Life |
| Permanent | 75 years |
| Semi-Permanent | 50 years |
| Temporary | 25 years |

c. Minor Item Equipment Costs. The FSM methodology defines Minor Item Equipment as equipment costing less than \$25,000. Minor items are non-capitalized (i.e., they are not depreciated) durable items. If the equipment is government furnished or it is not used in the process being improved, the cost of the equipment is not included in the cost analysis. Otherwise, the OPM/FSM methodology assumes an annual 10% “replacement rate”. Neither the “AS IS” nor the “TO BE” process is charged with the initial full purchase price of newly purchased equipment. Rather, 10 percent of the value of the equipment is charged annually for the full evaluation period. The 10 percent “replacement cost” is not inflated over time; insurance and maintenance costs (if applicable), however, are based on inflated values of the equipment. Operations & Maintenance (O&M) inflation factors and Foreign Country O&M inflation factors for replacement items are listed in Table 3 of Enclosure 2. For DLA budget documents (including the CAPER metric tables), Minor Item costs will be categorized under “Equipment”.

d. Supply & Material Costs. If the supplies are government furnished, the cost of the supplies will not be included in the cost analysis. If supplies are covered by insurance, the OPM/FSM methodology assumes an insurance rate of 0.005 times the average annual value of material and supplies. It further assumes a one-month supply is on-hand at any point in time. As such, the default OPM/FSM assumption is that insurance costs of supplies are the annual cost of supplies times 0.005 divided by twelve months.

(1) The annual O&M inflation factors and Foreign Country O&M inflation factors for supplies (excluding fuel) are listed in Table 3 of Enclosure 2. For DLA budget documents (including the CAPER metric tables), supply costs will be categorized under “Supplies,” if they are for internal DLA use.

(2) If the supplies are purchased by DLA for DLA customers, e.g., the Services, then the supplies will be categorized under “Material”. If DLA sells the supplies to their customers, then the supplies will be categorized under “Sales.”

e. Fuel Costs. Cost of fuel provided to the Services and DoD agencies (including DLA) will be adjusted for inflation, if appropriate, based on the Fuels Inflation Cost Factor in Table 3 of Enclosure 2. For DLA budget documents (including the CAPER metric tables), fuel costs will be categorized under “Supplies,” if they are for internal DLA use. If the fuel is purchased by DLA for DLA customers, e.g., the Services, then the fuel will be categorized under “Material.” If DLA sells fuel to their customers, then the fuel will be categorized under “Sales.”

f. Utility Costs. Utility costs include charges for electricity, telephone, water and sewage. The costs will use the O&M or Foreign O&M inflation factors in Table 3 of Enclosure 2, if appropriate. For DLA budget documents (including the CAPER metric tables), utilities costs will be categorized under “Rent/Communication/Utilities”.

g. Rental Costs. Rents are incurred for the use, operation and maintenance of land, building space, plants, and equipment, vehicles or machinery. The most common types of rental costs are for vehicles and equipment. Typically, land and facilities are Government furnished, and the DLA organization does not incur rental costs. O&M inflation factors and Foreign Country O&M

inflation factors for rental costs are listed in Table 3 of Enclosure 2. Insurance costs for the items will be included, if relevant. For DLA budget documents (including the CAPER metric tables), rental costs will be categorized under “Rent/Communication/Utilities”.

h. Travel Costs. Cost of mission-related travel, including travel to meetings, conferences, training, etc. will be adjusted for inflation, if appropriate, based on the O&M or Foreign O&M inflation factors in Table 3 of Enclosure 2. For DLA budget documents (including the CAPER metric tables), travel costs will be categorized under “Travel”.

i. Transportation Costs. Transportation costs are expenses charged to DLA to move material, supplies and equipment. If the transportation costs are not already included in the cost for capital or minor item equipment, they shall be listed as a separate line item. If relevant, the costs will be adjusted for inflation based on the O&M or Foreign O&M inflation factors in Table 3 of Enclosure 2. For DLA budget documents (including the CAPER metric tables), transportation costs will be categorized under “Transportation”.

j. Contractor Costs. Contractor and sub-contractor costs will be adjusted for inflation, if appropriate, using the O&M or Foreign O&M inflation factors in Table 3 of Enclosure 2. Taxes paid by the contractor shall be subtracted from the contractor costs. Staffing costs to DLA to administer the contract shall be added to the contractor costs. For DLA budget documents (including the CAPER metric tables), contractor costs will be categorized under “Purchased Services.”

2. Inflation Calculation at a Daily Rate. The OPM/FSM methodology calculates inflation at a daily rate. The inflated cost of an item at a specific date, compared to a baseline cost, is a function of the acquisition/baseline cost, annual inflation rates, and the length of time between the date of the acquisition/baseline cost and changes in annual inflation rates (expressed in fractional number of years).

a. Suppose an acquisition item is purchased on the first day of a new fiscal year, and the cost is based on that purchase date. And suppose that inflation rates are updated annually at the beginning of each fiscal year. Then the annual baseline cost for the first day of the next fiscal year, adjusted for inflation, is (Original acquisition cost) * (1.0 + First year’s annual inflation rate)

b. Continuing the example in paragraph 2.a, suppose you want to know the inflated cost at the beginning of the 3rd Quarter in the second fiscal year; that is, the 182nd day of the second fiscal year (provided it isn’t a leap year). The inflated baseline cost for this date is

$$\text{(Original acquisition cost)} * (1.0 + \text{First year's annual inflation rate}) * (1.0 + \text{Second year's annual inflation rate}) ^ (182 \text{ days}/365 \text{ days})$$

Where the symbol “^” means “exponent,” or the first term taken to the power of the second term. The second term, in this case, is (182 days/365 days) = 0.4986, which is roughly half of a full year.

c. Inflation Algorithm. For a more general case, the inflated cost of an acquisition or baseline cost at a specific date in the future, the OPM/FSM methodology uses the following algorithm.

| | |
|-------------|--|
| Term | Definition |
| BaseCost | Acquisition or Baseline Cost in dollars |
| Inflation_1 | Inflation Factor #1, which applies to Time Period 1 |
| Frac_Yrs_1 | Fractional # years in Time Period 1; (Exponent of Inflation Factor #1) |
| Inflation_2 | Inflation Factor #2, which applies to Time Period 2 |
| Frac_Yrs_2 | Fractional # years in Time Period 2; (Exponent of Inflation Factor #2) |
| ... | |
| Inflation_N | Inflation Factor #N, which applies to the last Time Period, N |
| Frac_Yrs_N | Fractional # years in Time Period N; Exponent of Inflation Factor #N) |

The inflated base or acquisition cost at a specific date is calculated as:

$$\text{Inflated Item Cost} = \text{BaseCost} * ((1+\text{Inflation}_1)^{\text{Frac_Yrs}_1}) * ((1+\text{Inflation}_2)^{\text{Frac_Yrs}_2}) * \dots * ((1+\text{Inflation}_N)^{\text{Frac_Yrs}_N})$$

Where “Frac_Yrs_1” is the exponent of the term (1+Inflation_1), “Frac_Yrs_2” is the exponent of the term (1+Inflation_2), etc.

d. Example. Suppose the price of an item current on 1 January 2010 is \$1000, the annual inflation factor for FY 2010 (through 30 September 2010) is 0.020, the annual inflation factor for FY 2011 (through 30 September 2011) is 0.021, and the annual inflation factor for FY 2012 (through 30 September 2012) is 0.019. And suppose you want the inflated cost for two time periods:

| Performance Period | From | To |
|--------------------|------------|------------|
| PP1 | 07/01/2010 | 06/30/2011 |
| PP2 | 07/01/2011 | 06/30/2012 |

(1) The inflated cost of the item for the first performance period is:

$$\begin{aligned} \text{INFLATED ITEM COST FOR PP1} = \\ \text{BaseCost} * ((1+0.020) ^ (181 \text{ days}/365 \text{ days})) * ((1+0.020) ^ (92 \text{ days}/365 \text{ days})) * \\ ((1+0.021) ^ (273 \text{ days}/365 \text{ days})) = \$1,031 \end{aligned}$$

(a) The first value raised to a power, “0.020” is the Inflation Factor applicable to the period 1 January 2010 (the “Price Current as of Date”) through 30 June 2010 (the day prior to the start of the first PP). Note that 181 is the number of calendar days from 1 January 2010 to 30 June 2010; and 365 is the number of days in a non-leap year.

(b) The second value raised to a power, “0.020” is the Inflation Factor applicable to the period 1 July 2010 (the start of the first PP) through 30 September 2010 (the last day of the FY10 Inflation Factor). Note that 92 is the number of calendar days from 1 July 2010 to 30 September 2010; and 365 is the number of days in a non-leap year.

(c) The third value raised to a power, “0.021” is the Inflation Factor applicable to the period 1 October 2010 through 30 June 2011 (the last day of the first PP). Note that 273 is the number of calendar days from 1 October 2010 to 30 June 2011; and 365 is the number of days in a non-leap year.

(d) The inflated cost of the item for the first performance period is \$1,031.

(2) The inflated cost for the second performance period is:

$$\begin{aligned} \text{INFLATED ITEM COST FOR PP2} = \\ \text{BaseCost} * ((1+0.020)^{(181 \text{ days}/365 \text{ days})}) * ((1+0.020)^{(92 \text{ days}/365 \text{ days})}) * \\ ((1+0.021)^{(273 \text{ days}/365 \text{ days})}) * ((1+0.021)^{(92 \text{ days}/365 \text{ days})}) * \\ ((1+0.019)^{(274 \text{ days}/366 \text{ days})}) = \$1,051 \end{aligned}$$

(a) The first three values raised to a power, and their respective exponents, are the same as for the first performance period.

(b) The fourth value raised to a power, “0.021,” is the Inflation Factor applicable to the period 1 July 2011 (the start of the second PP) through 30 September 2011 (the last day of the FY11 Inflation Factor). Note that 92 is the number of calendar days from 1 July 2011 to 30 September 2011; and 365 is the average number of days in a non-leap year.

(c) The fifth value raised to a power, “0.019” is the Inflation Factor applicable to the period 1 October 2011 through 30 June 2012 (the last day of the second PP). Note that 274 is the number of calendar days from 1 October 2011 to 30 June 2012 (with the extra day in the leap year); and 366 is the average number of days in a leap year.

(d) The inflated cost for the second performance period is \$1,051.

(3) The OPM/FSM methodology takes account of Leap Year by assuming 365.25 days in every year. Under this assumption, the calculated inflated cost of the item for the example above, for both the first and second performance period, is the same (when rounded to the nearest dollar): \$1,031 and \$1,051 respectively.

$$\begin{aligned} \text{INFLATED ITEM COST FOR PP1} = \\ \text{BaseCost} * ((1+0.020)^{(181 \text{ days}/365.25 \text{ days})}) * ((1+0.020)^{(92 \text{ days}/365.25 \text{ days})}) \\ * ((1+0.021)^{(273 \text{ days}/365.25 \text{ days})}) = \$1,031 \end{aligned}$$

INFLATED ITEM COST FOR PP2 =

$$\begin{aligned} & \text{BaseCost} * ((1+0.020)^{(181 \text{ days}/365.25 \text{ days})}) * ((1+0.020)^{(92 \text{ days}/365.25 \text{ days})}) \\ & * ((1+0.021)^{(273 \text{ days}/365.25 \text{ days})}) * ((1+0.021)^{(92 \text{ days}/365.25 \text{ days})}) * \\ & ((1+0.019)^{(274 \text{ days}/365.25 \text{ days})}) = \$1,051 \end{aligned}$$

3. Use of non-FSM Assumptions, Algorithms or Procedures. The OPM/FSM methodology is the default CPI methodology for calculating CPI financial benefits. In some cases, however, the CPI team of a specific project might decide to use a different approach with different assumptions, algorithms or procedures. This is perfectly acceptable provided the financial representative approves of it. For expected benefits greater ~~\$100K~~ \$500K, the DLA Finance (J8) representative on the project team must approve of these exceptions.

ENCLOSURE 2

FINANCIAL DATA TABLES

1. The following tables are extracted from data tables used in Federal Services Management (FSM) competitions. As the default DLA CPI methodology, DLA CPI financial benefits will typically be based on the Office of Personnel Management (OPM)/FSM approach. To this end, the data in the following tables should typically be used. Exceptions to the use of these tables are acceptable provided the financial representative in the project team agrees to the exceptions.

2. These four tables contain data most frequently used in CPI projects for calculating manpower reductions and for inflating baseline cost estimates to current dollars. These tables will be updated periodically; the current version of these data tables will be posted in CAPER at: <https://dla.hqda.pentagon.mil/DLA/project/Summary1.epage?sp=Ugo5o12o0000jb886kdp000000>

| Table No. | Table Heading |
|------------------|---|
| Table 1 | Military/Uniformed Services Composite Pay Rates |
| Table 2 | Fringe/Medicare Factors |
| Table 3 | Cost Factors/Rates |
| Table 4 | FTE Available Work Hours/Pay Conversion Hours |

Table 1 – Military/Uniformed Services Composite Pay Rates

(MASTER)

Table Version Date: 1/25/2010

| Service | Grade | Annual Rate | Effective Date | Changed |
|---------|-------|-------------|----------------|---------|
| | E-1 | \$44,390 | 10/1/2009 | |
| | E-2 | \$49,537 | 10/1/2009 | |
| | E-3 | \$53,615 | 10/1/2009 | |
| | E-4 | \$65,935 | 10/1/2009 | |
| | E-5 | \$78,485 | 10/1/2009 | |
| | E-6 | \$91,865 | 10/1/2009 | |
| | E-7 | \$105,979 | 10/1/2009 | |
| | E-8 | \$118,543 | 10/1/2009 | |
| | E-9 | \$137,838 | 10/1/2009 | |
| | O-1 | \$90,452 | 10/1/2009 | |
| | O-2 | \$113,210 | 10/1/2009 | |
| | O-3 | \$138,033 | 10/1/2009 | |
| | O-4 | \$162,037 | 10/1/2009 | |
| | O-5 | \$184,317 | 10/1/2009 | |
| | O-6 | \$214,581 | 10/1/2009 | |
| | O-7 | \$244,754 | 10/1/2009 | |
| | O-8 | \$273,766 | 10/1/2009 | |
| | O-9 | \$305,886 | 10/1/2009 | |
| | O-10 | \$305,114 | 10/1/2009 | |

Table 2 – Fringe/Medicare Factors

(MASTER)

Table Version Date: 1/25/2010

| Code | Name | Complete Name | Factor | Max Salary Limit | Effective Date |
|------|--------------|---|--------|---------------------|----------------|
| A | CS FRINGE | Civilian Position Full Fringe Benefit Cost Factor | 0.3625 | | 3/20/2008 |
| C | MEDICA RE | Medicare Benefit Cost Factor | 0.0145 | \$999,999 | 1/1/2010 |
| D | OA/S INS | Old Age & Survivors Death Insurance Cost Factor | 0.062 | \$106,800 | 1/1/2010 |
| E | CS RET | Standard Civilian Retirement Benefit Cost Factor | 0.261 | | 3/20/2008 |
| F | FICA | Federal Insurance Contribution Act (FICA) Cost Factor | 0.0765 | | 1/1/2010 |
| G | HEALTH | Insurance and Health Benefit Cost Factor | 0.07 | | 3/20/2008 |
| H | MISC | Miscellaneous Fringe Benefit Cost Factor | 0.017 | | 3/20/2008 |
| I | ATC RET | Special Class Retirement Cost Factor (Air Traffic Control) | 0.385 | | 3/20/2008 |
| J | LEF RET | Special Class Retirement Cost Factor (Law Enf/Fire Protect) | 0.404 | | 3/20/2008 |

Table 3 – Cost Factors/Rates

(MASTER)

Table Version Date: 2/15/2002

| Name | Complete Name | Factor | Effective | Year | Source | Changed |
|------------------|---|---------------|------------------|-------------|---------------|----------------|
| CAP3 | Cost of Capital Cost Factor (3 Years) | 0.0220 | 1/1/2010 | | OMBC A94 | |
| CAP4 | Cost of Capital Cost Factor (4 Years) | 0.0125 | 1/1/2010 | | | |
| CAP5 | Cost of Capital Cost Factor (5 Years) | 0.0160 | 1/1/2010 | | OMBC A94 | |
| CAP6 | Cost of Capital Cost Factor (6 Years) | 0.0175 | 1/1/2010 | | | |
| CAP7 | Cost of Capital Cost Factor (7 Years) | 0.0190 | 1/1/2010 | | OMBC A94 | |
| CAP8 | Cost of Capital Cost Factor (8 Years) | 0.0200 | 1/1/2010 | | | |
| CAP9 | Cost of Capital Cost Factor (9 Years) | 0.0210 | 1/1/2010 | | | |
| CAP10 | Cost of Capital Cost Factor (10 Years) | 0.0220 | 1/1/2010 | | OMBC A94 | |
| CAP30 | Cost of Capital Cost Factor (30 Years) | 0.0270 | 1/1/2010 | | OMBC A94 | |
| CAS INS | Casualty Insurance Cost Factor | 0.0050 | 5/29/2003 | | OMBC A76 | |
| CONVDIFF | Conversion Differential | 0.1000 | 5/29/2003 | | OMBC A76 | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1985 | 1985 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1986 | 1986 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1987 | 1987 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1988 | 1988 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1989 | 1989 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1990 | 1990 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1991 | 1991 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1992 | 1992 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1993 | 1993 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1994 | 1994 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1995 | 1995 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1996 | 1996 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1997 | 1997 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1998 | 1998 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/1999 | 1999 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2000 | 2000 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2001 | 2001 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2002 | 2002 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2003 | 2003 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2004 | 2004 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2005 | 2005 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2006 | 2006 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2007 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2008 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2009 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2010 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2011 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2012 | | |

| Name | Complete Name | Factor | Effective | Year | Source | Changed |
|------------------|--|---------------|------------------|-------------|---------------|----------------|
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2013 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2014 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2015 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2016 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2017 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2018 | | |
| FCO&M | Foreign Country Ops & Maint Cost Factor | 0.0000 | 10/1/2007 | 2019 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 1999 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2000 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2001 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2002 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2003 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2004 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2005 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2006 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2007 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2008 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2009 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2010 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2011 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2012 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2013 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2014 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2015 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2016 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2017 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2018 | | |
| FNLABINF | Labor Inflation Cost Factor – Foreign Nat’ls | 0.0000 | | 2019 | | |
| FUELS | Fuels Inflation Cost Factor | -0.2260 | 10/1/1986 | 1986 | TM 5 | |
| FUELS | Fuels Inflation Cost Factor | 0.1230 | 10/1/1987 | 1987 | TM 6 | |
| FUELS | Fuels Inflation Cost Factor | 0.0000 | 10/1/1988 | 1988 | TM 8 | |
| FUELS | Fuels Inflation Cost Factor | -0.0992 | 10/1/1989 | 1989 | TM 9 | |
| FUELS | Fuels Inflation Cost Factor | 0.8720 | 10/1/1990 | 1990 | TM 10 | |
| FUELS | Fuels Inflation Cost Factor | -0.1480 | 10/1/1991 | 1991 | TM 11 | |
| FUELS | Fuels Inflation Cost Factor | 0.0140 | 10/1/1992 | 1992 | TM 12 | |
| FUELS | Fuels Inflation Cost Factor | 0.1410 | 10/1/1993 | 1993 | TM 13 | |
| FUELS | Fuels Inflation Cost Factor | -0.1240 | 10/1/1994 | 1994 | TM 13 | |
| FUELS | Fuels Inflation Cost Factor | 0.0560 | 10/1/1995 | 1995 | FY98 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0130 | 10/1/1996 | 1996 | FY99 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.1970 | 10/1/1997 | 1997 | FY00 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | -0.0880 | 10/1/1998 | 1998 | FY01 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | -0.2530 | 10/1/1999 | 1999 | FY02 GRN BK | |

| Name | Complete Name | Factor | Effective | Year | Source | Changed |
|---------------|---|---------|-----------|------|-------------|---------|
| FUELS | Fuels Inflation Cost Factor | 0.6290 | 10/1/2000 | 2000 | FY03 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | -0.0100 | 10/1/2001 | 2001 | FY04 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | -0.1600 | 10/1/2002 | 2002 | FY05 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0830 | 10/1/2003 | 2003 | FY06 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.3300 | 10/1/2004 | 2004 | FY07 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.5970 | 10/1/2005 | 2005 | FY08 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0140 | 10/1/2006 | 2006 | FY09 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.3510 | 10/1/2007 | 2007 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | -0.3300 | 10/1/2008 | 2008 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0190 | 10/1/2009 | 2009 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.1130 | 10/1/2010 | 2010 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0420 | 10/1/2011 | 2011 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0280 | 10/1/2012 | 2012 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0240 | 10/1/2013 | 2013 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2014 | 2014 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2015 | 2015 | FY10 GRN BK | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2016 | 2016 | | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2017 | 2017 | | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2018 | 2018 | | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2019 | 2019 | | |
| FUELS | Fuels Inflation Cost Factor | 0.0230 | 10/1/2020 | 2020 | | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0310 | | 1999 | TM 18 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0480 | | 2000 | TM 23 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0370 | | 2001 | TM 24 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0480 | | 2002 | TM 25 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0410 | | 2003 | TM 25 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0410 | | 2004 | OMB MEMO'04 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0350 | | 2005 | OMB MEMO'05 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0310 | | 2006 | OMB MEMO'06 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0220 | | 2007 | OMB MEMO'06 | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0350 | | 2008 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0390 | | 2009 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0390 | | 2010 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2011 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2012 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2013 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2014 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2015 | FY10 GRN BK | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2016 | | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2017 | | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2018 | | |
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2019 | | |

| Name | Complete Name | Factor | Effective | Year | Source | Changed |
|----------------|---|--------|-----------|------|-------------|---------|
| LABINF | Labor Inflation Cost Factor – Civ Positions | 0.0230 | | 2020 | | |
| LIBINS | Personnel Liability Insurance Cost Factor | 0.0070 | 5/29/2003 | | OMBC A76 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0310 | 1/1/1999 | 1999 | TM 18 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0480 | 1/1/2000 | 2000 | TM 23 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0370 | 1/1/2001 | 2001 | TM 24 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0690 | 1/1/2002 | 2002 | TM 25 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0470 | 1/1/2003 | 2003 | TM 25 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0415 | 1/1/2004 | 2004 | OMB MEMO'04 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0350 | 1/1/2005 | 2005 | OMB MEMO'05 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0310 | 1/1/2006 | 2006 | OMB MEMO'06 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0270 | 1/1/2007 | 2007 | OMB MEMO'06 | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0350 | 1/1/2008 | 2008 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0390 | 1/1/2009 | 2009 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0290 | 1/1/2010 | 2010 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2011 | 2011 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2012 | 2012 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2013 | 2013 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2014 | 2014 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2015 | 2015 | FY10 GRN BK | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2016 | 2016 | | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2017 | 2017 | | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2018 | 2018 | | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2019 | 2019 | | |
| MILPAY | Labor Inf Cost Factor–Military/Uniform Svc | 0.0340 | 1/1/2020 | 2020 | | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0320 | 10/1/1985 | 1985 | TM 2 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0310 | 10/1/1986 | 1986 | TM 5 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0330 | 10/1/1987 | 1987 | TM 6 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0390 | 10/1/1988 | 1988 | TM 8 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0400 | 10/1/1989 | 1989 | TM 9 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0440 | 10/1/1990 | 1990 | TM 10 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0310 | 10/1/1991 | 1991 | TM 11 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0270 | 10/1/1992 | 1992 | TM 13 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0270 | 10/1/1993 | 1993 | TM 14 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0290 | 10/1/1994 | 1994 | TM 16 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0220 | 10/1/1995 | 1995 | TM 17 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0220 | 10/1/1996 | 1996 | TM 18 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0120 | 10/1/1997 | 1997 | TM 19 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0130 | 10/1/1998 | 1998 | TM 21 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0190 | 10/1/1999 | 1999 | TM 23 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0230 | 10/1/2000 | 2000 | TM 24 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0130 | 10/1/2001 | 2001 | TM 25 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0130 | 10/1/2002 | 2002 | TM 25 | |

| Name | Complete Name | Factor | Effective | Year | Source | Changed |
|-----------------------|---|--------|-----------|------|-------------|---------|
| O&M | Operations & Maintenance Inf Cost Factor | 0.0130 | 10/1/2003 | 2003 | OMB MEMO'04 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2004 | 2004 | OMB MEMO'05 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2005 | 2005 | OMB MEMO'05 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2006 | 2006 | OMB MEMO'06 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2007 | 2007 | OMB MEMO'06 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2008 | 2008 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2009 | 2009 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2010 | 2010 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2011 | 2011 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2012 | 2012 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2013 | 2013 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2014 | 2014 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2015 | 2015 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2016 | 2016 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2017 | 2017 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2018 | 2018 | OMB MEMO'08 | |
| O&M | Operations & Maintenance Inf Cost Factor | 0.0200 | 10/1/2019 | 2019 | OMB MEMO'08 | |
| OTHCONV | Other One-Time Conversion Cost Factor | 0.0100 | 5/29/2003 | | OMBC A76 | |
| OVER- HEAD | Overhead Factor | 0.1200 | 5/29/2003 | | OMBC A76 | |
| SEVPAY | Severance Pay One-Time Conversion Cost Factor | 0.400 | 5/29/2003 | | OMBC A76 | |

Table 4 – FTE Available Work Hours/Pay Conversion Hours

(MASTER)

Table Version Date: 8/30/2004

| Code | Item Name | Factor | Source |
|-------------|---|---------------|---------------|
| A | Intermittent Annual Productive Hours – Civilian (FTEs = Hrs/Factor) | 2007 | OMBC A76 |
| B | Full-Time, Part-Time & Temporary Annual Productive Hours – Civilian (FTEs = Hrs/Factor) | 1776 | OMBC A76 |
| C | Hourly to Annual Pay Conversion Hours (Annual Pay = Hourly Pay x Factor) | 2087 | OMBC A76 |

ENCLOSURE 3

EXAMPLES OF FINANCIAL BENEFITS

The following examples illustrate different types of benefits from CPI projects. Not all CPI projects will generate financial benefits. Equally beneficial are mission or operational improvements. The emphasis, however, in this group of examples is on financials as shown in the table below. Obviously, this handful of examples is not intended to present every possible way that financial benefits can be generated. These examples are drawn heavily from the Army Business Transformation Handbook for financial benefits.

Table 1. Examples of Financial Benefits.

| No. | Type of Benefit | Distinguishing Features of the Example |
|-----|------------------------------------|--|
| 1 | Savings | Reduces civilian or contractor manpower requirement and the associated costs |
| 2 | Savings | Reduces unit cost |
| 3 | Savings | Requires viewing benefits from process-wide perspective |
| 4 | Savings | Reduces overall process cost, but has no financial benefit for DLA |
| 5 | No financial benefit | Makes more efficient use of people's time, but people must remain on the rolls |
| 6 | Mission benefits | Improves process lead time, on-time completion, and rework |
| 7 | Savings & mission benefits | Makes more efficient use of people's time, but people must remain on the rolls. Reduces cost of a contract |
| 8 | Potential savings or cost increase | Requires viewing benefits from process-wide perspective |
| 9 | Revenue generation | Increases DLA net revenue |
| 10 | Revenue generation | Increases funding from Army customers in a revolving fund environment |
| 11 | No financial benefit | Reduces expenditures but fails to accomplish the mission |
| 12 | Cost avoidance | Revises the process to manage budget cuts |

1. EXAMPLE 1. As a result of adding automation to a process, the number of full-time civilian personnel or contractors working on that process will be reduced by 20. If these 20 people cost \$2 million annually, that figure, minus the cost of the added automation, is savings that can be reapplied to other requirements.

2. EXAMPLE 2. DLA Aviation supplies repair parts to an Army depot, which is responsible for overhauling helicopters. The overhaul process costs \$750K per aircraft. DLA Aviation has funding of \$75M from the Army to meet a requirement to overhaul 100 helicopters. DLA negotiates a new purchasing arrangement with external suppliers that grants quantity discounts on purchases of material used in the overhaul process, with the net result being that the depot is now able to overhaul each aircraft for \$500K. This represents a cost reduction of \$25M, because it will cost that much less to meet the requirement of overhauling 100 helicopters ($\$25M = 100 \text{ aircraft} \times (\$750K - \$500K)$). The reduced cost of the contract represents savings, because as soon as the contract price is renegotiated, the \$25M will be available for DLA to use on other functions. In other words, DLA can continue with the current mission of supporting the overhaul of 100 helicopters and can do so by spending only \$50M. Over time, the Army would reduce DLA's funding by \$25M; and the \$25M would be available for the Army to use, not DLA.

3. EXAMPLE 3. Two organizations work together to perform a process, with Organization A using 25 civilians and Organization B using 30 civilians. The two organizations work together to redesign the process, and the result is a revised process that will require 20 civilians in Organization A and 33 in Organization B. The numbers are displayed in the table below. Assuming that all personnel cost the same amount, when these numbers are converted to dollars there will be a financial savings benefit equal to the cost of two personnel. Regardless of which organization is shown as the project owner in CAPER, the cost entry and the benefit would be the same, because costs are viewed from a process-wide perspective. The fact that costs went up in one organization and down in the other has no bearing on the benefit calculation.

Table 2. CPI improvement affecting multiple organizations.

| | Number of Personnel | | |
|------------------|---------------------|----------------|----------------|
| | Organization A | Organization B | Organization C |
| Baseline process | 25 | 30 | 55 |
| Revised process | 20 | 33 | 53 |
| Benefit | 5 | -3 | 2 |

4. EXAMPLE 4. The Defense Finance and Accounting Service (DFAS) processes financial transactions for the military departments, which pay DFAS for the service. DLA adopts new procedures that simplify the way it submits transactions. This reduces processing costs at DFAS, and DLA's bill from DFAS will decrease. DLA's subject matter experts expect that the OSD

Comptroller, recognizing the cost reduction at DFAS, will decrease DLA's funding by a like amount. Thus the net financial impact on DLA will be zero, because DLA's bill from DFAS and its funding from OSD will decrease by the same amount. However, from a process-wide perspective DoD will have reduced its costs, and the data entered in CAPER would reflect the cost savings.

5. **EXAMPLE 5.** Throughout DLA, each of 100 employees devotes 10 hours per week to processing officer evaluation reports (OER). As a result of a process improvement initiative that provides improved software for the preparation of OERs, this time is reduced to six hours per week. The employees also perform other functions that require them to remain in the workforce, so there is no opportunity to reduce total labor costs. In this case, there is no financial benefit, despite the reduction of 400 work hours per week. If the reduced workload resulted in reduced paid overtime, or similar compensation, this would have been a cost savings.

6. **EXAMPLE 6.** Continuing with example 5, a further assessment shows that the reduction in processing time enables each organization to improve the percentage of OERs that are submitted on time, and that the software reduces the average number of errors on an OER. Thus, there are quantifiable operational benefits: a reduction in process lead time, an increase in on-time performance, and a reduction in the number of OERs that have to be reworked to correct errors.

7. **EXAMPLE 7.** At an installation, each of 20 employees spends five hours per week on a process. The process also uses supplies and materials that cost \$800K per year. The installation improves the process so that it requires only three hours per week from each employee. The employees perform other functions that require them to remain in the workforce, so there is no opportunity to reduce total labor costs. The improved process also reduces the requirement for supplies and materials to \$600K. These supplies and materials are purchased on a contract that does not commit the installation to a specified dollar amount. In this case there is no financial benefit resulting from the reduced process lead time of two person-hours for each of the 20 employees, because the employees must remain on the rolls to perform their other tasks. This reduction in lead time is, instead, a mission benefit. Nevertheless, there is a cost savings of \$200K resulting from the reduced purchase of supplies and materials.

8. **EXAMPLE 8.** A business process currently requires 10 full-time civilians. The manager determines that the process could be performed more effectively with a mix of six civilians and four military personnel. This reduces the organization's salary costs by the cost of four civilians, but increases costs in the centrally managed Military Personnel appropriation. As stated above, savings are defined from a process-wide perspective, regardless of who pays the bill. There would be a savings if the four civilian positions cost more than the four military positions and a negative financial benefit if the military personnel are more costly.

9. **EXAMPLE 9.** DLA pays, through DFAS, to transport supplies to a second-destination (and third- or higher-destinations), as a service to its customers. DLA, in turn, bills its customers for this service. Due to various DoD computer systems not properly linked, or computer systems with different data definitions, as well as other process impediments, DLA does not always manage to send the invoice to the current billing address. This results in lost revenue for DLA of \$20M per year. A continuous process improvement project is initiated, resulting in an increase

of \$18M per year in Net Operating Revenue (NOR). This increase is a financial benefit in the form of increased revenue generation.

10. EXAMPLE 10. A DLA organization does work for customers on a reimbursable basis through a revolving fund, and its customers include Army agencies. In a typical year, the work for Army customers generates net revenue of \$10M. The DLA organization conducts a project that makes its process more effective and thus enables it to produce a better product. This attracts more business from additional Army customers, increasing Army revenue by an additional \$5M per year. The \$5M increase in Army work, minus DLA expenses to manage the additional work, would be considered revenue generation.

11. EXAMPLE 11. DLA Land & Maritime is responsible for buying repair parts for combat vehicles, and it is required by Army policy to maintain a 10-day supply of repair parts in DLA and Army warehouses. DLA Distribution through a CPI project unilaterally decides to reduce its warehouse staff and, with the reduced staff, is able to maintain only an eight-day supply of parts. This change is not coordinated with either Army policy-makers or DLA Land & Maritime. The Army policy-makers believe the eight-day supply creates an unacceptable level of risk to mission accomplishment. There is no valid cost reduction in this case, because the organization is no longer able to meet the customer-established performance requirement.

12. EXAMPLE 12. DLA headquarters is responsible for a process that is performed by one of its subordinate elements. The process has validated costs of \$3 million per year. At the beginning of the year, the headquarters tells the subordinate element that it must limit its costs to \$2.8 million, but doesn't provide any guidance on how to revise the process or how to prioritize its work. The subordinate element complies with the funding guidance, by conducting and documenting a process improvement project that enabled it to meet the full requirement with the reduced funding. This is considered \$200K cost avoidance, instead of savings, since the current \$2.8M budget is not reduced.