Use of Life Cycle Cost Estimates in OMB-300 Budget Reporting

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Agenda & Outline

- OMB-300 Requirements
- Alternate interpretations of “life cycle cost”
- Budgetary vs. Comparative Estimates of LCC
- Conversion from LCC to OMB-300
  - Adjustments for inflation
  - Adjustments for scope
  - Adjustment for format
  - Treatment of labor costs
- Sample conversion using Excel
- Conclusions

OMB 300 Requirements

- The requirement to submit an OMB Exhibit 300 derives from OMB Circular A-11, Section 300 (Planning, Budgeting, Acquisition, and Management of Capital Assets)
  - Applies "to all agencies of the Executive Branch of the Government…An Exhibit 300 must be submitted for all *major* investments in accordance with this section." [1]
- "Major" investments are defined as:
  - Program thresholds / reporting requirements
- When OMB-300 is submitted, when updated
- OMB-300 requires a **life cycle cost estimate**
- LCC section format / requirements
  - Show sample LCC section

1. http://www.whitehouse.gov/omb/circulars/a11/current_year/s300.pdf

Sample OMB-300 LCC Section

Table 1: SUMMARY OF SPENDING FOR PROJECT PHASES (REPORTED IN MILLIONS) (Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)									
	PY–1 and earlier	PY 2008	CY 2009	BY 2010	BY+1 2011	BY+2 2012	BY+3 2013	BY+4 and beyond	Total
Planning:									
Acquisition :									
Subtotal Planning & Acquisition:									
Operations & Maintenance:									
TOTAL:									
Government FTE Costs should not be included in the amounts provided above.									
Government FTE Costs									
Number of FTE represented by Costs:									

Issue: Different Definitions of "Life Cycle Cost"

- "**Risk adjusted life-cycle costs** means the overall estimated cost for a particular investment alternative over…the life of the investment, including **direct and indirect** initial costs plus any periodic or continuing costs of operation and maintenance that has been adjusted to accommodate any risk identified in the risk management plans." – OMB Circular A-11 Sec. 300, p. 5
- "**A capital asset's life cycle**…is [all phases:] concept analysis, technology definition, requirements planning, acquisition, and operations and maintenance...LCCEs encompass all possible costs" – *GAO Cost Estimating and Assessment Guide*, pp. i & 32
- "***Total ownership cost (TOC)…is defined as Life Cycle* Cost** (LCC). LCC includes not only acquisition program direct costs, but also the indirect costs attributable to the acquisition program…For example, indirect costs would include the infrastructure that plans, manages, and executes a program over its full life and common support items and systems." – Gates, James. *Defense Acquisition University (DAU) Teaching Note: Introduction to Cost Analysis* (April, 2006)

Issue: Different Definitions of "Life Cycle Cost" (continued)

- However, it the *GAO Cost Guide* does *not* endorse the view of "life cycle cost" as the most comprehensive possible cost, and does *not* regard it as equivalent to total ownership cost (TOC): "[TOC is] related to LCCE but broader in scope…consists of the elements of life cycle cost plus some infrastructure and business process costs not necessarily attributable to the program." (p. 35)
  - This is relevant because the GAO standards are the ones used to audit the cost estimating practices within agencies and programs
- Moreover, it is customary to for the analyst to set a timeframe for the LCCE in the ground rules and assumptions section (e.g. FOC+10), which may or may not match the "life of the investment"

Another Complication: When "LCCE" to refer to Level of Detail

- To make matters more confusing, "LCCE" is sometimes used to connote not comprehensiveness, but *level of detail or fidelity* of the estimate
  - For example, the *GAO Cost Guide* distinguishes between rough order of magnitude (ROM) cost estimates and LCCEs in terms of their level of fidelity
  - Although a ROM estimate "may cover only a portion of the LCCE" (p. 35), it may in fact cover all phases of the life cycle, especially if the ultimate requirement is an OMB 300 submission
  - In these cases, what distinguishes a ROM from an LCCE is the level of detail/fidelity of the estimate, data available, and estimating methods used—*not* scope

Interpretation of the LCCE Requirement: DoD Example

- Various agencies interpret the LCCE requirement in different ways
- For example, in the DoD 5000 Series, there is no cost product called "Life Cycle Cost Estimate."
  - However, there is the Program Office Estimate (POE), sometimes called a Program Life Cycle Cost Estimate (PLCCE)

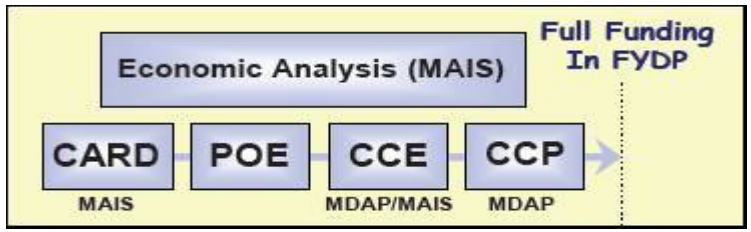

Image Source: Defense Acquisition University (DAU)

- For understandable reasons, PLCCEs tend to include only costs that are *directly* attributable the program
  - After all, PLCCEs support budgeting. Common support items and infrastructure costs are typically not paid directly by the Program. So why would they be in a POE? For example, how many POEs include a share of the cost of maintaining fiber optic lines for agency-wide phone and internet connectivity?

Alternate Definitions of Life Cycle Cost: Summary

- Can refer to Total Ownership Cost (including direct costs, indirect costs attributable to the program, and some indirect costs not attributable to the program)
  - Or not, as with a POE/PLCCE
- Can refer to the entire life cycle of the investment
  - Or not, as with the FOC+10 convention
- Can refer to the level of detail/fidelity/quality of the estimate
  - Or not, as with a ROM estimate of life cycle costs
- For purposes of this presentation, **the definition of life cycle cost estimate is contextual**: an estimate of life cycle cost to support one cost product is potentially different than that an estimate to support another. That is why conversions are sometimes necessary, and numbers should *never* simply be copied from one cost product to another.

Examples of Cost Products Requiring Estimates of Life Cycle Cost

- Budgetary
  - Detailed: POE/PLCCE, CCE, CCP, OMB 300
  - Non-detailed: ROM
- Comparative
  - AA, AoA, EA, BCA, CBA

These two categories of estimates serve fundamentally different purposes and *cannot* be interchanged with one another. However, they should be linked by their use of a common data set and common technical description (e.g. CARD).

Characteristics of Budgetary Estimates of Life Cycle Cost

- Estimated in base year (constant year) dollars
- Escalated using appropriate inflation indices to then-year dollars
- Include only costs attributable to the program
  - "Attributable" is same as "paid for by"
- Timeframe of estimate supports timeframe of budgetary submission
- Costs are time-phased for budgeting, risk-adjusted, and split by appropriation
- No Status Quo Phase Out costs (only one alternative considered); no benefits estimated
- Sunk costs included if they fall within budgetary timeframe
- Ignores time value of money

Characteristics of Comparative Estimates of Life Cycle Cost

- Estimated in base year (constant year) dollars
- Discounted using appropriate real discount rate (OMB Circular A-94) to present value dollars (supports ROI/NPV/IRR calculation)
- Include costs attributable to the program; maybe more; maybe less
  - Costs can be “attributable” to the program, even if the program doesn’t pay for them
  - Some costs that are constant across alternatives may be excluded by ground rule
- Timeframe of estimate set by analyst, but must be constant across alternatives
- Costs are time-phased for discounting, may or may not be risk-adjusted, are not split by appropriation
- Phase Out costs, multiple alternatives, benefits potentially included
- Sunk costs excluded
- “Apples to apples” comparison may require *significant* cost adjustments

Example Conversion from LCC to OMB-300

- Example Base Year 2010 estimate:

CES #	FY:	2010	2011	2012	2013	2014	2015	…	2027	TOTAL
1.0	**Investment**	**$54.5**	**$19.5**	**$50.1**	**$40.4**	**$40.3**	**$45.2**		**$0.0**	**$309.7**
1.1	Program Management	$3.5	$3.5	$3.5	$3.5	$3.5	$3.5		$0.0	$27.9
1.1.1	Government	$2.9	$2.9	$2.9	$2.9	$2.9	$2.9		$0.0	$23.1
1.1.2	Contractor	$0.6	$0.6	$0.6	$0.6	$0.6	$0.6		$0.0	$4.8
1.2	Concept Exploration	$0.5	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.5
1.3	System Development	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.4	System Procurement	$42.7	$0.0	$9.9	$0.1	$0.0	$5.7		$0.0	$58.5
1.5	Infrastructure Investment	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.6	System Initiation, Implementation, and Fielding	$7.8	$16.0	$36.6	$36.8	$36.8	$36.0		$0.0	$222.8
2.0	**Operations & Support**	**$0.0**	**$0.0**	**$10.6**	**$11.8**	**$20.1**	**$21.4**		**$23.9**	**$340.9**
2.1	System Management	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$3.5	$34.9
2.2	Annual Operations Investment	$0.0	$0.0	$1.2	$2.4	$3.7	$4.9		$7.3	$98.8
2.3	Hardware Maintenance	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
2.4	Software Maintenance	$0.0	$0.0	$9.4	$9.4	$11.6	$11.6		$12.9	$195.0
2.5	Support Infrastructure	$0.0	$0.0	$0.0	$0.0	$4.9	$4.9		$0.2	$12.2
2.5.1	Data Center Operating Support	$0.0	$0.0	$0.0	$0.0	$4.7	$4.7		$0.0	$9.4
2.5.2	Data Maintenance	$0.0	$0.0	$0.0	$0.0	$0.2	$0.2		$0.2	$2.8
3.0	**Parallel Legacy System Operation**	**$14.6**	**$14.6**	**$12.5**	**$10.4**	**$8.4**	**$6.3**		**$0.0**	**$73.1**
	Total Cost (FY 2010$M)	$69.1	$34.1	$73.2	$62.7	$68.8	$72.9		$23.9	**$723.7**

Conversion from LCC to OMB-300

- Adjustments for inflation – example estimate in then-year

	A	B	C	D
1	2010		2011	2012
2	Cost Element 1.1	…	=BaseYearEstimate!C2*VLOOKUP(C$1,Inflation,7,0)/VLOOKUP(2010,Inflation,6,0)	…

CES #	FY:	2010	2011	2012	2013	2014	2015	…	2027	TOTAL
1.0	**Investment**	**$55.6**	**$20.2**	**$52.8**	**$43.5**	**$44.1**	**$50.4**		**$0.0**	**$334.8**
1.1	Program Management	$3.6	$3.6	$3.7	$3.8	$3.8	$3.9		$0.0	$30.3
1.1.1	Government	$2.9	$3.0	$3.0	$3.1	$3.2	$3.2		$0.0	$25.1
1.1.2	Contractor	$0.6	$0.6	$0.6	$0.7	$0.7	$0.7		$0.0	$5.3
1.2	Concept Exploration	$0.5	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.5
1.3	System Development	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.4	System Procurement	$43.6	$0.0	$10.5	$0.1	$0.0	$6.4		$0.0	$60.5
1.5	Infrastructure Investment	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.6	System Initiation, Implementation, and Fielding	$8.0	$16.6	$38.7	$39.6	$40.3	$40.1		$0.0	$243.5
2.0	**Operations & Support**	**$0.0**	**$0.0**	**$11.2**	**$12.7**	**$22.0**	**$23.8**		**$23.9**	**$408.8**
2.1	System Management	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$3.5	$43.2
2.1.1	Government	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$2.9	$35.7
2.1.2	Contractor	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.6	$7.5
2.2	Annual Operations Investment	$0.0	$0.0	$1.3	$2.6	$4.0	$5.4		$7.3	$119.2
2.3	Hardware Maintenance	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
2.4	Software Maintenance	$0.0	$0.0	$9.9	$10.1	$12.7	$12.9		$12.9	$232.7
2.5	Support Infrastructure	$0.0	$0.0	$0.0	$0.0	$5.4	$5.5		$0.2	$13.7
2.5.1	Data Center Operating Support	$0.0	$0.0	$0.0	$0.0	$5.1	$5.2		$0.0	$10.4
2.5.2	Data Maintenance	$0.0	$0.0	$0.0	$0.0	$0.2	$0.2		$0.2	$3.4
3.0	**Parallel Legacy System Operation**	**$14.9**	**$15.2**	**$13.2**	**$11.2**	**$9.1**	**$7.0**		**$0.0**	**$77.8**
	Total Cost (TY$M)	**$70.5**	**$35.4**	**$77.3**	**$67.4**	**$75.3**	**$81.2**		**$23.9**	**$821.4**

- Bottom line increase of $97.7M

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Conversion from LCC to OMB-300

- Adjustments for scope. LCC elements outside of program scope
  - Phase out of status quo
  - Infrastructure costs such as facilities, data hosting, communications

CES #	FY:	2010	2011	2012	2013	2014	2015	…	2027	TOTAL
1.0	**Investment**	**$55.6**	**$20.2**	**$52.8**	**$43.5**	**$44.1**	**$50.4**		**$0.0**	**$334.8**
1.1	Program Management	$3.6	$3.6	$3.7	$3.8	$3.8	$3.9		$0.0	$30.3
1.1.1	Government	$2.9	$3.0	$3.0	$3.1	$3.2	$3.2		$0.0	$25.1
1.1.2	Contractor	$0.6	$0.6	$0.6	$0.7	$0.7	$0.7		$0.0	$5.3
1.2	Concept Exploration	$0.5	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.5
1.3	System Development	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.4	System Procurement	$43.6	$0.0	$10.5	$0.1	$0.0	$6.4		$0.0	$60.5
1.5	Infrastructure Investment	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.6	System Initiation, Implementation, and Fielding	$8.0	$16.6	$38.7	$39.6	$40.3	$40.1		$0.0	$243.5
2.0	**Operations & Support**	**$0.0**	**$0.0**	**$11.2**	**$12.7**	**$16.7**	**$18.4**		**$23.7**	**$395.1**
2.1	System Management	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$3.5	$43.2
2.1.1	Government	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$2.9	$35.7
2.1.2	Contractor	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.6	$7.5
2.2	Annual Operations Investment	$0.0	$0.0	$1.3	$2.6	$4.0	$5.4		$7.3	$119.2
2.3	Hardware Maintenance	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
2.4	Software Maintenance	$0.0	$0.0	$9.9	$10.1	$12.7	$12.9		$12.9	$232.7
2.5	Support Infrastructure	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
2.5.1	Data Center Operating Support	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
2.5.2	Data Maintenance	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
3.0	**Parallel Legacy System Operation**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**		**$0.0**	**$0.0**
	Total Cost (TY$M)	**$55.6**	**$20.2**	**$64.0**	**$56.2**	**$60.8**	**$68.7**		**$23.7**	**$729.9**

- Bottom line decrease of $91.5M

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Conversion from LCC to OMB-300

- Adjustments for performance, e.g. bringing Alternative A up to same level of tech support as Alternative B.
  - Assume the comparative analysis includes cost for system uptime of 98%, which was an assumption common to all alternatives.
  - Execution of the program, and the budget, are based on a 99.9% uptime assumption. It is estimated that this increases costs by $1.5M per year.

CES #	FY:	2010	2011	2012	2013	2014	2015	...	2027	TOTAL
1.0	**Investment**	**$55.6**	**$20.2**	**$52.8**	**$43.5**	**$44.1**	**$50.4**		**$0.0**	**$334.8**
1.1	Program Management	$3.6	$3.6	$3.7	$3.8	$3.8	$3.9		$0.0	$30.3
1.1.1	Government	$2.9	$3.0	$3.0	$3.1	$3.2	$3.2		$0.0	$25.1
1.1.2	Contractor	$0.6	$0.6	$0.6	$0.7	$0.7	$0.7		$0.0	$5.3
1.2	Concept Exploration	$0.5	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.5
1.3	System Development	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.4	System Procurement	$43.6	$0.0	$10.5	$0.1	$0.0	$6.4		$0.0	$60.5
1.5	Infrastructure Investment	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
1.6	System Initiation, Implementation, and Fielding	$8.0	$16.6	$38.7	$39.6	$40.3	$40.1		$0.0	$243.5
2.0	**Operations & Support**	**$0.0**	**$0.0**	**$12.7**	**$14.2**	**$18.2**	**$19.9**		**$25.6**	**$422.6**
2.1	System Management	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$3.5	$43.2
2.1.1	Government	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$2.9	$35.7
2.1.2	Contractor	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.6	$7.5
2.2	Annual Operations Investment	$0.0	$0.0	$1.3	$2.6	$4.0	$5.4		$7.3	$119.2
2.3	Hardware Maintenance	$0.0	$0.0	$1.5	$1.5	$1.6	$1.6		$2.0	$27.5
2.4	Software Maintenance	$0.0	$0.0	$9.9	$10.1	$12.7	$12.9		$12.9	$232.7
2.5	Support Infrastructure	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0		$0.0	$0.0
3.0	**Parallel Legacy System Operation**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**		**$0.0**	**$0.0**
	Total Cost (TY$M)	**$55.6**	**$20.2**	**$65.5**	**$57.7**	**$62.4**	**$70.3**		**$25.6**	**$757.4**

- Bottom line increase of $27.5M

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Conversion from LCC to OMB-300

- Adjustments for time frame
  - OMB-300 asks for sunk costs from prior years
  - First and last columns of the OMB-300 format may include more than one year

CES #	FY:	2007 and earlier	2008	2009	2010	2011	2012	2013	2014 and beyond	TOTAL
1.0	**Investment**	**$0.0**	**$1.5**	**$4.1**	**$55.6**	**$20.2**	**$52.8**	**$43.5**	**$162.7**	**$340.4**
1.1	Program Management		$1.5	$3.6	$3.6	$3.6	$3.7	$3.8	$15.7	$35.4
1.1.1	Government		$1.5	$2.9	$2.9	$3.0	$3.0	$3.1	$13.0	$29.5
1.1.2	Contractor			$0.6	$0.6	$0.6	$0.6	$0.7	$2.7	$5.9
1.2	Concept Exploration			$0.5	$0.5	$0.0	$0.0	$0.0	$0.0	$1.0
1.3	System Development				$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1.4	System Procurement				$43.6	$0.0	$10.5	$0.1	$6.4	$60.5
1.5	Infrastructure Investment				$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1.6	System Initiation, Implementation, and Fielding				$8.0	$16.6	$38.7	$39.6	$140.6	$243.5
2.0	**Operations & Support**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$12.7**	**$14.2**	**$395.7**	**$422.6**
2.1	System Management				$0.0	$0.0	$0.0	$0.0	$43.2	$43.2
2.1.1	Government				$0.0	$0.0	$0.0	$0.0	$35.7	$35.7
2.1.2	Contractor				$0.0	$0.0	$0.0	$0.0	$7.5	$7.5
2.2	Annual Operations Investment				$0.0	$0.0	$1.3	$2.6	$115.3	$119.2
2.3	Hardware Maintenance				$0.0	$0.0	$1.5	$1.5	$24.5	$27.5
2.4	Software Maintenance				$0.0	$0.0	$9.9	$10.1	$212.7	$232.7
	Total Cost (TY$M)	**$0.0**	**$1.5**	**$4.1**	**$55.6**	**$20.2**	**$65.5**	**$57.7**	**$558.4**	**$763.0**

- Bottom line increase of $5.5M (from sunk costs)

Conversion from LCC to OMB-300

- Treatment of labor costs
  - Separation of government versus contractor. Only government labor is included in the OMB-300 "Government FTE Costs" row.
  - DoD policy: DTM 09-007, "Estimating and Comparing the Full Costs of Civilian and Military Manpower and Contract Support", January 29, 2010
  - DoD composite labor rates: http://comptroller.defense.gov/rates/

Conversion from LCC to OMB-300

- Treatment of labor costs

CES #	FY:	2007 and earlier	2008	2009	2010	2011	2012	2013	2014 and beyond	TOTAL
1.0	**Investment**	**$0.0**	**$1.5**	**$4.1**	**$55.6**	**$20.2**	**$52.8**	**$43.5**	**$162.7**	**$340.4**
1.1	Program Management		$1.5	$3.6	$3.6	$3.6	$3.7	$3.8	$15.7	$35.4
1.1.1	Government		$1.5	$2.9	$2.9	$3.0	$3.0	$3.1	$13.0	$29.5
1.1.2	Contractor			$0.6	$0.6	$0.6	$0.6	$0.7	$2.7	$5.9
1.2	Concept Exploration			$0.5	$0.5	$0.0	$0.0	$0.0	$0.0	$1.0
1.3	System Development				$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1.4	System Procurement				$43.6	$0.0	$10.5	$0.1	$6.4	$60.5
1.5	Infrastructure Investment				$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
1.6	System Initiation, Implementation, and Fielding				$8.0	$16.6	$38.7	$39.6	$140.6	$243.5
2.0	**Operations & Support**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$0.0**	**$12.7**	**$14.2**	**$395.7**	**$422.6**
2.1	System Management				$0.0	$0.0	$0.0	$0.0	$43.2	$43.2
2.1.1	Government				$0.0	$0.0	$0.0	$0.0	$35.7	$35.7
2.1.2	Contractor				$0.0	$0.0	$0.0	$0.0	$7.5	$7.5
2.2	Annual Operations Investment				$0.0	$0.0	$1.3	$2.6	$115.3	$119.2
2.3	Hardware Maintenance				$0.0	$0.0	$1.5	$1.5	$24.5	$27.5
2.4	Software Maintenance				$0.0	$0.0	$9.9	$10.1	$212.7	$232.7
	Total Cost (TY$M)	**$0.0**	**$1.5**	**$4.1**	**$55.6**	**$20.2**	**$65.5**	**$57.7**	**$558.4**	**$763.0**

- Government labor is included in OMB-300, but separated and reported below the Total line. In this example, $65.2M is moved.

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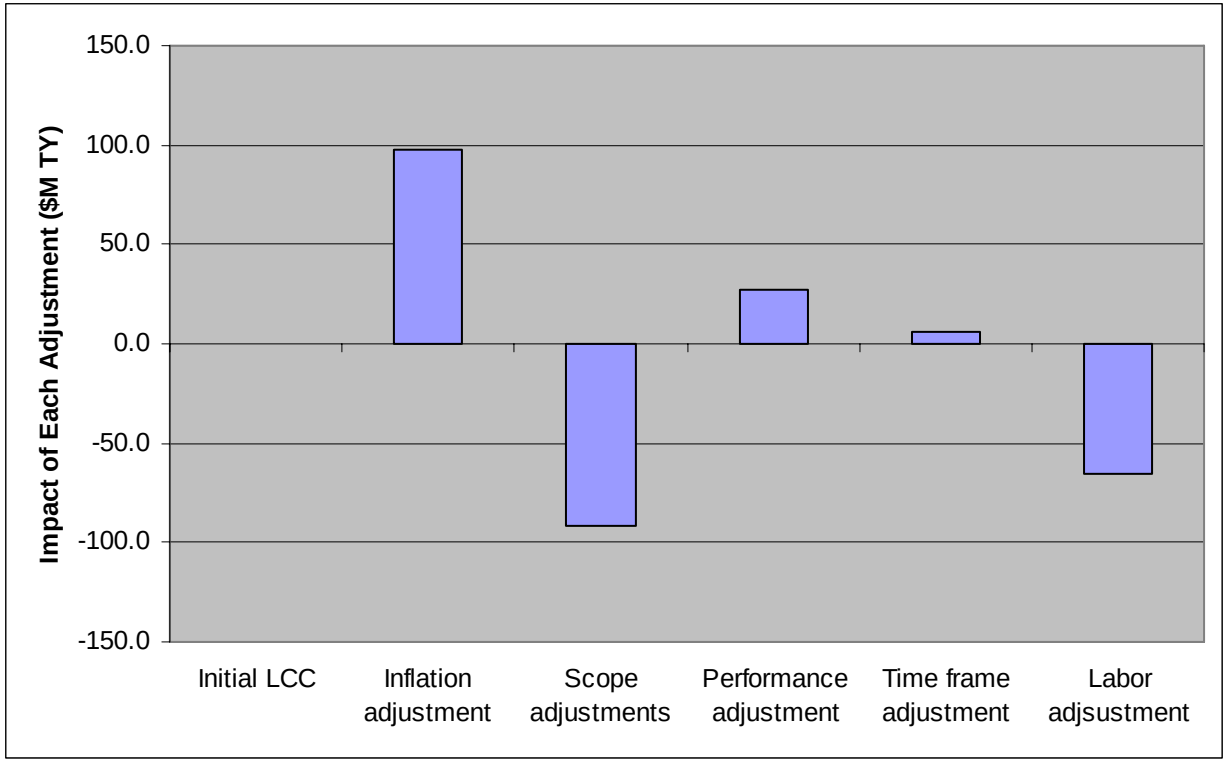
Conversion from LCC to OMB-300

- Mapping of LCC CES to OMB-300:
  - **Planning**: calculated from cost element 1.2 (concept exploration).
  - **Acquisition**: cost element 1.0 (investment) minus government FTE cost, minus planning.
  - **Operations and Maintenance**: cost element 2.0 (operations & support) minus government FTE costs.
  - **Government FTE Costs**: subtracted from the other cost elements and shown separately.
  - **Government FTE**: uses an average grade / step and applies the DoD composite rate for military and loaded GS pay schedule for civilian
- Final OMB-300 Format

	PY-1 and earlier	PY 2008	CY 2009	BY 2010	BY+1 2011	BY+2 2012	BY+3 2013	BY+4 and beyond	Total
Planning:	$0.0	$0.0	$0.5	$0.5	$0.0	$0.0	$0.0	$0.0	$1.0
Acquisition:	$0.0	$0.0	$0.6	$52.2	$17.2	$49.8	$40.4	$149.7	$309.9
Subtotal Planning & Acquisition:	$0.0	$0.0	$1.1	$52.7	$17.2	$49.8	$40.4	$149.7	$310.9
Operations & Maintenance:	$0.0	$0.0	$0.0	$0.0	$0.0	$12.7	$14.2	$360.0	$386.9
TOTAL:	$0.0	$0.0	$1.1	$52.7	$17.2	$62.5	$54.6	$509.7	$697.8
Government FTE Costs:	$0.0	$1.5	$2.9	$2.9	$3.0	$3.0	$3.1	$48.7	$65.2
Number of FTE represented by Costs:	0	0	0	21.4	22.0	22.7	23.4	313.0	402.5

Conversion from LCC to OMB-300

- LCC total started at $723.7M
- Impact of each adjustment on life cycle total:
  - Inflation: $97.7M
  - Scope: -$91.5M
  - Performance: $27.5M
  - Time frame: $5.5M
  - Separation of government labor: -$65.2
- OMB-300 LCC Total is reported as $697.8M



- Overall impact is masked by the fact that conversions offset each other.
- **The total value of all conversions in absolute dollars is $287.4M !**

Conclusions

- **"Life Cycle Cost Estimate" means different things to different people.** Understanding the term requires understanding the intended purpose of the cost product in which the LCCE requirement exists
- There are many types of estimates of life cycle cost, but they can be broadly grouped as **Budgetary** or **Comparative**
- **Virtually any estimate of life cycle cost requires adjustments** before it can be used as an OMB-300 submission
- Failing to perform these adjustments, especially to results from a Comparative analysis, can have **severe and potentially embarrassing consequences**

References

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- OMB Circulars A-11 and A-94
- DTM 09-007, "Estimating and Comparing the Full Costs of Civilian and Military Manpower and Contract Support", January 29, 2010 (http://www.dtic.mil/whs/directives/corres/pdf/DTM-09-007.pdf)