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What Happens to a Cost Estimate When It's Done?

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Abstract

What happens to a cost estimate when it is done or "finished?" When estimates are done and the financial decision had been made, is the estimate still useful after the decision, or does it become "shelf-ware?" A survey of the international cost community determined how well we develop, document, use, and archive various kinds of cost estimates. Well managed cost estimates should support informed decisions but the real-life survey observations yield surprising survey analysis.

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Survey Demographics

Overview

- Survey distributed through ICEAA, LinkedIn, email
  - 7 Jan 14 to 6 Feb 14
- 231 Respondents from a good cross-section of profession:
  - Cost Estimating
  - Program/Project Management
  - Engineering
  - Business Development
  - Business Management
  - Data Collection
  - Financial Management
  - Procurement
  - Information Management
  - Logistics
  - Manpower
  - *Interestingly, no EVM practitioners*
- Respondents' Organizational Affiliation
  - 42 Government
  - 7 Military (*disappointing*)
  - 132 Industry supporting Government customer
  - 7 Academia
  - 43 Industry not supporting Government customer

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Survey Demographics

By Region

ICEAA Region	Respondents
Northeast (ME, VT, NH, MA, RI, CT, NY, PA, NJ)	25
Atlantic (MD, DE, DC, VA, WV, NC)	56
Southeast (SC, GA, FL, AL, MS, TN)	23
Midwest (OH, KY, MI, IN, IL, WI, MN, IA, MO)	25
Mountain (NE, ND, SD, KS, CO, WY, MT, ID, UT, NV, WA)	36
Southwest (AR, LA, OK, TX, NM)	17
Pacific US (AK, HI, CA, OR, AZ)	29
Canada	1
Japan (JSCEA)	0
Asia Pacific (Australia, Korea, China, Singapore, India, etc.)	2
United Kingdom	8
Europe	8
Africa/Middle East	1
Central/South America	0
Total	**231**

- 8.7% of Respondents are Non-US (20/231)
- 12% ICEAA Membership is Non-US

Survey Demographics
Government and by Job Function

Government Respondents	
USAF	14
AFCAA	1
USA	5
UK	5
DoD	4
USMC	2
USN	2
NASA	2
DHS	2
Asia/Pacific (Australia)	1
DCMA, DOT, FAA, ESA, NNSA	5
Total	**42**

Respondents by Job Function		
Cost Estimating/Analysis	179	77%
Program/Project Management	21	9%
Financial Management	10	4%
Procurement	8	3%
Engineering	7	3%
Other	5	2%
Info Management	1	0%
Total	**231**	

- 18% of Respondents identified as Government (42/231)
- 33% of Government Respondents are US Air Force (14/42)

Comments

"I thought this was a VERY well thought out and articulated survey. I look forward to seeing the results."

"The survey never asked the obvious and most important question: the link, if any, between the cost estimate and the budget. Also, the WBS question confuses a WBS with a CES. Cost estimates, in this context, are broken down by cost element, rather than work package."

"I resent the fact that I have to provide an answer to this question..."

We received a broad variety of comments

Comments

"The questions here seem to be based on **assumptions of work elements within the sphere of government contract work**, and **do not take into account the realities of use and process within the industrial sector**. The Cost Estimations described in this survey appear to focus on project estimation, rather than the day-to-day component or sub-system cost analyses common in industry; therefore, the assumptions in the questions make them inherently flawed for analysis outside of governmental applications." *(Emphasis added)*

We believe this comment is valid!

Survey Demographics

Respondents:	CE/A	ENG	FM	IM	Other	PM	Proc	Total
Government	37	1	2			2		42
Military	3		2		1	1		7
Indus/Govt	105	3	2	1	4	12	5	132
Adacemia	6	1						7
Industry	28	2	4			6	3	43
Total	**179**	**7**	**10**	**1**	**5**	**21**	**8**	**231**

% of:	CE/A	ENG	FM	IM	Other	PM	Proc	Total
Government	21%	14%	20%			10%		18%
Military	2%		20%		20%	5%		3%
Indus/Govt	59%	43%	20%	100%	80%	57%	63%	57%
Adacemia	3%	14%						3%
Industry	16%	29%	40%			29%	38%	19%
% of Total	**77%**	**3%**	**4%**	**0%**	**2%**	**9%**	**3%**	**100%**

- 77% of Respondents are Cost Estimators/Analysts (179/231)
- 78% are Government, Military or Industry Supporting Government (181/231)

Types of Estimating Products

Q 10. Rank Estimates according to which type you most often become involved:						
	1st Choice	2nd Choice	3rd Choice	Percent 1st	Percent 2nd	Percent 3rd
Life Cycle Cost Estimate (LCCE)	65	33	24	28%	14%	10%
Independent Cost Estimate (ICE)	44	42	20	19%	18%	9%
Business Case Analysis (BCA)	39	29	35	17%	13%	15%
Hardware Development Cost Estimate	21	16	9	9%	7%	4%
Specific Purpose (or Other) Estimate	20	15	33	9%	6%	14%
Analysis of Alternatives (AoA)	13	18	33	6%	8%	14%
Cost Benefit Analysis (CBA)	7	17	13	3%	7%	6%
Software Development Cost Estimate	7	15	9	3%	6%	4%
Economic Analysis (EA)	5	12	16	2%	5%	7%
Manpower Estimate (LOE)	5	13	11	2%	6%	5%
Cost Risk Estimate	5	21	28	2%	9%	12%
Total	**231**	**231**	**231**	**100%**	**100%**	**100%**

- Different terms could mean the same thing to some people
- EVM was a Job Function choice, but was not selected
- EVM was not a choice in this question
- Did not have a choice of Bid and Proposal or Developing BOEs
- Differences could be attributable to bias of Survey Developers

Comments

"I would have liked to have been asked whether the cost estimate and the budget formulation process align and if the cost estimates that are produced is used to inform the program's spend plan or is developed as a check in the box only. For most of us, **we feel that we are developing estimates and they aren't going anywhere and many times are put on a shelf until the next milestone is prepared**. There is a direct relationship between the financial management community and the cost estimating community and this relationship should be brought out more. Utilizing the cost estimate to inform budget's and spend plan creation is a way to do that and this survey should have asked about that relationship." *(Emphasis added)*

Survey Questions

- The essential questions to be answered by the survey results are:
  1. Do people know what happens to a cost estimate when it is done?
  2. Do organizations care what happens to a cost estimate when it is done?
  3. Do people or organizations reuse a cost estimate when it is done?
- Some responses were "normalized" based on survey responses
  - Nuanced responses were assigned to appropriate response bins based on comments provided and answers to specific questions
  - Question 6, What is your current role?
    - Acquisition, Risk Management reclassified to "PM" from "Other"
    - Price/Cost Analyst and Pricing and Estimating reclassified to "Procurement" from "Other"

What Happens?

1. Do people know what happens to their cost estimate when it is done?

- "I know where the last cost estimate I completed officially resides"
  - 80% of Respondents know
  - 20% don't know
- Is this result meaningful?
- Why don't 20% know?

Q 20. Do you know Location of Last Estimate?		
	Know	Don't Know
Government	83%	17%
Military	57%	43%
Indus/Govt	84%	16%
Academia	86%	14%
Industry	65%	35%
Overall	**80%**	**20%**

What Happens?

By Job Function

Q 20. I know where my last estimate resides, by Job Function (# KNOW)								
	CE/A	ENG	FM	IM	Other	PM	Proc	Total
Government	31	1	2			1		35
Military	2		2		0	0		4
Indus/Govt	93	2	2	1	2	7	4	111
Academia	5	1						6
Industry	17	2	3			4	2	28
Total	**148**	**6**	**9**	**1**	**2**	**12**	**6**	**184**

Q 20. I know where my last estimate resides, by Job Function (% KNOW)								
	CE/A	ENG	FM	IM	Other	PM	Proc	Total %
Government	84%	100%	100%			50%		83%
Military	67%		100%		0%	0%		57%
Indus/Govt	89%	67%	100%	100%	50%	58%	80%	84%
Academia	83%	100%						86%
Industry	61%	100%	75%			67%	67%	65%
Total	**83%**	**86%**	**90%**	**100%**	**40%**	**57%**	**75%**	**80%**

- Slide 8 shows Total Respondents
- Note: of 37 Government CE/A Total, 31 Know (84%)
- Cells in Red suggest there were "Don't Know" responses

What Happens?

By Assignment

Q 20. I know where my last estimate resides, by Assignment (# KNOW)						
	Executive	Director	Task Lead	Employee	Consult	Total
Government	3	7	9	16		35
Military		2	1	1		4
Indus/Govt	10	21	35	34	11	111
Academia	1	1	3	1		6
Industry	3	3	9	9	4	28
Total	**17**	**34**	**57**	**61**	**15**	**184**

Q 20. I know where my last estimate resides, by Assigment (% KNOW)						
	Executive	Director	Task Lead	Employee	Consult	Total
Government	100%	88%	69%	89%		83%
Military		67%	100%	33%		57%
Indus/Govt	91%	75%	92%	85%	73%	84%
Academia	100%	100%	75%	100%		86%
Industry	75%	75%	82%	45%	100%	65%
Total	**89%**	**77%**	**85%**	**74%**	**79%**	**80%**

- All Government Executives "Know" but not all Director/TL/Employee
- Do Employees know more frequently than Task Leads?

What Happens?
Estimate Use

How are estimates used to support Decision Making?

Used in Formal Decisions		
	Used	Not Used
Government	95%	5%
Military	71%	29%
Indus/Govt	88%	12%
Academia	86%	14%
Industry	81%	19%
Overall	**87%**	**13%**

Used in Informal Decisions		
	Used	Not Used
Government	33%	67%
Military	57%	43%
Indus/Govt	42%	58%
Academia	43%	57%
Industry	33%	67%
Overall	**39%**	**61%**

- A significant majority (87%) used to support Formal Decisions
- A minority (39%) used to support Informal Decisions

Organizational Concern

2. Do organizations care what happens to a cost estimate when it is done?

- Are estimates prepared by Organizations:
  - Stored on protected networks
  - Stored on NON-protected networks
  - Stored on PCs or Laptops
  - Stored on portable media
  - Stored on protected Portals
  - Stored on NON-protected Portals
  - Printed

Organizational Concern

Most costing is done in a secure environment

Q 12. Cost Estimates *during their development* are stored:									
	Password Protected Network	Non Protected Network	Personal Computer Laptop	Portable Device (CD, Drive)	Portal Without Restriction	Portal With Restriction	Print Media	Other	Total
Government	17	4	7			14			42
Military	4	2				1			7
Indus/Govt	59	15	35		1	20		2	132
Academia	2		4			1			7
Industry	30	3	4	1		5			43
Total	112	24	50	1	1	41	0	2	231

Q 13. The Final version of Cost Estimates *after they are complete* are stored:									
	Password Protected Network	Non Protected Network	Personal Computer Laptop	Portable Device (CD, Drive)	Portal Without Restriction	Portal With Restriction	Print Media	Other	Total
Government	18	4	3			17			42
Military	3	2				2			7
Indus/Govt	64	15	8	2	1	38	1	3	132
Academia	3	1	1			1	1		7
Industry	27	5	2			8	1		43
Total	115	27	14	2	1	66	3	3	231

- Why are ANY prepared and stored on a Portal without Restrictions?

Organizational Concern

Comments

"I've been doing this for over thirty years and have never experienced any organized storage or subsequent analysis relative to actual costs."

"Prior to my reign of terror we did not store data in an organized manner."

"We do a poor job of archiving estimates. The funds for cost libraries are long gone, and we pay substantially for the loss of good cost data. Also, the ability to compare current program costs to the original baseline estimate has become a lost [art], to say nothing of the practice of documenting program changes for both scope and associated costs."

Organizational Concern

Guidelines for Storage

- **Storage**
  - GAO Cost Estimating and Assessment Guide (Chap 16, Documenting the Estimate): The cost estimate and documentation need to be stored so that authorized personnel can easily find it and use it for future estimates.
  - NASA Cost Estimating Handbook (1.2.3 The NASA Cost Analysis Data Requirement (CADRe)): It is important for the cost estimator to ensure this data is accurately captured and reflected in the program LCCE and stored for future projects in ONCE (One NASA Cost Engineering database).
  - MOD The Forecasting Guidebook (Annex A, 12 Steps of Forecasting): Store data for future estimates.

Estimate Reuse

3. Do people or organizations reuse a cost estimate when it is done?

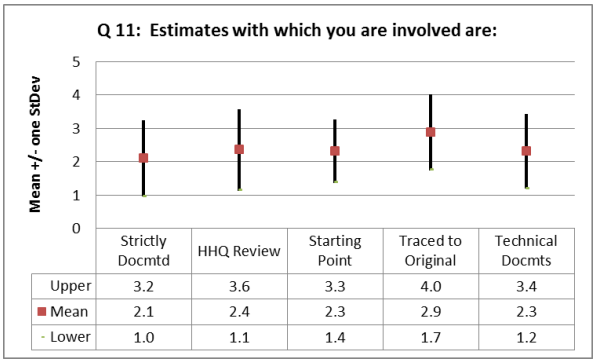
- Estimates used by an Organization are:
  - Strictly Documented
  - Reviewed by Higher Headquarters
  - Used as starting point for subsequent estimates
  - Traced back to original estimate (Cost Track)
  - Accompanied by required technical documentation

Q 11. Cost Estimates with which you are involved:						
	Always	Most	Usually	Rarely	Never	Total
Strictly Docmtd	38%	34%	13%	11%	4%	100%
HHQ Review	32%	26%	21%	15%	6%	100%
Starting Point	23%	34%	34%	9%	1%	100%
Traced to Original	13%	26%	29%	26%	7%	100%
Technical Docmts	27%	35%	23%	11%	4%	100%

Estimate Reuse

How everyone answered, statistically

Scale
5. Never
4. Rarely
3. Usually
2. Mostly
1. Always



	Strictly Docmtd	HHQ Review	Starting Point	Traced to Original	Technical Docmts
Upper	3.2	3.6	3.3	4.0	3.4
Mean	2.1	2.4	2.3	2.9	2.3
Lower	1.0	1.1	1.4	1.7	1.2

- We expected the Means to be between 1 and 2 – "Always to Mostly "
- We observed the Means between 2 and 3 – "Mostly to Usually"
- Upper and Lower boundaries +/- one Standard Deviation

Estimate Reuse

Documented According to Standards

Q 11a. Estimates are documented in strict accordance with published standards						
	Always	Most	Usually	Rarely	Never	Total
Government	18	9	11	3	1	42
Military	3	1	2	1		7
Indus/Govt	51	55	12	11	3	132
Academia	3	1	1	2		7
Industry	12	13	4	9	5	43
Total	**87**	**79**	**30**	**26**	**9**	**231**

Q 11a. Estimates are documented in strict accordance with published standards						
	Always	Most	Usually	Rarely	Never	Total
Government	43%	21%	26%	7%	2%	100%
Military	43%	14%	29%	14%		100%
Indus/Govt	39%	42%	9%	8%	2%	100%
Academia	43%	14%	14%	29%		100%
Industry	28%	30%	9%	21%	12%	100%
	38%	**34%**	**13%**	**11%**	**4%**	**100%**

Estimate Reuse
Guidelines for Documentation

- **Documentation**
  - GAO Cost Estimating and Assessment Guide (Chap 16, Documenting the Estimate): Documentation should describe the cost estimating process, data sources, and methods and should be clearly detailed to allow anyone to easily reconstruct the estimate. Second, the results of the estimating process should be presented in a format that makes it easy to prepare reports and briefings to upper management.
  - DoD 5000.4-M (C2.4.3. Draft Documentation): The documentation should be sufficiently complete and sufficiently well organized that a cost professional could reconstruct the estimate, given the documentation.
  - NASA Cost Estimating Handbook (4.3.3 Task 10: Document Probabilistic Cost Estimate): The final product should provide sufficient information on how the estimate was developed so that independent cost analysts--or other review team members--could reproduce the estimate.
  - FAA Acquisition Management System Guidance, Business Case Cost Estimating Guide, April 2014: The cost estimate should be updated periodically to reflect changes in technical or program assumptions as the program passes through new segments or milestones.

Comments
Documentation – 24

"Estimates should be better documented and managed."

"Our estimates are well-documented and stored in secure, shared locations through preparation, submittal, and negotiations. However, once on contract and baselined, we rarely revisit the original estimates, and do not exploit them for reuse as well as we should."

"There is never enough time to document and store estimates to the optimal level."

"Recently worked on a GAO O&S analysis where many of the Program Offices could not provide previous baseline estimates or documentation, because of changes in computers and data storage (floppy discs, Zip drives etc), paper file purges at facility physical moves, changes in personnel etc. There also was no requirement to retain these records."

"What has continued to be a struggling aspect of cost estimating is documentation. In an ever increasingly busy environment, we often do not take the time to document what we would other consider at the time to be simple information. It is often these simple details that help to identify a cost estimate and can help to baseline future estimating efforts."

Estimates are "Mostly" documented in strict accordance with standards

Estimate Reuse

Reviewed by Higher Headquarters

Q 11b. Estimates are reviewed by higher headquarters organization						
	Always	Most	Usually	Rarely	Never	Total
Government	19	10	8	4	1	42
Military	4	2	1			7
Indus/Govt	40	37	30	18	7	132
Academia	3	2	1	1		7
Industry	8	10	9	11	5	43
Total	**74**	**61**	**49**	**34**	**13**	**231**

Q 11b. Estimates are reviewed by higher headquarters organization						
	Always	Most	Usually	Rarely	Never	Total
Government	45%	24%	19%	10%	2%	100%
Military	57%	29%	14%			100%
Indus/Govt	30%	28%	23%	14%	5%	100%
Academia	43%	29%	14%	14%		100%
Industry	19%	23%	21%	26%	12%	100%
	32%	**26%**	**21%**	**15%**	**6%**	**100%**

Comments

HHQ Review – 0

"…My review is to provide some logic to what's presented and not to DELAY the process any longer…"

"My current … provide services for other US Gov't activities (DoD and non-DoD), such as: proposal reviews, technical reviews, BCAs, technical evaluations - and other duties as assigned. As a member of this team, our focus of effort is to provide maneuver space at the negotiating table … We don't have as clear of a picture of how our products are used or where they eventually come to rest."

Estimates are "Mostly" to "Usually" reviewed by Higher Headquarters

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Estimate Reuse

Starting Point for Subsequent Estimates

Q 11c. Estimates are used as a starting point for subbsequent estimates						
Affiliation	**Always**	**Most**	**Usually**	**Rarely**	**Never**	**Total**
Government	1	4	2			7
Military	8	15	16	2	1	42
Indus/Govt	6	14	16	6	1	43
Academia	34	45	42	11		132
Industry	3		3	1		7
Total	**52**	**78**	**79**	**20**	**2**	**231**

Q 11c. Estimates are used as a starting point for subbsequent estimates						
Affiliation	**Always**	**Most**	**Usually**	**Rarely**	**Never**	**Total**
Government	14%	57%	29%			100%
Military	19%	36%	38%	5%	2%	100%
Indus/Govt	14%	33%	37%	14%	2%	100%
Academia	26%	34%	32%	8%		100%
Industry	43%		43%	14%		100%
	23%	**34%**	**34%**	**9%**	**1%**	**100%**

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Comments

Starting Point – 2

"Our estimates are well-documented and stored in secure, shared locations through preparation, submittal, and negotiations. However, once on contract and baselined, we rarely revisit the original estimates, and do not exploit them for reuse as well as we should."

"Many organizations and/or individuals outside of senior management believe that estimates are still fairly invalid numbers even though they may be supported by facts, data, CERs, etc., and therefore may not use them after approval for follow-on estimates.."

Estimates are "Mostly" to "Usually" used as a starting point

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Estimate Reuse

Traced to Original Estimate

Q 11d. Estimates are traced back to the estimate prepared for the original purpose						
	Always	Most	Usually	Rarely	Never	Total
Government	10	12	7	12	1	42
Military	1	1	3	1	1	7
Indus/Govt	12	33	43	34	10	132
Academia		5	1	1		7
Industry	6	10	12	11	4	43
Total	**29**	**61**	**66**	**59**	**16**	**231**

Q 11d. Estimates are traced back to the estimate prepared for the original purpose						
	Always	Most	Usually	Rarely	Never	Total
Government	24%	29%	17%	29%	2%	100%
Military	14%	14%	43%	14%	14%	100%
Indus/Govt	9%	25%	33%	26%	8%	100%
Academia		71%	14%	14%		100%
Industry	14%	23%	28%	26%	9%	100%
	13%	**26%**	**29%**	**26%**	**7%**	**100%**

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Comments

Traced – 3

"Sometimes difficult to trace estimates back to original source documents. Process is not formal, so different estimators use different methods."

"The cost estimates we prepare within the DoD are carefully managed, filed and audited. They form the basis of Government decisions and because of the two pass approval process, cost estimates along with the supporting document suite become part of the corporate history."

"Most difficulty is the traceability thru a life cycle of a business case analysis, ROM, firm price... The specificity of requirements … make these sometimes both difficult and almost more confusing to retain and track."

Estimates are "Usually" traced to original estimate

Estimate Reuse

Accompanied by Technical Documentation

Q 11e. Estimates are accompanied by required technical documentation						
	Always	Most	Usually	Rarely	Never	Total
Government	13	14	10	3	2	42
Military	4			3		7
Indus/Govt	29	52	33	15	3	132
Academia	2		3	2		7
Industry	15	14	6	3	5	43
Total	**63**	**80**	**52**	**26**	**10**	**231**

Q 11e. Estimates are accompanied by required technical documentation						
	Always	Most	Usually	Rarely	Never	Total
Government	31%	33%	24%	7%	5%	100%
Military	57%			43%		100%
Indus/Govt	22%	39%	25%	11%	2%	100%
Academia	29%		43%	29%		100%
Industry	35%	33%	14%	7%	12%	100%
	27%	**35%**	**23%**	**11%**	**4%**	**100%**

Comments

Technical Documentation – 0

"…we do our best to document our estimates, analysis, and all the technical information that goes along with our work. We treat cost estimating and analysis like any other systems/ engineering analysis…"

Estimates "Mostly" to "Usually" have technical documentation

Estimate Reuse

Some Estimates are NEVER Documented

Q 11a. Estimates are NEVER documented in strict accordance with published standards						
	CE/A	FM	Other	PM	Proc	Total
Government	2					2
Military						0
Indus/Govt		1	1	1		3
Academia						0
Industry	3			1	1	5
Total	5	1	1	2	1	10

ICEAA Region	Atlantic	Midwest	Mountain	Northeast	Southeast	Total
	2	3	2	1	2	10
Org Level	Executive	Director	Task Lead	Employee	Consultant	Total
		2	3	4	1	10
Primary Role	Lead	Prog/Tech	Review	Team		Total
	6	2	1	1		10

- US Cost Estimators/Analyst employees in a Lead Estimator role are more likely to NEVER document a Cost Estimate!

Comments

Survey – 18

"There are varying degrees of Formality and Structure that is not captured in these (True/False) questions..."

"Good Survey and represents the accepted estimating work processes."

"Suggest defining acronyms used in questions."

"… wording is different than used in the UK so some responses may not match US …"

"No real distinction between BCA and CBA... and in many cases, EA."

"There are no questions regarding the risk and uncertainties quantification…"

Summary

- Generally, the higher in the organization, the more likely a person is to “Know” where the most recent cost estimate resides.
- Generally, organizations are concerned about security and storage of estimates, but there seems to no standard approach.
- Estimate documentation, review, use as a starting point, and traceability are a mixed bag.
- There are more research topics available as a result of the comments received.

Q & A

Future Research

"The survey never asked the obvious and most important question: the link, if any, between the cost estimate and the budget."

"There are no questions regarding the risk and uncertainties quantification, the way they are presented to decision-makers, their feedback and the link with risk management process."

"Most of our ICEs are used for contract/acquisition purposes, though some are for Budget Planning purposes. One of our biggest gripes is that recipients always zero in on the point estimate, ignoring the risk bounds. We've been asked why our estimate is X dollars different from a proposal, and painstakingly reminded customers that, while the point estimate is off, the proposal is well within our risk bounds for the estimate. The best practices of cost estimating are not always conferred to the broader Acquisition workforce."

Back Up

Comments

- Comments were aggregated based on Key Words
- 231 Respondents left 1060 comments, by Key Word
- Comments were arbitrarily assigned to Key Words:
  - Documentation
  - Maintenance
  - Process
  - Profession
  - Storage
  - Survey
- There were others, but these were the dominant comments
- Documentation and Survey addressed earlier in brief

Comments

Maintenance – 12

"…The maintenance of the estimates at this point (after approval for purchasing decisions) is a secondary issue."

"Maintenance of files and documentation with my specific work group is generally controlled and understood by those with a need to know…"

"Based on the recurring nature of our products, cost estimating history and its maintenance is paramount."

"In most cases I have no idea where the final estimate is maintained."

"Maintenance of Cost Estimates requires discipline on the part of the estimator."

Comments
Process – 48

"For industry, good cost estimates are critical to business decisions."

"All the cost estimates are used as a blue print for the manufacturing and processing step."

"My organization is woefully poor at organizing and utilizing historical cost estimates."

"More effort is needed to keep estimates current."

"… the significance of maintaining an excellent audit trail have been strengthened in the last 5 years making it more robust. (UK MOD)"

Comments
Profession – 18

"Many people in the client's office do not understand the importance of real cost estimation."

"I can't make any other comments due to the sensitive nature of the estimates I work on."

"In the Govt IT environment, cost estimates aren't used nearly as much as they should be. The cost estimating skill has all but disappeared…"

"Recent DCAA adherence to FAR 15.408 Table 15-2 have greatly influenced cost/price proposals for the majority of our customers…"

QUANTECH services, inc
{The Sum of Quality}

Comments

Storage – 32

"Retrieval of some archived projects going back some five years or more has proven to be problematic at times."

"…migrated from cost estimate work paper folders stored in cabinets to a password protected network shared drive - one of the best efficiency moves an organization can make!"

"We do not have a cost database."

"I've been doing this for over thirty years and have never experienced any organized storage or subsequent analysis relative to actual costs."