

Background

- Presented 2010 study, "Industry Perceptions of Department of Defense Program Manager Competencies"
- Conducted similar study in 2014 to gain understanding of Defense Program Manager perceptions of Industry Competencies
- This paper presents 2014 results and compares them to 2010 findings

Research Questions

2010 Study

- 1. Which project management competencies are perceived by industry managers as most important in government program managers?
- 2. How well are government program managers perceived by their industry partners to be meeting those competencies?

2014 Study

- 1. Which project management competencies are perceived by government program managers as most important in their industry program manager counterparts?
- 2. How well are industry program managers perceived by their government peers to be meeting those competencies?
- 3. How do the results of this study compare to those of the previous study (Wood, 2010)?

Competencies

(2010 & 2014)

TECHNICAL (HARD) SKILLS (C 1 – C20)

Determining goals	Determining deliverables	PM technical ability	Documenting constraints	Documenting assumptions
Defining strategy	Quality assurance	Identifying resource requirements	Developing a budget	Creating a work breakdown structure
Developing a schedule	Developing a resource management plan	Establishing controls	Developing a plan	Communicating strategy
Measuring performance	Implementing corrective actions	Implementing change control	Responding to risk	Conducting administrative closure

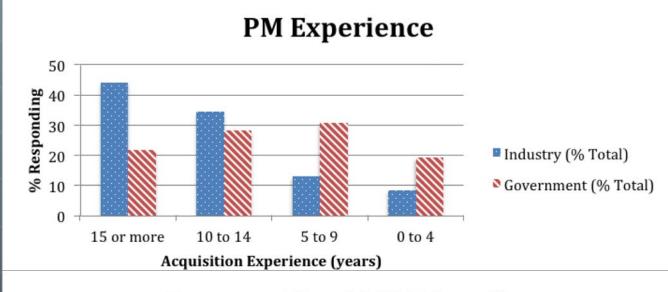
LEADERSHIP/MANAGEMENT (SOFT) SKILLS (CS 1 – CS15)

Project leadership	Flexibility	Sound business judgment	Trustworthiness	Communication style
Listening skills	Setting and managing expectations	Negotiations	Issues and conflict resolutions	Organization skills
Coaching	Facilitation	Decision making	Problem solving	Team building

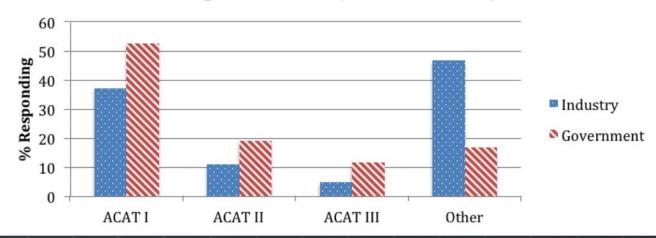
Data Collection

- Opinion data collected from industry (2010) and government (2014) Program Managers
 - 146 anonymous industry respondents from multiple contractor organizations collected online
 - 73 anonymous government respondents attending DSMC courses collected in hardcopy and transcribed
 - Likert scale responses to competency importance:
 - Importance: Very Important (5), Important (4), Neutral (3), Unimportant (2), Very Unimportant (1)
 - Performance: Expert (5), Good (4), Avg (3), Fair (2), Poor (1)
- Designed to provide a more objective assessment than self-surveys or surveys administered to the program managers' supervisors
 - Potential to avoid "blind spots" in the competency data contained in most of the literature

Participant Profiles



Program Size (ACAT Level)



Observation: Government participants had less program management experience while managing larger programs, compared to their industry counterparts.

Competency Rankings

Average Overall Competency Scores



- 1. Both Industry and Government rated competency <u>importance</u> high, validating the selection of these competencies.
- 2. Government PM <u>performance</u> overall was rated just above "average" and substantially lower than overall Industry PM <u>performance</u>.
- 3. Room for improvement in BOTH government and industry PM performance

Competency Importance

Government Respondents (2014)		Industry Respondents (2010)	
Industry Competencies most Important to Program Success	Mean Score (1-5 scale)	Government Competencies most Important to Program Success	Mean Score (1-5 scale)
Trustworthiness (CS4)	4.85	Determine Program Goals (C1)	4.86
Determine Program Goals (C1)	4.79	Trustworthiness (CS4)	4.75
Communicate Program Status (C15)	4.77	Determine Program Deliverables (C2)	4.75
Develop a Budget (C9)	4.71	Project Leadership (CS1)	4.65
Implement Corrective Action (C17)	4.68	Develop a Budget (C9)	4.62
Develop a Schedule (C11)	4.64	Decision Making (CS13)	4.60
Project Leadership (CS1)	4.63	Team Building (CS15)	4.54
Decision Making (CS13)	4.60	Develop a Schedule (C11)	4.53
Team Building (CS15)	4.59	Implement Corrective Action (C17)	4.47
Document Program Constraints (C4)	4.59	Document Program Constraints (C4)	4.47

- 1. Both Lists contain a mix of Technical and Leadership Skills
- 9 of 10 competencies are <u>common</u>; Differences: 2010-Determine Program Deliverables (C2) and 2014 Communicate Program Status (C15)

Competency Importance

Government Respondents (2014)		Industry Respondents (2010)	
Industry Competencies most Important to Program Success	Mean Score (1-5 scale)	Government Competencies most Important to Program Success	Mean Score (1-5 scale)
Trustworthiness (CS4)	4.85	Determine Program Goals (C1)	4.86
Determine Program Goals (C1)	4.79	Trustworthiness (CS4)	4.75
Communicate Program Status (C15)	4.77	Determine Program Deliverables (C2)	4.75
Develop a Budget (C9)	4.71	Project Leadership (CS1)	4.65
Implement Corrective Action (C17)	4.68	Develop a Budget (C9)	4.62
Develop a Schedule (C11)	4.64	Decision Making (CS13)	4.60
Project Leadership (CS1)	4.63	Team Building (CS15)	4.54
Decision Making (CS13)	4.60	Develop a Schedule (C11)	4.53
Team Building (CS15)	4.59	Implement Corrective Action (C17)	4.47
Document Program Constraints (C4)	4.59	Document Program Constraints (C4)	4.47

Interpretation:

- Determining program deliverables is government responsibility & important to industry
- 2. Industry has more detailed and timely insight into program execution, so is in a better position for communicating program status to government counterparts

Competency Performance

Government Respondents (2014)		Industry Respondents (2010)	
Highest-rated Industry Competencies	Mean Score (1-5 scale)	Highest Rated Government Competencies	Mean Score (1-5 scale)
Technical Ability (C3)	4.21	Trustworthiness (CS4)	3.62
Sound Business Judgment (CS3)	4.05	Technical Ability (C3)	3.45
Organizational Skills (CS10)	3.88	Communicate Program Status (C15)	3.43
Identify Resource Requirements (C8)	3.87	Determine Program Goals (C1)	3.42
Trustworthiness (CS4)	3.81	Measure Program Performance (C16)	3.35
Problem Solving (CS14)	3.79	Decision Making (CS13)	3.34
Determine Program Deliverables(C2)	3.79	Quality Assurance (C7)	3.32
Develop a Budget (C9)	3.78	Project Leadership (CS1)	3.30
Decision Making (CS13)	3.76	Problem Solving (CS14)	3.28
Determine Program Goals (C1)	3.76	Determine Program Deliverables (C2)	3.27

- 1. Both Lists contain a mix of Technical and Leadership Skills
- 2. 6 of 10 competencies are common: Technical ability (C3;) Trustworthiness (CS4); Problem solving (CS14); Determining program deliverables (C2); Decision-making (CS13); and Determining program goals (C1)

Competency Performance

Government Respondents (2014)		Industry Respondents (2010)	
Highest-rated Industry Competencies	Mean Score (1-5 scale)	Highest Rated Government Competencies	Mean Score (1-5 scale)
	21	Trustworthiness (CS4)	3.62
	05		15
	88		13
	87		12
	81		35
Problem Solving (CS14)	3.79		34
F =	79		32
	78		30
	76		28
Determine Program Goals (C1)	3. 7 6	Determine Program Deliverables (C2)	3.27

Interpretation:

- 1. Government views favorably industry's business judgment, ability to organize a large workforce, identify resources needed, and develop a program budget
- Industry views favorably government's ability to communicate program status, measure performance, and perform QA (all 3 important oversight functions), and project leadership

Competency Shortfalls

(Borich Model)

Government Respondents (2014)		Industry Respondents (2010)	
Competency (Borich Model)	I x (I-P)	Competency (Borich Model)	I x (I-P)
Implement Corrective Action (C17)	5.70	Develop a Budget (C9)	7.91
Trustworthiness (CS4)	5.03	Determine Program Deliverables (C2)	7.06
Document Program Constraints (C4)	5.00	Implement Change Control (C18)	7.03
Determine Program Goals (C1)	4.98	Determine Program Goals (C1)	7.02
Communicate Program Status (C15)	4.95	Document Program Constraints (C4)	6.64
Establish Program Controls (C13)	4.74	Develop a Schedule (C11)	6.52
Set/Manage Expectations (CS7)	4.63	Establish Program Controls (C13)	6.38
Team Building (CS15)	4.59	Team Building (CS15)	6.38
Measure Program Performance (C16)	4.56	Negotiations (CS8)	6.35
Develop a Schedule (C11)	4.40	Implement Corrective Action (C17)	6.32

Observations:

1. Common Shortfalls include: the ability to implement corrective action (C17), document program constraints (C4), determine program goals (C1), establish program controls (C13), team building (CS15), and develop a schedule (C11).

Competency Shortfalls

(Borich Model)

Government Respondents (2014)		Industry Respondents (2010)	
Competency (Borich Model)	I x (I-P)	Competency (Borich Model)	I x (I-P)
7 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	5.70		7.91
	5.03		7.06
	5.00		7.03
D D	4.98		7.02
	4.95	Document Program Constraints (C4)	6.64
	4.74	Develop a Schedule (C11)	6.52
	4.63	Establish Program Controls (C13)	6.38
	4.59	T T 11 /2212	6.38
	4.56		6.35
	4.40		6.32

- 1. Industry shortfalls (according to gov't PMs): Trustworthiness (CS4) & ability to Communicate program status (C15)
- 2. Government shortfalls (according to industry PMs): Ability to Develop a budget (C9); Determine program deliverables (C2); and Implement change control (C18)

Summary & Interpretation (1)

- Both studies point to the need for a balance of technical and management/leadership skills
- Stronger performance skills of government and industry PMs are, in many ways, complementary
 - Industry values government's ability to provide stable funding, and identify program goals and unambiguous deliverables – and stick to them
 - Government values industry's ability to honestly and accurately report program status and manage the myriad details of day-to-day development and production
 - Together the two PMs need to work out common objectives, explore and negotiate risks and opportunities, and, when necessary, implement corrective action

Summary & Interpretation (2)

- Room for performance improvement on both sides of the table
- In general, government PM's are less experienced than their industry counterparts, and that seems to be reflected in lower overall competency scores
 - Technical and programmatic skills like budgeting, scheduling, and controlling changes can be learned, but need to be practiced and perfected on the job
 - More deliberate career management, less frequent rotations, and on-the-job qualification program could better equip the government PM for success

Summary & Interpretation (3)

- For industry PMs, shortfalls appear more problematic
 - Trustworthiness is not easily corrected through training or experience, rather through incentives and culture change
 - Industry and Government PMs must work together to disclose and solve problems, avoiding punishment or penalty for reporting problems. Problems are inevitable in complex, high-risk endeavors. Surfacing those and working collaboratively to solve them is the mark of a good program team.
 - Government and industry PM should meet frequently to compare notes, establish mutual expectations, negotiate agreements on processes and responsibilities, and build (or rebuild) the trust relationship.
- Implications for Training
 - Improve training in program control scheduling, resourcing, and earned value. Focus on using data as indicators of potential problems.
 - Training and assistance should focus on assisting PMs articulate or reexamine program goals, constraints, and framing assumptions

Conclusions

- Study indicates need to improve both Industry and Government PM skills
- Identifies synergies in the program team PM competencies – leveraging synergies requires trust and collaboration
- Training should focus hard AND soft skill improvements in shortfall areas