

The OMB Federal IT Dashboard: Overview and Potential Application for IT Cost and Schedule Analysis

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ITDASHBOARD

Did you know....

- **...that there is a public available database of over 7000 federal IT investments including 800 classified by OMB as “major,” includes DoD and civilian programs?**
- **...that this data is available for downloaded and analysis at no charge, without some much as providing an e-mail address?**
- **...that this data includes useful analogies for the program you are estimating?**
- **...that this data has the potential for generating useful cost/schedule factors and CER's?**

Background-IT Dashboard

- The IT Dashboard is a web portal enabling the general public to view details about federal (DoD as well as Civil) information technology investments.
- The mission of the IT Dashboard is to provide information on the effectiveness of government IT programs and to support decisions regarding the investment and management of resources.
- **OMB IT Dashboard** (<https://www.itdashboard.gov/>)
- **FAQ and Help** <https://www.itdashboard.gov/faq>
- **View a video summary** [here](#)
 - *“Cost referred to over a dozen times*

Click Below For Video Demonstration

The screenshot shows the IT Dashboard website with a navigation menu (HOME, PORTFOLIO, TOOLS, DATA FEEDS, FAQ) and a main content area. The main content area features a 'PERFORMANCE' sidebar with 'Evaluation', 'Cost', and 'Schedule' sections, and a large bar chart titled 'Your Window into the FEDERAL IT PORTFOLIO'. The bar chart displays spending in billions of dollars for various agencies: DOD, HHS, DHS, VA, Treasury, DOT, DOJ, USDA, OOC, Energy, and Others. DOD has the highest spending, followed by Others.

Agency	Spending (\$ Billions)
DOD	~100
HHS	~10
DHS	~10
VA	~5
Treasury	~5
DOT	~5
DOJ	~5
USDA	~5
OOC	~5
Energy	~5
Others	~20

Welcome to the IT Dashboard

The IT Dashboard is a website enabling federal agencies, industry, the general public and other stakeholders to view details of federal information technology investments.

The purpose of the Dashboard is to provide information on the effectiveness of government IT programs and to support decisions regarding the investment and management of resources. The Dashboard is now being used by the Administration and Congress to make budget and policy decisions.

Mobile Access

Now you can get updates from the IT Dashboard anywhere you use your mobile device. Access Mobile version at <http://www.ItDashboard.gov/mobile>

WELCOME TO THE IT-DASHBOARD

COMPARE
types of spending over time

EXPLORE
spending throughout the portfolio

FIND IT INVESTMENTS
search and filter techniques

Strengths and Weaknesses of the IT Dashboard

Strengths:

- Data is publicly available and downloadable to Excel
- Data updated monthly
- 7000 federal IT investments including 800 classified by OMB as “major,” includes DoD and civilian programs
- \$600 Billion in Federal IT Investments over the last decade

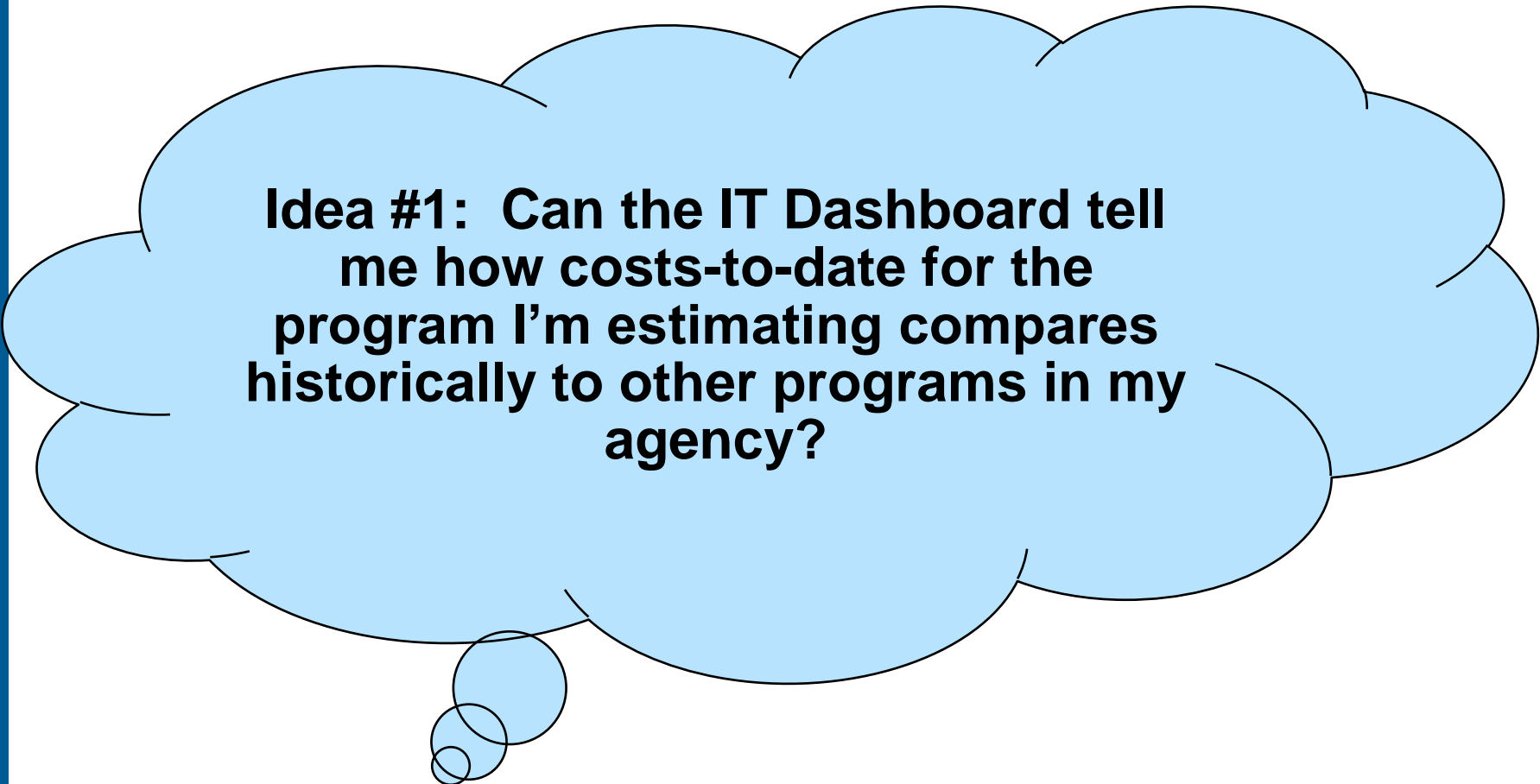
Weaknesses/challenges:

- Data is fairly high-level
- Not reported in a standardized format, i.e., inconsistent cost elements
- Data comes directly from the program office Exhibit 53/Exhibit 300 (budget perspective versus true “cost” perspective)
- Inaccurate/incomplete records (though improving according to GAO)
 - Anecdotally, dashboard data matched actual earned value reports for the DHS program I am estimating

Ideas For Further Research

- **Over the past few years I've had a number of ideas related to the IT Dashboard for possible additional research**
- **Unfortunately, like most of you, I've had a lack of time and resources to pursue**
- **The rest of the presentation will present a number of ideas as well as examples where the IT Dashboard has proved useful**



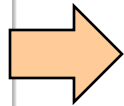
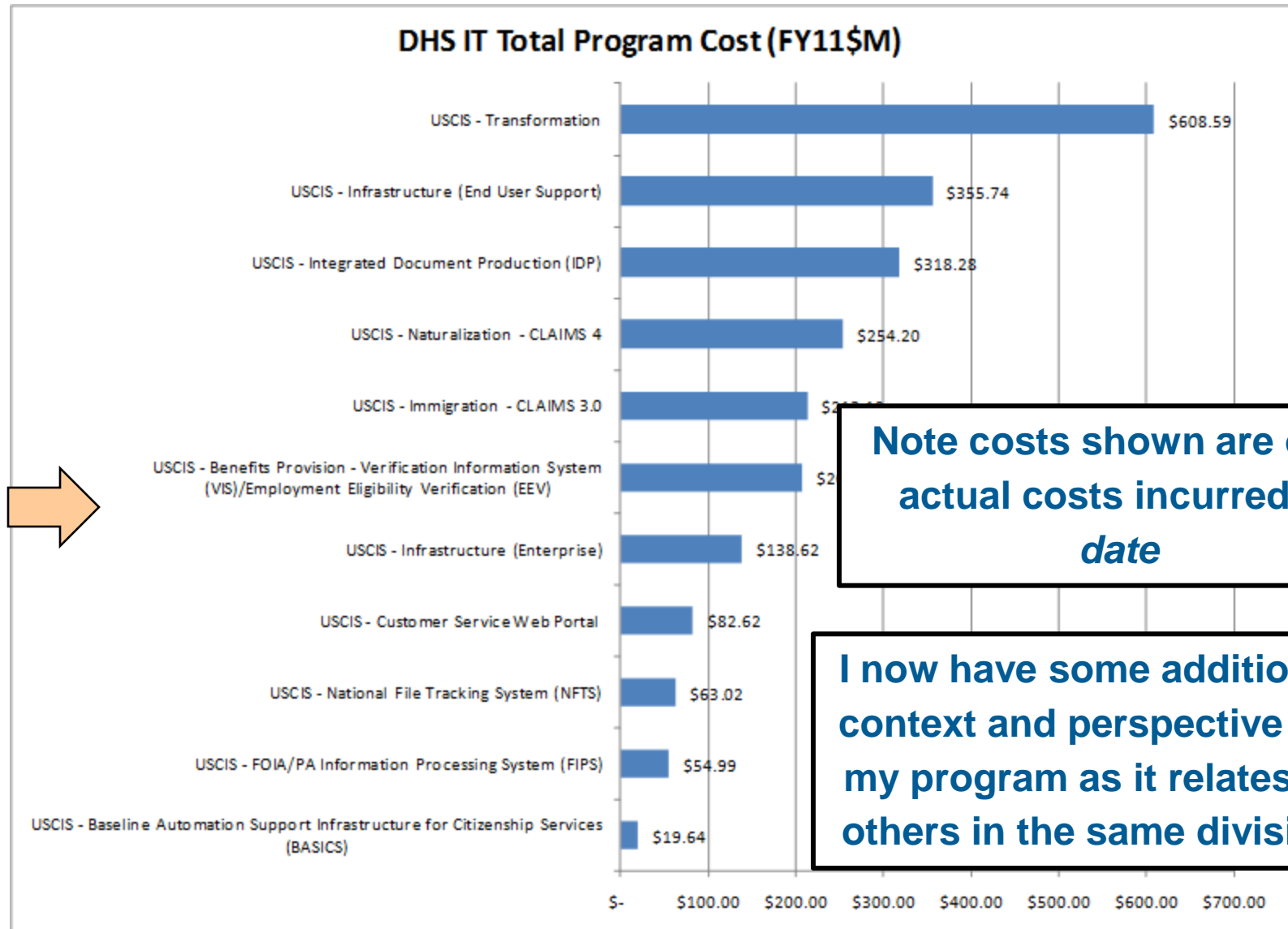


Idea #1: Can the IT Dashboard tell me how costs-to-date for the program I'm estimating compares historically to other programs in my agency?

11 ongoing DHS programs

Title	Agency	FEA Standard Segment	FEA Primary Function	Overall Rating	Total FY2011 Spending
USCIS - Baseline Automation Support Infrastructure for Citizenship Services (BASICS) (2012)	Department of Homeland Security	IT Management	Information and Technology Management	5.7	\$14.5 M
USCIS - Benefits Provision - Verification Information System (VIS)/Employment Eligibility Verification (EEV) (2012)	Department of Homeland Security	IT Management	Workforce Management	5.0	\$29.0 M
USCIS - Customer Service Web Portal (2012)	Department of Homeland Security	-	Public Affairs	7.9	\$17.6 M
USCIS - FOIA/PA Information Processing System (FIPS) (2012)	Department of Homeland Security	IT Management	Information and Technology Management	7.8	\$4.3 M
USCIS - Immigration - CLAIMS 3.0 (2012)	Department of Homeland Security	IT Management	Homeland Security	2.5	\$14.3 M
USCIS - Infrastructure (End User Support) (2012)	Department of Homeland Security	-	Information and Technology Management	5.0	\$83.3 M
USCIS - Infrastructure (Enterprise) (2012)	Department of Homeland Security	-	Information and Technology Management	5.6	\$63.9 M
USCIS - Integrated Document Production (IDP) (2012)	Department of Homeland Security	IT Management	Homeland Security	6.4	\$46.2 M
USCIS - National File Tracking System (NFTS) (2012)	Department of Homeland Security	IT Management	Information and Technology Management	5.0	\$4.6 M
USCIS - Naturalization - CLAIMS 4 (2012)	Department of Homeland Security	IT Management	Homeland Security	5.0	\$14.3 M
USCIS - Transformation (2012)	Department of Homeland Security	IT Management	Homeland Security	2.5	\$304.9 M

Normalized summary



Note costs shown are only actual costs incurred *to date*

I now have some additional context and perspective for my program as it relates to others in the same division



Idea #2: What level of cost-related details are available for the program I'm working on?

An example of available data

USCIS - Customer Service Web Portal (2012)

> Cost Details > Schedule Details > Performance Metrics > Contracts > Reports

Overall Rating



7.9

▼ 6 Baseline events

Show Calculations

Investment Information

Agency Head
 Janet A. Napolitano
 Agency
 Department of Homeland Security
 Bureau
 Citizenship and Immigration Services



Richard Spires
 Agency CIO

Investment Phase

Operations and Maintenance

Description

Provide resources for all external-facing USCIS web development and maintenance activities. [more..](#)

[View Contractors](#)

FY2011 Spending

\$17.6 M

Investment End Date

09/30/2017

Status

Continuing

Cost



Date of last reported change to any milestone:
 December 9, 2010

Schedule



Date of last reported change to any milestone:
 December 9, 2010

Evaluation

(By
 Agency
 CIO)



5 out of 5

Date last reported: November 30, 2010

Raw cost data

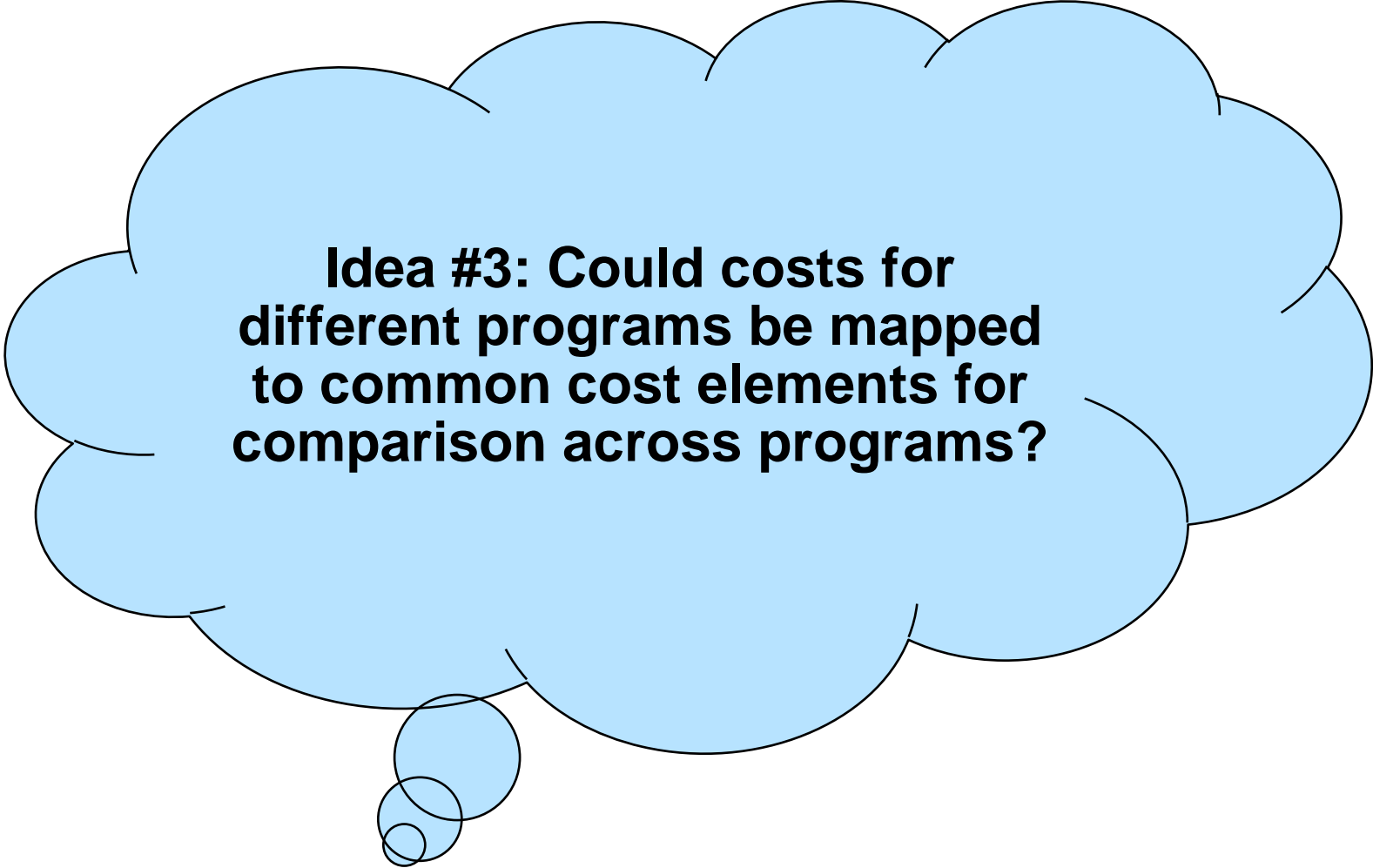
■ USCIS - Customer Service Web Portal

Milestone ID	Description of Milestones	Start Date Planned	Start Date Actual	Completion Date Planned	Completion Date Actual	Planned Total Costs(in \$ million)	Actual Total Costs(in \$ million)	Planned % Complete	Actual % Complete	Last Modified Date	Unique Project Identifier	Business Case ID	Agency ID	Agency Name
9103	Site Planning & Design	9/18/2006	9/18/2006	10/30/2006	10/30/2006	0.797	0.797	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9104	Acquisition of Content Subscription &	9/18/2006	9/18/2006	10/30/2006	10/30/2006	0.292	0.292	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9105	CRIS Design and Upgrade planning	10/1/2005	10/1/2005	9/30/2006	9/30/2006	0.136	0.136	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9106	E-Filing Planning	10/1/2005	10/1/2005	9/30/2006	9/30/2006	1.44	1.44	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9107	CRIS Software	10/1/2005	10/1/2005	9/30/2006	9/30/2006	0.394	0.394	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9108	E-Filing Software	10/1/2005	10/1/2005	9/30/2006	9/30/2006	0.94	0.94	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9109	Implementation of Contract Managemen	9/30/2005	9/30/2005	9/30/2006	9/30/2006	2.95	2.95	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9110	Migration of Current Site to New Envir	9/30/2005	9/30/2005	9/30/2006	9/30/2006	0.5	0.5	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9111	Acquisition of BEA Software	9/30/2005	9/30/2005	7/15/2006	7/15/2006	0.175	0.175	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9112	Acquisition of Fast Datasearch	9/30/2005	9/30/2005	7/15/2006	7/15/2006	0.285	0.285	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9113	Preplanning for Phase II	9/30/2005	9/30/2005	11/30/2006	11/30/2006	0.79	0.79	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9114	CSWP Program: Legacy Site O&M (F	9/30/2005	9/30/2005	11/30/2006	11/30/2006	2.765	2.765	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9115	CSWP Program: Planning and Acquis	10/1/2005	10/1/2005	9/30/2006	9/30/2006	2.67	2.765	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9116	FY06 O&M of legacy web site	10/1/2005	10/1/2005	9/30/2006	9/30/2006	3.125	3.125	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9117	FY07 Planning and Acquis	10/1/2006	10/1/2006	9/30/2007	9/30/2007	8.5	8.5	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9118	FY07 O&M of legacy web site	10/1/2006	10/1/2006	9/30/2007	9/30/2007	6.85	6.85	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9119	FY08 Planning and Acquisitio	10/1/2007	10/1/2007	9/30/2008	9/30/2008	6.027	6.027	100	100	9/17/2010	024-30-01-	326	24	Departmenter
9120	FY08 O&M	10/1/2007	10/1/2007	9/30/2008	9/30/2008	7.101	7.101	100	100	9/17/2010	024-30-01-	326	24	Departmenter

Notice we get a brief description of milestones

Actual start and completion date of the task

Total actual cost of the task



Idea #3: Could costs for different programs be mapped to common cost elements for comparison across programs?

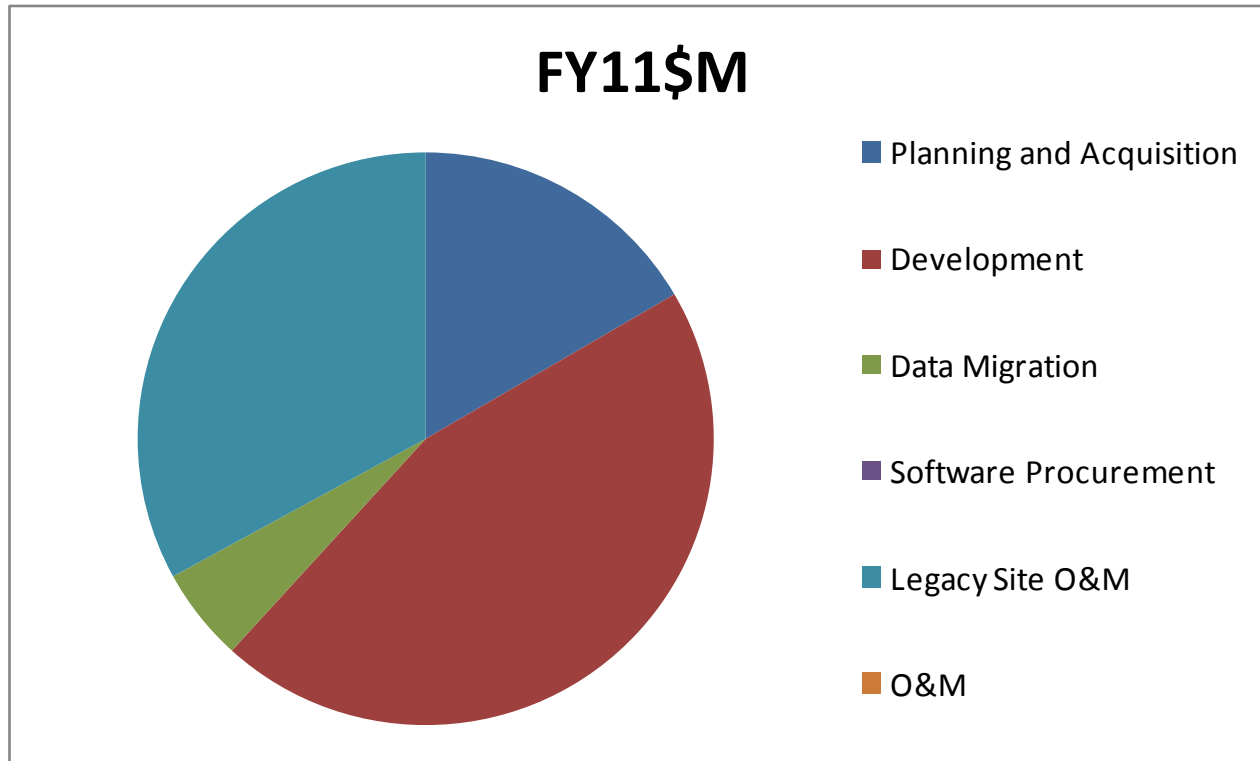
“Normalized” Data

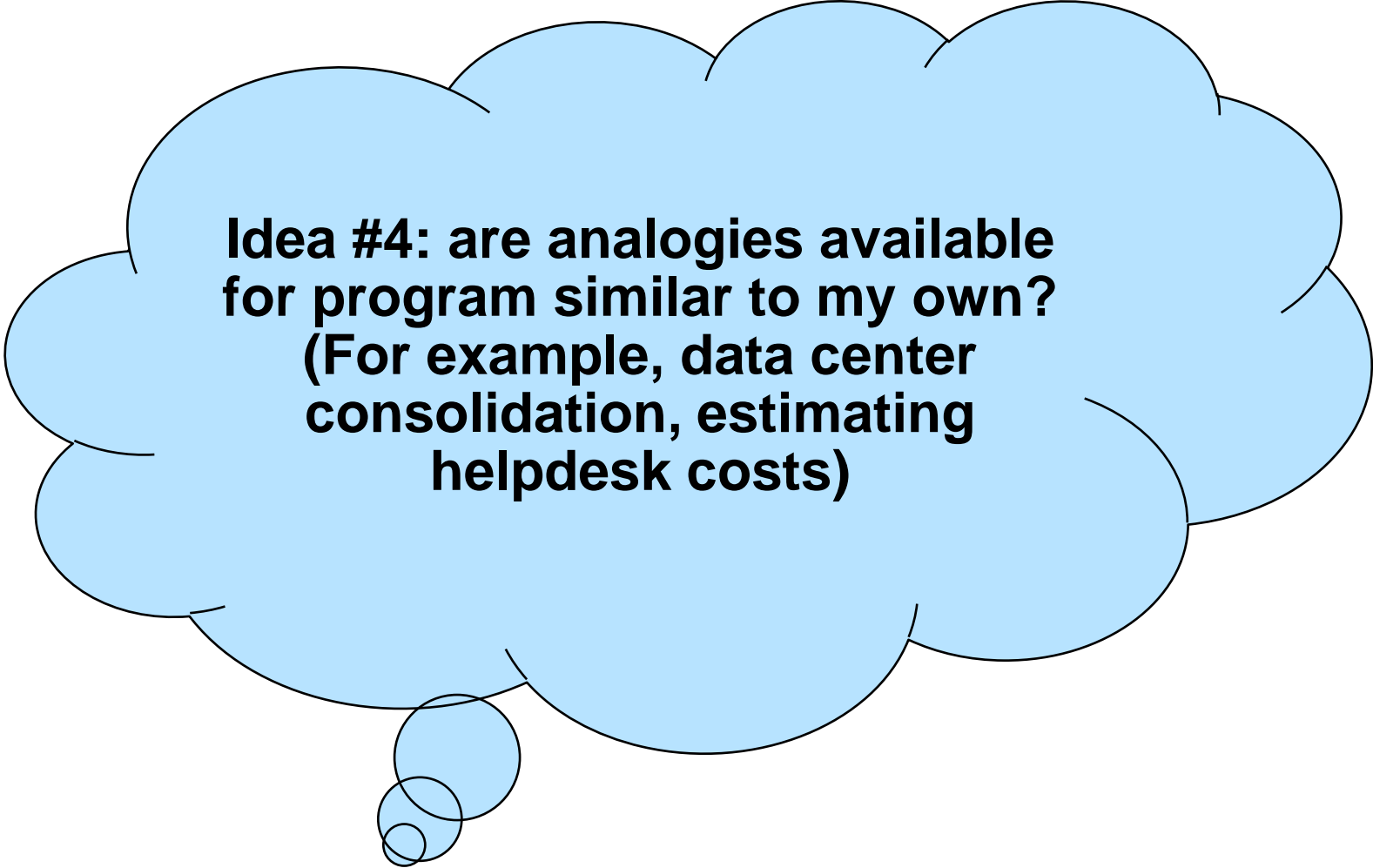
■ USCIS - Customer Service Web Portal

Summary Page										FY05	FY06	FY07	FY08	FY09	FY10	FY11
										0.849006	0.876153	0.897355	0.925893	0.961101	0.984758	1
										0.872936	0.906354	0.928135	0.955524	0.962571	0.983528	1
USCIS - Customer Service Web Portal										FY11\$M						
Milestone ID	Description of Milestones	Actual Start Date	Actual Completion	actual duration	Planned Total Costs(in \$)	Actual Total Costs(in \$)				FY06	FY07	FY08	FY09	FY10	FY11	FY11\$M Total
Common cost elements																
Planning and Acquisition																
9103	Site Planning & Design	9/18/2006							36	\$ 7.55	\$ 9.47	\$ 6.51	\$ -	\$ -	\$ -	\$ -
9104	Acquisition of Content Subscription & Practice Test	9/18/2006								\$ 0.91						
9105	CRIS Design and Upgrade planning	10/1/2005							16	\$ 0.33						
9106	E-Filing Planning	10/1/2005							70							
9114	CSWP Program: Legacy Site O&M (FY06)	9/30/2005								\$ 3.16						
9115	CSWP Program: Planning and Acquisition (FY06)	10/1/2005	9/30/2006		11.0	\$ 2.67	\$ 2.77			\$ 3.16						
9117	FY07 Planning and Acquisition	10/1/2006	9/30/2007		11.0	\$ 8.50	\$ 8.50				\$ 9.47					
9119	FY08 Planning and Acquisition	10/1/2007	9/30/2008		11.0	\$ 6.03	\$ 6.03					\$ 6.51				
Development																
9107	CRIS Software	10/1/2005	9/30/2006		11.0	\$ 0.39	\$ 0.39		\$ 5.05	\$ 0.90	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
9108	E-Filing Software	10/1/2005	9/30/2006		11.0	\$ 0.94	\$ 0.94									
9109	Implementation of Contract Management	9/30/2005	9/30/2006		12.0	\$ 2.95	\$ 2.95									
9113	Preplanning for Phase II	9/30/2005	11/30/2006		14.0	\$ 0.79	\$ 0.79		\$ 0.90							
Data Migration																
9110	Migration of Current Site to New Environment	9/30/2005	9/30/2006		12.0	\$ 0.50	\$ 0.50		\$ 0.59							
Software Procurement																
9111	Acquisition of BEA Software	9/30/2005	7/15/2006		10.0	\$ 0.18	\$ 0.18		\$ 0.53	\$ -	\$ -	\$ 2.23	\$ -			
9112	Acquisition of Fast Datasearch	9/30/2005	7/15/2006		10.0	\$ 0.29	\$ 0.29		\$ 0.33							
9124	FY10 CSWP Program: Software Purchases	10/1/2009	9/30/2010		11.0	\$ 2.04	\$ 2.15					\$ 2.23				
Legacy Site O&M																
9116	FY06 O&M of legacy web site	10/1/2005	9/30/2006		11.0	\$ 3.13	\$ 3.13		\$ 3.68	\$ 7.82	\$ -	\$ -	\$ -			
9118	FY07 O&M of legacy web site	10/1/2006	9/30/2007		11.0	\$ 6.85	\$ 6.85		\$ 7.82							

Costs by Level II cost element

■ USCIS - Customer Service Web Portal





**Idea #4: are analogies available
for program similar to my own?
(For example, data center
consolidation, estimating
helpdesk costs)**

Data can be exported for analysis

- Click IT Dashboard icon to go to the Data Feed page
- Cost schedule contract another programmatic data can be downloaded into Excel or any other application

IT DASHBOARD

You may download this file now in CSV or XML format and/or subscribe to this feed via ATOM.



ATOM



CSV



XML

Data Sources Available

Exhibit 53A	An overview of each Exhibit 53 submission
Exhibit 53C	An overview of each agencies' Cloud Computing Portfolio.
Exhibit 53 Funding Sources	Funding source information includes Total IT Spending for the PY, CY and BY, and a breakdown of DME and O&M costs.
Activities	Activity data includes cost, schedule and variance information
Investment Baseline History	Provides a history of investment rebaselines, replans and corrections.
CIO Evaluation History	Provides a history of the evaluation by CIO ratings and comments.
Contracts	Overview of contract information including information matched with USAspending.gov
Exhibit 300A	Exhibit 300A submission information, as well as Evaluation (by Agency CIO) information, and dates of last change to activities, contracts, and performance metrics.
Investment Trends	Provides a history of investment CIO Evaluations over time, as well as legacy investment ratings and variances
Performance Metrics	Overview of an investment's operational performance in regards to "Results-Specific" and "Activities or Technology-Specific" metrics
Performance Metric Actuals	Overview of the actual results of an investment's performance metrics in comparison to their targets
Projects	Project data includes cost, schedule and variance information
Life Cycle Costs	Life Cycle Cost information broken down into planning costs, DME, O&M, and Government FTE costs.
Technical Solutions Requirements	Indicates whether an investment in whole or in part specifically addresses various technical solution requirements
Technical Solutions Requirements URLs	Provides a list of URLs which correspond to the technical solution requirements
Investments Eliminated or Reduced	An agency-provided list of investments that will result in the elimination or reduction of other investments.
Investment Related URLs	Provides URLs related to the investment and indicates how they are related
Bureau	Provides a list of Bureaus based on the OMB Circular A-11 Appendix C
Agency	Provides a list of Agencies based on the OMB Circular A-11 Appendix C

Federal Enterprise Architecture Categories

- **Systems are all classified in the IT Dashboard according to their FEA Segment and Primary Function**
- **How do programs of like classifications compare to each other?**
- **According to Whitehouse.gov¹:**
 - “The FEA Framework equips OMB and Federal agencies with a common language and framework to describe and analyze investments[...] The FEA consists of a set of interrelated “reference models” designed to facilitate crossagency analysis and the identification of duplicative investments, gaps and opportunities for collaboration within and across agencies. Collectively, **the reference models comprise a framework for describing important elements of federal agency operations in a common and consistent way.**”

¹ FEA Reference Model Mapping Quick [Guide](#)

Federal Enterprise Architecture Standard Segments:

Segment: Segments are individual elements of the enterprise describing core mission areas, and common or shared business services and enterprise services.

- Acquisition and Grant Management
- Budget Formulation and Execution
- Financial Management
- Geospatial Services
- Health: Health Care Administration
- Health: Health Care Delivery Services
- Health: Health Care Research and Practitioner Education
- Health: Population Health Management and Consumer Safety
- Human Resources Management
- Identity Credential and Access Management
- Information Management and Dissemination
- Information Security
- Information Sharing
- IT Infrastructure
- IT Management

Click [here](#) for an overview of the FEA

For simplicity sake, let's just call these FEA Segments "categories"

FEA Primary Functions

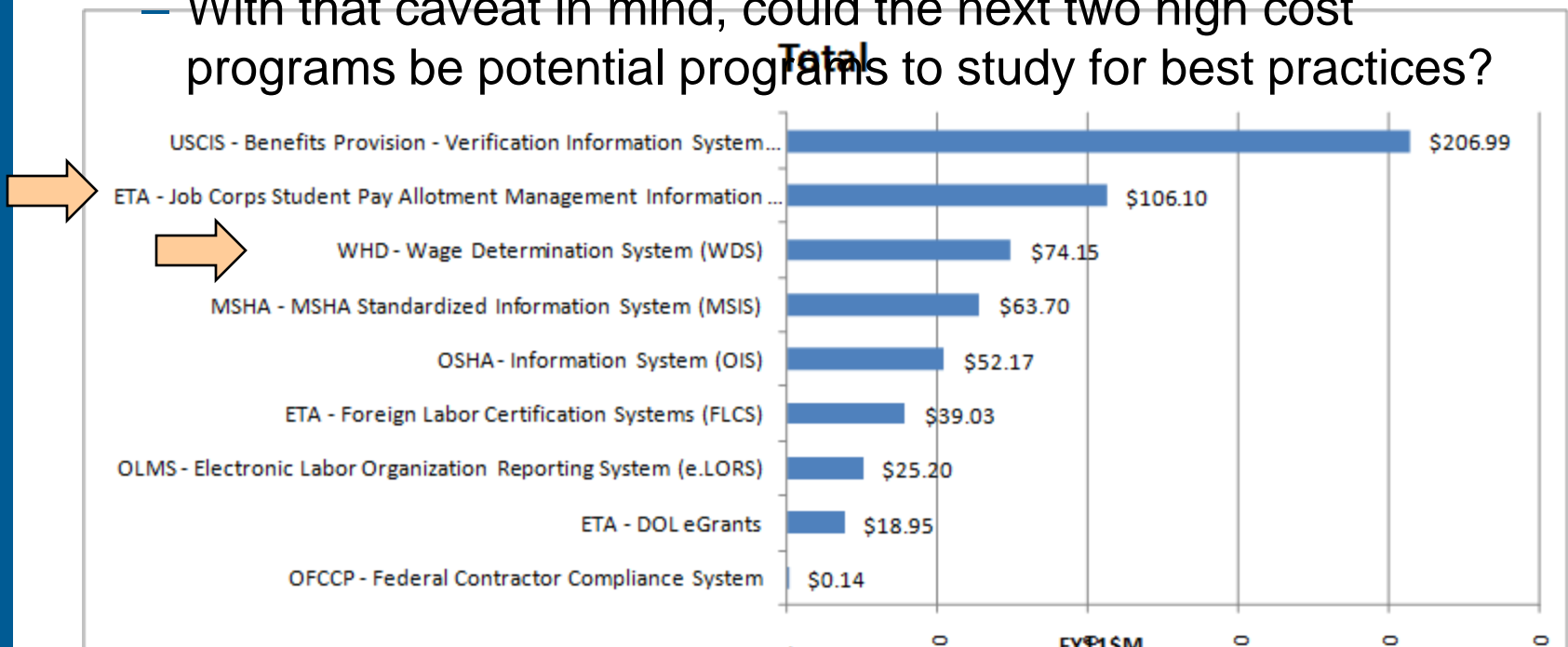
- Administrative Management
 - Community and Social Services
 - Controls and Oversight
 - Defense and National Security
 - Disaster Management
 - Economic Development
 - Education
 - Energy
 - Environmental Management
 - Financial Management
 - General Government
 - General Science and Innovation
 - Health
 - Homeland Security
 - Human Resource Management
 - Income Security
 - Information and Technology Management
 - Intelligence Operations
 - Internal Risk Management and Mitigation
 - International Affairs and Commerce
 - Law Enforcement
 - Litigation and Judicial Activities
 - Natural Resources
-And we'll call these "subcategories"**
- Public Affairs
 - Regulatory Development
 - Revenue Collection
 - Security Management
 - Supply Chain Management
 - Transportation
 - Workforce Management

Comparison of my program to “like” programs

- The DHS Verification Information System (VIS) is assigned to the *IT Management* FEA Segment, with The Primary Function being *Workforce Management*
- There are 24 programs in the *IT Management* FEA Segment (21 of which are within DHS)
- There are a total of 9 programs on the IT dashboard classified as *Workforce Management*

Comparison of *Workforce Management* programs

- **VIS shows up as the highest cost-to-date program**
 - Keep in mind that all of these programs are active (vs. complete) and in various stages of acquisition or maintenance, so we cannot conclude that VIS is the most “expensive”
 - With that caveat in mind, could the next two high cost programs be potential programs to study for best practices?



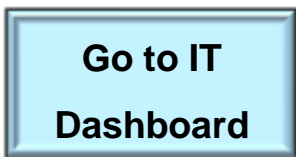
Note costs shown are only actual costs incurred to date. All costs are Constant Year 11\$M

**Idea #5: Could the IT Dashboard
be used for benchmarking?**



ETA - Job Corps Student Pay Allotment Management Information System (SPAMIS)

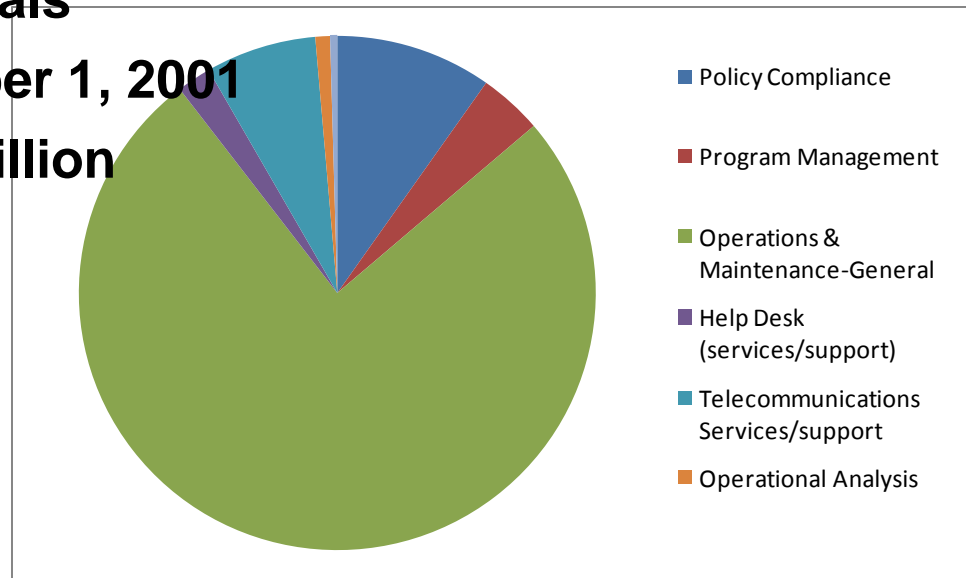
- Overall rating Green (8.4/10.0)
- Program description: About 103,000 young Job Corps students (citizens) benefit from the Student Pay Allotment Management Information System which provides data processing services that support academic and vocational training resulting in good paying jobs for graduates.
- Investment phase: operations & maintenance
- Contract Info: Time and Materials, Altech Services
- Investment start date: October 1, 2001
- Spending around \$9 million a year for maintenance



WHD - Wage Determination System (WDS)

- Overall rating Green (10.0/10.0)
- Program description The WDS is a major application within WHD that supports two legislative acts: the Davis Bacon and related Acts (DBRA) and the McNamara-O'Hara Service Contract Act (SCA), in the mission to achieve and promote compliance with labor standards.
- Investment phase: operations & maintenance
- Contract info: Time & Materials
- Investment start date: October 1, 2001
- Spending around \$12-\$18 million a year for maintenance

[Go to IT Dashboard](#)



**Idea #6: What level of detail is available my own program?
(potentially useful while waiting for clearance or contract to start)**



Example: what can be found out about my own program?

USCIS - Benefits Provision - Verification Information System (VIS)/Employment Eligibility Verification (EEV) (2012)

- > Cost Details
- > Schedule Details
- > Performance Metrics
- > Contracts
- > Reports

Overall Rating



5.0

▼ 3 Baseline events

Show Calculations

Investment Information

Agency Head
Janet A. Napolitano
Agency
Department of Homeland Security
Bureau
Citizenship and Immigration Services



Richard Spires
Agency CIO

Investment Phase

Mixed Life Cycle

Description

VIS supports E-Verify by enabling employers to electronically verify that newly hired [more..](#)

FY2011 Spending

\$29.0 M

Investment End Date

09/30/2017

Status

Continuing

Cost



Date of last reported change to any milestone:
December 23, 2010

Schedule



Date of last reported change to any milestone:
December 23, 2010

Evaluation (By Agency CIO)

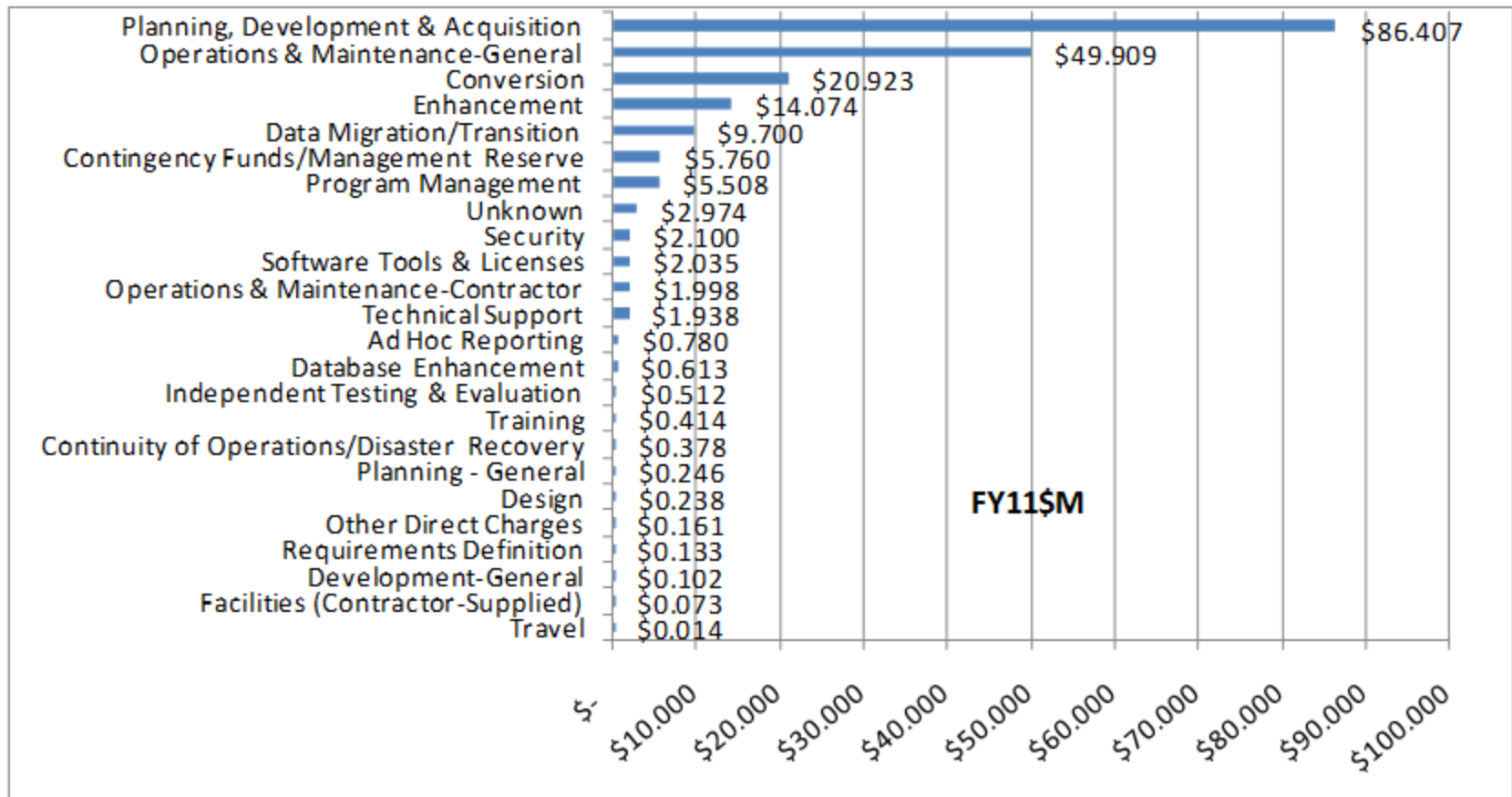


3 out of 5

Date last reported: December 29, 2010

Costs to date

■ As of May 2011



The Take Away

- **The federal IT dashboard provides a wealth of useful historical cost information for major Government IT investments.**
- **This publicly available information can provide program managers to inform cost and schedule estimates.**



Additional Resources

- [TechStat Toolkit](#)
- [OMB IT Dashboard](#)
- [Presidential Memorandum - September 10, 2010](#)
- [PerformanceStat](#)
- [OMB IT Reform 22DEC2010](#)
- [Vivek Kundra speaks to the 25 Point Plan](#)
- **[GAO-11-318SP: Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue \(Dashboard discussed on p. 235\)](#)**
- **[OMB's 25 Point Implementation Plan to Reform Federal Information Technology Management](#)**
- **[Reports & TestimoniesLegal DecisionsComptroller GeneralTopic CollectionsCareersFraudNet/Reporting FraudMultimedia.](#)**
- **[Information Technology: OMB Has Made Improvements to Its Dashboard, but Further Work Is Needed by Agencies and OMB to Ensure Data Accuracy \(March 15, 2011\)](#)**