

*U.S. Department of Transportation*

# WORKFORCE ANALYSIS



**2007 UPDATE**

**SNAPSHOT DATA AS OF SEPTEMBER 30, 2006**

*September 2007*



Conduct workforce planning to identify both mission and workforce trends, assess mission-critical core competencies, and implement plans to close gaps through vigorous learning and knowledge management approaches, targeted recruitment, and succession planning.

- DOT Strategic Plan 2006-2011  
Organizational Excellence Goal, Strategy 9



## EXECUTIVE SUMMARY: 2007 WORKFORCE ANALYSIS

*Most critically, we must attract the best, the brightest and the most diverse workforce and inspire a new generation of innovators in transportation. Each of us has the responsibility to help DOT become the employer of choice not only within the transportation sector but also within the Federal Government.*

– DOT Strategic Plan (2006-2011)

The U.S. Department of Transportation (DOT) is pleased to present the **2007 Workforce Analysis**, an update to the Fiscal Year (FY) 2006 Workforce Plan.

This **Analysis** presents a snapshot of the DOT workforce at the end of FY 2006. The **Analysis** presents changes in demographics and employee strength that have occurred since September 30, 2005, and focuses specific attention on mission critical occupations (MCOs).

The **Analysis** includes presentation and trend analysis of data for DOT overall, including:

- The DOT Workforce at September 30, 2006
- Significant Employee Demographics – including current representation and emerging patterns
- Mission Critical Occupations – including current representation, competency assessments, and projected force strength
- Turnover Analysis - the “supply and demand” forces and their impact on the DOT workforce since September, 2005
- Staffing Needs, Recruitment Activity and specific initiatives including DOT’s utilization of Career Patterns dimensions
- Staffing Continuity Plan – A review of DOT’s Continuity of Operations (COOP) planning for emergencies, and Succession Plan for Leadership and other MCO positions

The **Analysis** also provides analyses and detail for individual Operating Administrations, including:

- Projections of the workforce by MCO
- Initiatives and the status of relevant workforce issues in individual Operating Administrations

The **Analysis** also includes recommendations for the path forward aligned with DOT’s updated Strategic Human Capital Plan, that can be integrated into the Department’s 2007 Human Capital Accountability Plan (under development).

The **2007 Workforce Analysis** fulfills the requirement of the President’s Management Agenda to describe how the Office of the Secretary of Transportation (OST) and the Operating Administrations are working to shape an employee workforce that will continue to have the competencies required to fulfill DOT’s mission in a changing environment.

A crosswalk between the OPM guidelines for Workforce/Strategic Planning and this **Analysis** details the critical elements of Workforce Planning as outlined in the Human Capital Assessment and Accountability Framework (HCAAF) of the President’s Management Agenda and their locations in this document.

\* \* \*



## CURRENT WORKFORCE: FY 2006

At the end of FY 2006, DOT had **52,520** employees<sup>1</sup>, with the majority concentrated in the Federal Aviation Administration (FAA). The workforce was 0.3% smaller than at the end of FY 2005, due to downsizing, delays in hiring during the period of the Continuing Budget Resolution, and the impact of the government-wide retirement wave on DOT.

The **average employee age** remained stable at **46.7**. **Average grade** remained essentially the same at **12.6** (compared to the Federal average of 10.0). **Average salary** rose approximately 3.3% to **\$99,400**.<sup>2</sup> The **percentage of supervisors** declined slightly to **15.2%**.

**Representation of all women** remained stable at **26.6%**, lower than the representation of 43.0% in the Federal civilian workforce overall.

**Representation of all minorities** increased slightly to **22.2%**, lower than the representation of 33.8% in the Federal civilian workforce overall.

- Representation of African-Americans at DOT remained stable at 11.1%, compared to their 18.4% representation in the total Federal workforce.
- Representation of Asian/Pacific Islanders remained essentially stable (from 3.3% to 3.7%), compared to 6.0% representation in the Federal workforce.
- Representation of American Indians/Alaskan Natives remained stable at 1.4% of DOT, compared to a 1.7% representation in the total Federal workforce.
- Representation of Hispanics remained stable (from 5.9% to 6.0%) compared to 7.7% in the Federal workforce.
- Representation of people with disabilities fell slightly (5.3% to 5.1%).

Representation of veterans decreased slightly but remained robust at **27.6 %** (down from 28.3%) of the total DOT workforce.

## TURNOVER

During FY 2006, rates of hiring were not high enough to effect a 1:1 replacement of employees at the ongoing rate of departure. Separations from DOT (all reasons) outpaced new hires by a ratio of almost 3:1. This continues a trend noted for FY 2005, when separations from DOT outpaced new hires by a ratio of almost 3:1. During FY 2006, hiring was effectively frozen for most of the fiscal year during the Continuing Budget Resolution while retirements continued apace. A strategic reduction due to Competitive Sourcing at FAA further increased the rate of turnover.

## WORKFORCE PROJECTIONS

Modeling, based on “steady state” assumptions, projects that if the recent pattern of losses and gains continues, the total DOT workforce will decline by about 8% over the next four years. MCOs, including Leaders, Program Managers, and Engineers, will be most heavily impacted.

## WORKFORCE CHALLENGES AND PROGRESS

The Department’s updated **Strategic Human Capital Plan** lists the key Goals, by Human Capital Assessment and Accountability Framework (HCAAF)<sup>3</sup> area, on which the Department will focus its attention. Some of these challenges correspond to the “workforce challenges” that were highlighted in the 2006 Workforce Planning Update.

<sup>1</sup> Full-time and part-time employees on permanent appointments. Excludes temporary, intermittent, and contract employees.

<sup>2</sup> This includes the sum of adjusted basic pay plus any administratively uncontrollable overtime (AUO) pay, availability pay, retention allowance, or supervisory differential after taking into account all pay caps that may be applicable. (WASS User Manual, Appendix A)

<sup>3</sup> Human Capital Assessment and Accountability Framework (HCAAF) is published by OPM



**Figure ES-1: Strategic Human Capital Goals linked to Workforce Planning Data**

<b>Goal (from DOT Strategic Human Capital Plan, 2007-2009)</b>	<b>Strategic Alignment, Workforce Planning Goal 1, Strategy 1: Complete the cross-functional engineering pilot</b>
<b>Corresponding "Workforce Challenge" from 2006 Workforce Planning Update (September, 2005)</b>	Make progress in cross-cutting skills
<b>Results:</b>	✓ The cross-functional engineering competency assessment pilot has been launched.. Full data analysis was not available for inclusion in this document. (see Chapter 2: Mission Critical Occupations)
<b>Goal (from DOT Strategic Human Capital Plan, 2007-2009)</b>	<b>Strategic Alignment, Workforce Planning Goal 1, Strategy 2: Conduct annual updates of the enterprise workforce plan</b>
<b>Corresponding "Workforce Challenge" from 2006 Workforce Planning Update (September, 2005)</b>	N/A
<b>Results:</b>	✓ This document constitutes the annual update of the enterprise workforce plan
<b>Goal (from DOT Strategic Human Capital Plan, 2007-2009)</b>	<b>Strategic Alignment, HR as Strategic Partner Goal 1, Strategy 1: Identify HR Skills gaps using...competency assessment tools</b>
<b>Corresponding "Workforce Challenge" from 2006 Workforce Planning Update (September, 2005)</b>	"Make progress in managing mission critical occupations"
<b>Results:</b>	✓ The Human Capital community completed the skills assessment. Strategies for closing gaps are being identified (Chapter 2: Mission Critical Occupations)
<b>Goal (from DOT Strategic Human Capital Plan, 2007-2009)</b>	<b>Talent Goal 1, Strategy 1: Continue and refine competency mapping, assessment, and improvement work in MCOs and other designated occupations</b>
<b>Corresponding "Workforce Challenge" from 2006 Workforce Planning Update (September, 2005)</b>	N/A
<b>Results:</b>	✓ DOT has completed the competency re-assessment of employees in the Leadership and information technology (IT) occupations. DOT has completed the competency reassessment of HR professionals, demonstrating smaller gaps as a result of ongoing mitigation strategies. Strategies to close competency gaps in IT are in progress. Strategies for closing critical competency gaps for the Leadership group have yielded results in closing the competency gap in Conflict Management.
<b>Goal (from DOT Strategic Human Capital Plan, 2007-2009)</b>	<b>Goal 2, Strategy 1: Emphasize Diversity needs when prioritizing recruitment outreach options; Goal 2, Strategy 2: continue active outreach to...groups with low participation</b>
<b>Corresponding "Workforce Challenge" from 2006 Workforce Planning Update (September, 2005)</b>	"Progress in outreach to women and minorities" "Increase representation of people with targeted disabilities"
<b>Results:</b>	✓ Outreach activities accelerated. However, the diversity of the applicant pool did not increase, and in an environment of curtailed hiring, the overall diversity of DOT population, and representation of people with targeted disabilities, did not increase significantly although DOCR commended progress in several OAs.
<b>Goal (from DOT Strategic Human Capital Plan, 2007-2009)</b>	<b>Retention Goal 4, Improve use of workplace flexibilities...to recruit and retain talent and to bolster emergency preparedness</b>
<b>Corresponding "Workforce Challenge" from 2006 Workforce Planning Update (September, 2005)</b>	N/A



<b>Results:</b>	✓ DOT increased utilization of the Career Patterns dimensions already in place and targeted Workplace Flexibilities for additional emphasis
<b>Additional workforce challenges to be monitored, listed in the 2006 Workforce Plan Update</b>	
<b>Increase hiring at entry levels:</b>	20% of all new hires in FY 2006 were below the age of 29, compared to 26.8% of the new hires in 2005. This hiring trend compounds the overall aging of the DOT workforce. (See Chapter 3, Figure 3-8, Hires by Age)
<b>Pulse check on diversity:</b>	Representation of minorities and people with disabilities remained relatively stable as the overall DOT workforce decreased in size.
<b>Manage Succession Planning:</b>	DOT published, and OPM accepted, the Executive Succession Planning Report. OAs have established their bench strength and reached milestones in the areas of accountability, communications, senior level commitment and measuring the effectiveness of Succession Planning activities





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## INTRODUCTION

*We have a unique opportunity to leverage the resources of our new Headquarters Building and the energy and creativity of a talented and diverse staff into a Departmental legacy that will help define this administration. We feel the time is right to brand the Department of Transportation, both internally and externally, and positively market its huge contribution to American society and demonstrate that DOT is a premier place to work.*

– Linda J. Washington, Assistant Secretary for Administration  
May 2006  
*“Response to the Secretary”*

### CONTENTS OF THE 2007 WORKFORCE ANALYSIS

As one of the five initiatives in the President’s Management Agenda (PMA) the *Strategic Management of Human Capital* provides the Department of Transportation (DOT) with guidelines to effectively attract, hire, develop, and deploy people in an often rapidly changing environment. By integrating its human capital efforts with those of other PMA initiatives—smart competitive sourcing, improved financial performance, better budget and performance integration, and expanded electronic government—the Department can maximize its use of resources to achieve its goals. The Workforce Plan serves as a mechanism to ensure DOT is attracting and developing a diverse workforce that achieves results for the American people.

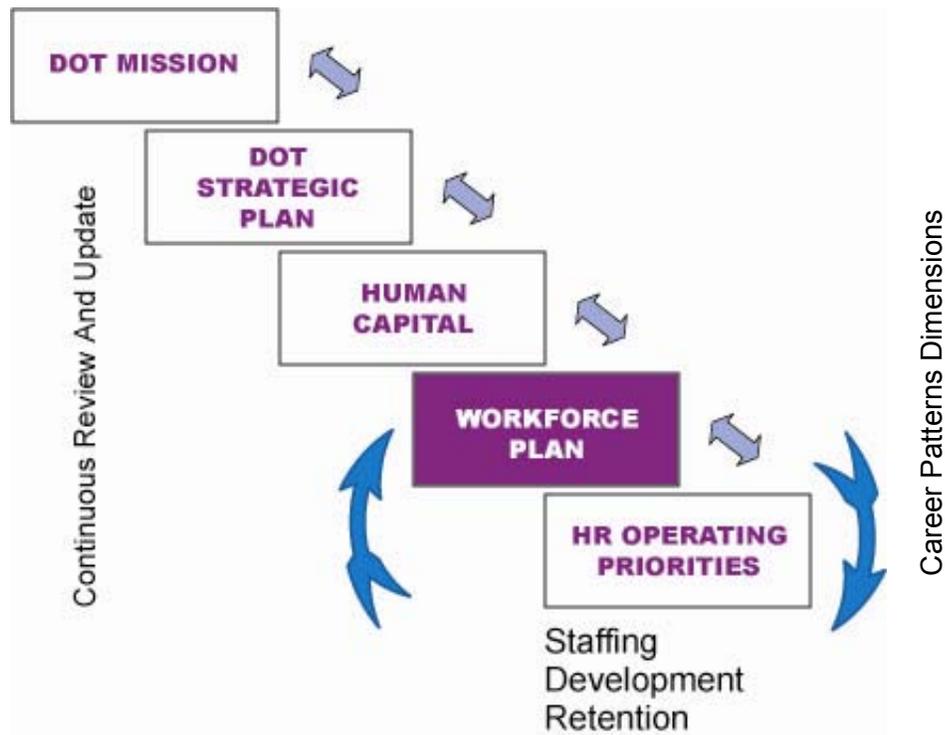
### WORKFORCE PLANNING

The **Strategic Management of Human Capital** is often described as some variation of “Insuring the organization has the Right people, with the Right skills, in the Right jobs, and the Right place, at the Right time, for the Right Reason, to advance the mission of the Organization.”

To achieve this objective, in addition to an overall **DOT Strategic Plan**, the organization needs an aligned **Human Capital Strategic Plan** to set the strategic and operating priorities of human capital management activity over the long term. Both the DOT Strategic Plan and the Human Capital Strategic Plan may remain relatively constant over at least a five-year horizon. However, the forces that impact the availability and readiness of the “right people” with the “right skills” constantly change.

The **Workforce Plan** is DOT’s tool for monitoring the “supply and demand” vectors shaping its current and future workforce. The Plan must be updated regularly to adjust for changing internal and external factors that influence the number and abilities of the people who join, stay with, or leave an organization.

Figure I-1: Role of Workforce Plan in the Strategic Management of Human Capital



The **2007 Workforce Analysis** has been developed with specific attention to the definition of Workforce Planning in the Human Capital Assessment and Accountability Framework (HCAAF) of the President's Management Agenda.

The organization identifies the human capital required to meet organizational goals, conducts analyses to identify competency gaps, develops strategies to address human capital needs and close competency gaps, and ensures the organization is appropriately structured. (HCAAF Practitioner's Guide, 2005) [http://www.opm.gov/hcaaf\\_resource\\_center/3-4.asp](http://www.opm.gov/hcaaf_resource_center/3-4.asp)

### STRATEGIC ALIGNMENT OF THE WORKFORCE PLAN

The table below demonstrates the direct "line of sight" from DOT's Mission to its Strategic Objectives; and from there to the Strategic Human Capital Plan and the Workforce Plan to support the strategy. The manner in which both plans are executed – with professionalism, teamwork, and customer focus -reinforce the Values of the Department:

"DOT employees knew and understood how their positions related to the Department's mission and goals"

-OPM Audit of DOT HR Practices, 2005



DOT Mission	
<i>Why the Department exists</i>	<p>DOT's core mission emphasizes the national interest in safe and efficient transportation. DOT's mission, as stated in Section 101 of Title 49, United States Code, is as follows:</p> <p>The national objectives of general welfare, economic growth and stability, and the security of the United States require the development of transportation policies and programs that contribute to providing fast, safe, efficient, and convenient transportation at the lowest cost consistent with those and other national objectives, including the efficient use and conservation of the resources of the United States</p>
DOT Strategy	
<i>How the Department carries out its mission</i>	<p><b><i>New Ideas for a Nation on the Move.</i></b> "Safe, efficient transportation systems are essential to America's continued economic vitality, our ability to compete in a global economy, and most importantly, to the quality of life of all Americans... sustained growth requires some serious rethinking about the way that we build, finance, manage, and maintain the transportation systems that move our people and our economy...[The DOT] Strategic Plan describes the Department of Transportation's new ideas through goals, strategies, and the results we will achieve to improve the United States transportation sector. We have set policy goals in five strategic areas: Safety, Reduced Congestion, Global Connectivity, Environmental Stewardship, and Security, Preparedness, and Response." <i>(DOT Strategic Plan)</i></p>
Human Capital Strategy	
<i>How the organization will manage its human capital systems to carry out the Department's Strategy</i>	<p><b>"To strategically utilize human capital in full support of DOT's goals and mission, while empowering individual workers to utilize their full potential."</b></p> <p>...Ensure that human capital executives are at the table as future strategic plan updates are written. DOT will institutionalize the links we have already forged, continue the participation and oversight of Department leaders, broaden understanding of and participation in human capital efforts at all levels, improve the data that monitor and guide our progress...and ensure that accountability mechanisms are utilized as intended. (Revised HC Plan, 2003- 2008)</p>
Workforce Plan	
<i>How the Department will anticipate the supply and demand of the qualified workforce it needs for the success of the Department's Strategy</i>	<p>Perform annual, full-scope workforce analysis for the Department, and continue automated support for interim targeted analysis. DOT will ensure that the results of its analyses are broadly publicized and easily accessed so they can form the basis of human capital program revisions and individual human capital decision. DOT will continue to monitor and facilitate workforce and restructuring efforts, and publicize the workforce flexibilities that support them. DOT will continue its investment in automated systems to support recruitment, training, benefits counseling, and other human capital activities; and will educate leaders and Human Resources (HR) staff about competitive sourcing as a strategic tool.</p>
Mission Critical Occupations (MCOs)	
<i>Occupations agencies consider core to carrying out their missions. Such occupations usually reflect the primary mission of the organization without which mission-critical work cannot be completed</i>	<p>The management competencies are specifically aligned with Department objectives: "The management competencies used in this assessment were developed and tested with management focus groups to ensure their relevance to DOT's mission. These leadership competencies support DOT's Organizational Excellence goals, thus supporting the overall mission." (DOT Leadership Assessment Report Dec.2005)</p> <p>MCO competencies have been identified to strengthen the technical capacity of each group, reinforce Department values of professionalism, teamwork, and customer focus, and also to align with the Department's Strategic Objectives: Safety, Mobility, Global Connectivity, Environmental Stewardship, Security, and Organizational Excellence.</p>



## **KEY ELEMENTS OF A WORKFORCE PLANNING SYSTEM**

The *HCAAF Practitioner's Guide* (United States Office of Personnel Management, September 2005) outlines the key elements necessary for a workforce plan as required in the PMA. The DOT Workforce Analysis covers all key elements as summarized below.

<b>THE DEPARTMENT'S WORKFORCE PLANNING SYSTEM INCLUDES A WORKFORCE ANALYSIS PROCESS THAT:</b>
<b>Identifies mission-critical occupations and competencies essential to achieving strategic goals</b>
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> DOT has identified 10 job families as mission critical</li> <li><input checked="" type="checkbox"/> DOT has identified a group of four mission-critical engineering positions for the entire Department and launched a competency assessment</li> <li><input checked="" type="checkbox"/> All Operating Administrations (OA) have identified Department-specific mission-critical positions</li> <li><input checked="" type="checkbox"/> DOT participates in competency analysis of government-wide mission critical job families (i.e., Leaders, information technology (IT) professionals, Human Capital professionals, Acquisition professionals)</li> </ul>
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Assessments of Leaders and IT workforce was completed Fiscal Year (FY) 2005 and updated in FY 2006</li> <li><input checked="" type="checkbox"/> Human Capital Competency Analysis completed in FY 2006</li> <li><input checked="" type="checkbox"/> Acquisition Workforce Competency Analysis is under way</li> </ul>
<input checked="" type="checkbox"/> Attrition patterns for mission-critical positions have been tracked and issues flagged
<input checked="" type="checkbox"/> Each OA provides the Office of Human Resource Management (OHRM)/Office of the Secretary of Transportation (OST) with quarterly updates on the size and projected requirements of its Mission Critical Occupations
<b>Uses workforce planning reports and studies in conjunction with the best practice benchmarks to determine the most effective work levels, workloads, and resources for efficient functioning</b>
Bases decisions related to restructuring, redeployment, and reorganization on current empirical and workforce analysis
<b>Conducts risk assessments to minimize adverse impacts on workforce due to restructuring</b>
<b>Documents and assesses key supporting functions of all business areas</b>
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Voluntary Early Retirement Authority (VERA)/Voluntary Separation Incentive Payments (VSIP) are based on documented evaluation of effective structures and required ratios of supervisors and managers to employees based on the nature and geographic location of work</li> <li><input checked="" type="checkbox"/> Competitive sourcing as a workplace tool is designed in a joint effort between the (Competitive Sourcing) Procurement and Human Capital functions</li> </ul>
<b>Regularly evaluates customer/citizen needs and incorporates these needs into workforce plans, organizational goals, and functions</b>
<b>Forecasts future business changes in the work of the Department and how the changes will affect the workforce</b>
<ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Human Resource Council, composed of executives of each OA, regularly meet to jointly manage the human capital response to changing business conditions and strategic challenges to the Department</li> <li><input checked="" type="checkbox"/> Additional strategic goals of the Department are reflected in Plan Updates: for example, the increased emphasis on National Security and Emergency Planning is reflected in review of tele-working and other emergency planning in the Workforce Plan</li> </ul>
<b>Regularly tracks established performance measures, workforce trends, and technological advances to ensure updated models for meeting citizen and organization needs</b>
<input checked="" type="checkbox"/> In 2006, DOT continued its membership in the Corporate Leadership Council, which provides current data and benchmarks for performance measures and workforce trends and examples of best-in-class approaches from the public and private sectors. The FAA also has a membership in the Council.
<b>THE DEPARTMENT'S WORKFORCE ANALYSIS PROCESS IS BASED ON SOURCES OF INFORMATION SUCH AS:</b>
<b>Current workforce demographic and competitive sourcing studies</b>
<b>Descriptive and documented plans and processes for hiring, recruiting, employment, and retention efforts</b>
<b>Past assessments and workforce data</b>



<b>Information about anticipated changes related to e-Government and competitive sourcing, goals, and objectives</b>
<input checked="" type="checkbox"/> Workforce plan uses current Bureau of Labor Statistics, Office of Personnel Management, and Equal Employment Opportunity Commission data on U.S. civilian workforce <input checked="" type="checkbox"/> OHRM Manager of PMA regularly works with DOT Competitive Sourcing department <input checked="" type="checkbox"/> Each OA has formal plans in place and provides quarterly updates on vacancy forecasts <input checked="" type="checkbox"/> OST coordinates OA efforts through Program Manager for Recruiting: office maintains data on candidate pools, outreach efforts, and applicant pools (including data management through Quickhire)
<b>THE DEPARTMENT'S WORKFORCE PLANNING SYSTEM INCLUDES AN ORGANIZATIONAL STRUCTURING PROCESS THAT:</b>
<b>Utilizes functional analysis to determine appropriate organizational and physical structure</b>
<b>Clearly organizes the Department staffing plan by workflow, organizational initiative, and functional area</b>
<b>Anticipates change in citizen needs by continuously monitoring the evolution of needs, trends, and events affecting workforce planning</b>
<b>Avoids excess organizational layers</b>
<b>Reduces redundant operations</b>
<b>Analyzes internal workforce statistics, data, and trends to make the most efficient choices for workforce deployment</b>
<input checked="" type="checkbox"/> The DOT-wide Human Capital Council, composed of workforce planning specialists from every OA, reports quarterly on full-time equivalents (FTEs), anticipated changes, and anticipated structure needs and changes <input checked="" type="checkbox"/> Changes in workforce needs and positions are reflected in workforce reshaping in the OAs and OST <input checked="" type="checkbox"/> Key positions, particularly at the SES level, are monitored across the Department and filled – or redeployed – based on efficient choices for the Department as a whole
<b>THE DEPARTMENT'S ORGANIZATIONAL STRUCTURING PROCESS DEMONSTRATES THAT IT:</b>
<b>Includes statistics regarding number of supervisors, their series and grade/pay band, geographic location, and ratio of supervisors to employees</b>
<b>Obtains the mix of supervisory and non-supervisory positions to best meet customer needs</b>
<b>Documents the need for redirecting supervisory positions and the planned program design and assessment for the implemented changes</b>
<b>Addresses impediments to restructuring by analyzing solutions found within the current environment</b>
<b>Uses a documented change management strategy</b>
<input checked="" type="checkbox"/> Careful use of VERA/VSIP, monitoring of supervisory ratios, and a change management strategy that includes involvement and communication strategies at the Assistant Administrator level, demonstrate increasing use of statistics, metrics, and evaluation of results <input checked="" type="checkbox"/> The Department facilitates change by rolling out each new initiative with a consistent communication and sponsorship using DOT-wide councils

## METHODOLOGY AND ASSUMPTIONS

Data for the **2007 Workforce Analyses** were gathered from the following sources, under the direction of the Office of Human Resource Management (OHRM) for the Office of the Secretary of Transportation (OST).

Unless otherwise noted, the collection and analyses of DOT data and the development of forecasts for future trends have been made utilizing the following assumptions:

- The source of all data was the Civilian Personnel Data File (CPDF) as of month end September 2006 (ME Sep 06).



- Data from the FY 2005 and FY 2006 DOT Workforce Plan are used as the basis for developing historical trend analyses.
- **The eHRI tools, Workforce Analysis Support System (WASS) and Civilian Forecasting System (CIVFORS), are used to draw data and forecast trends for a five year window from the CPDF data source.**
- The FY 2006 employee turnover has been analyzed using specific, identifiable “nature of action” codes. However, due to the transition within CIVFORS during FY 2006, demographic codes are not available for every employee who terminated. This has limited the ability to make comprehensive comparisons to turnover from FY 2005 to 2006. In addition, due to requirements of the CIVFORS tool, the forecast for future turnover included unidentified personnel actions in the calculation basis.
- Only permanent employees on full-time or part-time work schedules are included in counts.
- Unless otherwise noted, analyses and forecasts are not broken out by Operating Administration (OA), but are based on the entire DOT workforce.
- Senior Executive Service (SES) members are included in counts and data analyses, unless specifically excluded.
- Some demographic breakdowns were not available in WASS when analyzing Nature of Action (NOA) codes against the new ERI codes.
- People with targeted disabilities have not been shown separately from people with (all) disabilities in workforce projections, as the numbers are too small to be usable in statistical calculations.
- Workforce strength is based on counts of those actually on-board, not on authorized full-time equivalent (FTE) allocations.
- Where percentages are shown, numbers may not add due to rounding.
- Population breakouts by demographic category were developed using the WASS tool. A more detailed analysis, originally to have been prepared utilizing the Department’s new subscription to the Visual Powerfiles for EEO (VPEEO) system, is not possible. VPEEO was found to be inadequate, and was discontinued during FY 2006.
- Forecasts are based on two assumptions: (1) current budget and FTE levels would be maintained into the future; and (2) core competencies would remain the same as they are today. Core competencies may be added or adjusted in subsequent plan years.
- The OPM website, Federal Employment Statistics ([www.opm.gov/feddata](http://www.opm.gov/feddata)), is the source for comparative government-wide numbers and statistics. The most recent data available are for 2004. The EOC Annual Report (June 2006) is the source of some additional government-wide statistics.

## PLANNING ENVIRONMENT FOR FY 2007/2008

Many contingencies will impact workforce and talent management in FY 2007 and 2008. Some issues are Department-wide; others are more urgent in specific OAs.

- **Depleted Funding Streams:** Agencies experienced funding constraints during FY 2006 across the Federal Government. In response to the Federal Continuing Budget Resolution, DOT imposed a hiring freeze and required justification and screening by an Executive Review Board for any new hire. By the time it was lifted in February, hiring had been significantly impacted.
  - Like other domestic agencies whose funds are deemed discretionary, DOT has experienced flat appropriations. The unbudgeted expenses for massive disaster relief efforts for Hurricane Katrina, and internal system migrations to the Department of Interior (DOI) FPPS impacted DOT in FY 2006. Other unbudgeted expenses as well as more predictable costs, such as the annual general salary increases, will continue to draw on depleted resources.
  - DOT funding comes not only from Congress but also from Trust Funds and other sources specific to programs at the OA level. These sources are influenced by volume of transportation,



commercial travel, oil prices, and many additional market forces. Both the Aviation and Highway Trust funds have experienced declining balances. In 2007, the Government Accountability Office (GAO) added "Funding for the Nation's Transportation System" to its annual report of "high risk" areas.

- Changes in Americans' traditional uses of the national transportation system – and assumptions about their funding – will impact the Department's strategic direction. This issue was illustrated by Secretary Peters' article "The Folly of Higher Gas Taxes" : "A necessary national conversation has begun concerning the state of the nation's bridges and highways and the financial model used to build, maintain and operate them."<sup>4</sup>
- Continued stress on funding sources will impact DOT's mission and ability to sustain its workforce, and will force DOT to pace and prioritize its human capital activities even more closely than in the past.
- **Workforce Attrition:** In FY 2006, as in FY 2005, retirement was the largest source of employee attrition. Employee terminations from all sources outpaced new hires by a ratio of almost 3:1.
- **Continuing shift from "doing" to "managing":** DOT will deploy additional contract help as a strategy to respond to reduced budgets or FTEs, and to insure the latest technology is available as needed. This suggests an increased need for Project Managers and Contracting officials, and increased emphasis on project management, contract management, and oversight competencies in the current workforce. At the same time, the Project Manager group of employees has one of the highest retirement eligibility rates among mission critical operations (MCO) in the Department. Employees with these skill sets may be redeployed to meet these needs.
- **Federal Government as a desirable workplace:** DOT will be challenged to promote the ideals of public service and emphasize its appeal as an "employer of choice" to a changing workforce pool. DOT's criticality to national security and environmental stewardship may provide an appealing platform to professionals interested in public service.
- **Diversifying workforce:** DOT continues its efforts to reflect the increased diversity in the U.S. civilian labor force and to expand its recruiting outreach to all sources of talent to broaden its applicant pool. This has implications not only for the sources and methods of recruiting but also for successful orientation of new employees and increased responsibility of hiring managers for retaining new employees and positioning them for success.
- **National security:** DOT's continuing role in managing the national transportation infrastructure has expanded with the additional emphasis on national security implications. DOT has an external role in preparing the transportation infrastructure to respond to national emergencies, and an internal role to plan for continuity of operations and the security and welfare of DOT employees.

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<sup>4</sup> *Washington Post, August 25, 2007*



## CHAPTER 1: DOT CURRENT WORKFORCE

Chapter 1 provides a summary of current Department of Transportation (DOT) workforce demographics and analyses in the following areas: strength, age, years of service, grade, gender, race/national origin, persons with disabilities, veterans, and leaders. All data are drawn from the Office of Personnel Management's (OPM) CPDF as of September 30, 2006 and are compared with data presented in the previous *Plan* of September 30, 2005.

### THE PEOPLE OF DOT: AN OVERALL DEMOGRAPHIC PROFILE

At the end of Fiscal Year (FY) 2006 DOT had 52,520 employees<sup>5</sup>, with the majority concentrated in Federal Aviation Administration (FAA). The DOT workforce includes professional, technical, managerial, academic, and administrative personnel in the Office of the Secretary (OST), Office of the Inspector General, and 12 Operating Administrations (OA).

DOT employees provide a wide range of critical services to the public and hold positions in extremely varied functions. Their work runs the gamut from rule-making at the policy level to large systems design; coordination with state agencies; on-the-ground examination of the nation's trucking and railroad fleets; certification of transportation professionals; oversight of the transportation of hazardous materials; education; and direct management of the nation's air traffic around the clock.

This variety of work adds complexity to managing talent and forecasting the future talent requirements for the Department as a whole, even as DOT strategy increases the need for "inter-modal" work, cooperation, and possibly increased future mobility across OAs.

**Figure 1-1** provides a general snapshot of the people of DOT as of the end of FY 2006, compared to the end of FY 2005. Further breakout of minority data for FY 2006 is shown in Figure 1-10.

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<sup>5</sup> Full time and part-time employees on permanent appointments. Excludes temporary, intermittent and contract employees.



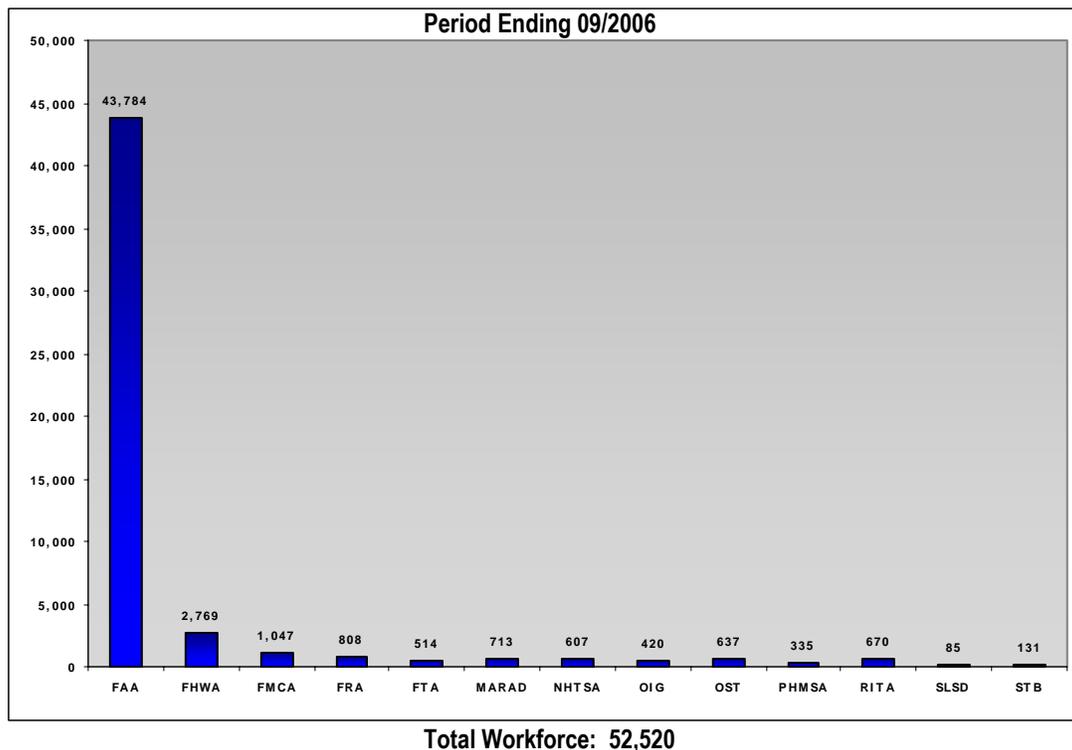
Figure 1-1: Workforce Facts

ALL DOT	FY 2006*	FY 2005*	FY 2004
Total Number On Board	52,520	52,684	56,354
Average Age	46.7	46.7	46.7
Average Years of Service	18.3	18.5	18.1
Average Grade	12.6	12.7	12.6
Average Salary (\$000) <sup>6</sup>	99.4	96.2	91.9
Supervisor and Manager	15.2%	15.6%	12.5%
Women	26.6%	26.7%	26.6%
All Minorities <sup>7</sup>	22.2%	21.7%	21.7%
Employees with Disabilities	5.1%	5.3%	5.1%
Employees with Targeted Disabilities	0.45%	0.54%	0.55%
Veterans	27.6%	28.3%	Not Available
Eligible to Retire	17.1%	21.0%	Not Available

\* All Strength counts and averages include SES/equivalents (except average grade)

Figure 1-2 shows the strength of OST and the 12 Operating Administrations as of month-end, September 2006. In addition to the full-time/part-time staff on permanent appointments, DOT is currently carrying 1,202 temporary personnel on a variety of appointments.

Figure 1-2: Workforce Strength for all DOT



<sup>6</sup> This includes the sum of adjusted basic pay plus any administratively uncontrollable overtime (AUO) pay, availability pay, retention allowance, or supervisory differential after taking into account all pay caps that may be applicable. (WASS User Manual, Appendix A)

<sup>7</sup>: African-Americans, Asian/Pacific Islanders, Hispanics, Native Americans. See Figure 1-10 for 2006 data identified separately for these groups, as requested by the DOT Departmental Office of Civil Rights. (DOCR)



**Figure 1-3** shows a breakout of the Workforce Facts in Figure 1-1 for each Operating Administration.

**Figure 1-3: Workforce Facts by Operating Administration**

*Data as of September 30 of each Fiscal Year*

*Please note: The numbers below were not formulated by WASS and therefore may not match exactly with other similar charts within the report.*

<b>OST</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	637	690	729
Average Age	48.6	47.9	48.3
Average Years of Service	19.6	8.2	Not Available
Average Grade	12.8	11.6	12.8
Average Salary (\$000) (Base Salary Only)	96.8	92.9	88.4
Supervisor and Manager (Excludes Execs)	175	119	113
Women	357	382	410
All Minorities **	300	320	332
Employees with Disabilities	50	48	55
Veterans	87	90	Not Available

<b>FAA</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	43,784	43,983	47,258
Average Age	46.6	46.7	46.6
Average Years of Service	18.6	19.0	19.1
Average Grade*	Not Available	13.2	13.5
Average Salary (\$000) (Base Salary Only)	102.3	\$99.6	\$88.0
Supervisor and Manager (Excludes Execs)	5,587	5,628	5,894
Women	10,579	Not Available	Not Available
All Minorities **	8,791	Not Available	Not Available
Employees with Disabilities	2,076	Not Available	Not Available
Veterans	13,077	13,587	Not Available

<b>FHWA</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	2,769	2,874	2,916
Average Age	46.4	45.8	46.1
Average Years of Service	16.6	16.5	16.9
Average Grade	12.0	11.8	11.7
Average Salary (\$000)	82.8	\$78.9	\$75.6
Supervisor and Manager	1,179	1404	1466
Women	1,011	1047	1057
All Minorities **	717	738	745
Employees with Disabilities	187	187	184
Veterans	290	319	333



PHMSA	FY 2006*	FY 2005*	FY 2004
Total Number On Board	335	327	Not Available
Average Age	47.6	44.3	Not Available
Average Years of Service	14.2	14.5	Not Available
Average Grade	12.6	12.7	Not Available
Average Salary (\$000)	90.9	88.3	Not Available
Supervisor and Manager	45	48	Not Available
Women	117	109	Not Available
All Minorities **	119	112	Not Available
Employees with Disabilities	23	16	Not Available
Veterans	54	57	Not Available

*NOTE: Because PHMSA did not exist in FY 2004, separate data cannot be provided for that time period*

RITA	FY 2006*	FY 2005*	FY 2004
Total Number On Board	670	708	Not Available
Average Age	46.1	45.7	Not Available
Average Years of Service	15.4	10.3	Not Available
Average Grade*	12.3	12.0	Not Available
Average Salary (\$000)	91.9	88.0	Not Available
Supervisor and Manager	71	62	Not Available
Women	267	287	Not Available
All Minorities **	137	146	Not Available
Employees with Disabilities	45	39	Not Available
Veterans	77	77	Not Available

*NOTE: Because RITA did not exist in FY 2004, separate data cannot be provided for that time period*

FMCSA	FY 2006*	FY 2005*	FY 2004
Total Number On Board	1,047	1,074	1,017
Average Age	46.1	45.4	45.7
Average Years of Service	13.9	13.7	Not Available
Average Grade	11.4	11.0	11.2
Average Salary (\$000)	72.7	68.6	66.1
Supervisor and Manager	31.5	122	113
Women	370	375	354
All Minorities **	481	493	450
Employees with Disabilities	88	75	75
Veterans	249	252	Not Available

FRA	FY 2006*	FY 2005*	FY 2004
Total Number On Board	808	787	805
Average Age	51.4	51.6	51.6
Average Years of Service	15.2	15.1	Not Available
Average Grade	12.7	12.1	12.3
Average Salary (\$000)	84.2	82.9	79.4
Supervisor and Manager	113	106	64
Women	198	196	210
All Minorities **	164	147	148
Employees with Disabilities	74	64	74
Veterans	295	298	Not Available



<b>SLSDC</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	85	143	145
Average Age	48.2	48.1	48.1
Average Years of Service	18.1	14.4	Not Available
Average Grade	10.5	9.1	10.9
Average Salary (\$000)	65.6	59.2	31.7
Supervisor and Manager	16	25	18
Women	34	39	38
All Minorities **	7	11	6
Employees with Disabilities	9	15	10
Veterans	28	73	Not Available

<b>FTA</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	514	490	477
Average Age	47.1	47.6	48.6
Average Years of Service	17.4	18.6	Not Available
Average Grade	12.2	12.0	12.5
Average Salary (\$000)	89.4	88.2	87.5
Supervisor and Manager	100	69	73
Women	293	276	278
All Minorities **	271	254	246
Employees with Disabilities	48	40	42
Veterans	39	40	Not Available

<b>NHTSA</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	607	599	608
Average Age	47.2	47.6	47.9
Average Years of Service	16.6	12.4	Not Available
Average Grade	12.6	12.2	12.6
Average Salary (\$000)	92.1	90.7	87.5
Supervisor and Manager	109	103	106
Women	282	280	344
All Minorities **	254	244	252
Employees with Disabilities	26	25	27
Veterans	53	57	Not Available

<b>OIG</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	420	415	411
Average Age	42.6	42.8	43.1
Average Years of Service	14.6	14.6	Not Available
Average Grade	12.3	12.0	12.3
Average Salary (\$000)	86.5	87.9	80.0
Supervisor and Manager	101	91	92
Women	185	176	167
All Minorities **	156	150	143
Employees with Disabilities	21	20	23
Veterans	63	71	Not Available



<b>MARAD</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	713	775	790
Average Age	51.6	51.1	50.8
Average Years of Service	20.1	14.9	Not Available
Average Grade	11.6	9.9	11.4
Average Salary (\$000)	82.0	78.5	67.4
Supervisor and Manager	134	126	130
Women	210	340	250
All Minorities **	225	252	250
Employees with Disabilities	36	36	42
Veterans	188	198	Not Available

<b>STB</b>	<b>FY 2006*</b>	<b>FY 2005*</b>	<b>FY 2004</b>
Total Number On Board	131	131	137
Average Age	50.1	50.6	50.9
Average Years of Service	19.9	20.8	Not Available
Average Grade	12.9	12.2	12.9
Average Salary (\$000)	102.3	97.9	95.1
Supervisor and Manager	35	23	22
Women	66	63	62
All Minorities **	40	40	35
Employees with Disabilities	12	11	7
Veterans	17	20	Not Available

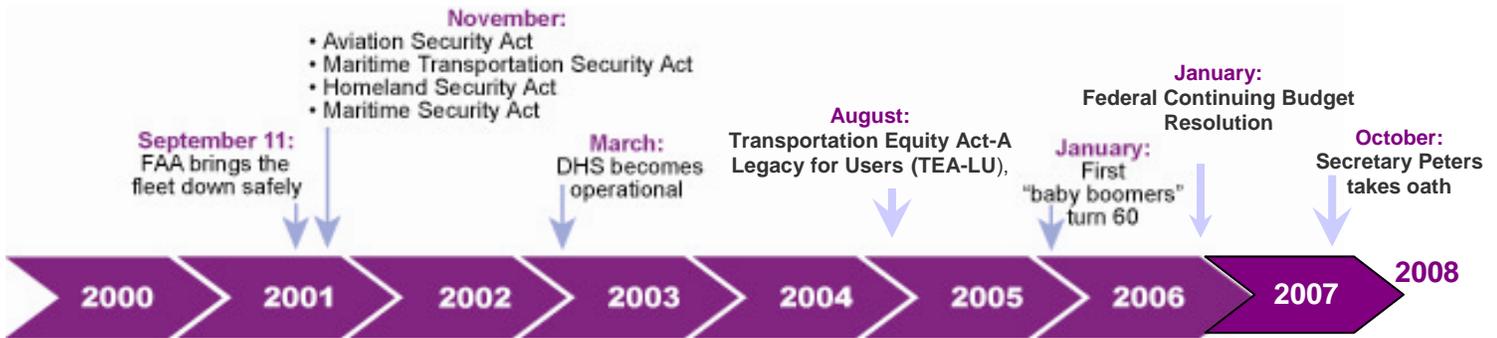
*\* All Strength counts and averages include SES/equivalents (except average grade)*

*\*\* African-Americans, Asian/Pacific Islanders, Hispanics, Native Americans. See Figure 1-10 for data identified separately for these groups, as requested by the DOT Departmental Office of Civil Rights.*

## DOWNWARD TRENDING

**Figure 1-4** below shows the specific events that have occurred over the last five years that have impacted the expansion and contraction of DOT’s force strength and organization structure to meet mission requirements and outside influences.

**Figure 1-4: Key Events Timeline**



Workforce Strength	64,472	101,036	57,981	56,354	52,684	52,520
Fiscal Year	2001	2002	2003	2004	2005	2006
Congress enacted legislation to make FAA's Air Traffic Organization a PBO (performance-based organization)	<i>January:</i> Secretary Mineta takes oath FAA begins to implement new ATO structure	DOT Releases first Human Capital Plan <i>February:</i> New Transportation Security Administration opened for business <i>December:</i> Transportation Administrative Services Center is reorganized back into the Office of the Assistant Secretary for Administration	<i>September:</i> DOT issues Strategic Plan 2003-2008 and reissues HC strategic plan <i>November:</i> FAA establishes new organization, ATO <i>March:</i> United States Coast Guard and the Transportation Security Administration moved to DHS <i>December:</i> restructuring of Research and Special Programs Administration	<i>July:</i> DOT awarded "green" status on Human Capital standard of the PMA	<i>February:</i> The restructured Operating Administrations, RITA, and PHMSA, established and were open for business MARAD downsized  <i>October:</i> In the largest non-military A-76 competition in history, FAA awards the Automated Flight Service Station function to Lockheed Martin.	<i>January:</i> DOT freezes hiring in response to Federal Continuing Budget Resolution <i>July:</i> Secretary Mineta retires <i>September:</i> President Bush nominates Mary E. Peters as Secretary of Transportation
Executive Order 13180 establishes a performance-based Air Traffic Organization in FAA.						

Generally, with the exception of a growth surge in 2002, the overall strength of DOT onboard personnel has decreased steadily, from 57,981 in FY 2003 to 56,354 in FY 2004 to 52,584 in FY 2005, to 52,520 in FY 2006.

## WORKFORCE DEMOGRAPHICS: AGE

The DOT workforce is aging as more employees reach retirement eligibility without an offset of younger employees. Although the entire Federal workforce is aging, DOT employees are slightly older on average than other Federal Government employees.<sup>8</sup>

The **average age** of DOT employees increased from 44.7 in FY 1999 to 46.7 in FY 2004<sup>9</sup>. Although the DOT average age has remained at 46.7<sup>10</sup> years, the age cohort distribution is moving, as shown in the figure below.

Figure 1-5: Age Distribution of DOT Employees, 2004, 2005 and 2006

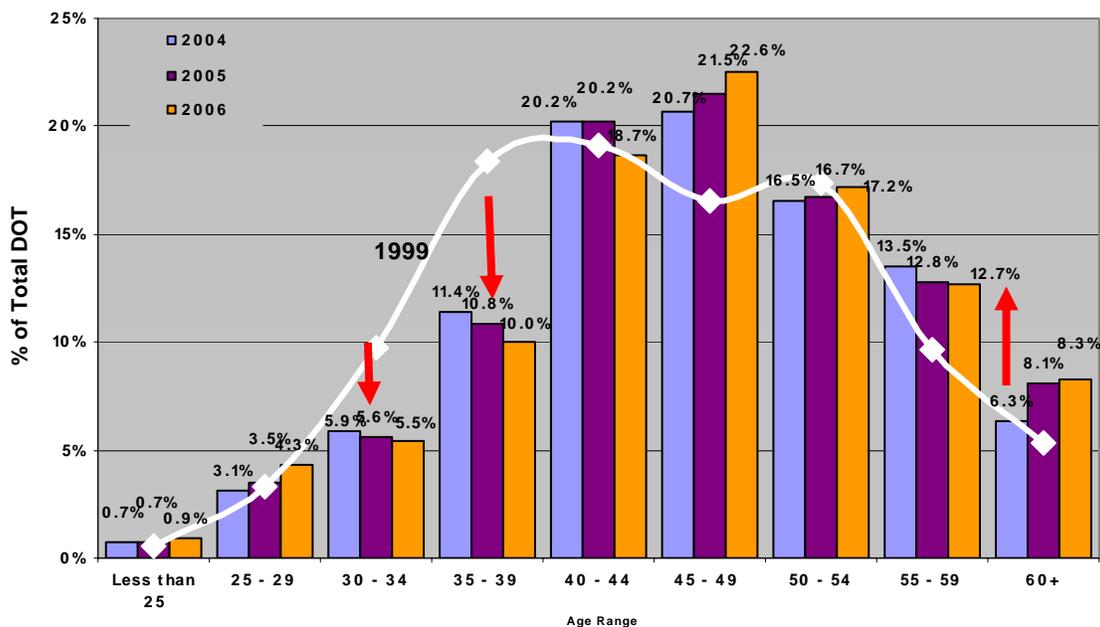


Figure 1-5 demonstrates the shift in age cohort distribution within the DOT population from 1999 to 2006. The white line indicates the 1999 population. The light blue bars show population levels in FY 2005; the dark plum bars, population levels in FY 2004; and the orange bars, the 2006 population, by age cohort. Since 1999, the majority of DOT employees has moved from the 35-45 age cohort to the 40-54 age cohort; and in FY 2006 the 45-49 range continued to increase while the 30-39 age range continued to decrease. In addition, the red arrows highlight that the proportion of employees older than 55 has consistently increased, and the proportion of employees younger than 40 has consistently decreased, from 1999 to 2006.

## WORKFORCE DEMOGRAPHICS: YEARS OF SERVICE (YOS)

The Federal retirement system benefits package is based on a combination of years of service (YOS) and age, making YOS a key predictor of workforce attrition. YOS can also be used as an indicator of the experience, and thus the general capability of the workforce to meet its mission.

Across DOT the **average length service** in FY 2006 was 18.3 years, a slight increase from 2004 when the average was 18.1. In comparison to other Federal agencies, where the average in FY 2004 was 14.7 years, DOT ranks third among the Executive Departments as having a staff with the most years of service.

<sup>8</sup> For FY 2004, the average age Federal Government-wide was 45.65, published by the Office of Personnel Management

<sup>9</sup> Source: DOT Workforce Plan 2004 Update

<sup>10</sup> Source: WASS



Only the Department of Housing and Urban Development and the Department of Energy had a higher average YOS. This has been the trend since 2000.<sup>11</sup>

Figure 1-6 shows the YOS by age of the overall DOT population. Using the general eligibility formula for Civil Service Retirement System (CSRS) or Federal Employees Retirement System (FERS), it is apparent that a significant portion of the DOT workforce is *currently eligible to retire* or is within a five-year window of eligibility.

Figure 1-6: DOT Employees Eligible for Retirement

Eligibility Point	Number of Employees <sup>12</sup>	% of total workforce
<b>CSRS</b>		
Age 55 + 30 YOS	3,807	7.2
Age 60 + 20 YOS	507	1.0
Age 62 + 5 YOS	24	.1
<b>FERS</b>		
Age 55 + 10	3,743	7.1
Age 62 + 5 YOS	920	1.8
<b>Total Eligible</b>	<b>9,001</b>	<b>17.1</b>
<b>Median retirement age: 57<sup>13</sup></b>		

Source: OPM

Figure 1-7: Retirement Eligibility by SES, Manager/Supervisor and DOT MCO

	% Eligible to Retire	Total Category Strength
SES	36.1%	432
Manager/ Supervisor	18.5%	7,977
<b>MCO</b>		
Program Management	24.7%	594
Transportation Industry Analyst	18.9%	122
Legal	17.2%	693
Engineering	14.2%	5,412
Transportation Specialist	14.1%	6,873
Physical Scientist	13.6%	367
Information Technology	12.3%	2,003
Community Planning	11.7%	223
Financial Management	11.5%	775
Transportation Safety	7.6%	23,992

These figures suggest the extent of DOT's current vulnerability to loss of general management capacity.

<sup>11</sup> Source: OPM, Federal Employment Statistics, Table 10

<sup>12</sup> Employees that are eligible for early retirement are not included in this count.

<sup>13</sup> Source: WASS – Due to a more accurate functionality, eligibility numbers are represented by the variable *Retire\_Elig* and are separated by the different retirement plans.



Figure 1-8: DOT WORKFORCE – Age vs. Years of Service

age	YOS																							
	0 – 1	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	30 - 31	32 - 33	34 - 35	36 - 37	38 - 39	40 - 41	42 - 43	44 - 45	46 or more
18	1																							
19	1	1																						
20	5	3																						
21	19	3																						
22	51	10	1																					
23	82	27	21	1																				
24	155	36	55	3	1																			
25	189	58	76	18	3																			
26	138	109	103	54	7	1																		
27	140	84	135	72	40	1																		
28	97	92	144	79	64	15																		
29	90	82	158	92	80	35	2																	
30	81	64	92	58	100	68	9																	
31	75	58	106	77	104	51	41	8																
32	71	61	84	86	111	56	95	18	1															
33	52	52	93	93	99	54	91	62																
34	50	45	93	55	119	78	87	126	44	2														
35	41	44	100	74	114	70	114	155	106	8														
36	43	36	96	70	102	79	92	201	177	53														
37	47	33	88	77	96	67	128	218	198	127	8													
38	47	31	68	58	81	50	77	247	244	161	49	3												
39	39	43	74	64	61	51	78	254	303	189	113	8												
40	50	46	69	55	65	56	69	212	332	270	176	59	1											
41	57	54	86	46	58	57	59	202	329	375	252	166	10											
42	65	47	79	54	72	51	66	190	320	391	306	302	65	4										
43	59	57	96	44	74	53	70	167	271	375	396	325	253	16										
44	69	51	118	45	59	48	50	150	252	328	403	393	299	58	2									
45	59	63	93	51	70	45	45	133	247	326	380	452	358	234	17									
46	65	48	99	53	56	50	48	103	168	247	284	397	342	288	86	1								



YOS

age	0 - 1	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	30 - 31	32 - 33	34 - 35	36 - 37	38 - 39	40 - 41	42 - 43	44 - 45	46 or more
47	64	46	87	43	65	51	35	93	119	222	239	367	375	258	264	17								
48	55	41	85	41	72	53	40	75	107	145	204	313	377	247	366	90	2							
49	38	40	78	42	73	47	26	64	87	153	193	272	348	249	367	176	26							
50	31	38	91	44	59	54	35	57	80	102	158	201	278	222	297	226	96	6						
51	45	38	79	47	77	46	43	70	65	89	107	169	231	160	247	199	168	14						
52	27	36	55	49	60	47	43	62	66	75	85	131	196	165	217	183	196	63	1					
53	25	40	70	37	65	50	29	51	76	73	66	97	135	119	188	205	191	141	14					
54	22	32	56	40	51	39	35	55	71	69	75	83	119	107	146	223	187	150	50	1				
55	21	23	38	33	64	44	40	60	70	68	68	71	100	87	138	134	168	126	88	8				
56	21	15	52	28	48	43	38	66	79	83	80	51	61	75	92	97	136	84	87	27				
57	27	17	47	29	29	25	27	55	79	91	85	80	72	78	75	79	91	106	98	51	6			
58	20	18	41	29	36	37	30	58	75	102	81	68	71	85	78	85	87	127	101	55	15	1		
59	16	21	55	26	51	33	42	55	80	115	102	84	74	64	70	68	83	88	130	88	42	5		
60	10	16	23	20	41	27	26	40	45	65	54	67	42	34	45	45	39	50	62	69	39	4		
61	6	10	26	20	29	29	22	36	52	63	52	39	30	41	26	37	32	31	45	57	28	7	1	
62	5	9	20	22	19	30	34	26	38	53	46	40	30	30	34	18	28	25	39	48	36	14	3	
63	3	7	21	12	23	15	13	26	32	35	36	36	37	21	31	28	22	34	28	38	32	10	14	
64	3	7	16	15	17	16	15	19	16	24	27	22	14	19	18	17	16	11	16	28	26	8	4	2
65	3	3	10	10	14	13	8	10	15	23	20	7	11	14	15	16	12	10	10	13	14	7	3	4
66	1	2	5	11	11	4	4	16	9	12	11	7	6	10	5	7	8	2	5	10	13	10	9	3
67	1	1	4	3	8	9	6	5	9	12	8	4	6	13	4	5	12	5	10	14	9	7	8	1
68	1	3	3	3	9	7	13	4	6	11	5	5	10	8	6	4	9	5	7	6	4	3	3	12
69		1		1	4	7	2	3	4	7	2	6	4	5	4	5	4	7	3	4	4	5	3	10
70				1	2	4	3	7	4	9	3	3	4	3	1	5	5	5	3	4	4	1	2	9
71	2		1	2	4	1	6	2	7	3	1	1		4	3	4	2	1	1	2	2	1	1	6
72	1						1		2	3	2	5	1	1	2	1	2	2	4			2	1	5
73			1	1	3		1	2	2	5	3	2	1		3	3	1		1	3		2		1
74					1		1	2		1	3		2	1		1	4	3			1	1	1	3
75				1		1			1	1	2	1	2	2		3	2	2		2	4	1	1	8
76			1	1		1		1	3	1		1	1	1	1	1	2	1	1	1	2		1	2
77				1						1	3			1		1		1			1			2
78										1		1	1							2		1	1	3



YOS

age	0 - 1	2 - 3	4 - 5	6 - 7	8 - 9	10 - 11	12 - 13	14 - 15	16 - 17	18 - 19	20 - 21	22 - 23	24 - 25	26 - 27	28 - 29	30 - 31	32 - 33	34 - 35	36 - 37	38 - 39	40 - 41	42 - 43	44 - 45	46 or more
79															1	1	1						1	2
80											1												1	
81								1												1		1	1	
82														1			1						1	
83																				1				2
84																	1					1		1
85									1													1		
86																							1	2
87	1																							
88																								
89																								
90																								1

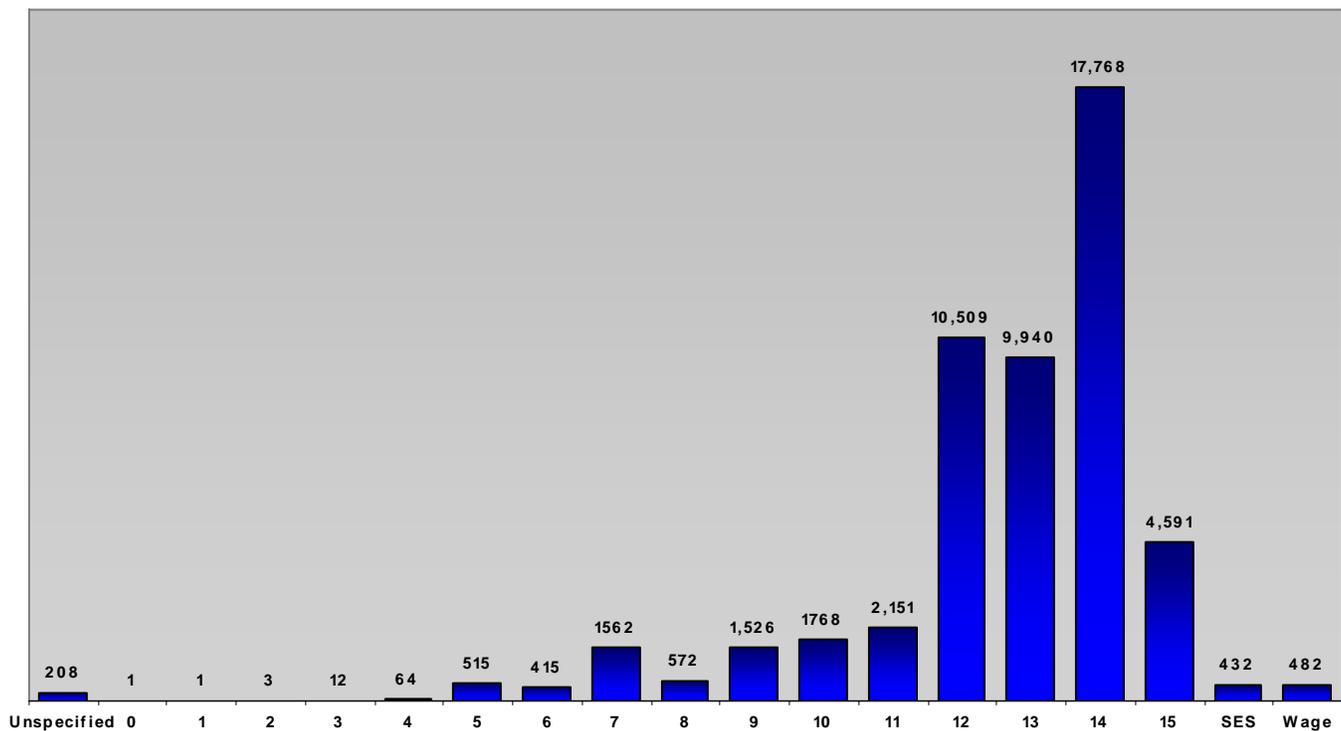


## WORKFORCE DEMOGRAPHICS: GRADE

Grade is a baseline indicator of the qualifications required to perform a specific job.

FAA operates under an excepted authority allowing it to set pay outside the General Schedule for its white collar employees. Therefore, the overall DOT average has been derived through a crosswalk that converts FAA pay bands and salaries to General Schedule equivalents. [Note: The distribution shown in this **Analysis** is slightly different and more accurate than the figures in last year's Workforce Plan, due to an improvement in functionality of the reporting system that reflects a more accurate representation of FAA's grade equivalents.]

Figure 1-9: Pay Distributions, DOT-Wide



The **average grade** for DOT, based on an equivalency to the General Schedule scale, is 12.6, with 82% of employees holding positions as GS-13/14/15 or equivalent. This grade structure is significantly higher than the Federal Government average grade for General Schedule employees, which in 2006 was 10.0.<sup>14</sup> However in some OAs (e.g., *Federal Highway Administration (FHWA)*), "entry level" positions are, in fact, GS 11/12/13 due to the highly technical and scientific qualifications required by the positions. Note that full performance level for Air Traffic Controllers (ATC) is equivalent to a GS-14, and that ATC employees (approximately 18,830) are 35.9% of the DOT workforce.

## WORKFORCE DEMOGRAPHICS: GENDER, ETHNICITY AND PERSONS WITH DISABILITIES

At DOT, we value and welcome the diverse background that each employee brings. Throughout DOT, senior leadership is committed to ensuring that diversity management is an integral part of day-to-day operations and fosters creativity and excellence in the work of all DOT employees. In addition, DOT, through its various corporate recruitment initiatives, is providing significant outreach to diverse groups to ensure that DOT's workforce reflects the changing face of America. - <http://diversity.DOT.gov>

<sup>14</sup>EEOC Annual Report, 2006



The DOT Office of Civil Rights has set aggressive hiring and retention goals for the Department to:

- Increase the numbers of minorities, white women, and persons with targeted disabilities in the supervisory, managerial, and executive ranks
- Hire persons with targeted disabilities as at least 3% of all new hires

In January 2007, the DOT Department of Civil Rights reported, "DOT continues to be challenged in several areas. Overall, participation rates in the DOT workforce continue to be low for Hispanics, person with targeted disabilities, White women, and Asian/Pacific Island women. Persons with targeted disabilities, Hispanic, and White, American Indian, Black, and Asian/Pacific Island women are not well represented in upper grade levels in comparison to the rest of the DOT workforce."<sup>15</sup>

The following data were developed using the WASS reporting tool and reflect Department progress against these goals.

Figure 1-10: Race, National Origin and Gender

DOT-Wide, 2004, 2005 and 2006

Race/ National Origin	Total Strength	% of Total Strength	Total Strength	% of Total Strength	Total Strength	% of Total Strength	% Change <sup>16</sup>	% of Federal workforce (2006) <sup>17</sup>	% of Civilian Workforce (2005) <sup>18</sup>
	2006		2005		2004				
<b>American Indian/Alaskan Native</b>									
Female	208	0.4%	221	0.4%	242	0.4%	-7.8%	1.7%	Not Available
Male	534	1.0%	565	1.1%	611	1.1%	-6.2%		
<b>Asian/Pacific Islander</b>									
Female	525	1.0%	461	0.9%	517	0.9%	9.0%	6.0	4.5
Male	1,442	2.7%	1,266	2.4%	1,447	2.6%	6.9%		
<b>Black, not of Hispanic origin</b>									
Female	3,018	5.7%	3,042	5.8%	3,243	5.8%	-0.1%	18.4	10.9
Male	2,821	5.4%	2,794	5.3%	2,971	5.3%	1.9%		
<b>Hispanic</b>									
Female	826	1.6%	800	1.5%	826	1.5%	7.3%	7.7	13.6
Male	2,288	4.4%	2,288	4.3%	2,355	4.2%	4.2%		
<b>White, not of Hispanic Origin</b>									
Female	9,386	17.9%	9,471	18.0%	10,149	18.0%	-0.8%	66.2	
Male	31,447	59.9%	31,541	59.9%	33,865	60.1%	-0.4%		
Not Specified	25		235		128				
<b>Total</b>	<b>52,520</b>		<b>52,684</b>		<b>56,354</b>				

**Women** continue to represent **26.6%** of the DOT workforce, the same overall percentage as in FY 2004. This percentage is below the **45.0%** of women employed by the Federal Government in FY 2006<sup>16</sup>, and the **42.6%** of women employed in the civilian labor force (CLF) as of the end of 2005<sup>19</sup>. Women

<sup>15</sup> DOT DOCR Annual Report, January 2007, p.5

<sup>16</sup> % Change is the change in the percentages from 2006 to 2004. This number represents the growth/decline of the % of total strength only. OPM instituted a new data code for capturing race and ethnic origins (ERI). That may attribute to increases as data standards adjusted. <http://www.opm.gov/feddata/gp58.pdf>

<sup>17</sup> EECO Annual Report, June 2006

<sup>18</sup> Source: Bureau of Labor Statistics Data for 2005 (<http://data.bls.gov/PDO>). BLS data were used in lieu of Census data because they are more frequently updated and reflect population available to work rather than the entire domestic population.

<sup>19</sup> OPM, the Fact Book (2004) Table 10



represented **53%** of the candidates for employment at DOT in FY 2005<sup>20</sup> and 40.5% of the candidates for employment at DOT in FY 2006<sup>21</sup>.

**Minorities** in FY 2006 represented **22.2%** of the DOT workforce<sup>22</sup>, a slight increase from 21.7% in 2005<sup>23</sup>. This percentage is lower than the 2005 Federal Government minority representation of **31.4%**<sup>24</sup>. Minorities represented **56%** of the candidates for employment at DOT in FY 2005<sup>25</sup> and 33.8% of the candidates for employment in FY 2006.<sup>26</sup>

## MINORITIES IN LEADERSHIP POSITIONS

Figure 1-11: Race, National Origin, and Gender Representation of Managers and Supervisors

	Manager/ Supervisor	% of Manager/ Supervisor	Change Since FY 05	% of DOT- wide population	SES Strength	% of SES	Change Since FY 05	% of DOT- wide population
<b>FEMALE</b>								
American Indian/ Alaskan Native	23	0.3%	↓ 2	0.4%	1	0.2%	-	0.4%
Asian/ Pacific Islander	47	0.6%	↑ 2	1.0%	3	0.7%	-	1.0%
Black, not of Hispanic origin	328	4.1%	↓ 6	5.7%	18	4.2%	↓ 2	5.7%
Hispanic	95	1.2%	↑ 4	1.6%	7	1.6%	↑ 1	1.6%
White, not of Hispanic Origin	1,265	15.9%	↓ 19	17.9%	94	21.8%	↑ 4	17.9%
<b>Total Female</b>	<b>1,758</b>	<b>21.6%</b>	<b>↓ 21</b>	<b>26.6%</b>	<b>123</b>	<b>28.5%</b>	<b>↑ 3</b>	<b>26.6%</b>
<b>FY 2005</b>	<b>1,779</b>	<b>21.6%</b>	<b>↓ 21</b>	<b>26.6%</b>	<b>120</b>	<b>27.4%</b>	<b>↑ 3</b>	<b>26.6%</b>
<b>MALE</b>								
American Indian/ Alaskan Native	99	1.2%	↓ 9	1.0%	1	0.2%	↑ 1	1.0%
Asian/ Pacific Islander	189	2.4%	↑ 21	2.7%	13	3.0%	↑ 1	2.7%
Black, not of Hispanic origin	497	6.2%	↓ 16	5.4%	21	4.9%	↓ 2	5.4%
Hispanic	330	4.1%	↓ 4	4.4%	9	2.1%	↓ 1	4.4%
White, not of Hispanic Origin	5,102	64.0%	↓ 216	59.9%	265	61.3%	↓ 8	59.9%
<b>Total Male</b>	<b>6,217</b>	<b>78.1%</b>	<b>↓ 224</b>	<b>73.4%</b>	<b>309</b>	<b>71.5%</b>	<b>↓ 9</b>	<b>73.4%</b>
<b>FY 2005</b>	<b>6,441</b>		<b>↓ 224</b>		<b>318</b>		<b>↓ 9</b>	
Not Specified	2							
<b>Total</b>	<b>7,977</b>				<b>432</b>			

<sup>20</sup> Source: OST Office of Employment and Executive Resources

<sup>21</sup> Source: OST. All candidate percentages are in relation to total 39,537 candidates. 76 candidates did not self-identify by gender; 15,000 candidates did not self-identify by race/national origin.

<sup>22</sup> Source: WASS

<sup>23</sup> Source: 2006 DOT Update

<sup>24</sup> Source: OPM, the Fact Book (2004) Table 1

<sup>25</sup> Source: OST Office of Employment and Executive Resources

<sup>26</sup> The actual percentage of minority candidates may be higher: of the candidates for employment, 37.9% did not self-identify by race/national origin and are not included in the percentage reported.



Figure 1-12: Employee Representation by Grade by Race/National Origin

Grade	Male	Females	American Indian/Alaskan Native	Asian/Pacific Islander	Black, not of Hispanic origin	Hispanic	White, not of Hispanic Origin	Not Specified*
0	1						1	
1	1						1	
2	3				1		2	
3	7	5			1	1	10	
4	34	30		5	20	7	32	
5	81	434	8	17	111	43	335	1
6	46	369	4	10	100	36	265	
7	317	1,245	25	68	363	142	963	1
8	269	303	8	12	130	38	377	
9	657	869	21	61	373	208	862	1
10	884	884	51	66	248	123	1,279	1
11	1,463	688	22	59	327	175	1,567	1
12	8,231	2,278	166	346	1,132	682	8,176	7
13	7,478	2,462	146	610	1,165	565	7,443	11
14	14,556	3,212	198	557	1,249	796	14,966	2
15	3,598	993	68	121	464	227	3,711	
SES **	309	123	2	16	39	16	359	
Wage	454	28	19	15	90	37	321	
Unspecified Grade	162	46	4	4	26	11	163	
Total	38,551	13,969	742	1,967	5,839	3,114	40,833	25
Average Grade	13.0	11.6	12.4	12.6	11.9	12.1	12.8	

\* Coded "other" in data files \*\* Represents SES and equivalents

## GEOGRAPHIC DISTRIBUTION OF RACE/ETHNIC GROUPS

Analysis reveals that racial/ethnic diversity at DOT is concentrated in a few specific geographic locations across the country. The majority of American Indian/Native Alaskans are employed in Oklahoma and California; Hispanic/Latinos in Texas, California, and Florida; and, Asian/Pacific Islanders in California. A high concentration of Black/African American employees is located in Washington DC and Maryland.

## CHANGES FROM FY 2005 TO FY 2006

Employees that are given equal opportunity to achieve their full potential will remain as valued employees, and contribute to achieving DOT's mission<sup>27</sup>.

The data presented in the **2005 Workforce Plan** established a baseline for reporting future progress against DOT's goal to increase the numbers of women, minorities, and persons with disabilities in its supervisory, managerial, and executive ranks.

In FY 2005, the DOT population was overwhelmingly white and male. The **2005 Workforce Plan** correctly predicted that, with reduced hiring in DOT, annual progress against this baseline in a population that is predominantly white and male would be minimal.

<sup>27</sup> DOT DOCR Annual Report, January 2007



Representation of White Men	FY 2004	FY 2005	FY 2006
Overall DOT positions	60.1%	60.0%	59.5%
All manager/supervisor positions	60.0%	64.5%	64.0%
SES positions	Not Available	62.3%	61.3%

Department wide, DOT did not make appreciable progress against the goals set by the Departmental Office of Civil Rights (DOCR) for minority representation over the 12-month period. In its annual report, the DOCR noted progress in the following OAs:

- FAA's success in achieving equity in all upper pay grades<sup>28</sup> for Hispanic men is of note.
- The FHWA also made progress in achieving parity in Grades 12 and 14 for persons with targeted disabilities, grade 15 for Hispanic men, and grades 13-15 for Asian women.

### GENDER

Although the overall DOT workforce decreased slightly during fiscal 2006, the representation of women did not change, which is an encouraging result. At the same time, however, women, and particularly minority women, did not make significant inroads into supervisory and leadership positions.

#### **The representation of women in Manager/Supervisor positions has remained the same**

- Although the absolute numbers of women in manager/supervisor positions increased from FY 2005 to FY 2006, their percentage representation of the total manager/supervisor workforce remained the same.

#### **The representation of women in Senior Executive Service (SES) positions has increased slightly**

The total number of SES positions decreased slightly, from 438 to 432.

- At the same time, the absolute number of women increased slightly (from 120 to 123) as did their representation as a percentage of the entire SES cadre (up 1.1%).
- *White* women experienced the greatest gain, increasing from 90 to 94 SES positions. The number of Black women in SES positions decreased by two.

### MINORITIES

While the overall DOT workforce decreased during fiscal 2006, the percentage of minority employees remained essentially the same. Recruitment programs targeted to increase the representation of Hispanic people in the DOT workforce have not yet made a noticeable impact.

#### **Goal: "Increase number of American Indian men in supervisory positions..."**

##### **Result: Numbers and representation fell**

- The absolute numbers of American Indian/Alaskan Native men in supervisory positions *decreased* during the fiscal year, from 108 to 99. Representation as a percentage of all supervisors fell slightly (down 0.1%).
- One American Indian/Alaskan Native man took an SES position, joining the one American Indian/Alaskan native woman in the DOT SES.

#### **Goal: "Increase the number of Blacks in supervisory positions..."**

<sup>28</sup> FAA's Pay Bands H-M are the equivalent of GS 12-15.



**Result: Numbers fell; representation remained static**

- As the DOT workforce shrank, the percentage representation of Black men and women in supervisory positions did not change. However, the absolute numbers of Black men and women supervisors actually *decreased* by 22 people.
- As was the case in FY 2005, Black/African American women in supervisory and management positions continued to be underrepresented in relation to their representation in the overall DOT workforce. (Black/African American women hold 5.7% of all DOT positions, an increase from FY 2005, but only 4.1% of supervisory/management positions.)
- In contrast, Black/African American men hold 6.2% of manager/supervisory positions, compared to their overall representation in 5.4% of all positions.

**Goal: "Increase the number of Hispanics in supervisory positions..."**

**Result: Numbers and representation remained static**

- The numbers and percentage representation of Hispanics in supervisory positions remained static. DOT lost four men and gained four women in this category.
- Similarly, the number of Hispanics in the SES cadre remained the same. Women increased from six to seven; men decreased from 10 to nine.
- As in FY 2005, Hispanic women continue to hold fewer than 2% of overall DOT positions and supervisory/management positions.
- Similarly, Hispanic men remained static at 4.1% of supervisory/management positions. Their overall representation at DOT was essentially flat (4.2% in 2005; 4.4% in 2006).

**DISABILITY STATUS**

**Goal: "Increase the number of persons with targeted disabilities in supervisory positions..."**

**Result:** Representation of persons with disabilities has remained relatively stable as a percentage of the total DOT workforce, as shown in Figure 1-13. Of the 1,384 new hires made at DOT during FY 2006, 92 people, or 6.6% of total hires, were persons with disabilities. Manager/supervisor and SES levels have also increased from 2005 levels; the total number of employees with disabilities increased by 19 to 370. SES levels remained the same, at 20 total SES members with disabilities. However, the percent of SES employees increased because the total number SES decreased by six to 432.

DOT's population of persons with targeted disabilities is .45%, which is a slight decrease from the 2005 level of .52%, and lower than the overall Federal percentage of 0.94%<sup>29</sup>. Of the 92 people with disabilities hired at DOT, seven people were persons with targeted disabilities. Based on these data, DOT will need to do more to reach its goal that 3% of all new hires be persons with targeted disabilities.

**Figure 1-13: Persons with Disabilities, 2004-2006**

FY	Total DOT Population	All Disabilities (includes Targeted Disabilities)			Targeted Disabilities		
		Number	% of total DOT workforce	% of Federal Workforce	Number	% of total DOT work-force	% of Federal Workforce
2004	56,354	2,872	5.1	6.8%	*	*	1.0%
2005	52,684	2,780	5.3	*	276	.52	*
2006	52,520	2,696	5.1	*	236	.45	.94%

*\*Data not available*

<sup>29</sup> EEOC Report, June 2006



Figure 1-14: Persons with Disabilities by RNO and Leader Position

	Manager/ Supervisor	% of Manager/ Supervisor	% of total PWD population by RNO	SES Strength	% of SES	% of total PWD population by RNO
American Indian/ Alaskan Native	8	2.2%	3.0%		0.0%	3.0%
Asian/ Pacific Islander	11	3.0%	3.3%		0.0%	3.3%
Black, not of Hispanic origin	46	12.4%	12.2%	3	15.0%	12.2%
Hispanic	15	4.1%	6.0%	1	5.0%	6.0%
White, not of Hispanic Origin	290	78.4%	75.4%	16	80.0%	75.4%
Not Specified			0.1%			0.1%
	370	4.6%		20	4.6%	

To address the extremely low participation rate of persons with targeted disabilities in the DOT workforce, Secretary Peters issued a memorandum advising management that the 3% hiring goal for persons with targeted disabilities, as first established in the Department's 2004 MD 715 plan and report, will continue.



THE SECRETARY OF TRANSPORTATION  
WASHINGTON, D.C. 20590

April 02, 2007

MEMORANDUM TO: Departmental Officers  
Assistant Secretaries  
Heads of Operating Administrations

FROM:

Mary E. Peters

SUBJECT: Fiscal Year 2007 Hiring Goals for Persons  
with Targeted Disabilities

Enhancing access to employment by people with disabilities is an objective of President Bush through his New Freedom Initiative for People with Disabilities (NFI). The NFI builds on the progress of the Americans with Disabilities Act of 1990, and seeks to remove remaining barriers and fully integrate people with disabilities into all aspects of society. I reaffirm this pledge as we commit to making the U.S. Department of Transportation (DOT) a model employer with a diverse workforce that includes people with disabilities, especially those with targeted disabilities (deafness, blindness, partial paralysis, total paralysis, missing limbs, distortion of limbs or spine, mental illness, mental retardation, and convulsive disorders).

The DOT, like other Federal agencies, is required to set goals for the employment and advancement of people with targeted disabilities. On June 17, 2006, former Secretary Mineta issued a memorandum setting a 3 percent goal for hiring persons with targeted disabilities. I am requesting that you continue this goal in 2007. Thus, for every 33 people hired, one should be a person with a targeted disability. Implementation of this important goal will continue each year until DOT meets the Federal high, which is slightly over 2 percent.

People with disabilities include every race, ethnicity, gender, age, color, religion, and sexual orientation. I ask each manager and supervisor to join in our efforts to achieve this goal. The Departmental Offices of Human Resource Management (DOHRM) and Civil Rights (DOCR) have presented training to support this goal. The training included information on recruitment options, use of special appointing authorities, and reasonable accommodation resources. I have asked DOHRM and DOCR to closely monitor and keep me advised on a quarterly basis of DOT's progress in the hiring, advancement, and retention of persons with targeted disabilities. If you have any questions, or are interested in receiving additional training, please contact Nancy Mowry, Director, DOHRM, or J. Michael Trujillo, Director, DOCR, for assistance.



## WORKFORCE DEMOGRAPHICS: VETERANS

DOT has a history of hiring America's veterans<sup>30</sup>. Overall, representation of veterans in the Federal Government in FY 2004 was **21.5%**<sup>31</sup>. With veterans comprising **27.6%** of its total workforce, DOT continues to rank among the top Executive Departments in veteran hiring. In 2005, **22.1%** of all new hires were veterans. In 2006, 31.3% of all new hires were veterans.

Figure 1-15 shows veterans on board by race/national origin and their representation in leadership ranks. Veterans appear to be integrated generally into the total leader population in proportion to their representation in the workforce as a whole, although slightly under-represented in the SES group.

Figure 1-15: Veterans by RNO and Leader Position

	Manager/ Supervisor	% of Manager/ Supervisor	% of total RNO population	SES Strength	% of SES	% of total RNO population
American Indian/ Alaskan Native	45	2.1%	1.4%	1	1.6%	1.4%
Asian/ Pacific Islander	27	1.3%	3.7%	1	1.6%	3.7%
Black, not of Hispanic origin	204	9.6%	11.1%	7	10.4%	11.1%
Hispanic	108	5.1%	5.9%	1	1.6%	5.9%
White, not of Hispanic Origin	1,730	81.8%	77.8%	54	84.4%	77.8%
Not Specified	1	0.0%	0.1%			0.1%
	2,115	27.5%		64	14.8%	

Figure 1-16 shows veterans' representation in leadership positions by gender and disability status. The Total Strength column represents the grade breakdown GS-12 through SES (or equivalent) of veterans only. The subsequent columns represent different demographic breakouts of the veteran population. Nearly 10% of the veteran population are Persons with Disabilities. Overall, as might be expected in an older population, the overwhelming majority of veterans are men.

Figure 1-16: Veterans by Gender and Disability Status

Equip Grade	Total Strength	Supv/Mgr Strength		Female		PWD*	
SES	64	57	89.0%	3	4.7%	6	9.4%
15	1,228	1,068	87.0%	67	5.5%	84	6.8%
14	4,532	625	13.8%	217	4.8%	304	6.7%
13	2,863	236	8.2%	155	5.4%	256	8.9%
12	3,734	48	1.3%	177	4.7%	308	8.2%

\* Persons with Disabilities

<sup>30</sup> The Washington Post (January, 2006) cited DOT as having one of the best records of hiring veterans among the Federal agencies

<sup>31</sup> OPM The Fact Book (2004)Table 8



## WORKFORCE DEMOGRAPHICS: SEASONAL EMPLOYEES

There are approximately 65 seasonal employees in DOT and 89.2 % of them reside with SLSDC. *Figure 1-17* shows the breakdown by OA.

Figure 1-17: Seasonal Employees by OA

	SLSDC	FHWA	Total
Seasonal Employees	58	7	65

SLSDC seasonal employees are mainly represented by lock employees and are coded 'seasonal' because of the navigation season. They include SLSDC mission critical occupations and represent 40% of their workforce. *Figure 1-18* shows the breakdown by occupational series.

Figure 1-18: Seasonal Employees by Occupational Series within SLSDC

Job Title	Occ. Series	Strength
Transportation Operations	2150	14
Electrician	2805	1
Misc. Operations	5201	7
Lock and Dam Repairing	5318	1
Marine Machine Mechanic	5334	2
Lock and Dam Repairing	5426	28
Small Craft Operating	5786	5
	<b>Total</b>	<b>58</b>

The average YOS for the 58 SLSDC employees is 16.9 years. Lengths of service range from 0 to 36 years. The average age is 46.3 and ranges from 25 years old to 61 years old. Forty-four of the seasonal employees are wage grade employees and the other 14 are GS employees with an average grade of 11.3. *Figure 1-19* shows a demographic comparison of seasonal employees and permanent employees.

Figure 1-19: SLSDC Permanent Employees vs. Seasonal Employees

SLSDC	FY 2006 - Permanent	FY 2006 - Seasonal
Total Number On Board	85	58
Average Age	48.2	46.3
Average Years of Service	18.1	16.9
Average Grade*	10.5	11.3
Average Salary (\$000)	65.6	53.0
Supervisor and Manager	16	10
Women	34	2
All Minorities	7	3
Employees with Disabilities	9	8
Veterans	28	43



## CHAPTER 2: MISSION CRITICAL OCCUPATIONS

Chapter 2 provides general demographic information and force strength trends for Department of Transportation (DOT) employees in Mission Critical Occupations (MCOs), and information and analysis of DOT's progress in addressing competency levels for employees in these Mission Critical Occupations. Overall, DOT continued to close competency gaps for MCOs and has "raised the bar" for competency requirements in the area of performance management. Force strength of the MCO groups remained relatively stable with the exception of Transportation Safety-related positions, where force strength decreased.

### COMPETENCY ASSESSMENT

During Fiscal Year (FY) 2006, the Department initiated the DOT Competency Assessment and Management Tool, or CAMT. The CAMT, which is a core function of DOT's web-based eLMS, is a tool that allows DOT to perform organizational gap analyses. More specifically, the Competency Assessment Management Tool allows DOT to look across the enterprise to identify the types and levels of competencies currently available in the workforce. By identifying its competency gaps, the Department can create enterprise-wide programs to increase targeted competencies for MCOs.

### MISSION CRITICAL OCCUPATIONS

The Office of Personnel Management has defined "mission critical occupations" as "*Occupations agencies consider core to carrying out their missions. Such occupations usually reflect the primary mission of the organization without which mission-critical work cannot be completed.*"

DOT and the Operating Administrations (OA) have focused their attention on employees in the following categories designated as Mission Critical across the Government:

- **Leaders** – executives, managers, and supervisors
- **Information Technology** (IT) professionals
- **Human Capital** (HC) professionals
- **Acquisition and Contracting** professionals

In addition, DOT has designated the following job families as Mission Critical across the Agency. (In some cases, single occupations within a job family, but not the entire job family, were identified by an OA as a MCO). DOT Mission Critical Occupations and Series include:

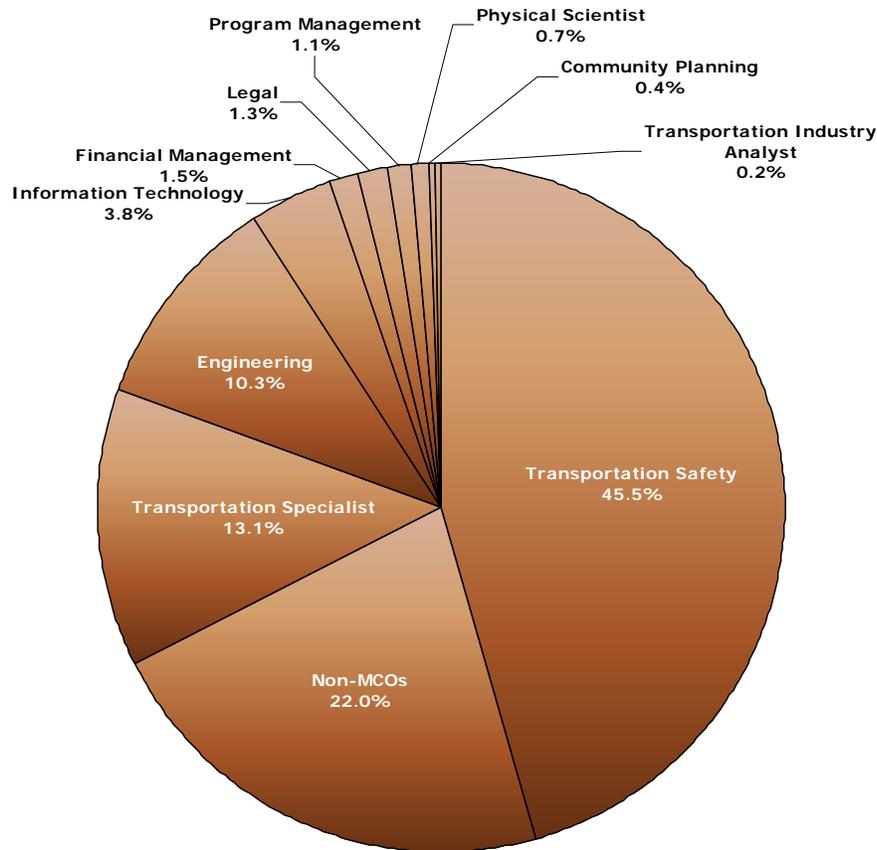
- **Engineer** (0801, 0802, 0803, 0806, 0807, 0808, 0809, 0810, 0817, 0818, 0819, 0830, 0850, 0855, 0856, 0861, 0871, 0873, 0896) *DOT's pilot competency program for engineers is discussed later in this chapter*
- **Planning** (0020)
- **Program Management** (0340)
- **Financial Management** (0501, 0505, 0510, 0511, 0525, 0540, 0544, 0560)
- **Legal** (0905, 0935, 0950, 0963, 0986)
- **Physical Scientist** (1301, 1306, 1310, 1320, 1340, 1350, 1361, 1370, 1371, 1373, 1384)
- **Transportation Specialist** (2101)
- **Transportation Industry Analyst** (2110)
- **Transportation Safety** (1825, 2121, 2123, 2125, 2152) *FAA's workforce plan for Air Traffic Controllers is discussed later in this chapter.*
- **Information Technology** (2210, 0334, 0391, 1550, 0854)



### REPRESENTATION OF MISSION CRITICAL OCCUPATIONS

Figure 2-1 shows the percentage of the total strength of the DOT workforce that is "mission critical." At the end of FY 2006, the MCO population totaled 40,984 and represented 78.0% of DOT's total population, essentially stable compared to 78.4% of DOT's population in FY 2005. As in FY 2004 and FY 2005, the largest MCO groups are the Transportation Safety, Transportation Specialist, and Engineering job families. DOT is concentrating its resources on managing its MCOs.

Figure 2-1: Internally Designated Mission Critical Occupations: Representation September 30, 2006



Note: Because they are often embedded in other position titles, Leaders and Human Capital Professionals (series 201) are not represented in this chart. However, Leaders represent 15.2% of the total DOT workforce and Human Capital professionals represent 1.1% of the total DOT workforce.



**Mission Critical Occupations by Operating Administration**

**Office of the Secretary**

201 Human Resource Management  
500 Financial Management (501, 510, 560)  
905 Attorney  
1102 Contract Specialist  
2110 Transportation Specialist.

**Office of Inspector General**

511 Auditor  
1811 Criminal Investigator  
1801 Investigator

**Federal Highway Administration**

0020 Planning  
0028 Environment  
0501/505 Financial Management  
0810 Civil Engineer  
0802 Engineer Technician  
1170 Reality (Right of Way)  
2101 Transportation Specialist

**Federal Railroad Administration**

2121 Railroad Safety Inspector

**Federal Transit Administration**

0020 Community Planning  
0801 General Engineering  
2101 Transportation. Specialist  
2210 Information Technology Specialist

**Federal Aviation Administration**

2152 Air Traffic Controller  
2101 Airway Transportation. System Specialist  
801 General Engineer  
810 Civil Engineer  
855 Electronics Engineer  
861 Aerospace Engineer  
334, 391, 1550, 854, 1550 - Information Technology  
1825 Aviation Safety Inspector  
1801 Aviation Security Inspector

**Federal Motor Carrier Safety Administration**

2123 Motor Carrier Specialist – Border and Safety Invest. Border Auditor and Inspector; Hazardous Material (Hazmat) Specialist.; State Program Specialist; Federal Program Specialist  
2125 Highway Safety Specialist; Federal Program Specialist; Enforcement Specialist  
2101 Transportation Specialist

**National Highway Traffic Safety Administration**

2125 Highway Safety Specialist/Program Manager  
800 Engineer (801, 802, 830, 850, 855)

**St. Lawrence Seaway Development Corporation**

GS-2150 Marine Transportation Specialist  
GS-2210 Information Technology Specialist  
WG-2805 Electrician  
WG-4701 Trades Helper-Relief Line handler  
WG-5201 Linehandler  
WG-5352 Industrial Equipment Mechanic  
WL-5426 Lock & Dam Operator Leader  
WG-5426 Lock & Dam Operator  
WG-5426 Linehandler-Relief LDO

**Research and Innovative Technology Administration**

0020 Community Planning  
0110 Economist  
0180 Engineering Psychologist  
0800 Engineer (0801,0810,0854,0855,0819, 830)  
1102 Contract Price Analyst/Spec/Procurement  
1301 Physical Scientist  
1515 Operations Research Analyst  
1815 Air Safety Investigator  
1712 Training Specialist  
2110 Transportation Industry Analyst  
2210 Information Technology Specialist



### Maritime Administration

0028 Environment  
0080 Security Administrator  
0110 Economist  
301 Administration and Program Staff (specific titles can be found in MARAD's workforce plan)  
343 Mgt and Program Analyst  
346 Logistics Management  
391 Telecommunications Spec  
0500 Financial Management (501,510,0560,561)  
800 Engineer (801, 830, 871, 873)  
1101 Business and Industry Specialist  
1102 Contract Specialist  
1140 Trade Specialist  
1160 Financial Analyst  
1163 Examiner  
1530 Statistician  
1710 Faculty Instructor  
2003 Supply Management Specialist  
2010 Inventory Management Specialist  
2101 Transportation Specialist  
2110 Transportation Industry Analyst  
2210 Information Technology  
5334 Marine Machinery Mechanic

### Pipeline & Hazardous Materials Safety Administration

0110 Economist  
0300 (301 Program Specialist, Environmental Program Specialist, Grants Management Specialist, Information Manager, 343 Management and/or Program Analyst)  
340 Program Manager  
0800 Engineer (801, 806)  
905 Attorney  
1001 Training and Information Specialist  
1300 Physical Sciences (1301, 1306, 1320)  
1515 Operations Research Analyst  
2101 Transportation Specialist  
2210 Information Technology Specialist

### Surface Transportation Board

0028 Environment  
0110 Economist  
0500 Financial Management (501, 505, 1160)  
801 General Engineer  
0900 Legal (905, 950, 986)  
2110 Transportation Industry Analyst

*The following sections provide information on representation, and on current competency levels and, where available, trends for each Mission Critical Occupation*

## LEADERS

**Defined:** For the purposes of this *Analysis*, the following definitions apply:

- Executive – Members of the Senior Executive Service (SES) or its equivalent (identified in pay plans AD, AL, CA, ES, EV, EX, and SL).
- Managers and Supervisors – These two categories of leaders have been combined. Supervisory Codes 1-5 were used to identify this population in the Civilian Personnel Data File (CPDF.) However, competencies for managers (i.e., supervisors of supervisors) and supervisors (i.e., those individuals who may have subordinate team leaders but are the responsible official for managing people and work in an organizational unit) have been analyzed separately.

## REPRESENTATION

The number of leadership positions as a proportion of the total DOT population remained essentially stable from FY 2005 to FY 2006. The demographic profile of leadership did not shift significantly. Despite retirements, these positions continue to be filled mostly by white men from the existing pipeline majority of white men (Figures 2.2a and 2.2b). There was minimal opportunity to make new hires from the outside during FY 2006.

Figure 2-2 shows the distribution of leaders throughout DOT at the end of FY 2006.

In FY 2004, DOT employed 7,052 supervisors and managers, representing **12.5%** of the DOT workforce.



In FY 2005, DOT employed 8,245 supervisors and managers, representing **15.6%** of its total workforce. However, this number could not be characterized definitively as an increase because of a difference in how data were collected in the preparation of the two plans<sup>32</sup>.

In FY 2006, DOT employed 7,977 supervisors and managers, representing **15.2%** of its total workforce, essentially unchanged over the previous 12-month period.

**Figure 2-2: LEADERS: Representation by Operating Administration as of September 30, 2006**

*Leader Family by OA*

Operating Administration	Total Strength	PWTD Strength	% of PWTD	PWD Strength	% of PWD	Veterans Strength	% of Veterans
FAA	5,587	12	0.2%	217	3.9%	1,783	31.9%
FHWA	1,179	10	0.8%	74	6.3%	100	8.5%
FMCSA	315	6	1.9%	25	7.9%	55	17.5%
FRA	113	2	1.8%	5	4.4%	42	37.2%
FTA	100	3	3.0%	10	10.0%	11	11.0%
MARAD	134	0	0.0%	6	4.5%	41	30.6%
NHTSA	106	1	0.9%	6	5.7%	9	8.5%
OIG	101	1	1.0%	4	4.0%	14	13.9%
OST	175	1	0.6%	10	5.7%	30	17.1%
PHMSA	45	1	2.2%	4	8.9%	4	8.9%
RITA	71	1	1.4%	5	7.0%	17	23.9%
SLSDC	16	0	0.0%	0	0.0%	4	25.0%
STB	35	0	0.0%	4	11.4%	5	14.3%
<b>2006 Total</b>	<b>7,977</b>	<b>38</b>	<b>0.5%</b>	<b>370</b>	<b>4.6%</b>	<b>2,115</b>	<b>26.5%</b>
<b>2005 Total</b>	<b>8,245</b>	<b>38</b>	<b>0.5%</b>	<b>352</b>	<b>4.3%</b>	<b>2,318</b>	<b>28.1%</b>

*PWTD: Persons with Targeted Disabilities / PWD: Persons with Disabilities*

**Figure 2-2a: Leadership Pipeline Demographics: Gender and Race/National Origin  
(Permanent Employees, Snapshot for period ending 09/2006)**

Grade	Male	Females	American Indian/ Alaskan Native	Asian/ Pacific Islander	Black, not of Hispanic Origin	Hispanic	White, not of Hispanic Origin	Not Specified
12	8,231	2,278	166	346	1,132	682	8,176	7
13	7,478	2,462	146	610	1,165	565	7,443	11
14	14,556	3,212	198	557	1,249	796	14,966	2
15	3,598	993	68	121	464	227	3,711	
SES	309	123	2	16	39	16	359	

<sup>32</sup> For the 2005 Update, a broader group of supervisory codes (1 – 5)<sup>32</sup> was used; in 2004 it appears that only positions in codes 2 – 3 were collected.



Figure 2-2b: Leadership Pipeline Demographics: Attrition (Permanent Employees, Snapshot for period ending 09/2006)

Equiv Grade	Total Strength	American Indian/ Alaskan Native		Asian/ Pacific Islander		Black, not of Hispanic origin		Hispanic		White, not of Hispanic Origin		Not Specified	
SES	432	2	-0.0%	11	3.0%	38	10.4%	14	3.8%	300	82.2%	0	0.0%
15	4,591	61	1.3%	88	1.9%	386	8.4%	199	4.3%	3,127	68.1%	0	0.0%
14 <sup>33</sup>	17,768	38	0.2%	86	0.5%	221	1.2%	128	0.7%	1,681	9.5%	2	-0.0%
13	9,940	14	0.1%	56	0.6%	123	1.2%	51	0.5%	917	9.2%	0	0.0%
12	10,509	3	-0.0%	1	-0.0%	17	0.2%	13	0.1%	137	1.3%	0	0.0%

### LEADERSHIP TRENDS

- Age:** As noted in the Introduction, DOT has one of the highest average aged workforces among Federal agencies. Among DOT's most senior leaders in the executive ranks (e.g., SES and equivalent), 36.1% are currently eligible to retire. Among managers and supervisors, generally at the GS-13-15 grade level, 18.5% are eligible to retire today. With a median retirement age of 57, even allowing for variations in the age at which eligible individuals choose to retire, the 2005 *Update* forecast that DOT would experience attrition among its most experienced leaders beginning during FY 2006 and continuing in subsequent years. Indeed, attrition among SES managers was 12.5%, 26.3% higher than the DOT FY 2006 attrition rate of 9.9%
- Gender:** At the SES level, the number of women represented 40% of the total number of men. At pipeline levels, the proportion of women to men is lower, varying from 22%-33% of the number of men.
- Race/National Origin:** Blacks represent 4.5% of DOT's senior pay group (GS 14, 15, and SES), compared to 6.5% of the "senior pay level" workforce across the Federal Government<sup>34</sup>. Hispanics represent 4.6% of DOT's senior pay group (GS 14, 15, and SES), compared to 3.7% of the Federal "senior pay level."

### COMPETENCY ANALYSIS

During FY 2005, DOT developed, tested, and validated a leadership competency model based on the Office of Personnel Management's (OPM) Executive Core Qualifications (ECQ). The model identifies leadership competencies and their descriptions at four levels: Basic, Supervisor, Manager, and Executive. DOT and the OAs have adopted this model with some modifications (i.e., FAA and FRA already initiated their own competency models)

Figure 2-3 shows the critical competencies, including the six new leadership competencies, and desired competency levels for supervisors, managers, and executives (these new competencies added to the overall number of gaps in all three leadership levels, but were not significant gaps for any of the three levels.)

<sup>33</sup> Note that ~0.0% is a number that is not 0 but extremely close to it.

<sup>34</sup> EEOC Annual Report, June 2006



Figure 2-3: DOT Leadership Competency Model<sup>35</sup>

Competency	Target Rating Levels					
	Supervisor Performance	Critical	Manager Performance	Critical	Executive Performance	Critical
Accountability	3.36	✓	3.63	✓	4.00	✓
Conflict Management	2.55		3.25		4.00	✓
Creative Thinking/Innovation			2.75		3.80	✓
Entrepreneurship			2.75		3.40	
External Awareness					3.80	
Financial Management			3.13		3.80	✓
HR Management	2.55		3.25	✓	3.80	✓
Influencing / Negotiating	2.55		3.25	✓	4.00	✓
Leveraging Diversity	3.00		3.50	✓	4.00	✓
Political Savvy					3.80	✓
Resilience	3.00		3.63	✓	4.00	✓
Service Motivation	3.18		3.38	✓	4.00	✓
Strategic Thinking					3.80	✓
Team Building	3.27		3.38	✓	3.80	✓
Technology Management			2.63		3.20	✓
Vision					3.80	✓
Building Performance Culture					4.00	
Differentiating Performance					4.00	
Facilitating Performance					4.00	
Goal Setting					4.00	
Performance Coaching and Feedback					4.00	
Understanding Performance Management Processes and Practices					4.00	

After the initial competency assessment, DOT elected to focus developmental efforts on the gaps that were most pronounced among its executives. In the Federal Highway Administration (FHWA), this was **Financial Management**. In other OAs, the most severe gap was **Conflict Management**.

### RESULTS<sup>3</sup>

During FY 2006, DOT re-tested its supervisors, managers, and executives to validate the results of its mitigation strategies to date. Corporately, DOT closed the gap in **Conflict Management**.

Given the variation in size, extent of gap, and related initiatives among DOT's OAs, each was encouraged to tailor its own specific closure plan. However, the broad improvement strategies selected fell within the following three categories: Training, Recruitment, and Retention.

The results of the FY 2007 Leadership Reassessment show DOT's continued success in closing gaps in its leadership competencies, and provide evidence that the strategies enacted by the Department throughout the past year have been effective in closing the competency gaps identified previously.

<sup>35</sup> Source: "Managerial Competency and Assessment Framework Development," March 18, 2005, Booz Allen Hamilton

<sup>3</sup> All data are from DOT LEADERSHIP MEASURE RESULTS AND GAP ANALYSIS REPORT, June 29, 2007



- **DOT Executives** showed the most improvement during this assessment period, reducing the number of *significant competency gaps* from four to none, and also decreasing the number of *moderate competency gaps*.
- **DOT Managers and Supervisors** showed consistent performance in their competencies, with *significant or moderate competency gaps* in either level.

While the low and widely varying response rates across the OAs (from 4% to 81%) provides cause for concern about the validity of the results, they do provide the Department with some validation of its developmental efforts and areas to target in the future.

Overall, the results from the leadership reassessment show progress in many areas, and provide DOT with positive evidence that its current strategies are working to mitigate critical competency gaps within DOT, particularly among managers and supervisors. The results also point to the need for sustained attention to competency improvement at the executive level, where targets are extremely rigorous.

Results in the 2006 Federal Human Capital Survey (FHCS) scores, in items relating to uniform application of policy, suggest that there is a gap between improved management competency results and employees' perception of DOT leaders' competencies. This may reflect the "lag time" that often occurs between actual change in practices and policies, and institution-wide recognition for the change. Evidence of the impact of DOT's sustained attention to leadership skill building, combined with wide communication of these goals and efforts to all employees, may begin to emerge in the FHCS ratings in 2008.



**Figure 2-4: DOT Leadership Competency (Excluding FAA) Averages, FY 2006/FY 2007 Targets and Gaps**

<b>Gap</b>	<b>Color</b>	
At or above target		No gap
-.55 to -.01		Acceptable gap
Between -.56 and -.89		Moderate gap
-0.90 or lower		Significant gap

<b>EXECUTIVE SCORES</b>	<b>2006</b>			<b>2007</b>		
	<b>Average</b>	<b>Target</b>	<b>Gap</b>	<b>Average</b>	<b>Target</b>	<b>Gap</b>
Accountability	3.09	4	-0.91	3.49	4	-0.51
Conflict Management	2.81	4	-1.19	3.33	4	-0.67
Creative Thinking/ Innovation	3.1	3.8	-0.7	3.49	3.8	-0.31
Entrepreneurship	2.95	3.4	-0.45	3.22	3.4	-0.18
External Awareness	3.06	3.8	-0.74	3.37	3.8	-0.43
Financial Management	2.97	3.8	-0.83	3.13	3.8	-0.67
HR Management	2.91	3.8	-0.89	3.37	3.8	-0.43
Influencing/ Negotiating	3.21	4	-0.79	3.52	4	-0.48
Leveraging Diversity	2.96	4	-1.04	3.41	4	-0.59
Political Savvy	2.99	3.8	-0.81	3.49	3.8	-0.31
Resilience	3.25	4	-0.75	3.45	4	-0.55
Service Motivation	3.08	4	-0.92	3.49	4	-0.51
Strategic Thinking	3.02	3.8	-0.78	3.36	3.8	-0.44
Team Building	3.18	3.8	-0.62	3.59	3.8	-0.21
Technology Management	2.69	3.2	-0.51	3.00	3.2	-0.2
Vision	2.92	3.8	-0.88	3.36	3.8	-0.44
Building Performance Culture	N/A			3.40	4	-0.6
Differentiating Performance	N/A			3.41	4	-0.59
Facilitating Performance	N/A			3.39	4	-0.61
Goal Setting	N/A			3.36	4	-0.64
Performance Coaching and Feedback	N/A			3.30	4	-0.7
Understanding Performance Management Processes and Practices	N/A			3.49	4	-0.51



MANAGER SCORES	2006			2007		
	Average	Target	Gap	Average	Target	Gap
Accountability	3.39	3.63	-0.24	3.15	3.63	-0.48
Conflict Management	2.99	3.25	-0.26	2.95	3.25	-0.30
Creative Thinking/ Innovation	3.27	2.75	0.52	2.96	2.75	0.21
Entrepreneurship	3.16	2.75	0.41	2.95	2.75	0.20
Financial Management	3.08	3.13	-0.05	2.93	3.13	-0.20
HR Management	3.11	3.25	-0.14	2.86	3.25	-0.39
Influencing/ Negotiating	3.13	3.25	-0.12	3.04	3.25	-0.21
Leveraging Diversity	3.16	3.5	-0.34	3.04	3.5	-0.46
Resilience	3.4	3.63	-0.23	3.20	3.63	-0.43
Service Motivation	3.23	3.38	-0.15	3.25	3.38	-0.13
Team Building	3.18	3.38	-0.2	3.06	3.38	-0.32
Technology Management	2.98	2.63	0.35	2.99	2.63	0.36
Building Performance Culture	N/A			3.06	3.2	-0.14
Differentiating Performance	N/A			2.97	3.2	-0.23
Facilitating Performance	N/A			3.01	3.2	-0.19
Goal Setting	N/A			3.03	3.2	-0.17
Performance Coaching and Feedback	N/A			3.11	3.2	-0.09
Understanding Performance Management Processes and Practices	N/A			3.24	3.2	0.04

SUPERVISOR SCORES	2006			2007		
	Average	Target	Gap	Average	Target	Gap
Accountability	3.13	3.36	-0.23	3.22	3.36	-0.14
Conflict Management	2.94	2.55	0.39	2.87	2.55	0.32
HR Management	2.92	2.55	0.37	2.95	2.55	0.40
Influencing/ Negotiating	3.12	2.55	0.57	2.88	2.55	0.33
Leveraging Diversity	3.08	3	0.08	2.96	3	-0.04
Resilience	3.07	3	0.07	3.09	3	0.09
Service Motivation	3.19	3.18	0.01	3.05	3.18	-0.13
Team Building	3.17	3.27	-0.1	2.91	3.27	-0.36
Building Performance Culture	N/A			2.84	2.9	-0.06
Differentiating Performance	N/A			2.99	2.9	0.09
Facilitating Performance	N/A			2.90	2.9	0.00
Goal Setting	N/A			2.85	2.9	-0.05
Performance Coaching and Feedback	N/A			2.80	2.9	-0.10
Understanding Performance Management Processes and Practices	N/A			2.90	2.9	0.00



**Figure 2-5: Summary of Department-wide (excluding FAA) Leadership Gaps**

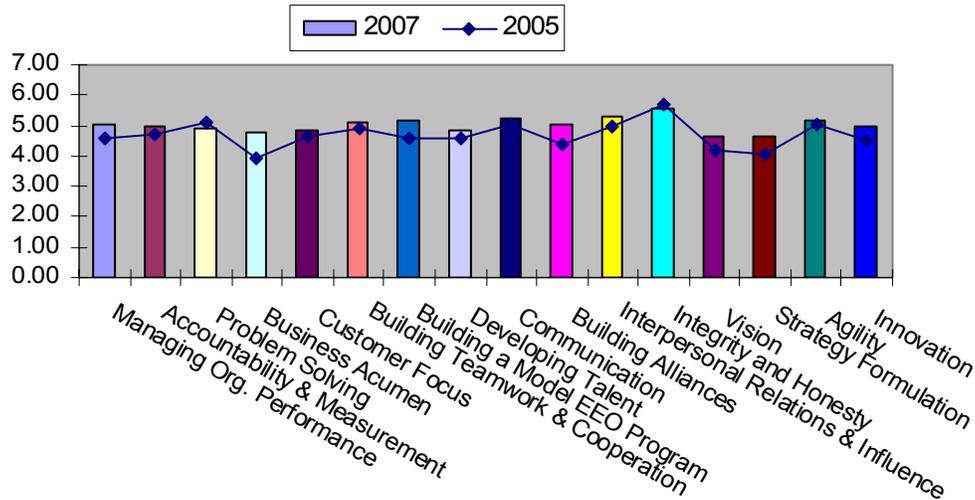
<b>Executives</b>			
	<b>Critical Competencies</b>	<b>Important Competencies</b>	<b>Performance Management Competencies</b>
<b>Acceptable Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ Accountability</li> <li>◆ Creative Thinking/Innovation</li> <li>◆ HR Management</li> <li>◆ Influencing/Negotiating</li> <li>◆ Team Building</li> <li>◆ Technology Management</li> <li>◆ Vision</li> </ul>	<ul style="list-style-type: none"> <li>◆ Entrepreneurship</li> <li>◆ External Awareness</li> <li>◆ Political Savvy</li> <li>◆ Service Motivation</li> <li>◆ Strategic Thinking</li> </ul>	<ul style="list-style-type: none"> <li>◆ Understanding Performance Management Processes and Practices</li> </ul>
<b>Moderate Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ Conflict Management</li> <li>◆ Financial Management</li> <li>◆ Leveraging Diversity</li> <li>◆ Resilience</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ Building Performance Culture</li> <li>◆ Differentiating Performance</li> <li>◆ Facilitating Performance</li> <li>◆ Goal Setting</li> <li>◆ Performance Coaching and Feedback</li> </ul>
<b>Significant Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>
<b>Managers</b>			
	<b>Critical Competencies</b>	<b>Important Competencies</b>	<b>Performance Management Competencies</b>
<b>Acceptable Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ Accountability</li> <li>◆ HR Management</li> <li>◆ Influencing/Negotiating</li> <li>◆ Leveraging Diversity</li> <li>◆ Team Building</li> </ul>	<ul style="list-style-type: none"> <li>◆ Conflict Management</li> <li>◆ Financial Management</li> <li>◆ Resilience</li> <li>◆ Service Motivation</li> </ul>	<ul style="list-style-type: none"> <li>◆ Building Performance Culture</li> <li>◆ Differentiating Performance</li> <li>◆ Facilitating Performance</li> <li>◆ Goal Setting</li> <li>◆ Performance Coaching and Feedback</li> </ul>
<b>Moderate Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>
<b>Significant Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>
<b>Supervisors</b>			
	<b>Critical Competencies</b>	<b>Important Competencies</b>	<b>Performance Management Competencies</b>
<b>Acceptable Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ Accountability</li> </ul>	<ul style="list-style-type: none"> <li>◆ Leveraging Diversity</li> <li>◆ Service Motivation</li> <li>◆ Team Building</li> </ul>	<ul style="list-style-type: none"> <li>◆ Building Performance Culture</li> <li>◆ Goal Setting</li> <li>◆ Performance Coaching and Feedback</li> </ul>
<b>Moderate Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>
<b>Significant Competency Gaps</b>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>	<ul style="list-style-type: none"> <li>◆ None</li> </ul>

The Appendix provides competency ratings and gaps for each OA.

### FEDERAL AVIATION ADMINISTRATION<sup>36</sup>

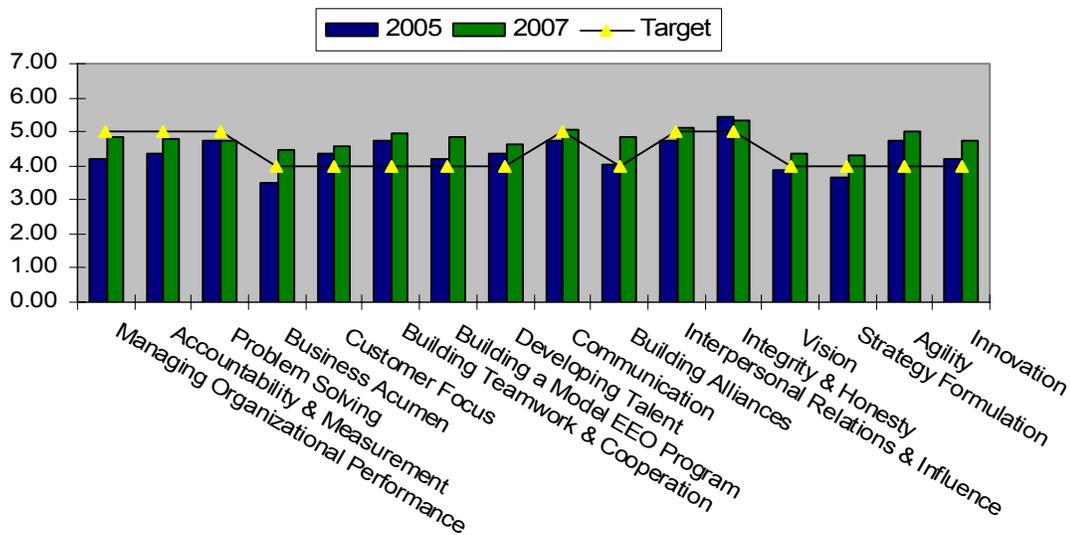
The Federal Aviation Administration's (FAA) February 2007 reassessment indicates that skills across its 16 managerial competencies have generally held steady or shown improvement at all management levels.

Figure 1. Comparative Mean Ratings



As a group, FAA Frontline Managers met or exceeded targets in 13 out of 16 competencies in February 2007 (compared to seven in December 2005). Moderate gains were evidenced in all five critical competencies (i.e., *Managing Organizational Performance, Accountability & Measurement, Problem Solving, Communication, and Interpersonal Relations & Influence*).

Figure 2. Frontline Manager Ratings



<sup>36</sup> FAA Leadership Measure Results Report, March 15, 2007



As a group, FAA Middle Managers met or exceeded targets in 15 out of 16 competencies in February 2007 (compared to 12 in December 2005). Moderate gains were evidenced in four of five critical competencies (i.e., *Managing Organizational Performance*, *Accountability & Measurement*, *Customer Focus*, and *Communication*). Mean skill levels rose in the two targeted competency areas, *Developing Talent* (+.32) and *Strategy Formulation* (+.65).

Figure 3. Middle Manager Ratings

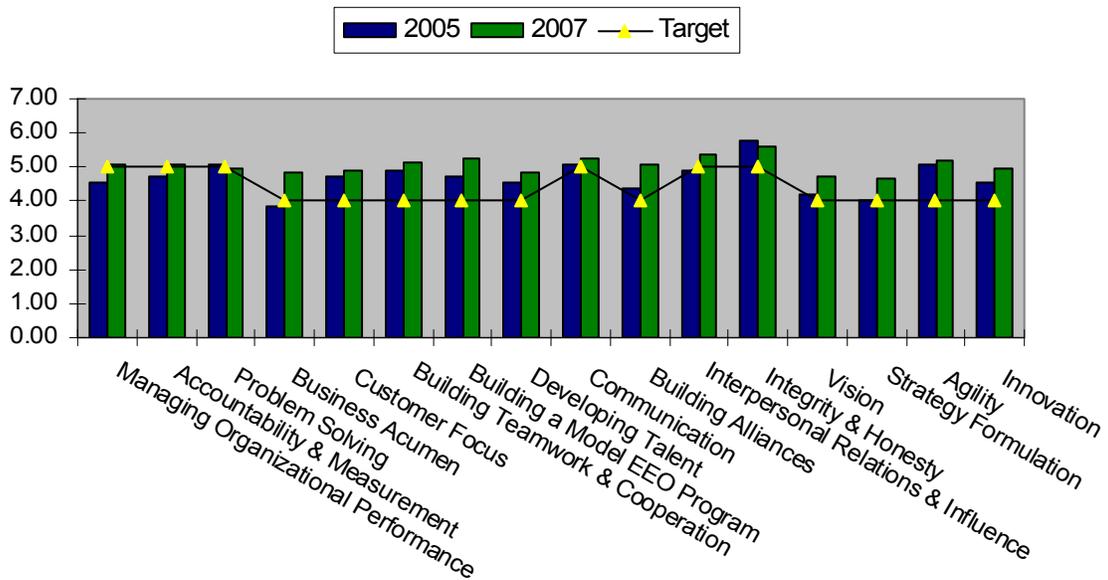
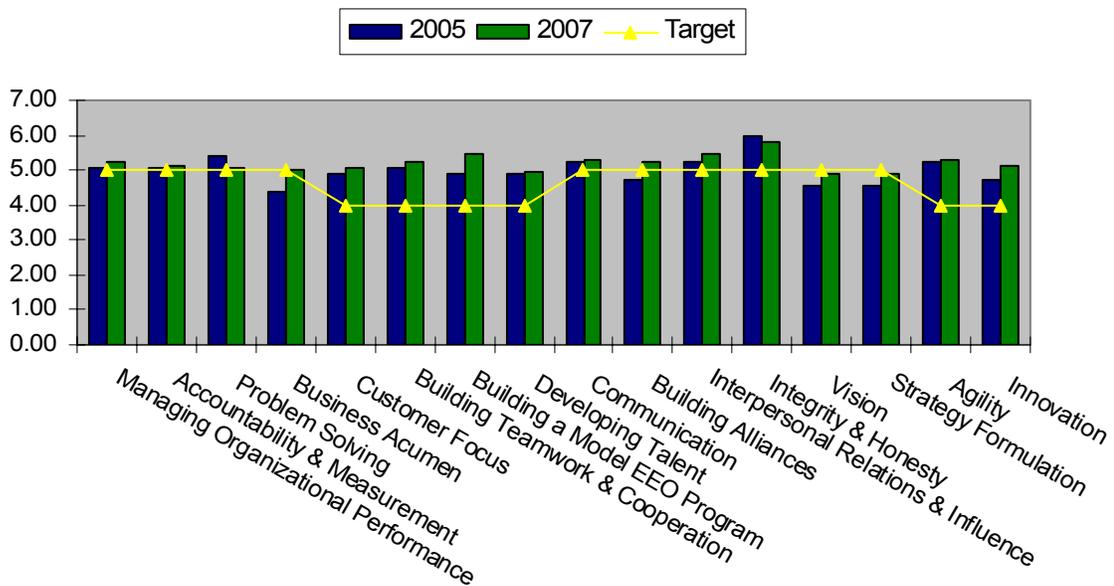


Figure 4. Senior Manager Ratings





FAA Senior Managers met or exceeded targets in 14 out of 16 competencies in February 2007 (compared to 12 in December 2005). Moderate gains were evidenced in all five critical competencies (i.e., *Business Acumen, Building Alliances, Interpersonal Relations & Influence, Vision, and Strategy Formulation*). Mean skill levels rose in the two targeted competency areas, *Business Acumen* (+.63) and *Building Alliances* (+.53).

**CLOSING LEADERSHIP COMPETENCY GAPS AT DOT**

Since DOT is closing its previously targeted Leadership competency gap of *Conflict Management*, the Department will turn its attention to closing the gap reported in the new performance management competency, *Performance Coaching and Feedback*. While managers and supervisors assessments indicated gaps within the acceptable range, executives reported a moderate competency gap for *Performance Coaching and Feedback* of -.70. Efforts over the next year will focus on closing the gap from the “moderate” range (-.70) to the “acceptable” range (-.55 or below).

At the FAA, the Agency’s ‘Flight Plan’ includes improved performance management as a key indicator of success in building stronger leadership. For middle managers, developing talent (managerial coaching) is of such critical importance to the development of newly appointed frontline managers that FAA has included it as a target in their ‘Flight Plan’. For senior managers, business acumen and building alliances will be a central focus.

- **Employee Perceptions, FHCS Survey Results:** Like Federal employees across the Government, DOT employees continued to flag “Leadership” as a challenge in their responses to the 2006 FHCS survey.

After the 2004 FHCS, OPM highlighted the DOT response to the survey item “*In my organization, leaders generate high levels of motivation and commitment in the workforce*” as a leadership “challenge” area. As shown in Figure 2-10, this item (#37) continues to be a challenge

Items highlighted in this table show a 5% decline or more in per-cent positive responses since the 2004 survey. Item 40 (“*Managers review and evaluate the organization’s progress toward meeting its goals and objectives*”) shows a particularly steep decline since the original survey in 2002, and confirm DOT’s selection of *Performance Management* as the competency gap for attention.

**Figure 2-10: DOT Scores on Federal Human Capital Survey “Leadership” Items**

Item	2006 DOT % Positive	2004 DOT % Positive	2002 DOT % Positive	2006 FHCS Gov’t - wide % Positive
36. I have a high level of respect for my organization’s senior leaders	35	37	NA	50
37. In my organization, leaders generate high levels of motivation and commitment in the workforce	25	27	32	38
38. My organization’s leaders maintain high standards of honesty and integrity	36	37	44	48
39. Managers communicate the goals and priorities of the organization	49	54	NA	58
40. Managers review and evaluate the organization’s progress toward meeting its goals and objectives	49	53	63	52
41. Employees are protected from health and safety hazards on the job	65	74	NA	75
42. My organization has prepared employees for potential security threats	66	72	NA	73
43. Complaints, disputes or grievances are resolved fairly in my work unit	36	40	39	39



Item	2006 DOT % Positive	2004 DOT % Positive	2002 DOT % Positive	2006 FHCS Gov't - wide % Positive
44. Arbitrary action, personal favoritism and coercion for partisan political purposes are not tolerated	39	50	42	45
45 Prohibited Personnel Practices...are not tolerated	51	64	NA	59
46. I can disclose a suspected violation of a law, rule or regulation without fear of reprisal.	43	47	50	48

DOT added six new performance management competencies to the leadership profile. Increased skills in these areas can directly impact the employee perceptions noted above:

- Understanding Performance Management Processes and Practices (Understands and works within the context of the performance appraisal system to actively manage self and others)
- Goal Setting (Sets and maintains effort towards goals by establishing measurable results that support organizational mission accomplishment)
- Performance Coaching and Feedback (Initiates and engages in performance-related conversations with others to support continual professional and personal growth)
- Facilitating Performance (Initiates and guides the efforts of self and others toward performance goals through ongoing support, removal of performance obstacles, managing consequences, and holding employees accountable)
- Differentiating Performance (Makes fair assessments of performance based upon measures of performance that include observable behaviors, performance feedback and demonstrated results)
- Building Performance Culture (Creates an environment that fosters and rewards teamwork, leverages diversity, inspires collaboration and promotes results-focused mission accomplishment)

## INFORMATION TECHNOLOGY (IT) PROFESSIONALS<sup>37</sup>

### DEFINED

The DOT IT Workforce Capability Assessment provides the following common traits of the “typical” Transportation IT worker, based on demographic data obtained from the Federal IT Workforce Capability Planning and Analysis Tool (CPAT):

- Classified as a GS-0334
- Male
- White (non-Hispanic)
- 51-55 years old
- Grade level of GS-13/14
- Has over 11 years of public sector experience
- Has less than three years of private sector experience
- Eligible to retire in the next 11 to 20 years
- Holds a Bachelor’s degree

The Government-wide important (specialized) IT job activities (SJAs) are defined as follows:

- **IT Project Management** typically involves exercising centralized authority and responsibility for planning, organizing, staffing, and controlling efforts of participating personnel and organizations for management of one or more specific IT project(s) throughout the life cycle (from initiation to

<sup>37</sup> All data are from the DOT “Information Technology Specialist Gap Analysis Report and Improvement Plan,” May 1, 2007,



deployment and closeout) of the system. IT project management includes responsibilities such as definition of requirements, development of project plans, acquisition, risk mitigation, deployment and maintenance, and ensuring the project is on schedule and within budget.

- **IT Security/Information Assurance** ensures the integrity, availability, and confidentiality of information and information systems through the planning, analysis, development, implementation, maintenance, and enhancement of systems, programs, policies, procedures, and tools.
- **Enterprise Architecture (EA)** links the business mission, strategy, and processes of an organization to its IT strategy. It is documented using multiple architectural models or views that show how the current and future needs of an organization will be met. By focusing on strategic differentiators and working across the enterprise, there is a unique opportunity to create leverage and synergies and avoid duplication and inconsistencies across the enterprise.
- **Solutions Architecture (SA)** primarily studies and defines solutions for a single system, department, or solution area within an agency. The Solutions Architect is primarily concerned with issues including fundamental business and technology issues: alignment with core agency business strategies, business process simplification, and the implementation of information technology that enables the realization of key business objectives, but on a small scale and within the scope of a single project or system.

**REPRESENTATION**

Figure 2-11 shows the representation of IT workers in the DOT OAs as of September 30, 2006. Compared to FY 2005, the IT force strength remained essentially stable.

**Figure 2-11: INFORMATION TECHNOLOGY FAMILY BY OA Year-End FY 2006**

*Information Technology Family by OA*

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of PWTD	PWD Strength	% of PWD	Veterans Strength	% of Veterans
FAA	1,713	47.3	139	8.1%	16	0.9%	127	7.4%	352	20.5%
FHWA	41	48.7	14	34.1%	1	2.4%	4	9.8%	11	26.8%
FMCSA	20	46.3	5	25.0%	0	0.0%	3	15.0%	3	15.0%
FRA	25	47.6	2	8.0%	1	4.0%	3	12.0%	5	20.0%
FTA	7	43.1	1	14.3%	0	0.0%	0	0.0%	2	28.6%
MARAD	9	44.9	3	33.3%	0	0.0%	1	11.1%	2	22.2%
NHTSA	18	47.1	4	22.2%	0	0.0%	2	11.1%	2	11.1%
OIG	23	39.7	1	4.3%	0	0.0%	0	0.0%	1	4.3%
OST	31	48.4	5	16.1%	0	0.0%	3	9.7%	5	16.1%
PHMSA	11	39.6	0	0.0%	0	0.0%	1	9.1%	3	27.3%
RITA	99	46.5	2	2.0%	0	0.0%	6	6.1%	12	12.1%
SLSDC	2	42.5	0	0.0%	0	0.0%	0	0.0%	1	50.0%
STB	4	51.5	1	25.0%	0	0.0%	0	0.0%	2	50.0%
<b>2006 Total</b>	<b>2,003</b>	<b>47.1</b>	<b>177</b>	<b>8.8%</b>	<b>18</b>	<b>0.9%</b>	<b>150</b>	<b>7.5%</b>	<b>401</b>	<b>20.0%</b>
<b>2005 Total</b>	<b>2,039</b>	<b>46.7</b>	<b>175</b>	<b>8.6%</b>	<b>19</b>	<b>0.9%</b>	<b>187</b>	<b>9.2%</b>	<b>421</b>	<b>20.6%</b>



## COMPETENCY ANALYSIS

In conjunction with the Chief Information Officers' Council (CIOCC), DOT deployed the IT Workforce Capability Assessment to evaluate competency and skill "as-is" supply data for the four IT SJAs. Seven hundred ninety eight (798) of the 1,885 DOT IT employees (42.3%) participated in the voluntary and confidential survey. The survey was open to civilian employees working in the following occupational series:

- GS-2210 (Information Technology Specialist)
- GS-0334 (Computer Specialist)
- GS-0391 (Telecommunications Specialist)
- GS-1550 (Computer Scientist)
- GS-0854 (Computer Engineering)

Individuals from non-traditional IT occupational series also completed the survey if they performed IT-related work 51% or more of their time. The individuals in non-traditional series who met the criteria and participated in the survey were from the following occupational series:

- GS-0301 (Miscellaneous Administration and Program Specialist)
- GS-0340 (Program Manager)
- GS-0343 (Management and Program Analyst)
- GS-0855 (Electronics Engineering)

DOT demographic data from the Fedscope database corresponded closely to similar distributions shown in the ITWCA Survey. Therefore, we have a relatively high confidence level that the survey data are representative of the IT workforce as a whole.

Figures 2-12 and 2-13 show the highest rated general and technical IT competencies based on the average responses in the Foundational, Intermediate, Advanced, and Expert proficiency levels.

**Figure 2-12: Highest Rated General IT Competencies**

General Competencies	Avg Proficiency
Interpersonal Skills	3.74
Problem Solving	3.74
Customer Service	3.65
Oral Communication	3.41
Decision Making	3.40
Leadership	3.32
Planning and Evaluation	3.18
Organizational Awareness	3.12
Influencing/ Negotiating	2.81
Administration and Management	2.58
Strategic Thinking	2.55
Managing Human Resources	2.34
Financial Management	2.10
Contracting/ Procurement	2.07



Figure 2-13: Highest Rated Technical IT Competencies

Technical Competencies	Avg Proficiency
Hardware	2.95
Operating Systems	2.81
Configuration Management	2.70
Technical Documentation	2.55
Project Management	2.53
Technology Awareness	2.47
Systems Life Cycle	2.42
Operations Support	2.36
Data Management	2.34
Systems Integration	2.34
Standards	2.33
Requirements Analysis	2.31
Computer Languages	2.28
Software Development	2.26
System Testing and Evaluation	2.25
Information Assurance	2.23
Software Testing and Evaluation	2.21
Network Management	2.2
Database Management Systems	2.19
Quality Assurance	2.18
Infrastructure Design	2.17
Product Evaluation	2.16
Database Administration	2.15
Information Resources Strategy and Planning	2.15
Web Technology	2.14
Risk Management	2.13
Knowledge Management	2.11
Information Systems/Network Security	2.01
Information Technology Architecture	2

In the IT Skills section of the 2006 Federal IT Workforce Capability Assessment Survey, the DOT IT staff members were asked to rate their proficiency and their ability to perform specific jobs or functions in each of the 57 skills areas. The survey differentiated skills from competencies in a number of important ways. First, skills are often related to either specific products or technologies, whereas competencies are generally described in broader terms. The skill names and definitions appropriately reflect this. In addition, skills are more “granular” and discrete, and may actually relate to or be part of a broader competency. Figure 2-14 shows the top six skills based on the average responses in the Foundational, Intermediate, Advanced, and Expert proficiency levels.



Figure 2-14: Highest Rated IT Skills

Skills	Avg Proficiency
Desktop Applications	3.5
Windows Operating System	3.03
Client-Server	2.44
Document Management	2.25
Testing	2.23
Systems Maintenance and Helpdesk	2.16

**THE GAP ANALYSIS**

To identify competency gaps, DOT compared supply data with demand data. Analyses revealed that competency gaps occurred within all four SJAs. While gaps exist across all SJAs, most are in the medium or small range, with only one classified as a large gap (i.e., Capital Planning and Investment). Further analyses indicated that DOT IT workers age 35 and younger have slightly larger average competency gaps and more large-sized gaps than do IT workers age 36 and older, perhaps because some competencies take a longer time to develop. Certain competency areas in which younger employees' proficiency is notably less than older employees, and/or where younger employees have more large gaps may be related to a lack of experience at earlier career stages. These include Human Resource Management, Capital Planning and Investment Assessment, Financial Management, and Project Management. By comparison, Computer Forensics and Encryption—areas that have gained recent increased attention in relation to national security—are competencies in which older employees' proficiency is notably less than younger employees, and/or where older employees have more large-sized gaps.

Figure 2-15 provides a summary of all large (defined as 2.0 or above) and medium (defined as 0.6 to 1.9) competency gaps across the specialized job activities.

Figure 2-15: Department-wide Large and Medium Competency Gaps

Specialized Job Activity	Ext. Avg. Rating	Ext. Target	Ext. Gap	Mod. Avg. Rating	Mod. Target	Mod. Gap	
Capital Planning and Investment Assessment	IT Project Management	2.6	3.9	-1.3	1.75	3.9	-2.15
Project Management	IT Project Management	3.92	4.9	-0.98	3.04	4.9	-1.86
Logical Systems Design	Solutions Architecture	2.83	4	-1.17	2.53	4	-1.47
Financial Management	IT Project Management	2.94	4	-1.06	2.55	4	-1.45
Planning and Evaluation	IT Project Management	3.89	4.7	-0.81	3.44	4.7	-1.26
Managing Human Resources	IT Project Management	3.1	4	-0.9	2.77	4	-1.23
Decision Making	IT Project Management	4.01	4.9	-0.89	3.7	4.9	-1.20
Risk Management	IT Project Management	3.22	3.93	-0.71	2.74	3.93	-1.19
	IT Security/ Information Assurance						
Influencing/ Negotiating	IT Project Management	3.43	4.3	-0.87	3.18	4.3	-1.12
Business Process Reengineering	Enterprise Architecture	2.7	3.23	-0.52	2.23	3.34	-1.11
	IT Project Management						
	Solutions Architecture						
Information Systems Security Certification	IT Security/ Information Assurance	3.38	3.8	-0.42	2.69	3.8	-1.11
Infrastructure Design	Enterprise Architecture	3.31	4.02	-0.71	2.91	3.98	-1.07
Leadership	IT Project Management	3.99	4.6	-0.61	3.61	4.6	-0.99
Contracting/ Procurement	IT Project Management	3.1	3.4	-0.3	2.48	3.4	-0.92
Requirements Analysis	Enterprise Architecture	3.43	3.71	-0.28	2.99	3.84	-0.84
	IT Project Management						
Cost-Benefit Analysis	IT Project Management	2.99	3.39	-0.4	2.38	3.2	-0.82
	Solutions Architecture						



	Specialized Job Activity	Ext. Avg. Rating	Ext. Target	Ext. Gap	Mod. Avg. Rating	Mod. Target	Mod. Gap
Information Systems/Network Security	IT Security/ Information Assurance	3.48	3.6	-0.12	2.78	3.6	<b>-0.82</b>
Information Resources Strategy and Planning	Enterprise Architecture IT Project Management Solutions Architecture	3.19	3.6	-0.42	2.8	3.6	<b>-0.8</b>
Standards	Enterprise Architecture IT Project Management IT Security/ Information Assurance Solutions Architecture	3.16	3.51	-0.35	2.86	3.62	<b>-0.77</b>
Organizational Awareness	Enterprise Architecture IT Project Management	3.66	4	-0.34	3.41	4.1	<b>-0.69</b>

**Legend:**

Large Gap (2.0 or above)
Medium Gap (0.6 to 1.9)

**STRATEGIES TO ASSESS AND CLOSE IT COMPETENCY GAPS**

The Department has created a Workforce Action Plan to address gaps in the specialized IT job activities. The Action Plan includes performance measures that are aligned with DOT's 2004-2009 Information Resource Management (IRM) Plan strategy: *"Assuring assimilation of a qualified IT workforce to improve IT product and service delivery, through the development, recruitment and retention of highly qualified project managers, solution architects, and security specialists, and other personnel as identified."*

**Figure 2-16: IT/MCO Resource Table - All DOT\***

	CURRENT				FUTURE (PROJECTED)			
	(A) Number of Employees Onboard	(B) Number of Funded Positions	(C) Projected Attrition (April 2007 - June 2008)	(D) Gap Based on Funded Positions and Attrition	(E) Number of Employees Onboard by September 30, 2007	(F) Number of Employees Onboard by June 30, 2008	(G) Gap Closure Based on Current Number of Employees Onboard June 30, 2008	(H) Remaining Gap by June 30, 2008
IT Project Management	336	345	23	32	338	345	-9	0
IT Security	235	234	3	2	233	234	1	0
Enterprise Architecture	50	53	5	8	40	41	9	12
Systems Architecture	91	96	1	6	92	94	-3	2
<b>Totals</b>	<b>712</b>	<b>728</b>	<b>32</b>	<b>48</b>	<b>703</b>	<b>714</b>	<b>-2</b>	<b>14</b>

*\*Note. STB and SLSDC are not included in future projections  
FHWA is only included in IT Project Management*



**Figure 2-17: Improvement Plan - All DOT IT**

<b>SJA: IT Project Management</b>	
<b>Competency</b>	Capital Planning and Investment Assessment
<b>Tactic</b>	Training, Recruitment, Retention
<b>Rationale</b>	The Department is focused on increasing proficiency in competencies/skills gaps that help support accomplishment of our initiatives. Training is a key strategy and corporate investment for the Agency to improve the contribution of critical competencies and skills for DOT and IT mission success. Increasing corporate capability through training—as well as through recruitment and retention—in this competency will help with preparation and submission of business cases for major IT capital investments.
<b>Q1 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Introduction to Cost Estimating</li> <li>2. Ongoing recruitment efforts (e.g., targeted competency-based vacancy announcement, competency-based interviews)</li> </ol>
<b>Q2 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Capital Planning and Investment Control (CPIC)/Office of Management and Budget Exhibit 300 Training - Basic Comprehensive Course</li> <li>2. Identification of high performing employees with institutional knowledge in Capital Planning and Investment Assessment</li> <li>3. Interim status report on ongoing recruitment efforts</li> </ol>
<b>Q3 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Capital Planning and Investment Control (CPIC)/Office of Management and Budget Exhibit 300 Training - Basic Comprehensive Course</li> <li>2. Cost Estimating for PMs (Pilot course)</li> <li>3. Offer expanded telework and alternative work schedule arrangements</li> <li>4. Ongoing recruitment efforts</li> </ol>
<b>Q4 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Software Cost Estimates (Pilot course)</li> <li>2. Final report on effectiveness of recruitment efforts</li> </ol>
<b>Evaluation Methodology</b>	<ol style="list-style-type: none"> <li>1. Pre- and post-knowledge test in conjunction with training delivery</li> <li>2. Change in number/percentage assessed at the desired proficiency level in the CY2008 ITWCA</li> <li>3. Increase in average proficiency for competency at reassessment period</li> </ol>
<b>SJA: IT Project Management</b>	
<b>Skill</b>	Earned Value Management
<b>Tactic</b>	Training, Recruitment, Retention
<b>Rationale</b>	The Department is focused on increasing proficiency in competencies/skills gaps that help support accomplishment of our initiatives. Training is a key strategy and corporate investment for the Agency to improve the contribution of critical competencies and skills for DOT and IT mission success. Increasing corporate capability in this skill through training—as well as through recruitment and retention—will help with preparation and submission of business cases for major programs in the Department.
<b>Q1 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Program Management using Earning Value Management (EVM): Basic Course</li> <li>2. Program Management using Earned Value Management (EVM): Integrated Baseline Reviews</li> <li>3. Ongoing recruitment efforts (e.g., targeted competency-based vacancy announcement, competency-based interviews)</li> </ol>
<b>Q2 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Program Management using Earning Value Management (EVM): Basic Course</li> <li>2. Program Management using Earned Value Management (EVM): Detailed Course</li> <li>3. Program Management using Earned Value Management (EVM): Integrated Baseline Reviews</li> <li>4. Identification of high performing employees with institutional knowledge in EVM</li> <li>5. Interim status report on ongoing recruitment efforts</li> </ol>
<b>Q3 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Program Management using Earning Value Management (EVM): Basic Course</li> <li>2. Program Management using Earned Value Management (EVM): Detailed Course</li> <li>3. Program Management using Earned Value Management (EVM): Integrated Baseline Reviews</li> <li>4. Ongoing recruitment efforts</li> <li>5. Offer expanded telework and alternative work schedule arrangements</li> </ol>
<b>Q4 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Program Management using Earned Value Management (EVM): Basic Course</li> <li>2. Final report on effectiveness of recruitment efforts</li> </ol>
<b>Evaluation Methodology</b>	<ol style="list-style-type: none"> <li>1. Pre- and post-knowledge test in conjunction with training delivery</li> <li>2. Change in number/percent assessed at a designated proficiency level in CY2008 ITWCA</li> <li>3. Increase in average skill assessment upon reassessment</li> </ol>

*Accountable Party: Chief Information Officer (CIO) and Departmental Human Resources Director*



## HUMAN CAPITAL PROFESSIONALS

Like all Federal agencies, DOT has assessed the competencies of its Human Capital (HC) professionals (job series 201) using the Chief Human Capital Officer (CHCO) Council-sponsored Human Capital competencies during FY 2006. Data are based on a response rate of 76% that included representation from each of its OAs, with the exception of Surface Transportation Board (STB).

### REPRESENTATION

The force strength of Human Capital professionals increased slightly (6.6%) over the 12-month period.

**Figure 2-18: Human Capital Family (Series 201) Positions as of September 30, 2006**

Operating Administration	Total Strength	Average Age	Manager/ Supervisor Strength	% of Manager/ Supervisor	PWTD Strength	% of PWTD	PWD Strength	% of PWD	Veterans Strength	% of Veterans
FAA	401	48.2	70	17.5%	1	0.2%	26	6.5%	34	8.5%
FHWA	50	45.4	17	34.0%	0	0.0%	3	6.0%	4	8.0%
FMCSA	11	45.6	7	63.6%	0	0.0%	0	0.0%	0	0.0%
FRA	13	43.9	1	7.7%	0	0.0%	1	7.7%	1	7.7%
FTA	11	49.5	2	18.2%	0	0.0%	0	0.0%	0	0.0%
MARAD	11	46.6	4	36.4%	0	0.0%	0	0.0%	1	9.1%
NHTSA	11	42.8	1	9.1%	0	0.0%	0	0.0%	0	0.0%
OIG	4	50.3	1	25.0%	0	0.0%	1	25.0%	1	25.0%
OST	23	46.1	6	26.1%	0	0.0%	1	4.3%	0	0.0%
PHMSA	6	45.2	0 <sup>38</sup>	0.0%	0	0.0%	1	16.7%	0	0.0%
RITA	13	48.3	2	15.4%	0	0.0%	1	7.7%	1	7.7%
SLSDC	4	50.0	1	25.0%	0	0.0%	0	0.0%	0	0.0%
STB	2	39.0	1	50.0%	0	0.0%	0	0.0%	0	0.0%
<b>2006 Total</b>	<b>560</b>	<b>47.6</b>	<b>113</b>	<b>20.2%</b>	<b>1</b>	<b>0.2%</b>	<b>34</b>	<b>6.1%</b>	<b>42</b>	<b>7.5%</b>
<b>2005 Total</b>	<b>525</b>	<b>N/A</b>	<b>115</b>	<b>21.9%</b>	<b>2</b>	<b>0.4%</b>	<b>35</b>	<b>1.7%</b>	<b>39</b>	<b>1.9%</b>

### HUMAN CAPITAL COMPETENCIES DEFINED

The following competencies comprise the Human Capital competency model:

#### HR Technical

- 1) Technical Competence – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one’s job; works with, understands, and evaluates technical information related to the job; advises others on technical issues
- 2) Legal, Government, and Jurisprudence – knowledge of laws, legal codes, court procedures, precedents, legal practices and documents, Government regulation, executive orders, agency rules, Government organization and functions, and the democratic political process

#### People

- 3) Interpersonal Skills – Shows understanding, courtesy, tact, empathy, and concern; develops and maintains relationships; may deal with people who are difficult, hostile, or distressed; relates well to people from varied backgrounds and situations; and is sensitive to individual differences
- 4) Teamwork – Encourages and facilitates cooperation, pride, trust, and group identity; fosters commitment and team spirit; and works with others to achieve goals

<sup>38</sup> Due to coding errors HR managers and supervisors in PHMSA do not appear in the 201 series count.



### Consulting

- 5) Customer Service – Works with customers to assess needs, provides assistance, resolves problems, satisfies expectations, and knows products and services; is committed to providing quality products and services
- 6) Client Engagement/Management (organizational Development) – Knowledge of the principles of organizational development and change management theories, and their applications
- 7) Knowledge of the Agency’s Business (Organizational Awareness) – Knows the organization’s mission and functions, and how its social, political, and technological systems work and operate effectively within them – this includes the programs, policies, procedures, rules, and regulations of the organization

### Analytical

- 8) Project Management – Knowledge of the principles, methods, or tools for developing, scheduling, coordinating, and managing projects and resources, including monitoring and inspecting costs, work, and contractor performance
- 9) Problem Solving – Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations

### Three new HC items were added to the Human Capital profile during FY 2006

- 10) Performance Coaching and Facilitation – Provides guidance on all phases of the performance management lifecycle
- 11) Performance Management Communication and Training – Communicates and trains workforce for effective utilization of performance management system and practices
- 12) Performance Management Evaluation – Evaluates and adjusts performance management system and practices to align with organizational strategic needs and goals

### ASSESSMENT AND STRATEGIES TO CLOSE COMPETENCY GAPS<sup>39</sup>

The Department’s FY 2006 *Gap Analysis and Improvement Plan* indicated several gaps in critical competency areas, particularly at the higher proficiency levels. Specifically, a large number of gaps were present at the ‘Advanced/Expert’ level among all general and technical competencies. At the ‘Intermediate’ level, gaps were found in Project Management, Technical Competence, Employee Benefits, Employee Development, Employee Relations, HR Information Systems, Labor Relations, Performance Management, Recruitment/Placement, and Workforce Planning. At the ‘Awareness/Basic’ level, there were gaps in Client Engagement/Change Management, Customer Service, Interpersonal Skills, Legal, Government, Jurisprudence, Teamwork, Classification, Compensation, Employee Benefits, Employee Development, Employee Relations, Labor Relations, and Performance Management.

Organizationally, DOT elected to focus its efforts on the competencies of *Interpersonal Skills* and *Teamwork*. At FAA, the targeted competencies were *Customer Service*, *Compensation*, and *Labor Relations*. All gaps in Interpersonal Skills and Teamwork at the ‘Advanced/Expert’ proficiency level were narrowed or closed. In addition, FAA closed all targeted competency gaps, and now report surpluses in each of the three targeted competency areas at the ‘Advanced/Expert’ proficiency level.

DOT will continue to focus its efforts on closing the remaining gaps in *Interpersonal Skills* and *Teamwork*.

Moving forward, DOT will focus on the Legal, Government, and Jurisprudence technical competencies.

<sup>39</sup> From Human Resource Measures Results Report, June 28, 2007



## DOT-WIDE MISSION CRITICAL OCCUPATION STUDY

### ENGINEERING FAMILY

#### Defined

Engineering work is central to every aspect of DOT's mission, and engineers are at the center of the Agency's strategy to deliver "Safer, Smarter, Simpler" transportation solutions to the nation. DOT has commissioned a competency analysis for **four key engineering jobs** that will continue throughout FY 2006. Note that these four jobs (see Figure 2-19) do not include all mission-critical engineering occupational titles.

#### Representation

DOT employs people in 19 of the job categories identified by OPM in its Position Classification Standards. Figure 2-19 provides data on the four key engineering positions, compared to data provided in the **2005 and 2006 Workforce Plan**.

DOT is focusing its attention and resources on identifying competencies and assessing and closing gaps for the four most populous engineering job categories. Their representation by OA is shown below.

Figure 2-19: Key Engineering Series by OA

Series	Occupational Title	FAA	FHWA	FRA	FTA	FMCSA	MARAD	NHTSA	OIG	OST	PHMSA	RITA	SLSD	STB	Total
801	General Engineering	725	7	17	45	3	8	99	3		97	33	1	5	
810	Civil Engineering	371	1,051	3			2					6	2		
830	Mechanical Engineering	72	1	6		1	3	26				29			
855	Electronics Engineering	868	1	5				3				36	2		
2006	TOTAL	2,036	1,060	32	45	4	13	128	3	0	97	104	5	5	3,532
2005	TOTAL	2,071	1,099	31	40	4	12	123	0	1	104	117	0	0	3,602

#### General Engineering, series 801

A professional position in a recognized branch of engineering comprises duties which require in their successful performance: 1) the practical application of basic scientific principles, particularly those of higher mathematics, and physical and engineering sciences; 2) an intimate knowledge of the fundamental engineering concepts and terminology, the units of measurement, and their interrelationship common to all branches of engineering; and 3) a thorough understanding of engineering techniques and methods such as can be gained through four years of engineering training in a recognized college or university, or training equivalent in *type, scope, and thoroughness*.

#### Civil Engineering, series 810

This series includes professional positions in the field of civil engineering, typically requiring application of general knowledge of the physical sciences and mathematics underlying engineering, and specialized knowledge of: a) mechanics of solids, particularly of soils; b) hydraulics; c) theory of structure; d) strength of materials; e) engineering geology; and f) surveying. Positions in this series have responsibility for management, supervision, or performance of: 1) planning, designing, constructing, and/or maintaining structures and facilities that provide shelter, support transportation systems, and control natural resources; 2) investigating, measuring, surveying, and mapping the earth's physical features and phenomena; and 3) research and development activities pertaining to 1 or 2.



### **Mechanical Engineering, series 830**

This series includes professional positions in the field of mechanical engineering, typically requiring the application of thermo-dynamics, mechanics, and other physical, mathematical, and engineering sciences to problems concerned with the production, transmission, measurement, and use of energy, especially heat and mechanical power.

### **Electronics Engineering, series 855**

This series includes professional engineering positions which require primarily application of knowledge of: a) the physical and engineering sciences and mathematics; b) electrical phenomena; and c) the principles, techniques, and practices of electrical engineering. The work pertains primarily to electrical circuits, circuit elements, equipment, systems, and associated phenomena concerned with electrical energy for purposes such as motive power, heating, illumination, chemical processes, or the production of localized electric or magnetic fields.

### **Competency Analysis<sup>40</sup>**

During FY 2006, DOT undertook a workforce analysis of its mission critical engineering positions. The pilot project includes four engineering series which share common requirements for knowledge in physical, mathematical, and engineering sciences

Although FAA and FHWA contain 88% of all the engineers in the Workforce Analysis Pilot, the positions are found in all OAs. A cross-departmental analysis is being conducted using a thorough seven-step process including:

- 1) Identify Strategic Direction for DOT and for each of the OAs to determine common linkages
- 2) Understand the current composition of the workforce to identify general trends and commonality between the OAs; identify unique attributes and commonality of workforce composition between OAs
- 3) Understand how the engineering occupations (0801, 0810, 0830, 0855) fit into the OAs and DOT over the next five to 10 years
- 4) Understand how the MCO perform within the OAs and within DOT
- 5) Identify competencies for the engineering occupations to perform successfully
- 6) Identify competency gaps
- 7) Identify strategies to close skill gaps and improve operations

Final results of the analysis are not available for this report.

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<sup>40</sup> Source: 2006 Workforce Analysis Pilot Plan of Action Timeframes and Steps Overview , January 19, 2006



Figure 2-20: Operational Series by Operating Administration

Occupational Series By Operating Administration

Bureau	Occupational Series in Pilot				Total Engineers in Pilot	% of Total	
	0801	0810	0830	0855			
FAA	753	375	70	880	2,078	56.90%	1
FHWA	6	1,124	1	2	1,133	31.02%	2
FMCSA	3		1		4	0.11%	
FRA	19	3	6	5	33	0.90%	
FTA	44				44	1.20%	
MARAD	8	2	3		13	0.36%	
NHTSA	97		25	3	125	3.42%	3
OIG					0	0.00%	
OST				1	1	0.03%	
PHMSA	101				101	2.77%	5
RITA	36	8	35	38	117	3.20%	4
SLSDC	1	2		1	4	0.11%	
STB					0	0.00%	
Total	1,068	1,514	141	929	3,652	100.00%	
% of Total	29.24%	41.46%	3.86%	25.44%	100.00%		

(1) DOT Workforce Analysis Pilot Plan March 2006; data as of August 2005 (page 2)



Figure 2-21 represents the current profile of the employees in the Engineering family.

**Figure 2-21: Representation of Engineering Family (All DOT)**

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	3,677	47.9	345	9.4%	14	0.4%	216	5.9%	830	22.6%
FHWA	1,222	45.0	478	39.1%	7	0.6%	73	6.0%	126	10.3%
FMCSA	4	47.8	0	0.0%	0	0.0%	0	0.0%	0	0.0%
FRA	32	52.7	7	21.9%	3	9.4%	4	12.5%	5	15.6%
FTA	45	45.8	3	6.7%	0	0.0%	2	4.4%	4	8.9%
MARAD	75	54.7	14	18.7%	0	0.0%	5	6.7%	22	29.3%
NHTSA	129	45.1	16	12.4%	0	0.0%	3	2.3%	8	6.2%
OIG	3	39.0	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OST	1	41.0	0	0.0%	0	0.0%	0	0.0%	0	0.0%
PHMSA	97	50.4	8	8.2%	1	1.0%	6	6.2%	16	16.5%
RITA	117	43.0	10	8.6%	0	0.0%	1	0.9%	14	12.0%
SLSDC	5	45.8	1	20.0%	0	0.0%	1	20.0%	0	0.0%
STB	5	51.2	2	40.0%	0	0.0%	0	0.0%	1	20.0%
<b>2006 Total</b>	<b>5,412</b>	<b>47.2</b>	<b>884</b>	<b>16.3%</b>	<b>0</b>	<b>0.0%</b>	<b>311</b>	<b>5.7%</b>	<b>1,026</b>	<b>19.0%</b>
<b>2005 Total</b>	<b>5,487</b>	<b>46.8</b>	<b>1,047</b>	<b>19.1%</b>	<b>25</b>	<b>0.5%</b>	<b>412</b>	<b>7.5%</b>	<b>1,089</b>	<b>19.8%</b>
<b>2004 Total</b>	<b>5,674</b>	<b>*</b>	<b>585</b>	<b>10.3%</b>	<b>*</b>	<b>*</b>	<b>324</b>	<b>5.7</b>	<b>*</b>	<b>*</b>

## ACQUISITION MANAGEMENT/CONTRACTING

### REPRESENTATION

**Figure 2-22: Representation of Management/Contracting Professionals**

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of PWTD	PWD Strength	% of PWD	Veterans Strength	% of Veterans
FAA	224	47.6	29	13.0%	1	0.5%	14	6.3%	34	15.2%
FHWA	42	45.9	16	38.1%	0	0.0%	0	0.0%	5	11.9%
FMCSA	5	47.8	3	60.0%	0	0.0%	0	0.0%	0	0.0%
FRA	7	47.6	1	14.3%	0	0.0%	0	0.0%	2	28.6%
FTA	12	44.6	2	16.7%	0	0.0%	0	0.0%	2	16.7%
MARAD	27	49.4	5	18.5%	0	0.0%	2	7.4%	6	7.4%
NHTSA	10	48.4	1	10.0%	0	0.0%	0	0.0%	1	10.0%
OST	16	46.5	4	25.0%	0	0.0%	2	12.5%	3	18.8%
PHMSA	6	44.7	2	33.3%	0	0.0%	0	0.0%	1	16.7%
RITA	26	48.5	3	11.5%	0	0.0%	2	7.7%	6	23.1%
SLSDC	3	43.3	1	33.3%	0	0.0%	0	0.0%	1	33.3%
<b>Total</b>	<b>378</b>	<b>47.4</b>	<b>67</b>	<b>17.7%</b>	<b>1</b>	<b>0.3%</b>	<b>20</b>	<b>5.3%</b>	<b>61</b>	<b>16.1%</b>



## COMPETENCY ANALYSIS

During FY 2007, DOT contracting employees participated in the Government-wide Contracting Workforce Competencies Survey sponsored by the Federal Acquisition Institute (FAI). The participation rate for this survey was 76.4%. The results of the survey will be used to ensure that the Government provides appropriate development opportunities to the contracting workforce.

DOT will focus on increasing competencies in three areas under the Contracting Officer function: (1) Project Management; (2) Defining Government Requirements/Performance Based Acquisition Strategies; and (3) Understanding the Marketplace.

The Department is still analyzing results by mode to identify potential additional areas for focus.

## COMMUNITY PLANNING FAMILY

### DEFINED

This series includes professional positions concerned with community planning and with developing the art and science of planning to apply to communities such as urban or rural neighborhoods, villages, Indian reservations, cities, counties, regions, states, or the nation. Community planning work requires knowledge of planning concepts, principles, techniques, and practices; the social, economic, political, and physical elements involved in human settlements; and the dynamics of change within these elements. Planners identify community needs, resources, and problems, and assist citizens to make decisions on goals, policies, priorities, plans, programs, and methods of implementation designed to create a physical, economic, and social environment in which the human activities desired by the members of the community may flourish.

### REPRESENTATION

Figure 2-23: Representation of Community Planning Family

Community Planning Family (occupational series 0020)

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	28	47.2	0	0.0%	0	0.0%	1	3.6%	7	25.0%
FHWA	119	43.2	58	48.7%	1	0.8%	8	6.7%	6	5.0%
FTA	62	43.9	3	4.8%	0	0.0%	3	4.8%	3	4.8%
RITA	14	39.4	1	7.1%	0	0.0%	0	0.0%	1	7.1%
2006 Total	223	43.7	62	27.8%	1	0.4%	12	5.4%	17	7.6%
2005 Total	212	43.6	76	35.8%	1	0.5%	15	7.1%	18	8.5%
2004 Total	203	44.3	23	13.3%	*	*	13	6.4%	*	*

\* Data not provided in 2005 Workforce Plan

Figure 2-23 shows the overall force strength throughout DOT. The number of community planners has increased 5.2% over the last fiscal year, but the number of manager/supervisors decreased.

The competency analysis for this job family originally scheduled for FY 2006 was postponed due to lack of budget allocation.



## PROGRAM MANAGEMENT FAMILY

Figure 2-24: Representation of Program Management Family by OA

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor <sup>41</sup>	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	283	52.0	263	92.9%	2	0.7%	15	5.3%	71	25.1%
FHWA	148	51.0	142	95.9%	0	0.0%	6	4.1%	12	8.1%
FMCSA	63	46.7	63	100%	0	0.0%	2	3.2%	8	12.7%
FRA	7	52.3	7	100%	1	14.3%	1	14.3%	1	14.3%
FTA	14	51.1	14	100%	1	7.1%	1	7.1%	1	7.1%
NHTSA	53	53.6	52	98.1%	0	0.0%	1	1.9%	2	3.8%
OST	10	50.0	9	90.0%	0	0.0%	0	0.0%	1	10.0%
PHMSA	4	51.0	4	100%	0	0.0%	1	25.0%	0	0.0%
RITA	8	54.9	8	100%	0	0.0%	1	12.5%	0	0.0%
SLSDC	3	49.7	3	100%	0	0.0%	0	0.0%	0	0.0%
STB	1	58.0	1	100%	0	0.0%	0	0.0%	0	0.0%
2006 Total	594	51.3	566	95.3%	4	0.8%	28	4.7%	96	16.2%
2005 Total	541	51.4	506	93.5%	4	0.7%	39	7.2%	99	18.3%
2004 Total	522	51.3	446	85.40%	*	*	27	5.20%	*	*

\* Data not provided in 2005 Workforce Plan

The number of program management employees has increased over the past fiscal year. The total strength rose by 53 to 594 employees and the concentration of managers also increased, representing 95.3% of the total population. However, the level of people with disabilities decreased to 28 total employees while the veteran levels remained fairly stable.

## FINANCIAL MANAGEMENT FAMILY

### DEFINED

DOT has identified three categories of financial management personnel as key.

#### (1) Professional and Administrative Work in the Accounting and Budget Group

- 0501, Financial Administration and Program
- 0510, Accounting

This series covers positions that advise on or administer, supervise, or perform professional accounting work that requires application of accounting theories, concepts, principles, and standards to the financial activities of Governmental, quasi-Governmental, or private sector organizations. The work includes:

- Designing, developing, operating, or inspecting accounting systems
- Prescribing accounting standards, policies, and requirements
- Examining, analyzing, and interpreting accounting data, records, and reports or
- Advising or assisting management on accounting and financial management matters
- 0511, Auditing

<sup>41</sup> Note: by definition employees of the program management family are manager resulting in a high percentage of managers within this family.



This series covers positions that apply professional accounting and auditing knowledge, standards, and principles when performing these duties:

- Advising on, supervising, or performing work consisting of a systematic examination and appraisal of financial records, financial and management reports, management controls, policies and practices affecting or reflecting the financial condition and operating results of an activity
- Analyzing work related to developing and executing audit policies and programs
- Conducting performance audits
- Conducting activities related to the detection of fraud, waste, and abuse
- 0560, Budget Analysis

This series covers positions that perform, advise on, or supervise work in any of the phases of budget administration when such work requires knowledge and skill in applying budget-related laws, regulations, policies, precedents, methods, and techniques.

## **(2) Clerical and Technical Accounting and Budget Work**

- 0525, Accounting Technician
- 0540, Voucher Examining
- 0561, Budget Clerical and Assistance

Employees in this series perform clerical and technician work in support of accounting, budget, financial management, or fiscal operations not readily classified to another more specific series, or that includes a combination of work classifiable to two or more series in the GS-500 group when no one series predominates. Clerical work involves compiling figures, maintaining records, compiling reports, or performing other procedural work which represents the transactions or business of an organization. Technician work involves various kinds of duties which require applying a practical knowledge of regulations and precedent cases. Technicians apply specific procedures and established methods. Some technicians may perform specialized non-administrative work preparing data for automated financial systems or may support professionals by writing synopses of audits or financial reports or deciding entitlement against definitive criteria.

## **(3) Financial Management Series**

- 0505

This series includes all classes of positions, the duties of which are to manage or direct a program for the management of the financial resources of an organizational segment, field establishment, bureau, department, independent agency, or other organizational entity of the Federal Government when the duties and responsibilities include: a) developing, coordinating, and maintaining an integrated system of financial staff services including at least accounting, budgeting, and management-financial reporting, and sometimes also one or more of such related staff services as auditing, credit analysis, management analysis, etc.; b) exercising effective control over the financial resources of the organization; c) coordinating and synthesizing financial and management data so as to interpret the composite financial results of operations to all levels of the organization's management; d) advising on, developing, coordinating, and carrying out financial policies, procedures, and plans; e) reviewing, analyzing, evaluating, and reporting upon program accomplishments in financial terms; and f) advising and assisting the management officials of the organization served by supplying financial management advice required to make management decisions, establish organizational goals and objectives, and in all respects to manage the organization.



**REPRESENTATION**

Figure 2-25: Representation of Financial Management Family by OA

Operating Administration	Total Strength	Average Age	Manager/ Supervisor Strength	% of Manager/ Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	377	46.0	30	8.0%	2	0.5%	15	4.0%	29	7.7%
FHWA	142	46.9	54	38.0%	0	0.0%	6	4.2%	21	14.8%
FMCSA	8	45.5	4	50.0%	1	12.5%	1	12.5%	2	25.0%
FRA	10	46.2	2	20.0%	0	0.0%	1	10.0%	1	10.0%
FTA	27	46.9	5	18.5%	1	3.7%	6	22.2%	0	0.0%
MARAD	21	53.0	8	38.1%	0	0.0%	1	4.8%	3	14.3%
NHTSA	6	46.0	2	33.3%	0	0.0%	0	0.0%	0	0.0%
OIG	112	46.2	36	32.1%	0	0.0%	5	4.5%	15	13.4%
OST	30	46.5	9	30.0%	0	0.0%	1	3.3%	3	10.0%
PHMSA	8	40.3	1	12.5%	0	0.0%	0	0.0%	0	0.0%
RITA	24	49.5	3	12.5%	0	0.0%	2	8.3%	2	8.3%
SLSDC	5	51.4	2	40.0%	0	0.0%	0	0.0%	1	20.0%
STB	5	53.0	2	40.0%	0	0.0%	0	0.0%	1	20.0%
2006 Total	775	46.6	158	20.4%	4	0.5%	38	4.9%	78	10.1%
2005 Total	794	47.6	172	21.7%	4	0.5%	62	7.8%	88	11.1%
2004 Total	831	*	134	16.1%	*	*	62	7.5%	*	*

*\*Data not provided in 2004 Workforce Plan*

**LEGAL FAMILY**

**DEFINED**

DOT employs personnel in the following professional, clerical, and technical series:

**General Attorney, 0905.** This series includes professional legal positions involved in preparing cases for trial and/or the trial of cases before a court or an administrative body or persons having quasi-judicial power; rendering legal advice and services with respect to questions, regulations, practices, or other matters falling within the purview of a Federal Government agency (this may include conducting investigations to obtain evidentiary data); preparing interpretive and administrative orders, rules, or regulations to give effect to the provisions of governing status or other requirements of law; drafting, negotiating, or examining contracts or other legal documents required by the agency's activities; drafting, preparing formal comments, or otherwise making substantive recommendations with respect to proposed legislation; editing and preparing for publication statutes enacted by Congress and opinions or decisions of a court, commission, or board; and drafting and reviewing decisions for consideration and adoption by agency officials. Included also are positions, not covered by the Administrative Procedure Act, involved in hearing cases arising under contracts or under the regulations have the effect of law, and rendering decisions or making recommendations for disposition of such cases. The work of this series requires admission to the bar.

**Paralegal Specialist, 0950.** This series includes positions not requiring professional legal competence which involve various legal assistance duties, of a type not classifiable in some other series in the Legal and Kindred Group, in connection with functions such as hearings, appeals, litigation, or advisory services. The specialists analyze the legal impact of legislative developments and administrative and judicial decisions, opinions, determinations, and rulings on agency programs; conduct research for the preparation of legal opinions on matters of interest to the agency; perform substantive legal analysis of requests for



information under the provisions of various acts; or other similar legal support functions which require discretion and independent judgment in the application of a specialized knowledge of laws, precedent decisions, regulations, agency policies and practices, and judicial or administrative proceedings. Such knowledge is less than that represented by graduation from a recognized law school, and may have been gained from formalized, professionally instructed agency or educational institution training or from professionally supervised on-the-job training.

**Legal Instruments Examining, 0963.** This series covers one-grade interval administrative support positions that supervise, lead, or perform support and related work in connection with the examination of legal instruments and supporting documents, other than claims, to determine whether a requested action complies with certain provisions of various laws. The work requires the application of particular regulatory and procedural knowledge that is based on those laws.

**Legal Assistance, 0986.** This series covers one-grade interval administrative support positions that supervise, lead, or perform legal assistance work not classifiable in any other series in the Legal and Kindred Group, GS-0900. The work requires specialized knowledge of processes, procedures, and practices to support legal activities.

**REPRESENTATION**

**Figure 2-26: Representation of Legal Family by OA**

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	331	48.2	69	20.8%	2	0.6%	23	6.9%	36	10.7%
FHWA	51	45.9	43	84.3%	0	0.0%	3	5.9%	3	5.9%
FMCSA	30	47.6	8	26.75%	0	0.0%	2	6.7%	1	3.3%
FRA	29	41.3	6	20.7%	1	3.4%	4	13.8%	1	3.4%
FTA	28	48.1	11	39.3%	0	0.0%	1	3.6%	0	0.0%
MARAD	19	49.5	5	26.3%	0	0.0%	2	10.5%	6	31.6%
NHTSA	24	43.3	6	25.0%	0	0.0%	0	0.0%	0	0.0%
OIG	11	36.8	2	18.2%	1	9.1%	1	9.1%	0	0.0%
OST	77	51.7	46	59.7%	0	0.0%	5	6.5%	17	22.1%
PHMSA	20	43.3	3	15.0%	2	10.0%	3	15.0%	3	15.0%
RITA	8	50.1	3	37.5%	0	0.0%	0	0.0%	2	25.0%
SLSDC	1	42.0	0	0.0%	0	0.0%	0	0.0%	0	0.0%
STB	64	48.3	17	26.6%	1	1.6%	8	12.5%	3	4.7%
<b>2006 Total</b>	<b>693</b>	<b>47.7</b>	<b>219</b>	<b>31.6%</b>	<b>7</b>	<b>1.0%</b>	<b>52</b>	<b>7.5%</b>	<b>72</b>	<b>10.4%</b>
<b>2005 Total</b>	<b>705</b>	<b>47.2</b>	<b>231</b>	<b>32.8%</b>	<b>8</b>	<b>1.1%</b>	<b>61</b>	<b>8.7%</b>	<b>77</b>	<b>10.9%</b>
<b>2004 Total</b>	<b>717</b>	<b>*</b>	<b>127</b>	<b>17.7%</b>	<b>*</b>	<b>*</b>	<b>45</b>	<b>6.3%</b>	<b>*</b>	<b>*</b>

\* Data not provided in 2005 Workforce Plan



## PHYSICAL SCIENTIST FAMILY

### DEFINED

The following series are defined as key in both professional and technical fields of the Physical Science occupational family.

**General Physical Science, series 1301.** This series includes positions that involve professional work in the physical sciences when there is no other more appropriate series, that is, the positions are not classifiable elsewhere. This series also includes work in a combination of physical science fields, with no one predominant.

**Health Physics, series 1306.** This series includes positions that require primarily application of professional knowledge and competence in health physics, which is concerned with the protection of persons and their environment from unwarranted exposure to ionizing radiation.

**Physics, series 1310.** This series includes positions that advise, administer, supervise, or perform research or other professional and scientific work in the investigation and application of the relations between space, time, matter, and energy in the areas of mechanics, sound, optics, heat, electricity, magnetism, radiation, or atomic and nuclear phenomena.

**Chemistry, series 1320.** This series includes all positions involving work that requires full professional education and training in the field of chemistry. This work includes the investigation, analysis, and interpretation of the composition, molecular structure, and properties of substances, the transformations which they undergo, and the amounts of matter and energy included in these transformations. This work includes the investigation, analysis, and interpretation of the composition, physical and chemical properties, molecular structure and chemical reactions of substances; the prediction of transformation they undergo; and the amount of matter and energy included in these transformations.

**Meteorology, series 1340.** This series includes positions that involve professional work in meteorology, the science concerned with the earth's atmospheric envelope and its processes. The work includes basic and applied research into the conditions and phenomena of the atmosphere; the collection, analysis, evaluation, and interpretation of meteorological data to predict weather and determine climatologically conditions for specific geographical areas; the development of new or the improvement of existing meteorological theory; and the development or improvement of meteorological methods, techniques, and instruments. Positions in this occupation require full professional knowledge and application of meteorological methods, techniques, and theory.

**Navigational Information, series 1361.** This series includes positions involving the acquisition, collection, evaluation, selection, and preparation of vital aeronautical information for dissemination in official publications concerning safe navigation and related operations, requiring the technical and practical knowledge of air navigation and operations.

**Cartography, series 1370.** This series includes positions requiring the application of professional knowledge and skills in mapping and related sciences, and relevant mathematics and statistics to plan, design, research, develop, construct, evaluate, and modify mapping and charting systems, products, and technology.

**Cartographic Technician, series 1371.** This series includes technician positions that supervise, lead, or perform nonprofessional work that requires a practical knowledge of the processes, practices, methods, and techniques involved in constructing new or revised maps, charts, and related cartographic products. This work does not require full professional knowledge equivalent to that represented by completion of a bachelor's degree in cartography or a related science.

**Land Surveying, series 1373.** This series includes positions that involve professional work in land surveying, which is concerned with establishing, investigating, and reestablishing land and property



boundaries, and with preparing plats and legal descriptions for tracts of land. The work requires application of professional knowledge of the concepts, principles and techniques of surveying, including underlying mathematics and physical science, in combination with a practical knowledge of land ownership laws.

**Textile Technology Series, series 1384.** This series includes classes of professional positions involving scientific and technological work with textile or fibers, including investigation, development, production, processing, evaluation, and application.

**REPRESENTATION**

**Figure 2-27: Representation of Physical Scientist Job Family by OA**

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	322	46.5	42	13.0%	4	1.2%	30	9.3%	93	28.9%
FHWA	18	56.5	7	38.9%	0	0.0%	1	5.6%	4	22.2%
FMCSA	1	55.0	1	100%	0	0.0%	0	0.0%	1	100%
NHTSA	5	53.8	1	20.0%	0	0.0%	0	0.0%	2	40.0%
PHMSA	12	53.1	2	16.7%	0	0.0%	0	0.0%	1	8.3%
RITA	9	46.1	0	0.0%	0	0.0%	1	11.1%	2	22.2%
<b>2006 Total</b>	<b>367</b>	<b>47.3</b>	<b>53</b>	<b>14.4%</b>	<b>4</b>	<b>1.1%</b>	<b>32</b>	<b>8.7%</b>	<b>103</b>	<b>28.1%</b>
<b>2005 Total</b>	<b>366</b>	<b>47.9</b>	<b>57</b>	<b>15.6%</b>	<b>5</b>	<b>1.4%</b>	<b>46</b>	<b>12.6%</b>	<b>104</b>	<b>28.4%</b>
<b>2004 Total</b>	<b>376</b>	<b>*</b>	<b>40</b>	<b>10.6%</b>	<b>*</b>	<b>*</b>	<b>42</b>	<b>11.2%</b>	<b>*</b>	<b>*</b>

*\* Data not provided in 2005 Workforce Plan*

**TRANSPORTATION SPECIALIST FAMILY**

**DEFINED**

This series covers administrative positions the duties of which involve transportation work not specifically covered by other series in the transportation group (2100). Within PHMSA, Transportation Specialists develop hazardous materials transportation and pipeline safety regulations, interpret and provide special permits under hazardous materials safety regulations, and conduct hazardous materials safety inspections.

**REPRESENTATION**

Although the force strength decreased only 3%, this represents 216 people, a potentially significant decrease in light of DOT's mission-focus on safety.



Figure 2-28: Representation of Transportation Specialist Family by OA

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	6,197	46.7	508	8.2%	12	0.2%	357	5.8%	3,284	53.0%
FHWA	232	47.8	163	70.3%	3	1.3%	15	6.5%	21	9.1%
FMCSA	98	50.7	59	60.2%	3	3.1%	7	7.1%	11	11.2%
FRA	65	53.0	35	53.8%	0	0.0%	3	4.6%	27	41.5%
FTA	133	50.7	41	30.8%	4	3.0%	9	6.8%	13	9.8%
MARAD	12	53.5	2	16.7%	0	0.0%	0	0.0%	3	25.0%
NHTSA	1	44.0	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OST	22	51.1	9	40.9%	0	0.0%	2	9.1%	1	4.5%
PHMSA	89	48.4	13	25.8%	0	0.0%	7	7.7%	11	12.4%
RITA	24	51.1	0	0.0%	0	0.0%	2	8.3%	2	8.3%
2006 Total	6,873	47.0	830	12.1%	22	0.3%	402	5.8%	3,373	49.1%
2005 Total	7,089	47.5	1,112	15.7%	21	0.3%	536	7.6%	3,526	49.7%
2004 Total	6,641	47.6	662	10.0%	*	*	396	6.0%	*	*

\* Data not provided in 2005 Workforce Plan

## TRANSPORTATION INDUSTRY ANALYST FAMILY

### DEFINED

This occupation includes positions that involve analytical, evaluative, advisory, or similar work pertaining to regulation of the transportation industry with regard to operations, economics, equity in industry practices, and protection of the public interest. The work requires a knowledge of transportation industry regulatory controls, of the customs and competitive practices of carriers, and of carrier operations, services, and facilities. It also requires a general knowledge of economics, statistics, law, business management, and related subject-matter areas, but does not require full training and professional competence in any of those fields.

### REPRESENTATION

Figure 2-29: Representation of Transportation Industry Analyst by OA

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	21	42	0	0.0%	0	0.0%	5	23.8%	2	9.5%
FRA	3	40.7	0	0.0%	0	0.0%	0	0.0%	1	33.3%
MARAD	25	50	3	12.0%	0	0.0%	3	12.0%	4	16.0%
OIG	1	55	0	0.0%	0	0.0%	0	0.0%	0	0.0%
OST	58	46	15	25.9%	0	0.0%	5	8.6%	8	13.8%
RITA	12	45	2	16.7%	0	0.0%	0	0.0%	1	8.3%
STB	16	53.7	4	25.0%	0	0.0%	5	31.3%	5	31.3%
2006 Total	122	46.8	19	15.6%	0	0.0%	8	6.6%	16	13.1%
2005 Total	136	46.9	24	17.6%	0	0.0%	18	13.2%	21	15.4%
2004 Total	136	47.8	14	10.40%	*	*	7	5.2%	*	*

\* Data not provided in 2005 Workforce Plan



## TRANSPORTATION SAFETY FAMILY

### DEFINED

The Transportation Safety family is one of the largest groups of mission-critical occupations. It includes:

- Railroad Safety Inspectors
- Motor Carrier Safety Inspectors
- Highway Safety Specialists
- Aviation Safety Inspectors
- Air Traffic Controllers

DOT has included a number of series in this family, including:

**Aviation Safety, series 1825.** This series includes positions that involve primarily developing, administering, or enforcing regulations and standards concerning civil aviation safety, including: 1) the airworthiness of aircraft and aircraft systems; 2) the competence of pilots, mechanics, and other airmen; and 3) safety aspects of aviation facilities, equipment, and procedures. These positions require knowledge and skill in the operation, maintenance, or manufacture of aircraft and aircraft systems.

**Railroad Safety, series 2121.** This series includes positions that are involved in developing, administering, or enforcing railroad safety standards and regulations or investigating and preventing railroad accidents. These positions require: 1) broad knowledge of railroad operating practices and recordkeeping; 2) practical knowledge of methods used in the installation, maintenance, or manufacture of railroad equipment, signal systems, or track; 3) knowledge of safety practices applicable to the railroad industry and related laws, regulations, and standards; and 4) knowledge of the investigative techniques used in determining the cause of accidents.

**Motor Carrier Safety, series 2123.** This series includes positions the duties of which are to administer, supervise, or perform work involved in promoting or enforcing compliance with Federal laws, standards, and regulations related to the safe operation of commercial motor vehicles on the public highways. Included are positions concerned with promoting safe operating practices and enforcing compliance by shippers of hazardous materials; motor carrier accident investigation and prevention; developing regulations and standards; and providing technical assistance to the industry and other jurisdictions involved in motor carrier safety. The work requires: 1) comprehensive knowledge of the laws, standards, and regulations governing motor carrier safety; 2) knowledge of the safety principles and practices applicable to the motor carrier industry; 3) practical knowledge of the competitive and operating practices, policies, organization, equipment, facilities, and recordkeeping systems of motor carriers; and 4) knowledge of investigative techniques used in compliance enforcement and accident investigation.

**Highway Safety, series 2125.** This series includes positions the duties of which primarily involve: 1) development and administration of highway safety regulations, standards and programs to elicit and promote Governmental and public support for highway safety; 2) conducting studies or performing other analytical work directed toward identification of current highway safety problems and evaluation of the effectiveness of highway safety programs and methods; or 3) providing state and local Governments with technical assistance in planning, developing, monitoring, funding, managing, promoting, or evaluating programs and systems to improve vehicle, passenger, or pedestrian safety and to identify, control, or eliminate the factors that influence highway accidents. All positions in this series require specialized knowledge of highway safety programs and the factors that influence highway safety and the safe performance and operation of motor vehicles. Most positions also require a high degree of analytical ability and a general knowledge of the principles and processes of program management and intergovernmental relations.



**Air Traffic Control, series 2152.** This series includes positions concerned with: a) the control of air traffic to insure the safe, orderly, and expeditious movement along air routes and at airports when a knowledge of aircraft separation standards and control techniques, and the ability to apply them properly, often under conditions of great stress, are required; b) the providing of preflight and in-flight assistance to aircraft requiring a knowledge of the information pilots need to conduct safe flights and the ability to present that information clearly and concisely; or c) the development, coordination, and management of air traffic control programs. Positions in this occupation require an extensive knowledge of the laws, rules, regulations and procedures governing the movement of air traffic.

**REPRESENTATION**

Figure 2-30: Representation of Transportation Safety Family by OA

Operating Administration	Total Strength	Average Age	Manager/Supervisor Strength	% of Manager/Supervisor	PWTD Strength	% of All PWTD	PWD Strength	% of All PWD	Veterans Strength	% of All Veterans
FAA	22,726	45.3	3,248	14.3%	31	0.1%	641	28.2%	6,875	30.3%
FHWA	6	50.3	4	66.7%	0	0.0%	1	16.7%	1	16.7%
FMCSA	639	45.0	104	16.3%	3	0.5%	56	8.8%	194	30.4%
FRA	466	53.4	46	9.9%	4	0.9%	44	9.4%	237	50.9%
NHTSA	85	48.8	13	15.3%	0	0.0%	5	5.9%	9	10.6%
2006 Total	23,922	45.5	3,415	14.3%	38	0.2%	747	3.1%	7,316	30.6%
2005 Total	23,997	45.5	3,476	14.5%	44	0.2%	973	4.1%	7,551	31.5%
2004 Total	26,871	*	3495	13.0%	*	*	841	3.1%	*	*

\* Data not provided in 2005 Workforce Plan

**REPRESENTATIVE STRATEGIES TO CLOSE GAPS**

**FAA** Air Traffic Control Specialists (2152). With a high percentage of Air Traffic Controllers (2152's) expected to retire in the next 10 years, as well as the lead time required to train a controller, the FAA has developed and is implementing an *Air Traffic Controller Workforce Plan*, which is updated annually, to address future attrition in this workforce.

In March 2007, the FAA released an update to its Ten-Year Strategy for the Air Traffic Control Workforce ("A Plan for the Future") first published in 2004. Excerpts from this plan appear below.

*The fiscal year (FY) 2007 through FY 2016 Air Traffic Controller Workforce Plan estimates losing 13,527 air traffic controllers over the next ten years primarily due to retirement and presents a controller hiring profile that projects a FY 2016 workforce strength of 16,095.*

**In FY 2006, the FAA established a Flight Plan goal to maintain annual hiring within 5% of the Air Traffic Controller Workforce Plan. At year-end 2006, the FAA reported the following results to feed the Air Traffic Controller pipeline:**

"FAA exceeded the FY 2006 target of hiring 930 controllers and hired 1,116 controllers, 20% above the target. (Because this was a new performance measure in FY 2006, no trend data are available.) To manage turnover, we are reducing the time required to hire and train a new controller. The goal is to decrease the time it takes a new hire to become a certified professional controller from 3 to 5 years, down to 2 to 3 years."

(From FAA 2006 Accountability Highlights Report)

The FAA Flight Plan, FY 2008-FY 2012, reports the following progress on its "Plan for the Future"

**Air Traffic Controller Recruitment.** FAA has successfully recruited and continues to recruit entry-level air traffic controller positions to keep a full pipeline of new controllers across the country. By the end of



the fiscal year we will have issued vacancy announcements for facilities in every state, Guam, and Puerto Rico. Recruitment efforts are taking place in over 800 colleges and universities, military transition centers, state and local employment services and Government one-stop recruitment centers.

*Source: FAA Flight Plan, FY 2008 – FY 2012*



## CHAPTER 3: DOT FUTURE WORKFORCE

Chapter 3 provides an analysis of the future workforce by looking at the following information:

- Hire and loss rates for Fiscal Year (FY) 2006
- A forecast of future workforce strength, using a statistical regression test based on past history and FY 2006 strength, where possible.

Workforce projections are followed by discussion of the projections compared to strategic workforce requirements.

### TURNOVER ANALYSIS, FY 2006

Analysis of employee turnover—losses and gains to an organization—makes it possible to assess whether an organization's people will be positioned to meet its future mission needs. A turnover analysis forms the basis for developing effective workforce plans and associated recruitment plans, succession plans, and career management objectives. These systems are covered in subsequent chapters of this *Analysis*.

The methodology for calculating a rate of turnover is: to divide the number of losses by the average strength for the year, and multiply that number by 100. Using the average strength offsets the gains and losses to the workforce during the year. **Figure 3-1** shows the turnover rate at DOT for the last six years. Turnover has been gradually climbing since FY 2002. In FY 2005, the rate of turnover was 28% higher than in FY 2004. In FY 2006, the turnover rate increased by 57% over FY 2005.

Figure 3-1: DOT Turnover Rates, FY 2001-2006

FY	Average Strength	Losses	Turnover Rate
01	63,519	2,764	4.4%
02	82,754	2,977	3.6%
03	795,085	36,151	4.5%
04	57,165	2,810	4.9%
05	54,519	3,436	6.3%
06	52,602	5,230	9.9%

Examination of FY 2006 turnover reveals that, as in FY 2005, the majority of separations was due to retirement<sup>42</sup>.

To understand the impact of these turnover rates, a more in-depth assessment of the following key components of workforce planning is required:

- Current and future mission requirements and their impact on skills required by the workforce.
- The experience level of the current on-board staff, represented by years of service/age and possession of competencies, as shown by grade and possession of knowledge, skills, abilities, and behaviors. (An assessment of competencies may be found in Chapter 2).
- Losses to current staff and the effect these losses will have on staff capabilities.

<sup>42</sup> Because of a change in coding methods adopted in FY 2006 by the WASS/CIVFORS system, data are not available to analyze turnover by race/national origin groups.



- Additions to the workforce required to assure that the staff has sufficient capability and capacity to assure mission accomplishment.

### CURRENT AND FUTURE MISSION REQUIREMENTS

DOT will continue to face many of the same organizational and workforce challenges shared by other Federal agencies and private sector organizations previously outlined in Chapter 1. These challenges, all of which impact the human resource requirements for DOT, include:

- Rapidly changing technologies and their impact on product design and delivery, internal business processes, and employee skills requirements. "Increasing demand, limited resources, and greater expectations will be major concerns for transportation managers and policy makers into the new century. Resource limitations on every front will drive the need for improved efficiencies. Technology innovation is the essence of efficiency and it is only through the application of technology by a skilled workforce that transportation can hope to close the gap between growing demand and available resources."<sup>43</sup>
- The trend towards a blended workforce contracting work to the private sector and its impact on DOT's role as it changes from "operator "to "program manager" or "contract manager."
- The importance of hiring new employees in a distribution representative of the American workforce and managing the DOT workforce so that it is not only representative of the gender, race/national origin of the population it serves, but also enables DOT to leverage the capabilities of a diverse workforce.
- The members of the "Baby Boom" generation—a large population from which to draw workers—are turning 60 and are beginning to retire. This has several consequences: an aging current workforce, a smaller future labor pool, and differing values toward work based on generational differences.
- The evolving nature of work which requires people who can "multi-task," assimilate information quickly from multiple sources and make quick decisions, and work in less hierarchical organizational relationships.
- Increasing pace of requirements for information and responses. The American public has become more accustomed to access to information on a "24/7" schedule. This places more demands on DOT to provide date in the "Web 2.0" environment, not only for its clients but also for its own employees.

Unique to DOT is the criticality of its highly technical mission to the safety of the nation and to the U.S. economy. The DOT strategic goals of Safety, Reduced Congestion, Global Connectivity, Environmental Stewardship, and Security, Preparedness, and Response, and the requirement to maintain its skilled professional and technical workforce in support of those goals, adds additional urgency to the workforce plan.

### EXPERIENCE LEVEL OF THE DOT WORKFORCE AS MEASURED BY YEARS OF SERVICE (YOS) AND GRADE

**Years of Service (YOS).** In Chapter 1, *Current Workforce*, the composition of the DOT workforce by age and YOS is graphically displayed in Figure 1-8. The data show that 17.1% of the DOT workforce was eligible to retire in FY 2006 and that similar numbers will be eligible to retire in the next four years. **Figure 3-2** illustrates the distribution of years of service by Operating Administration (OA), dramatizing the proportion of employees with 20 or more years of service.

<sup>43</sup> <http://www.fhwa.dot.gov/opd/index.htm>



Figure 3-2: Years of Service by OA in FY 2006

	FAA	FHWA	FMCSA	FRA	FTA	MARAD	NHTSA	OIG	OST	PHMSA	RITA	SLSDC	STB	Total
0	1,234	85	18	21	39	10	34	22	12	15	25	3	4	1,522
1	566	68	59	24	26	19	28	23	9	16	22	1	4	865
2	454	83	34	31	10	21	9	15	14	17	15		3	706
3	799	103	39	38	14	8	18	7	17	16	23	1	13	1,096
4	1,216	127	111	28	18	11	30	10	15	21	41	2	5	1,635
5	1,176	132	47	46	11	12	26	17	23	11	44	3	9	1,557
6	628	121	32	31	16	14	19	13	16	11	27	5	3	936
7	813	49	32	29	22	15	16	17	16	10	32	2	2	1,055
8	1,033	66	38	22	11	18	27	11	17	10	17	4	3	1,277
9	1,088	69	26	22	7	13	13	12	8	13	19	1	3	1,294
10	711	64	20	17	5	11	9	7	13	3	17	1		878
11	701	59	21	20	13	12	6	13	14	11	16	4	1	891
12	620	36	17	16	4	12	6	10	8	6	17	1	2	755
13	903	62	19	25	9	11	10	12	17	6	9	1		1,084
14	1,210	82	30	20	15	15	13	8	21	11	19	1	2	1,447
15	1,704	97	39	41	14	22	20	21	21	12	24	2	3	2,020
16	1,756	92	63	41	10	22	25	13	16	17	14	2	1	2,072
17	1,947	88	38	22	9	29	15	26	21	7	15	2	1	2,220
18	1,804	125	31	28	16	22	14	18	18	6	20	4		2,106
19	2,109	102	64	24	25	26	25	26	23	11	23	3	2	2,463
20	1,761	78	34	19	8	34	13	14	19	5	9	7	2	2,003
21	1,955	73	15	14	8	36	17	3	16	17	26	3	3	2,186
22	1,824	80	19	20	2	22	13	13	22	6	15	2	1	2,039
23	2,105	62	18	16	11	25	16	11	12	4	16	4		2,300
24	2,415	42	14	13	13	19	13	4	14	9	7	3	3	2,569
25	1,237	40	17	19	11	20	10	6	14	8	12	3	1	1,398
26	1,179	69	11	23	16	23	18	13	21	8	16	3	1	1,401
27	1,128	71	22	16	9	17	12	15	16	7	6	3	2	1,324
28	1,432	75	16	17	22	19	16	4	26	3	18	1	4	1,653
29	1,011	56	19	16	10	22	13	7	21	6	12	1	2	1,196
30	862	51	18	13	21	23	13	3	16	8	8	1	2	1,039
31	749	62	13	17	19	23	13	3	17	5	14	6	6	947
32	746	60	14	11	11	25	9	5	15	3	16		5	920
33	562	47	6	10	8	20	13	8	22	1	9		8	714
34	488	17	5	12	8	9	12	3	11	1	11	1	8	586
35	407	38	4	8	12	11	6	2	8	1	10	1	6	514
36	353	37	5	4	12	11	15	1	14	4	1	1	4	462
37	254	30	4	6	7	8	5	2	8	3	8	1	6	342
38	217	22	3	1	3	5	8		10	2	4		1	276



	FAA	FHWA	FMCSA	FRA	FTA	MARAD	NHTSA	OIG	OST	PHMSA	RITA	SLSDC	STB	Total
39	214	15	2	2	2	5	3	2	2	2	6		2	257
40	146	8	2	3	3	4	2		6		5			179
41	85	8	1			3	2		1	1			3	104
42	38	5	2		1	3	1		2					52
43	32	4	1	1			1			1				40
44	25	4	2			1			2		1			35
45	19	1	1	1	2				2					26
46	14				1	1								16
47	14													14
48	7	1									1			9
49	17	1										1		19
50	5								1					6
51	3	1				1								5
52	3	1												4
53														0
54														0
55	2													2
56														0
57														0
58	1													1
59	1													1
60	1													1
61														0
62														0
63														0
64			1											1
<b>TOTAL</b>	<b>43,784</b>	<b>2,769</b>	<b>1,047</b>	<b>808</b>	<b>514</b>	<b>713</b>	<b>607</b>	<b>420</b>	<b>637</b>	<b>335</b>	<b>670</b>	<b>85</b>	<b>131</b>	<b>52,520</b>

**Age.** Figure 3-3 shows the trend in age (FY 1999-2006) for those in age categories 45 to 60 and above. Figure 3-4 shows the average age of employees in each of the Mission Critical Occupations (MCO). Together, these figures show:

- **An overall aging of the DOT workforce.** Between FY 1999 and FY 2006, the percentage of the DOT workforce aged 60+ has increased 56.6% and employees aged 50-59 have increased 30.9%.
- **A changing age distribution of the workforce.** In FY 1999, 49% of the workforce was older than 45. In FY 2006, 60.8% of the workforce was older than 45.

The median retirement age in FY 2006 was 57. This provides a baseline against which to look at the ages of those in MCOs and those voluntarily leaving DOT.

- Figure 3-4 shows the average age of employees in Mission Critical Occupations. With the exception of program managers, holders of mission critical positions remain within the age 45-49 category.
- However, the average age of employees in Senior Executive Service (SES) positions is 54.3.



Together, Figures 3-3 and 3-4 indicate that DOT faces a coming shortage in employees with general management skills (program managers). While the average age of most groups remained relatively stable, people in the program management occupation are on average older (and closer to early retirement eligibility) than people in the other MCOs.

**Figure 3-3: Strength by Age Category (FY 1999-2006)**

Age Category	FY 99	FY 04	FY 05	FY 06	% Difference FY 99 & 06
60+	3,047/5.3%	3,557/6.3%	4,261/8.1%	4,351/8.3%	56.6% ↑
55-59	5,581/9.7%	7,616/13.5%	6,733/12.8%	6,651/12.7%	30.9% ↑
50-54	9,984/17.4%	9,314/16.5%	8,822/16.7%	9,009/17.2%	1.2% ↓
45-49	9,537/16.6%	11,642/20.7%	10,661/20.2%	11,845/22.6%	36.1% ↑
<b>Total Strength (all ages)</b>	<b>57,533</b>	<b>56,354</b>	<b>52,684</b>	<b>52,520</b>	

**Figure 3-4: Mission Critical Occupations by Average Age**

Mission Critical Occupation	Average Age FY 2006	Average Age FY 2005
Community Planning	43.7	43.6
Engineering	47.2	46.8
Financial Management	46.6	47.6
Information Technology	47.1	46.7
Legal	47.7	47.2
Physical Sciences	47.3	47.9
Program Management	51.3	51.4
Transportation Industry Analyst	46.8	46.9
Transportation Safety Specialist	45.5	45.5
Transportation Specialist	47.0	47.5

**Grade.** The grade of a position indicates the level of qualifications required to perform competently in that position. The conclusion may be drawn that higher graded positions will be occupied by individuals who possess a combination of experience and education leading to a higher level of competence in the performance of their work.

In FY 2006, the Department’s employees were distributed across the GS grades with the average grade equating to **GS-12.6**, and the modal grade of GS-13. Government-wide, the average pay grade in the general schedule system was 10.0<sup>44</sup>.

**By Race and Gender:** Figure 3-5 shows the distribution of grades across DOT by gender and race/national origin. Key findings include:

- Men occupy positions slightly higher than the overall average grade, and women, positions slightly lower. The gap closed slightly in FY 2006.
- The average GS grade is not the same for all Race/National Origin groups. The average GS-grade for Black (not of Hispanic Origin) employees is GS-11.9; for Hispanics, GS-12.1, compared to the overall average of GS-12.6. For the most part, grade levels and gaps remained unchanged within each group compared to the preceding 12-month period.

<sup>44</sup> EEO Annual Report, June 2007



Figure 3-5: Representations by Gender/RNO by Grade

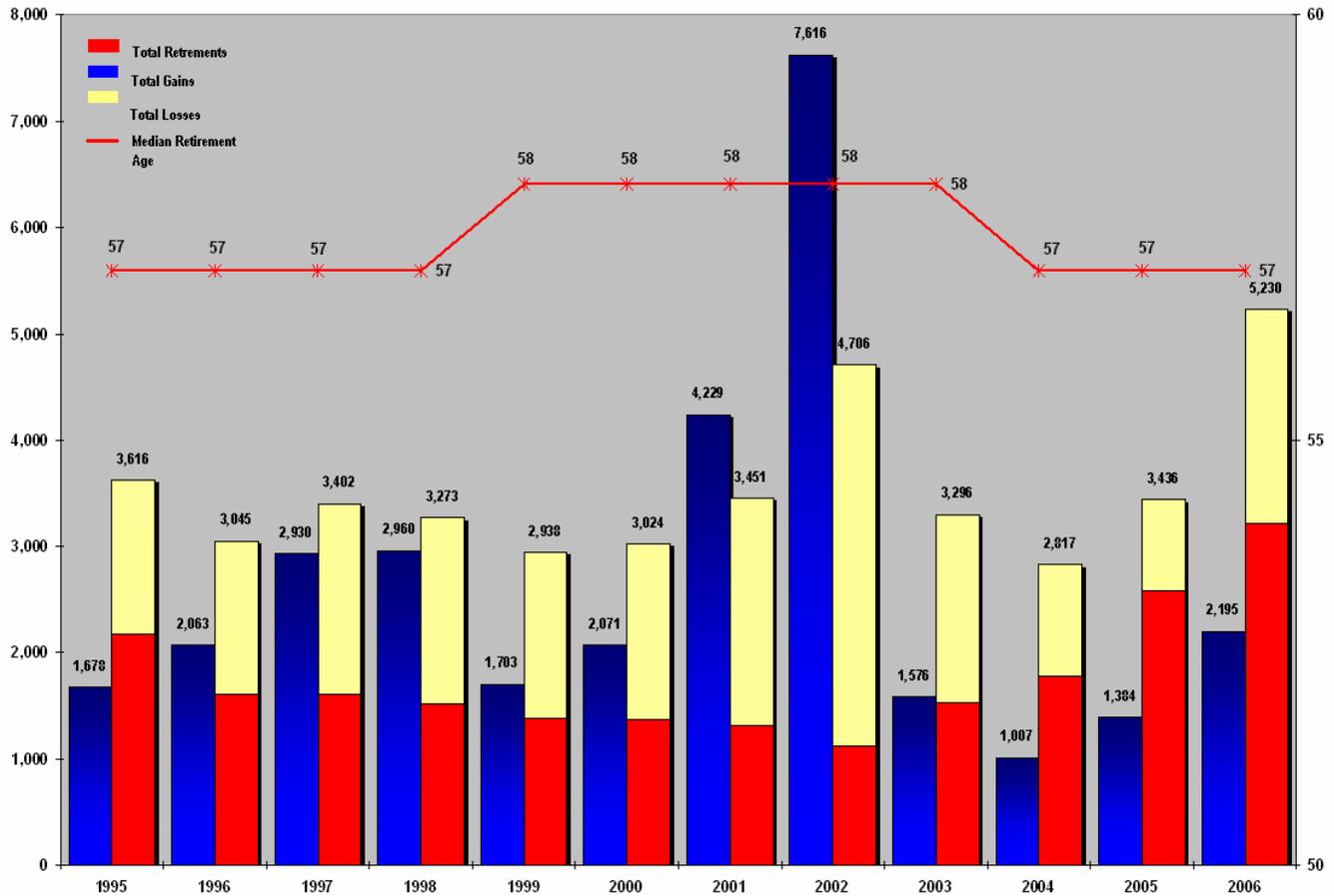
Grade	Male	Females	American Indian/Alaskan Native	Asian/Pacific Islander	Black, not of Hispanic origin	Hispanic	White, not of Hispanic Origin	Not Specified*
0	1						1	
1	1						1	
2	3				1		2	
3	7	5			1	1	10	
4	34	30		5	20	7	32	
5	81	434	8	17	111	43	335	1
6	46	369	4	10	100	36	265	
7	317	1,245	25	68	363	142	963	1
8	269	303	8	12	130	38	377	
9	657	869	21	61	373	208	862	1
10	884	884	51	66	248	123	1,279	1
11	1,463	688	22	59	327	175	1,567	1
12	8,231	2,278	166	346	1,132	682	8,176	7
13	7,478	2,462	146	610	1,165	565	7,443	11
14	14,556	3,212	198	557	1,249	796	14,966	2
15	3,598	993	68	121	464	227	3,711	
SES **	309	123	2	16	39	16	359	
Wage	454	28	19	15	90	37	321	
Unspecified Grade	162	46	4	4	26	11	163	
Total	38,551	13,969	742	1,967	5,839	3,114	40,833	25
Average Grade			12.4	12.6	11.9	12.1	12.8	

**LOSSES AND GAINS TO DOT**

Figure 3-6 shows a comprehensive comparison of gains to losses, due to retirement and other reasons, in relation to the median age of retirement for DOT over the last 11 years (1995-2006). The key finding is that, with the exception of the surge in hiring in 2001-2002, **losses have exceeded gains since 1995**. In FY 2005 and FY 2006, losses were 2.4 times greater than gains. The main driver of employee losses is retirement. The 2,195 new hires did not replace the 3,224 employees who retired during FY 2006. Additional charts showing information on losses and gains in greater detail can be found in Appendix A.



Figure 3-6: Gains/Losses, by assigned Nature of Action codes, Historical Trends FY 1995-2006<sup>45</sup>



**Gains.** Figure 3-7 shows the source of new hires to DOT in FY 2006. The staffing strategy of many OAs includes recruiting experienced professionals to a “second career” at DOT from the transportation industry. This causes a “bi-modal” distribution in the ages of new hires with 25.5% of new hires between ages 30-39, and 34.3% of new hires between ages 40-49. The overall distribution of new hires in FY 2006 “skews” older than new hires in FY 2005, when the bimodal distribution was represented by employees ages 40-49 and employees *younger than 29*.

<sup>45</sup> See Appendix B for NOA Codes



Figure 3-7: Hires by Age, 2006

NOA (type appointment)	>25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
100 Career		3		3	5	6	4	1		22
101 Career-Conditional	12	29	42	39	28	35	32	33	5	254
130 Transfer – In	1	18	24	21	34	43	22	11	2	176
140 Reinstatement-Career		2	1	6	2	4	7	5	1	28
141 Reinstatement-Car/Cond		1		1	1	1		1		5
170 Excepted	112	260	200	223	322	271	163	113	46	1,710
<b>TOTAL:</b>	<b>125</b>	<b>313</b>	<b>267</b>	<b>293</b>	<b>392</b>	<b>360</b>	<b>228</b>	<b>164</b>	<b>54</b>	<b>2,195</b>
<b>% NEW HIRES</b>	<b>5.7%</b>	<b>14.3%</b>	<b>12.2%</b>	<b>13.3%</b>	<b>17.9%</b>	<b>16.4%</b>	<b>10.4%</b>	<b>7.5%</b>	<b>2.5%</b>	
	<b>20.0%</b>		<b>25.5%</b>		<b>34.3%</b>		<b>17.9%</b>			
	<b>45.5%</b>				<b>54.4%</b>					
	<b>59.8%</b>									

**KEY FINDINGS**

**Turnover**

- The turnover rate has increased, from 4.9% of average total strength in FY 2004, to 9.9% of average total strength in FY 2006.

**Gains and Losses**

- Although the ratio of losses to gains remained steady at 2.4 from FY 2005 to FY 2006, the absolute number of losses in FY 2006 increased 52.2% over FY 2005.
- Voluntary losses were 92.3% of all losses in FY 2005; this includes retirements, which represent 74% of all losses. However, in FY 2006 total voluntary losses decreased to 3,435 which represented only 65.7% of all losses. This was due largely to an increase in involuntary retirements (807 employees) and reduction-in-force (RIF)<sup>46</sup> (846 employees).

**Age**

- Age data show that even with a significant effort to hire persons who are younger, the percent of those eligible to retire will continue to grow.
- Only 20.0% of all hires in 2006 were below the age of 29, compared to 26.8% of the new hires in 2005. This hiring trend compounds the overall “aging” of the DOT workforce.

**Grade**

- The “grade gap” between men and women closed slightly in FY 2006, but overall women still hold positions with a lower average grade than men.
- Blacks/African Americans and Hispanics on average hold positions at a grade lower than the DOT-wide average GS-level position. Other Race/National Origin (R/NO) groups hold positions at or close to the average.

<sup>46</sup> Effective October 3, 2005, Automated Flight Service Station ATCs were separated via reduction-in-force when this function was outsourced.



## FUTURE WORKFORCE PROJECTIONS, FY 2006 – 2009

### METHODOLOGY

The DOT forecasts presented were created using the Civilian Forecasting System (CIVFORS). This is an application available in the Office of Personnel Management's (OPM) Enterprise HR system. It provides data-mining tools and long-range forecasting capabilities to civilian agencies.

Using the knowledge gained from the previous projection efforts of 2006, the analysis began with the following predictor elements: Years of Service, Retirement Eligibility Group, PATCOB, Employee Tenure Group, Sub-Agency and Race. These had been determined to provide an appropriate fit at the 95% confidence level for their effect on the attrition patterns found in historic DOT populations.

In the year since our first effort at projecting future workforce population, there has been a modification to the CIVFORS system. This enhancement now makes it possible to group the occupational series variable into more meaningful Mission Critical Groups. Because of this enhancement, we were able to add the Mission Critical Group as a predictor variable in our model. During the same year, DCPDS (Civilian Personnel Data System) has undergone a change as well, and there are new variables and values that are being utilized to identify race and ethnic backgrounds. This change necessitated the removal of Race as a predictor element, and instead ERI\_BRI was used as a proportionally distributed data element for our model. The only other difference in this 2007 effort was the addition of Sex (Gender) as a predictive element.

The beginning population for our model was taken from the end of quarter September 2006 data. For the purposes of analysis, we choose to only include records meeting the following select criteria:

#### **CIVFORS Variables:**

- ACT\_IND = P (pay status)
- AGY\_CD = TD (Dept of Transportation)
- WRK\_SCH = F (Full-time) or P (Part-time)
- TYP\_APT =
  - 10 (CAREER);
  - 15 (CAREER-CONDITIONAL);
  - 30 (SCHEDULE A);
  - 32 (SCHEDULE B);
  - 36 (36);
  - 38 (OTHER);
  - 50 (CAREER); or
  - 55 (NONCAREER)
- AGY\_SUB not = TD02 or TD19

A total of 15 file types were utilized in the model. These are essentially categories of gains or losses that were deemed of relevance to this study. Several of the file types were included to categorize migrations of data values. Without these, the forecasts created from the model would not age the force properly or account for historical changes of relevant data elements. The remaining file types categorized gains/losses due to the "Nature of Action" (NOA) codes found in the transactional data repository.

The forecast was run using the basic model with three years of historical data. The rate generator used a hybrid method from these three years worth of historic data. The most recent year was weighted 0.6, two years prior was weighted 0.3, and three years prior was weighted 0.1. Data



prior to that were not used due to the fact the significant gains/losses occurred in that timeframe that would have adversely affected the outcome of the future predictions.

Projected workforce profiles were created for yearly populations out through September 2010. The comparison of the September 2006 vs. 2010 workforces are presented in graphical form.

## PROJECTIONS BY DOT OVERALL AND OPERATING ADMINISTRATION

### READING THE GRAPHS

This projection was modeled using the CIVFORS system. This system works with data from CPDF and makes projections based on historical tendencies, and hiring and loss trends.

Within the model OAQ codes have been provided. The conversion is as follows:

- TD01 = OST
- TD03 = FAA
- TD04 = FHWA
- TD05 = FRA
- TD06 = SLSD
- TD09 = FTA
- TD10 = NHTSA
- TD11 = RITA
- TD12 = OIG
- TD13 = MARAD
- TD15 = STB
- TD16 = PHMSA
- TD17 = FMCA

**Accuracy of the model.** Note that the CIVFORS system does not immediately categorize all the losses that occur in a fiscal year. For example, many of the 2006 losses have not yet been categorized as "NOA 75" which is an unspecified loss. Therefore, while the total number of gains and losses in the system for each year is fairly accurate, the system has not completely assigned all of those gains and losses into specific loss types. Many of the gains and losses for FY 2006 that are currently in the system as "NOA 75" and "NOA 85" (unspecified gain) will later be categorized, this may take as long as 9-12 months<sup>47</sup>.

### READING THE GRAPHS

- The horizontal axis displays years of service in three-year increments
- The vertical axis displays force strength

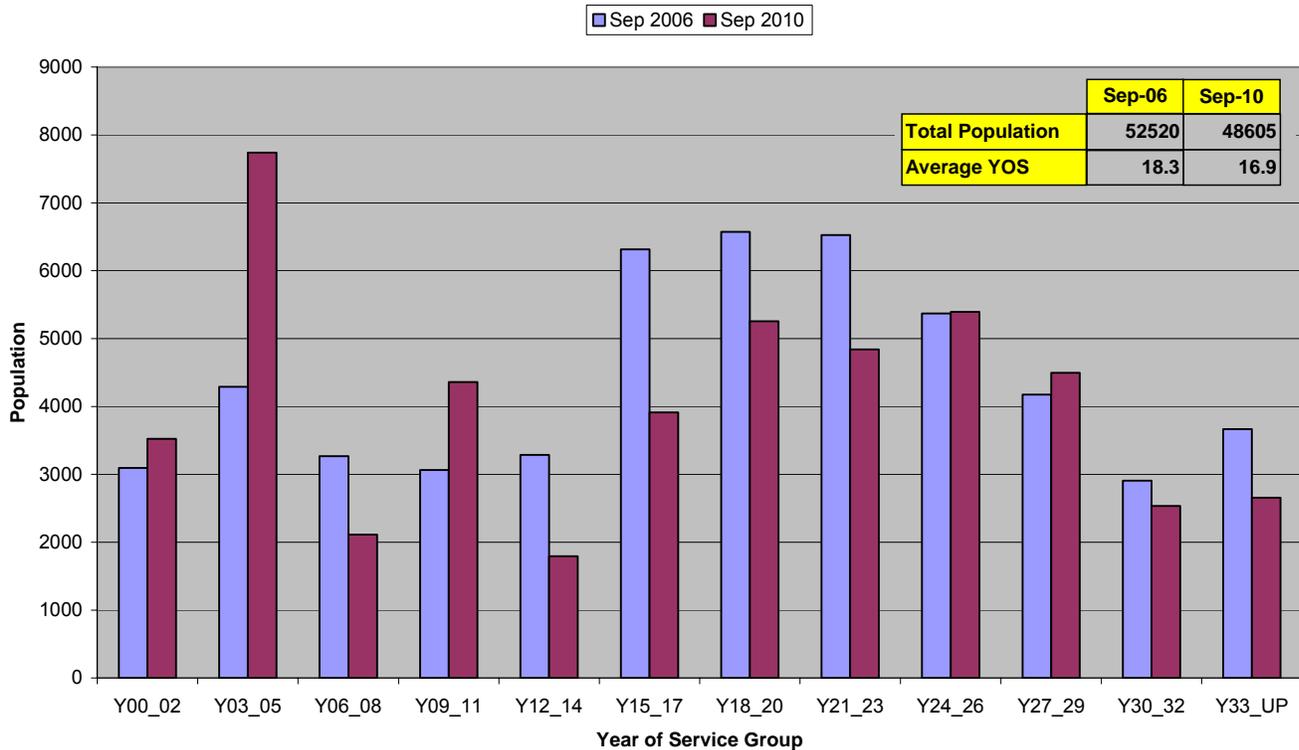
Each bar represents total strength for that particular YOS range. The light bar on the left represents 2006 strengths and the darker bar on the right represents projected 2010 strengths.

<sup>47</sup> Conservative estimate by CIVFORS administrators



Figure 3-8: Projected Workforce: All DOT

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Department of Transportaion



**DOT overall.** If the recent patterns of gains and losses continue into the future, the total DOT workforce will decline by about 8% over the next four years (lower than the 13% predicted in FY 2005). It is possible the effects of the recent targeted hiring efforts are starting to slow the predicted decline.

Over the four-year projection period, the Department's total strength is projected to drop from 52,520 to 48,605 at the rate of about 980 losses per year<sup>48</sup> based on historic loss rates outpacing historic replacement rates.

Retirements will continue to be the largest category of losses from the workforce. The average experience level of the department will decline slightly, from 18.3 years to 16.9, due to smaller populations in the 12 to 23 YOS groups and a large increase in the three to five YOS service group reflecting new hires. A decline will also be seen in YOS 33 and up as experienced employees retire.

To maintain the end FY 2006 strength level, the Department would have to increase hiring, which would reduce the average experience level even more.

<sup>48</sup> (52,520 minus 48,605 divided by four)



**FORCE STRENGTH PROJECTIONS BY OPERATING ADMINISTRATION**

Figure 3-9 shows workforce inventory projections from CIVFORS broken out by OA. These models can be used to adjust hiring plans or to anticipate workforce losses by reshaping job content, beginning to substitute technology for labor, or making other strategic adjustments.

Workforce projections calculated independently by individual OAs may differ from these projections if the OAs have used different forecast models or scenarios factoring in specific workforce shaping programs linked to their specific business needs. CIVFORS only uses historical data to predict future behavior and does not incorporate future program efforts.

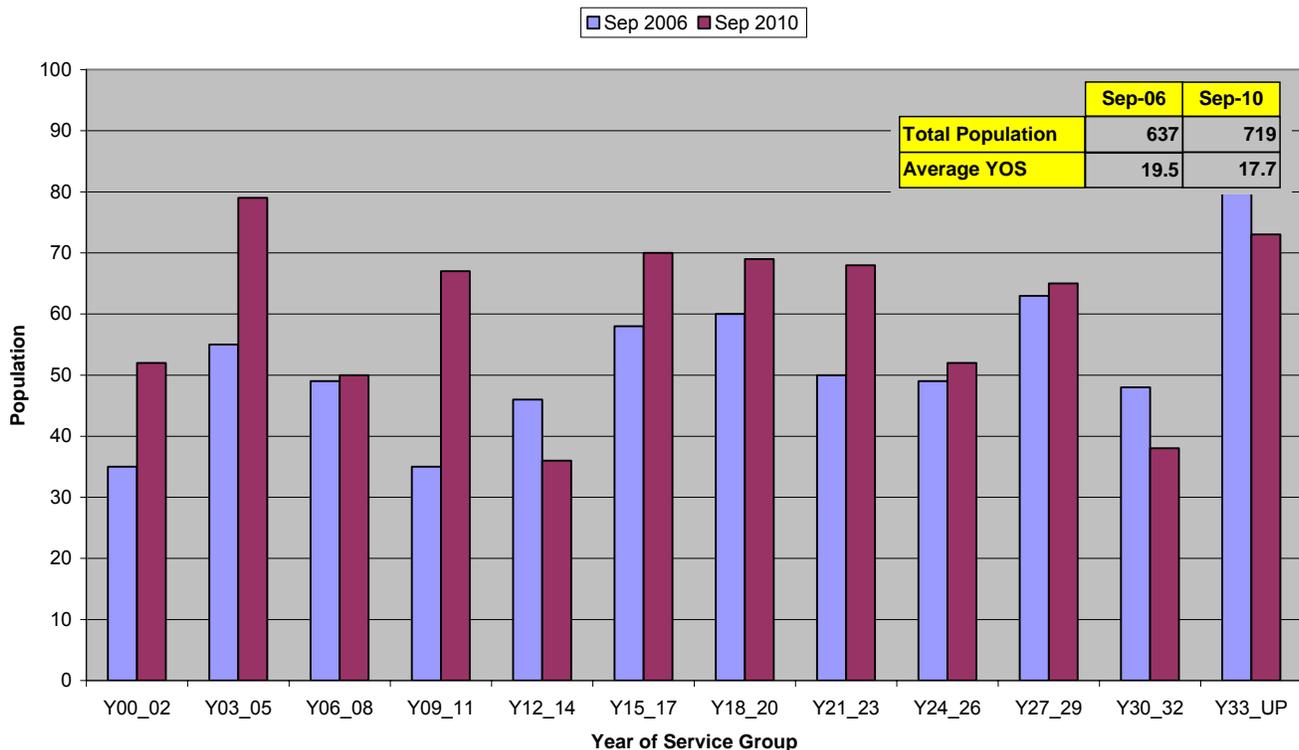
**DOT OFFICE OF THE SECRETARY**

The CIVFORS model of future Office of the Secretary of Transportation (OST) force strength above shows the following:

- The current hiring freeze within OST and the impact of strategic downsizing in FY 2006 have impacted the projected force strength. The projected 11% increase in strength is significantly smaller than the 41% increased projection based on FY 2005 data.
- The model projects a continued decline in the average YOS based on the addition of new hires, although this projected average (16.5 YOS) is slightly lower than the average predicted last year (18.3 YOS).

Figure 3-9: Projected Workforce, OST

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Office of the Secretary of Transportation



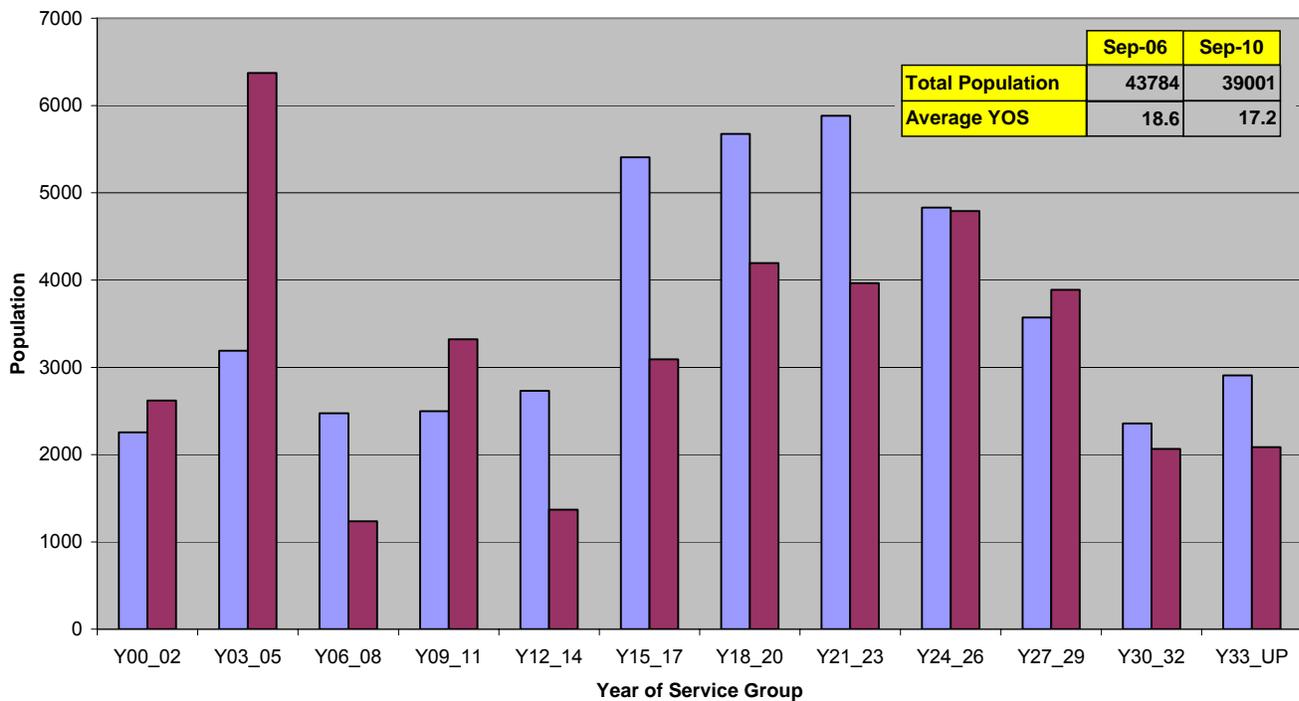


The CIVFORS model of future Federal Aviation Administration (FAA) force strength shows the following:

- An 11% decrease in force strength by the end of FY 2010. This decrease is lower than the 18% decrease projected last year, reflecting the impact of FAA’s accelerated hiring activity into the Air Traffic Controller (ATC) program during the last 12-month period. Details of that hiring activity are outlined in the discussion of the Transportation Safety job family later in this chapter.

Figure 3-10: Projected Workforce, FAA

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Federal Aviation Administration



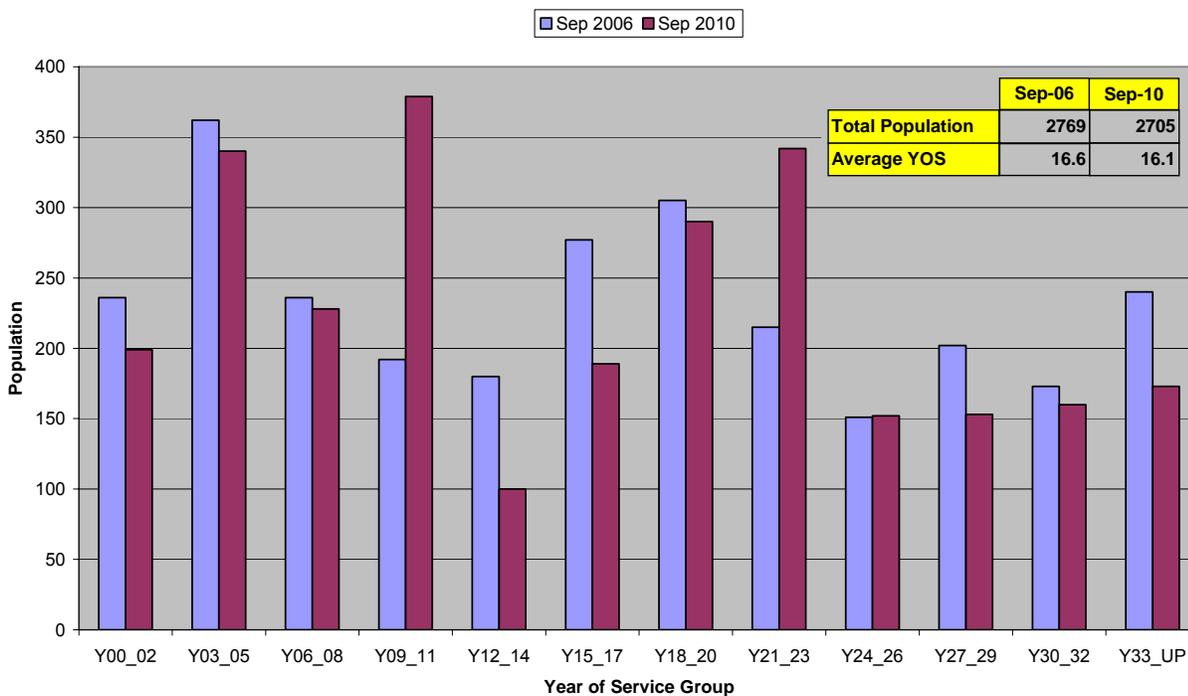


The CIVFORS model of future Federal Highway Administration (FHWA) force strength shows the following:

- A decline of 2.4% in overall strength by the end of FY 2010. This is a smaller decline than last year’s projection.
- Average employee experience levels are projected to remain approximately the same over the next four years.
- A decline in average YOS, attributable to anticipated losses of the GS15 and SES employees. Approximately 73% of FHWA employees in those grade levels will become retirement eligible over the next five years, including over 78% of current SES employees<sup>49</sup>. This reflects a challenge for the entire transportation industry. As described on the OA website, “40-50% of the transportation workforce will retire in the next 10 years, fewer people are entering key transportation fields, and Competition for workers is systemic<sup>50</sup>.”

Figure 3-11: Projected Workforce, FHWA

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Federal Highway Administration



<sup>49</sup> FHWA Workforce Plan, Update for 2007

<sup>50</sup> <http://www.fhwa.dot.gov/opd/index.htm>



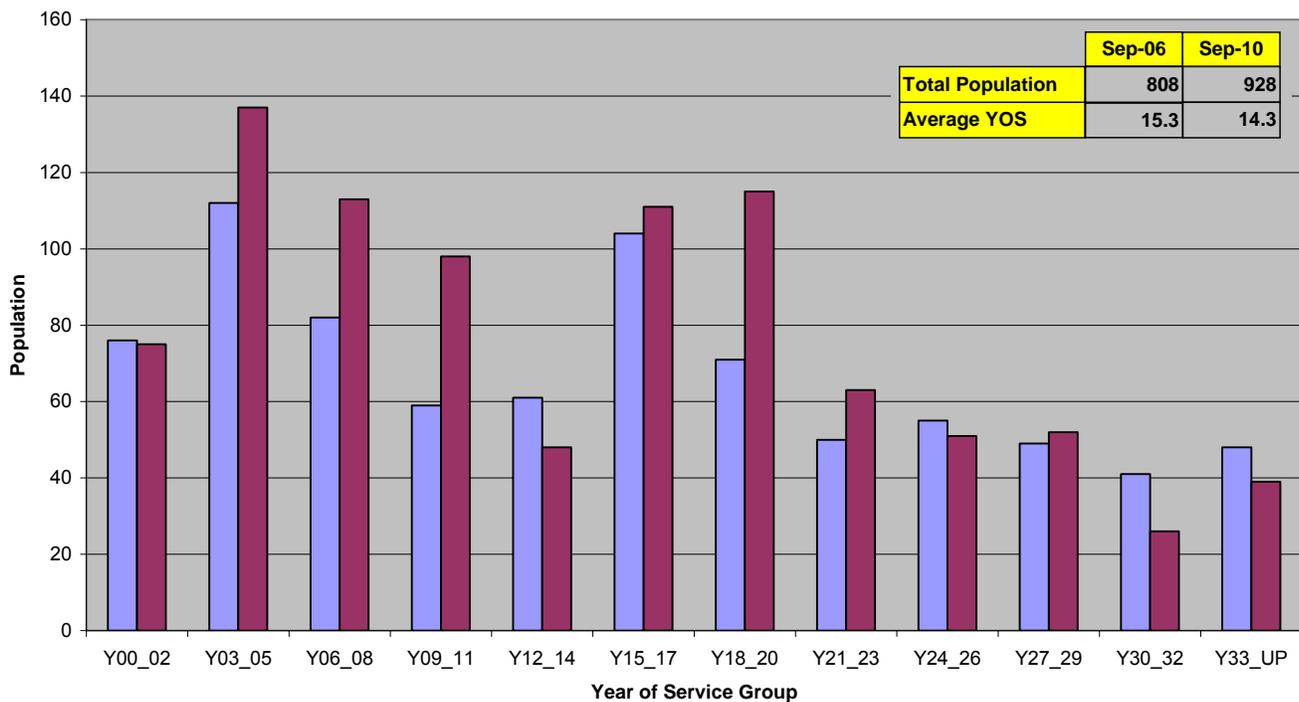
**DOT** FEDERAL RAILROAD ADMINISTRATION

The CIVFORS model of future Federal Railroad Administration (FRA) force strength shows the following:

- Projected workforce growth of approximately 13% over the next four years.
- There will be a slight decline in average experience levels as older workers retire and are replaced with younger employees.
- YOS bands 3-11 and 18-23 are expected to see the greatest growth.

**Figure 3-12: Projected Workforce, FRA**

**DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Federal Railroad Administration**



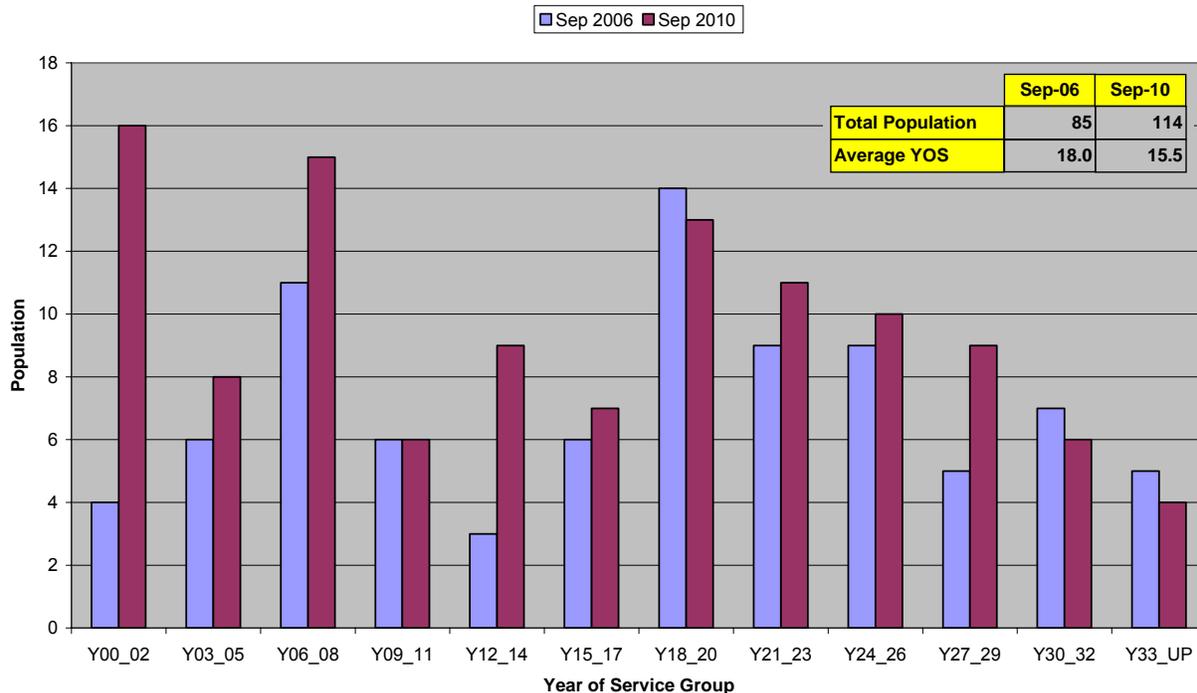


The CIVFORS model of future Saint Lawrence Seaway Development Corporation (SLSDC) force strength shows the following:

- Projected growth of 25% over the next four years, slower than the 50% growth in the FY 2005 modeling. The hiring freeze in effect across DOT may have impacted average growth numbers.
- The hiring rate necessitated by historic turnover rates and growth would result in dramatic growth in the YOS 00-02 band as this population increases four-fold by 2010. Growth will also occur in YOS bands 03 to 08, 12-14, and 21 to 29.

Figure 3-13: Projected Workforce, SLSDC

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
St Lawrence Seaway DevCorp



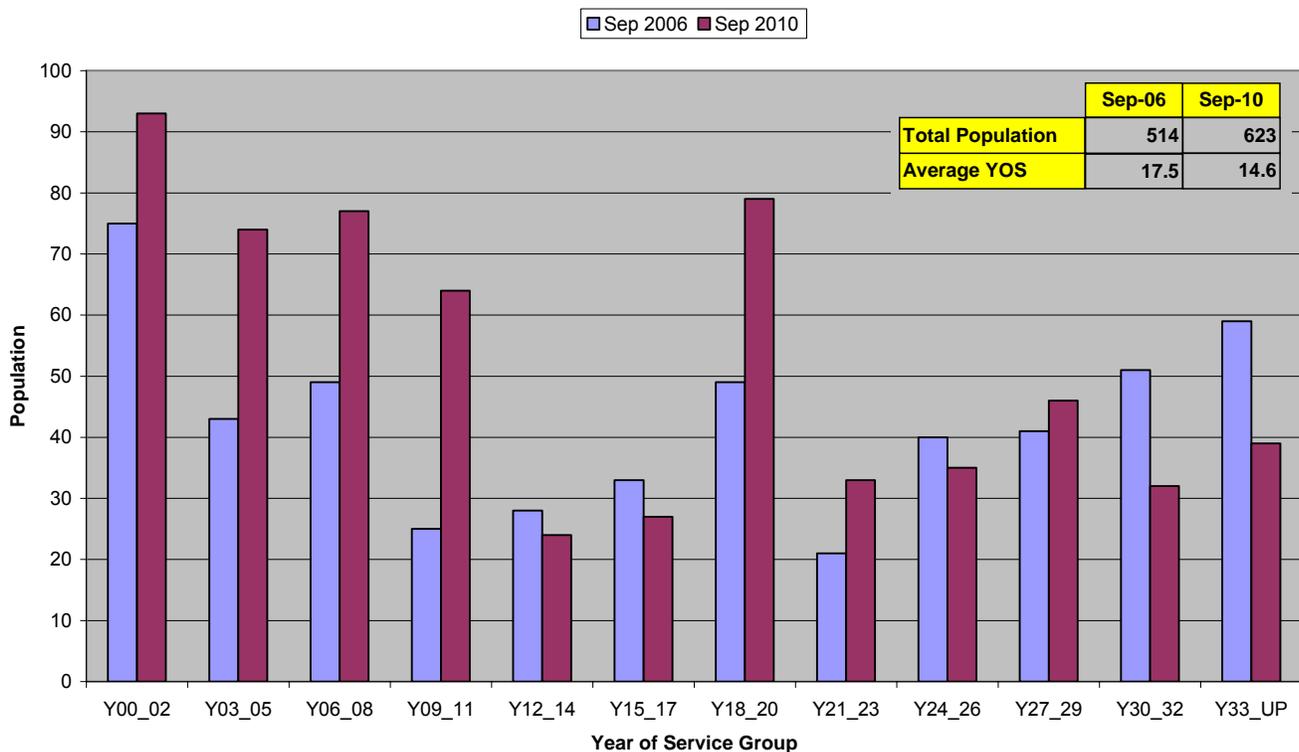


The CIVFORS model of future Federal Transit Administration (FTA) force strength shows the following:

- Force strength growth of approximately 18% in the next four years, almost unchanged from last year's projection of 19% growth.
- Projected losses can be attributed to the age of current FTA employees: 46% at all grades are at least 50 years old. Ten percent of employees in Grade 13 and 14 and 4% of employees who are Grade 15 or SES will be eligible for retirement in FY 2007<sup>51</sup>.
- Most growth will be in YOS 00 to 11, and 18 to 23, thus reducing the administration's average experience level by almost three years. Although a portion of positions will be filled from an internal pool of candidates, new hires will reduce levels of overall years of service.

Figure 3-14 Projected Workforce, FTA

DOT Civilian Workforce: Actual Sep 2006 vs "No Goal" Inventory Projection Sep 2010  
Federal Transit Administration



<sup>51</sup> Federal Transit Administration Workforce Plan, FY 2007.

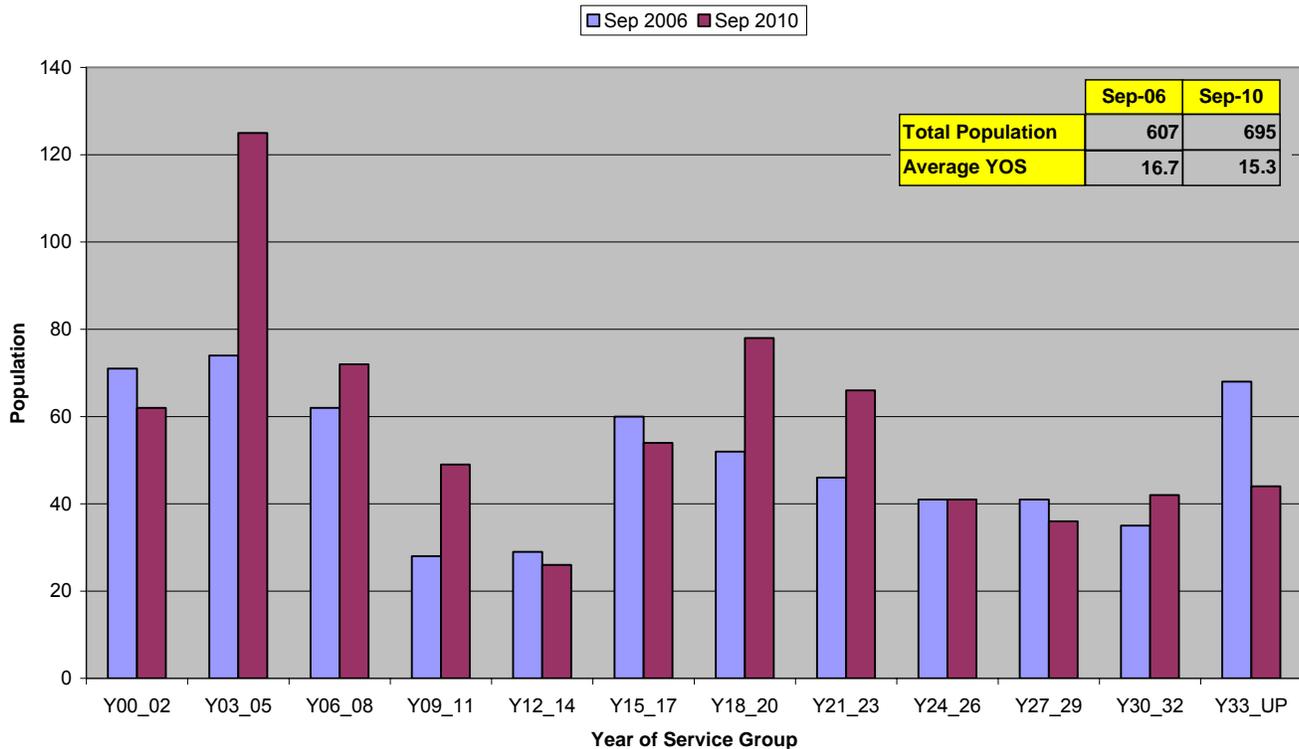


The CIVFORS model of future National Highway Traffic Safety Administration (NHTSA) force strength shows the following:

- The NHTSA will grow by slightly less than 13% by the end of FY 2010. This is more than twice the rate that was projected from FY 2005 data.
- Average experience levels will decline only slightly from 16.7 to 15.3 due to growth in almost all of the YOS bands, most dramatically in 03-05, and a reduction in numbers among employee groups with more years of service.

Figure 3-15: Projected Workforce, NHTSA

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
National Hwy Traffic Safety Admin





## Research and Innovative Technology Administration

### The CIVFORS model of future Research and Innovative Technology Administration (RITA) force strength shows the following:

- Projected growth of almost 12% by the end of FY 2010, which is a decrease from last year's projection of 16%.
- The growth would be fairly evenly spread across the YOS spectrum, so average experience levels would change only slightly (from 15.4 to 14.3 YOS).
- The percentage of retirement-eligible employees will remain roughly the same over the projected period.
- RITA has used retirements projections to assess its vulnerability to retirement by occupational group and evaluate areas for immediate action: The **Volpe Center MCO retirement eligibility breakdown shows the following**<sup>52</sup>.

#### 1) Retirement eligibility less than 33% of the occupational population in the next three years; and/or a replacement pipeline is in place:

- Air Safety Investigator
- Economist
- Engineer
- Engineering Psychologist
- Information Technology
- Planner
- Training Specialist
- Transportation Industry Analyst
- Transportation Specialist

#### 2) Retirement eligibility between 33% and 50% of occupational population in the next three years, an inadequate pipeline, and/or a high attrition rate:

- Acquisition
- Financial Management
- Human Resources
- Legal
- Operations Research Analysis

#### 3) Retirement eligibility greater than 50% of the occupational population in the next three years:

- Program Management includes SES
- Supervision/management

<sup>52</sup> Volpe National Transportation Systems Center: Volpe Center & Transportation Safety Institute (TSI) 2007 Workforce Plan

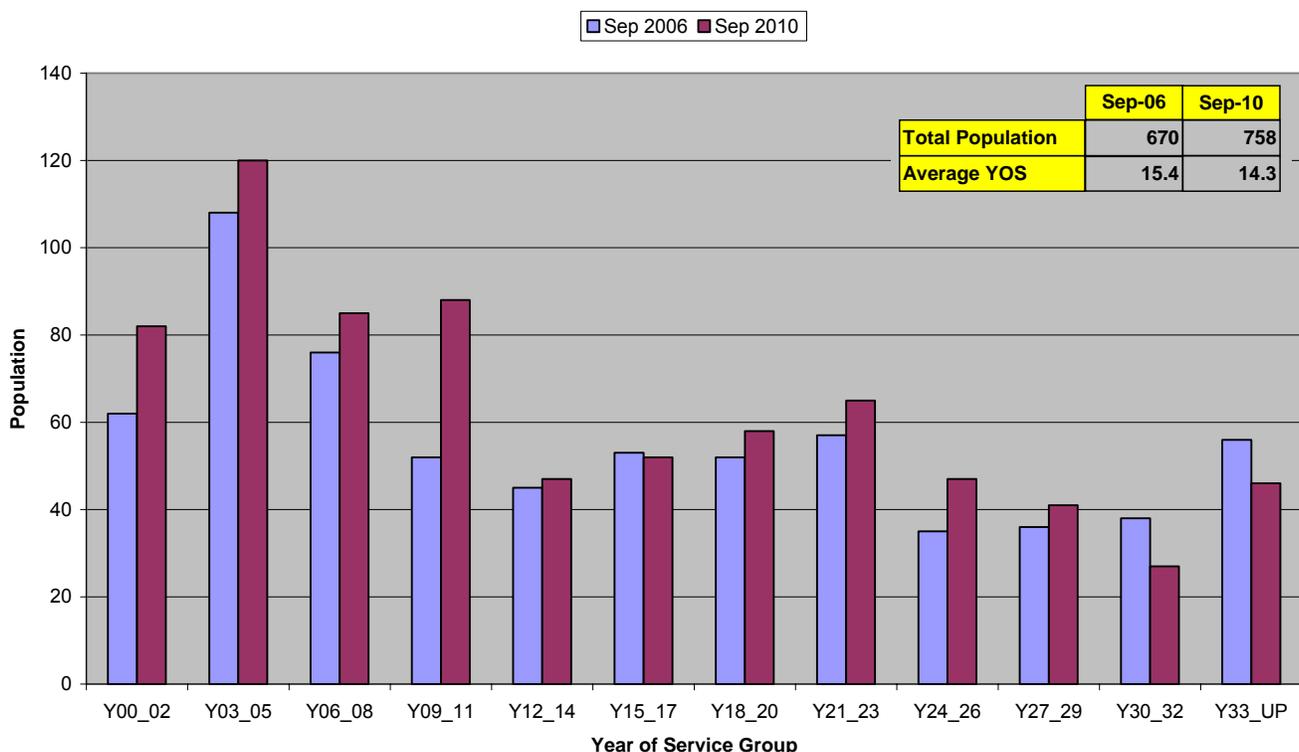


Five of the six Volpe Center senior executives can retire within three years. A succession plan is in place and two SES positions were filled early in 2006 from outside the Volpe Center. TSI has no SES positions.

**4) 51% of the Volpe Center and TSI supervisor/manager population is eligible to retire within three years.** The Volpe Center currently has eight management/supervisor vacancies. TSI has none. The Volpe Center’s supervisory ratio of 1:10 places great demand on these positions. Filling the eight current vacancies is critical.

Figure 3-16: Projected Workforce, RITA

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Research and Innovative Tech Admin



## OFFICE OF THE INSPECTOR GENERAL

The CIVFORS model of future Office of the Inspector General (OIG) force strength shows the following

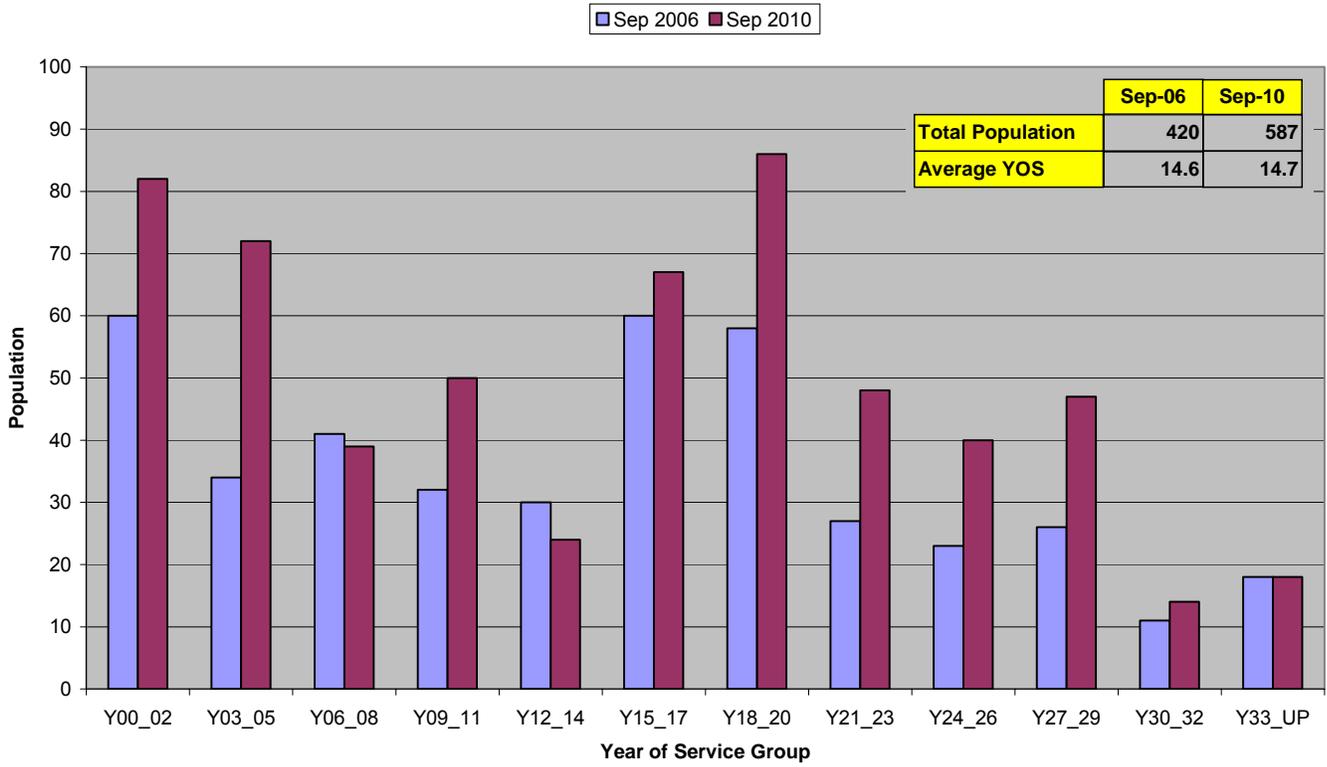
- The OIG organization will grow by close to 30% over the next four years.
- Significant growth is expected in YOS bands 00-05, 09-11, and 18-29.
- Average experience levels should remain about the same, increasing slightly from 14.6 to 14.7, in part because attrition rates for reasons other than retirement have fallen by more than 40% from 2004 to 2006<sup>53</sup>.

<sup>53</sup> DOT, Office of Inspector General, Workforce Plan, January 2007



Figure 3-17: Projected Workforce, OIG

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Office of the Inspector General



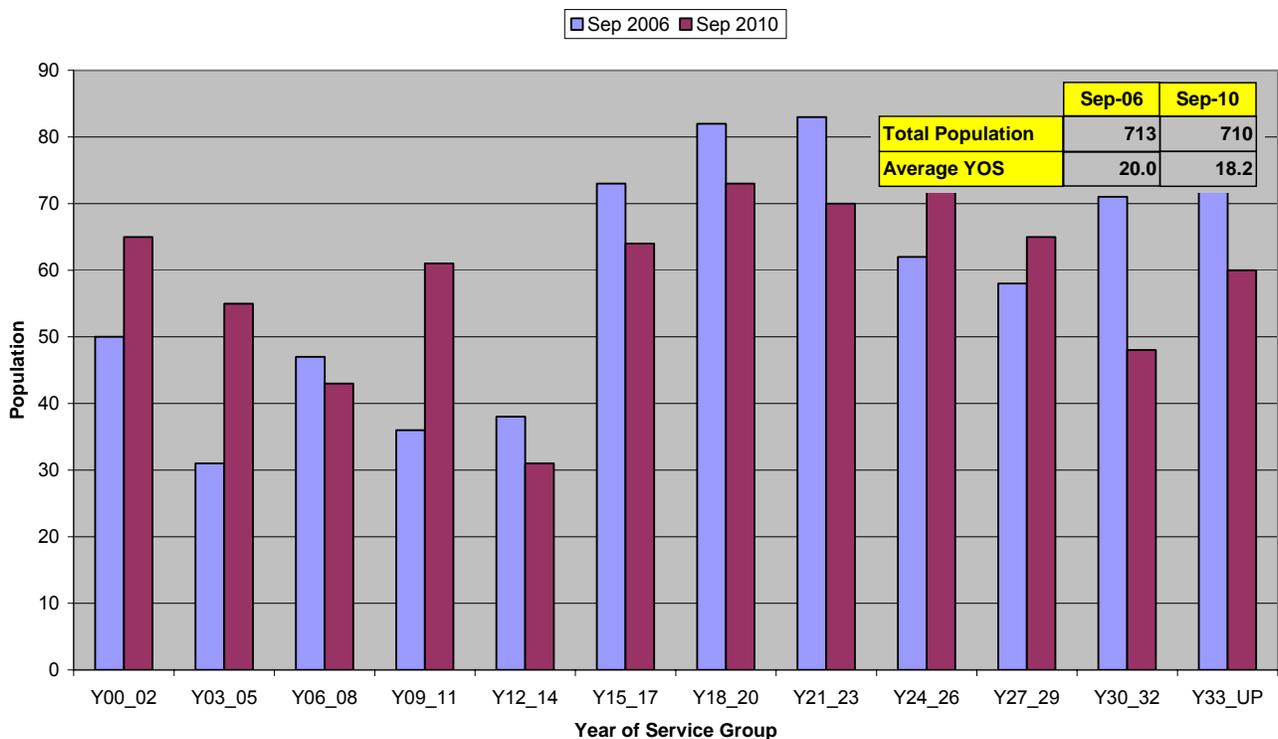


The CIVFORS model of future Maritime Administration (MARAD) force strength shows the following:

- No change in projections between last year and this year. MARAD’s overall strength level is projected to remain the same for the next four years if recent trends continue.
- However, average experience levels will decline significantly as older retiring employees are replaced with younger workers. MARAD’s attrition rate has gone up from 6% in FY 2005 to 8% in FY 2006. Retirement of 57 employees per year is expected through 2009.

Figure 3-18: Projected Workforce, MARAD

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Maritime Administration





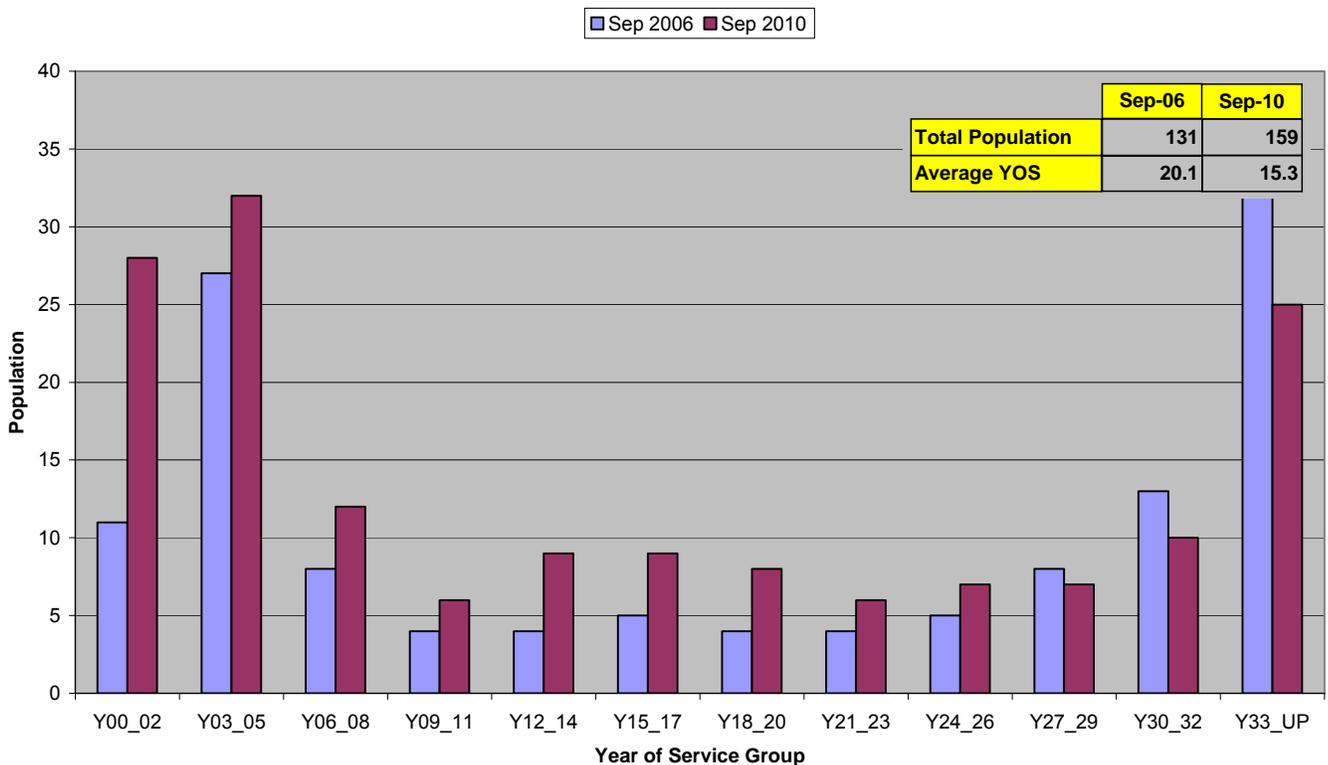
# Surface Transportation Board

The CIVFORS model of future Surface Transportation Board (STB) force strength shows the following:

- The STB will grow by slightly more than 17% if recent trends continue.
- Large increases in the number of newer-service employees (YOS 00 to 08) with corresponding losses of senior employees (YOS 27 and higher) will cause a dramatic drop in average experience levels, from 20.1 years of service to 15.3.

Figure 3-19: Projected Workforce, STB

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010



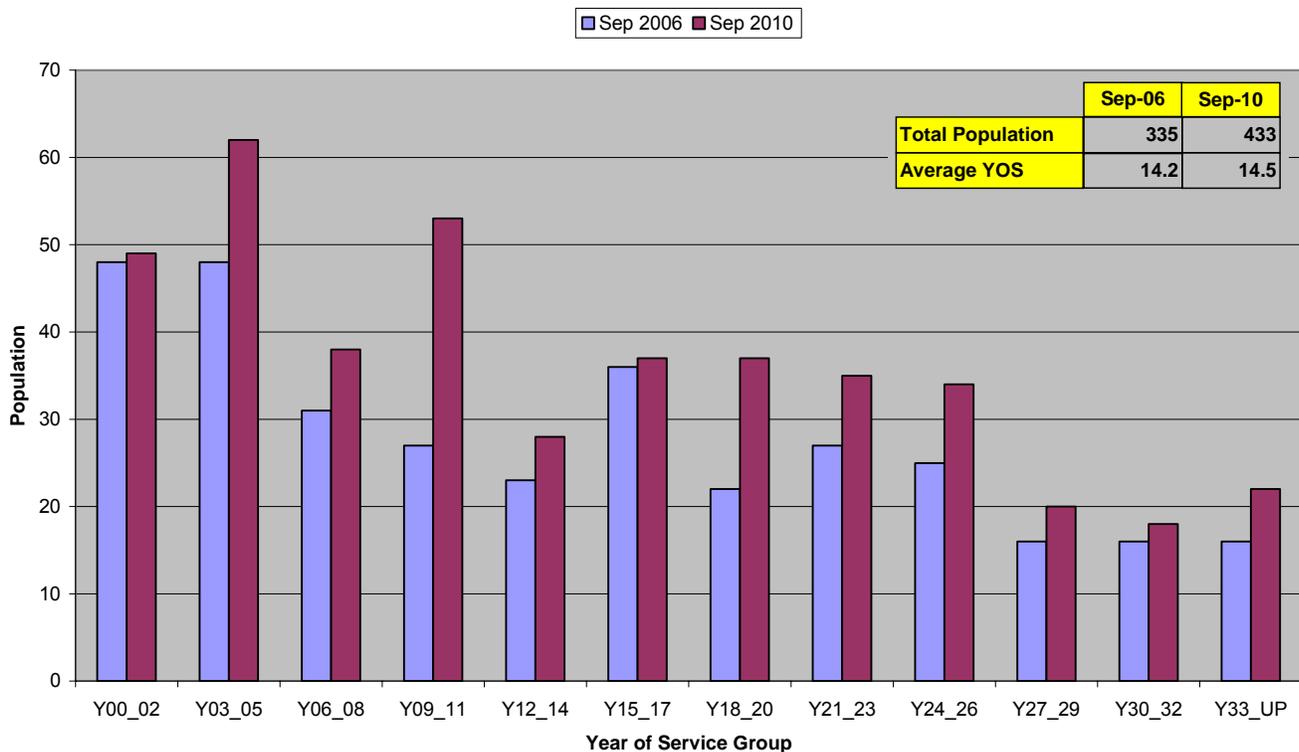


As of the end of FY 2006, the Pipeline and Hazardous Materials Safety Administration (PHMSA) had been a stand-alone entity for less than two years. As a result, this was the first year data for which projections were available. The CIVFORS model of future PHMSA force strength shows the following:

- Projected growth of about 22% over the next four years.
- Average YOS will remain steady at just over 14 years.

Figure 3-20: Projected Workforce, PHMSA

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Pipeline and Hazard Material Safety



**DOT** FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

The CIVFORS model of future Federal Motor Carrier Safety Administration (FMCSA) force strength shows the following:

- The FMCSA will grow by about 11% by the end of FY 2010. This is lower than the projected growth determined through FY 2005 data (16%).



- Growth will continue to be balanced along the YOS dimension, so average experience levels will remain constant.
- Historically, the retirement rate has remained low (2.3%)<sup>54</sup>. However, the FMCSA reports that 43.8% of the 210 employees eligible for retirement between 2006 and 2013 could retire immediately. Of these, most are in mission critical occupations/senior leadership positions.

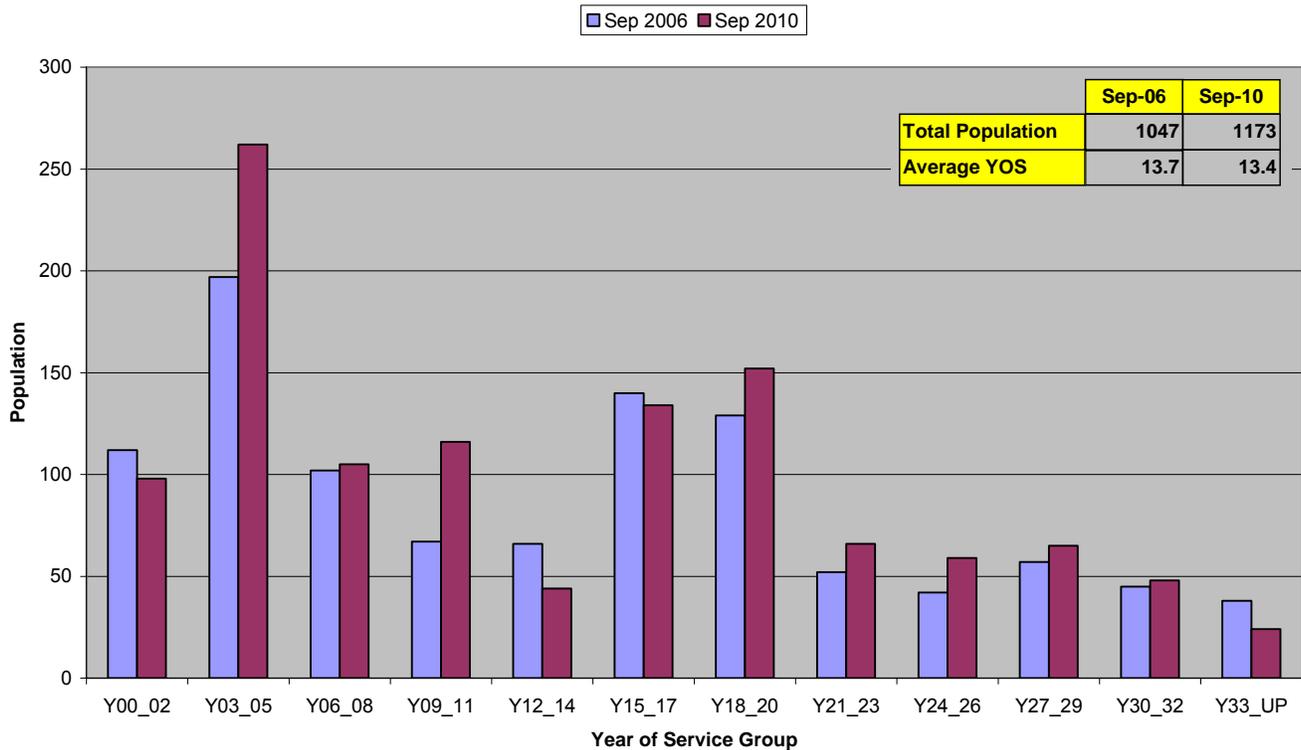
The growth of this OA will be dependent on their ability to recruit, retain, and implement an effective succession planning process

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<sup>54</sup> *Federal Motor Carrier Safety Administration, Human Capital Plan, November 2006, p. 30.*

Figure 3-21: Projected Workforce, FMCSA

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
Federal Motor Carrier Safety Administration



## PROJECTIONS BY MISSION CRITICAL OCCUPATION (MCO)

### BY MISSION CRITICAL OCCUPATION

This section provides inventory projections for each of the MCOs for DOT. Each projection was done using the methodology previously described. Conclusions in the following section were reached by adding specific information from the OAs to the modeled projection of the entire MCO group. All “average age” references in the following section were provided by a WASS average query based on the assumptions in Appendix B.

DOT Mission Critical Occupations and Series include:

- Planning (0020)
- Program Management (0340)
- Financial Management (0501, 0505, 0510, 0511, 0525, 0540, 0544, 0560)
- Engineer (0801, 0802, 0803, 0806, 0807, 0808, 0809, 0810, 0817, 0818, 0819, 0830, 0850, 0855, 0856, 0861, 0871, 0873, 0896)
- Legal (0905, 0935, 0950, 0963, 0986)
- Physical Scientist (1301, 1306, 1310, 1320, 1340, 1350, 1361, 1370, 1371, 1373, 1384)
- Transportation Specialist (2101)



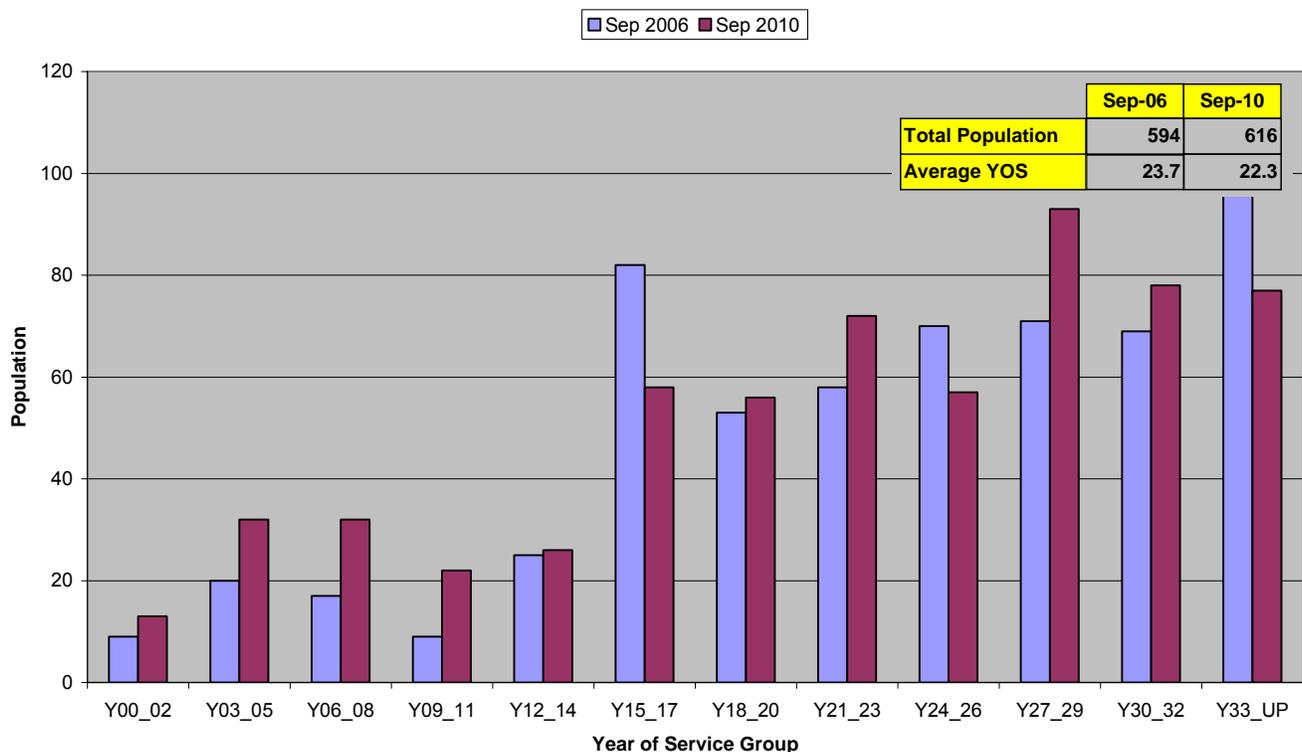
- Transportation Industry Analyst (2110)
- Transportation Safety (1825, 2121, 2123, 2125, 2152)
- Information Technology (2210, 0334, 0391, 1550, 0854)

*Note: there are no projections for Community Planning or Transportation Industry Analysts because those MCO populations are too small to model. Projections were run only for DOT MCOs, not for Leaders or Human Capital professionals.*

**PROGRAM MANAGEMENT**

**Figure 3-22: Projected Program Management Workforce**

**DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Program Management**



The overall Program Management family numbers are projected to grow by 3.6% by the end of FY 2010, with growth across the entire YOS dimension.

This MCO has the highest average age of DOT’s mission-critical occupations. With the average age in 2006 already 51.3 (no change from the previous year), the Program Management occupation family will continue to be very experience-heavy, approaching the early retirement eligibility threshold.

- RITA – The Volpe Center has characterized the Program Management occupation at high risk due to retirement eligibility rates that are above 50% in the next three years.



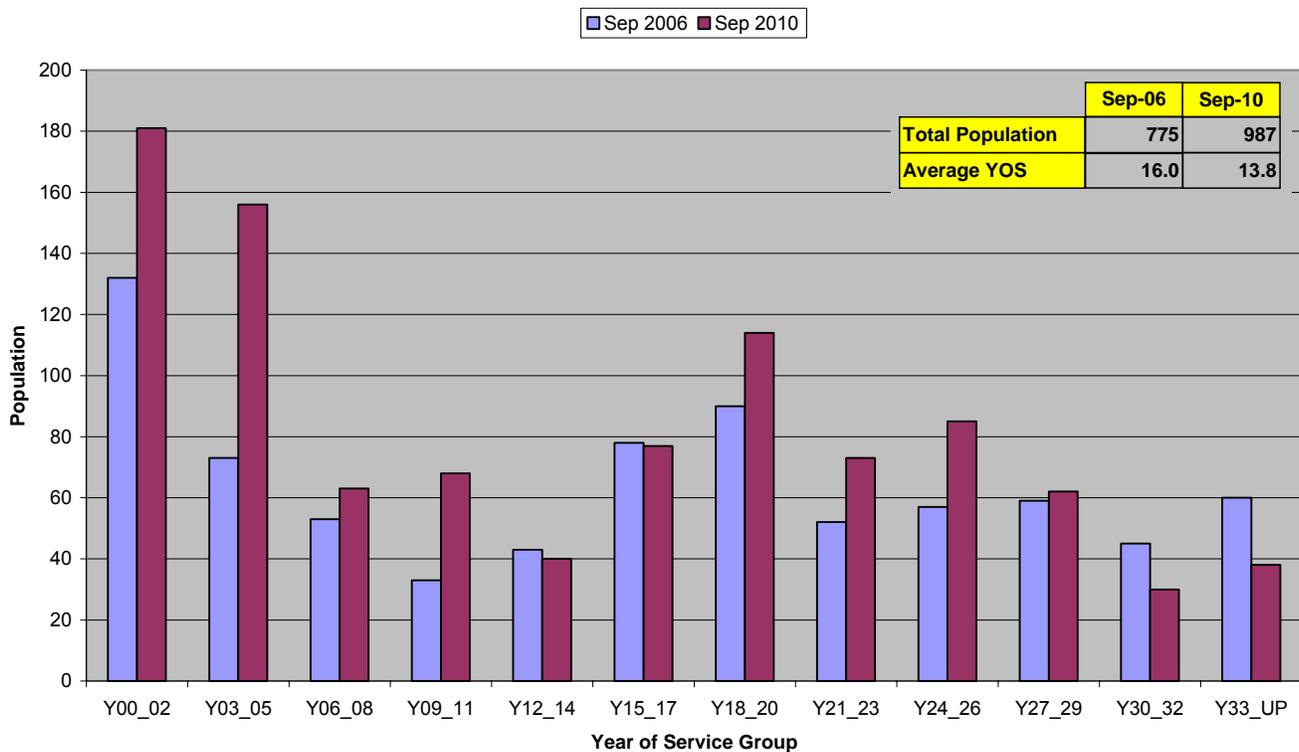
Competency gaps have also been identified in this occupational area and are currently being addressed through training and certification programs<sup>55</sup>.

- PHMSA – The average age of Program Management professionals at this OA is 47.8 years. 35.5% will be eligible to retire in the next three years. This OA is addressing gaps and retirement eligibility in this occupational series through succession planning and knowledge management interventions (i.e., mentoring and partnering programs).

## FINANCIAL MANAGEMENT

Figure 3-23: Projected Financial Management Workforce

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Financial Management



The Financial Management occupation family will grow by about 20% over the next four years according to FY 2006 data projections, a significant increase from last year's projection.

- Retirement eligibility among this MCO fell by 33.9% to 11.5% of the total MCO workforce.
- The average age in this MCO fell by one year to an age of 46.6 years.

With continued growth, average YOS levels would drop from 16.0 years to 13.8 years in 2010, due to significant increases in the 00-11 and 18-26 bands.

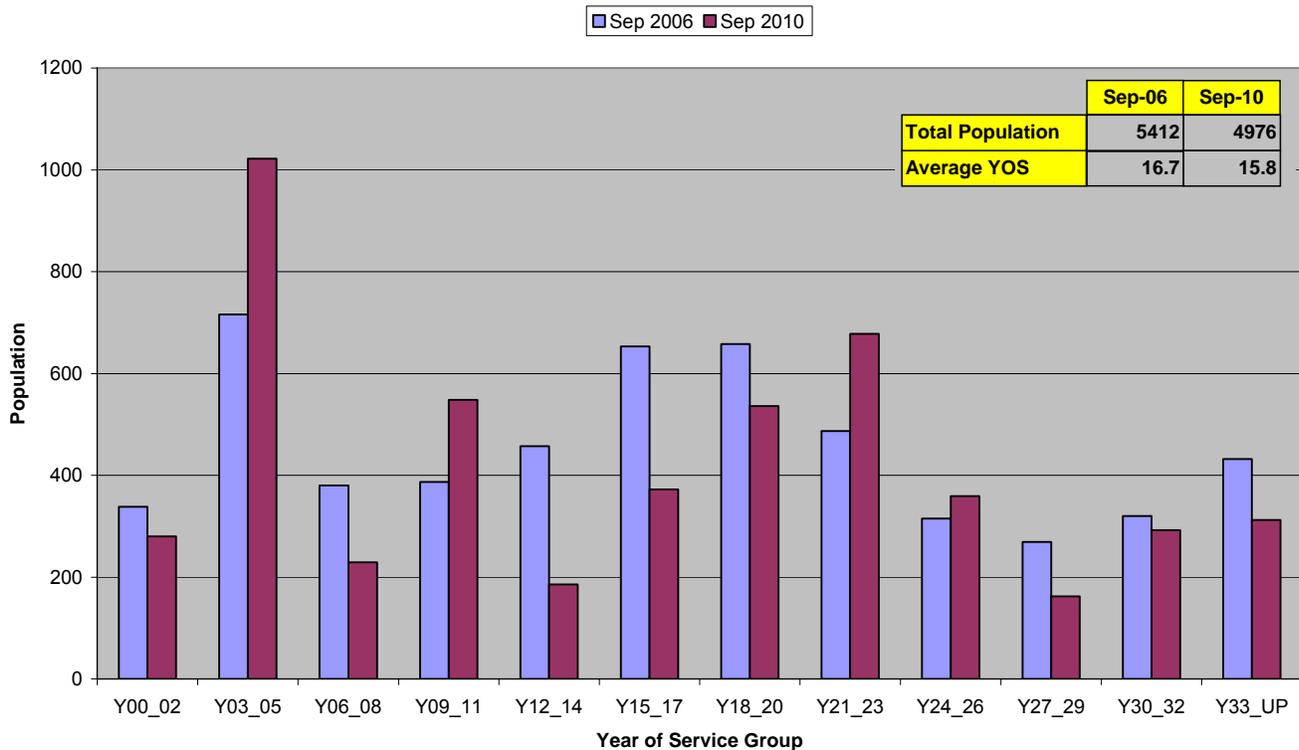
<sup>55</sup> RITA, Volpe National Transportation Systems Center (Volpe Center) & Transportation Safety Institute (TSI), 2007 Workforce Plan, pp. 6 and 10



ENGINEERING

Figure 3-24: Projected Engineering Workforce

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Engineering



The Engineering occupation family is one of three DOT MCOs expected to show a decline in size by 2010. If recent gain/loss patterns continue, overall strength will dip by 8%, and average experience levels will decline slightly from 16.7 years to 15.8 years.

- MARAD – 27 engineering positions remain unfilled at MARAD<sup>56</sup>. Unless aggressive recruiting practices are initiated based on the overall attrition rates at this OA, this number will rise.
- RITA – The Volpe Center and TSI indicate that their engineer positions have retirement eligibility that is less than 33% over the next three years. A pipeline is in place that will address losses<sup>57</sup>.

<sup>56</sup> U.S. Maritime Administration Workforce Plan Update, 2007, p10

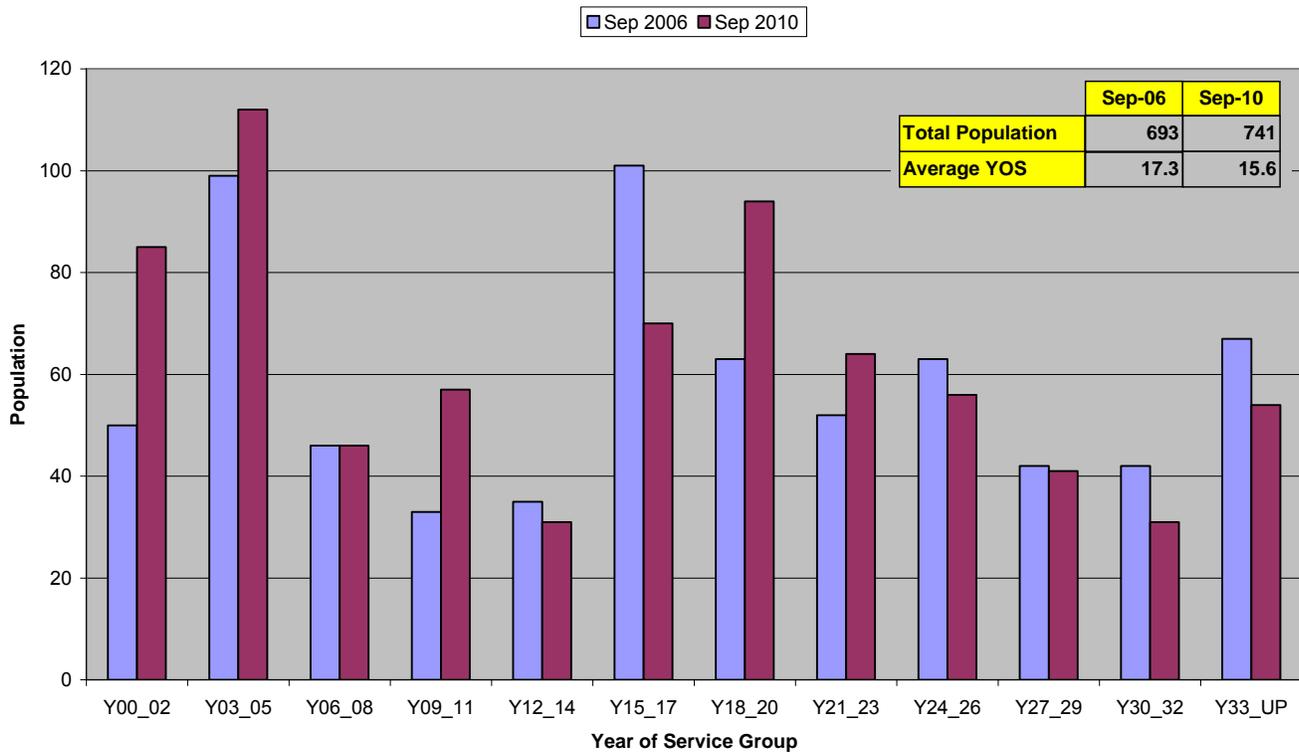
<sup>57</sup> RITA, Volpe National Transportation Systems Center (Volpe Center) & Transportation Safety Institute (TSI), 2007 Workforce Plan



LEGAL FAMILY

Figure 3-25: Projected Legal Family Workforce

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Legal



In contrast to last year’s projections which indicated 17% growth, the Legal occupation family is now projected to grow by less than 7% over the next four years. This difference may be due to the hiring freeze in effect across the agency during FY 2006 which impacted data averages.

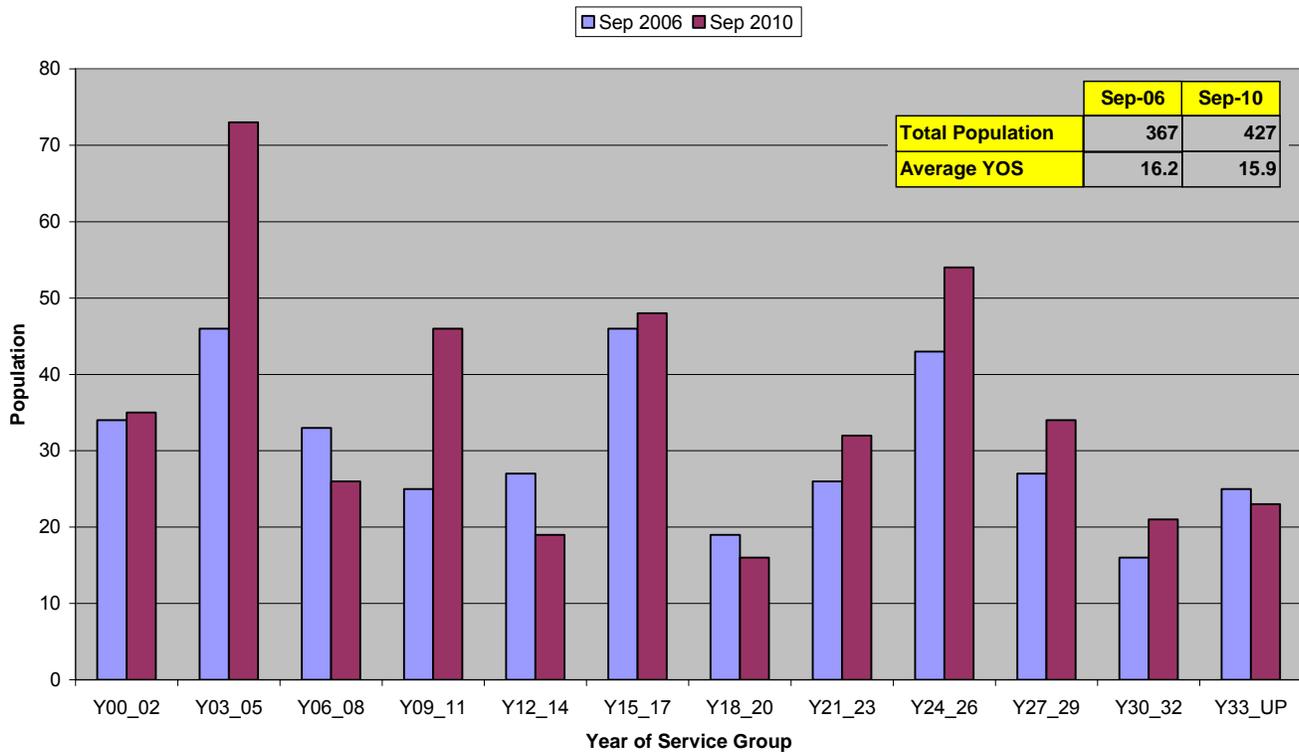
- Most of the growth will be in YOS 00-05 and 09-11, which will bring the average experience level down significantly, from 17.3 years to 15.6.
- The percent eligible to retire continues to be small. Only 17.2% of job family employees were retirement eligible in FY 2006.



**PHYSICAL SCIENTISTS**

**Figure 3-26: Projected Physical Scientist Workforce**

**DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Physical Science**



The Physical Scientist occupation group is projected to grow by approximately 15% in the next four years. The average experience level will not change significantly if recent gain/loss trends continue.

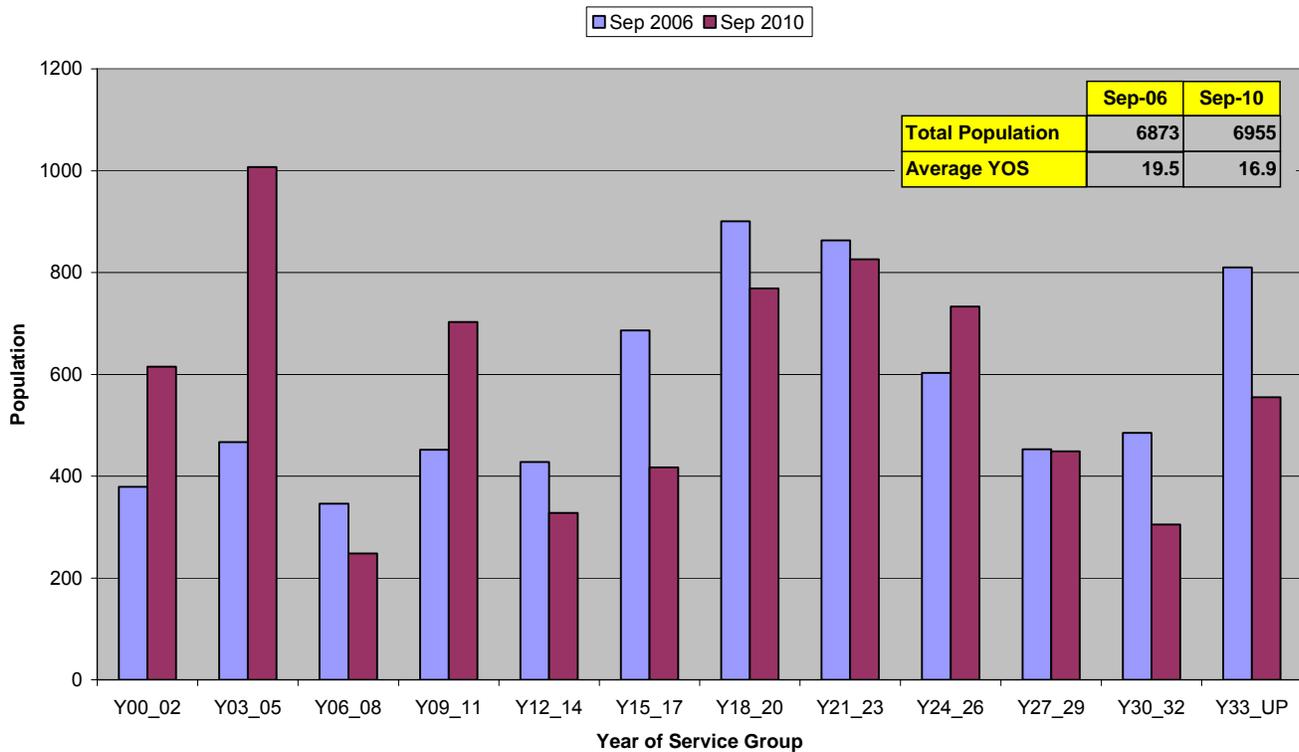
The vast majority of Physical Scientists are at FAA (88% of the total occupational series population) with an average age of 46.5. This large concentration of staff at a lower than average age bracket is the main driver for the DOT-wide average age of 47.3. The following OAs exceed the DOT average age by six or more years.

- FHWA – average age of 56.5 years
- FMCSA – average age of 55 years
- NHTSA – average age of 53.8. years
- PHMSA – average age of 53.1 years

TRANSPORTATION SPECIALIST

Figure 3-27: Projected Transportation Specialist Workforce

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Transportation Specialist



The Transportation Specialist occupation family is projected to remain at about the same size, in keeping with projections from last year. The average experience level will decline from 19.5 years to 16.5 by the end of 2010.

Three OAs have average ages that are five or more years over the overall average for this family (47.5).

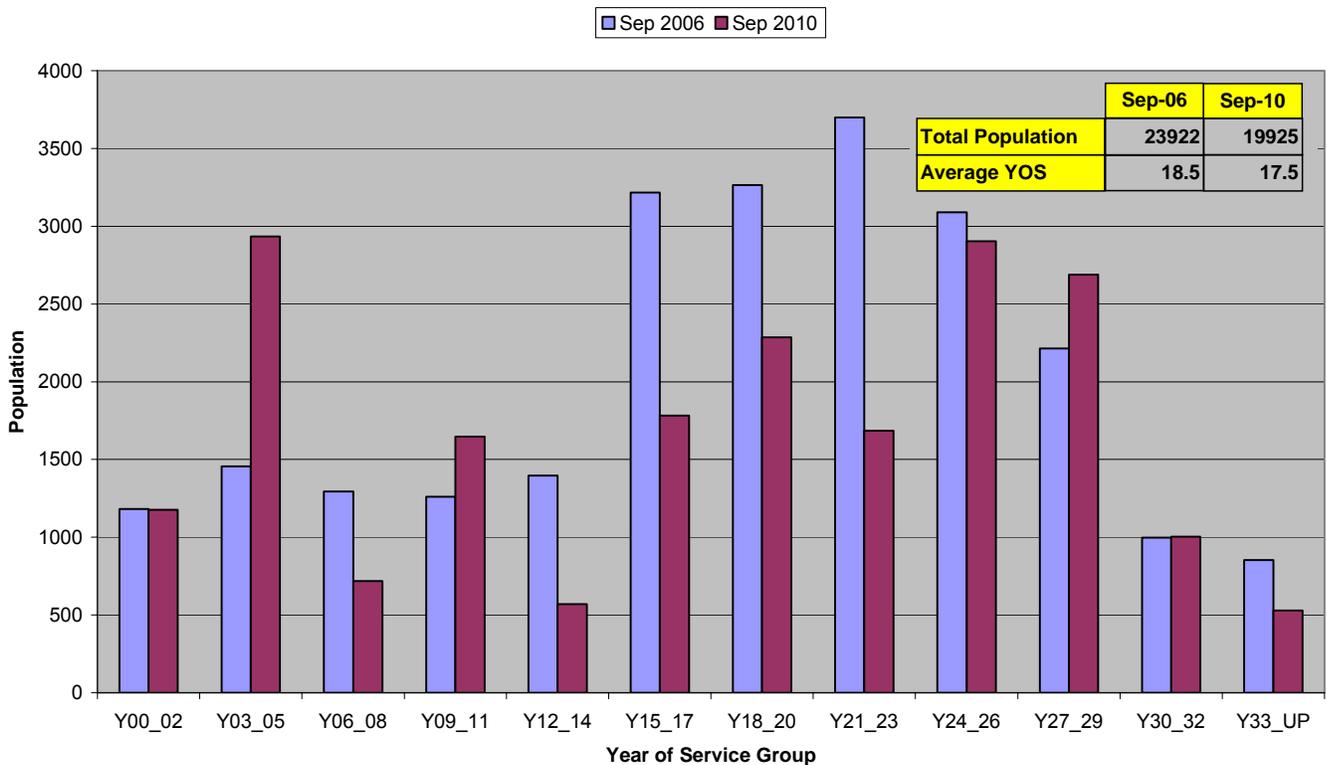
- FRA – average age of 53.9 years
- FTA – average age of 52.1 years
- MARAD – average age of 52.6 years



TRANSPORTATION SAFETY

Figure 3-28: Projected Transportation Safety Workforce

DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: Transportation Safety



The Transportation Safety occupation family (which includes Air Traffic Controllers) is the largest MCO within DOT. The majority of this occupation family (95%) work at the FAA.

This is also the occupation family projected to lose the most employees—nearly 20% of the total population—over the next four years if recent gain/loss trends continue.

According to the FAA Air Traffic Controller Workforce Plan approximately 72% of the ATC workforce will become eligible to retire over the next decade.<sup>58</sup> The average age of the Transportation Safety workforce across DOT is 45.5. Although the average age of this group at FAA is 45.3 years, others exceed the average:

- FHWA – average age of 50.3 years
- FRA – average age of 53.4 years
- NHTSA – average age of 48.8 years

<sup>58</sup> A Plan for the Future, 2007 - 2016

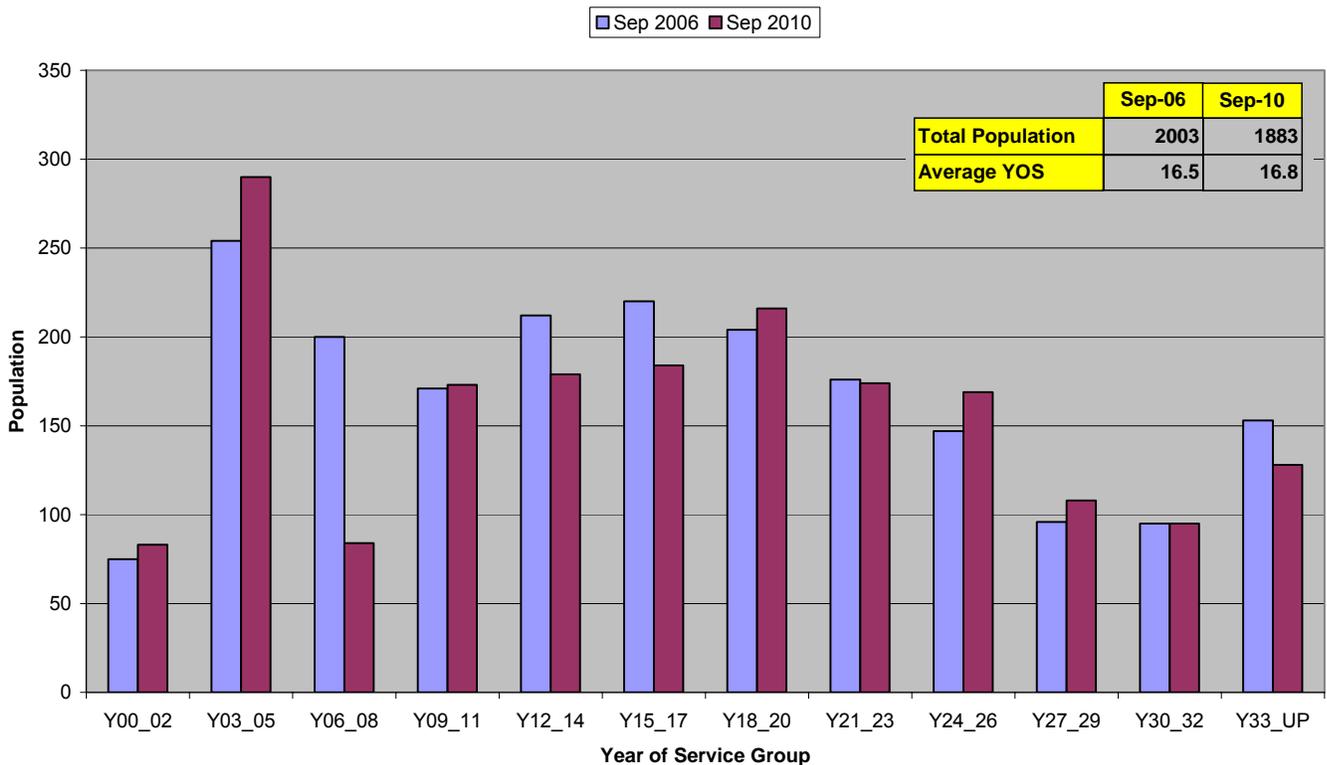


FAA has initiated an aggressive hiring strategy to anticipate potential shortfalls. As outlined in FAA's *A Plan for the Future 2007 – 2016*, over the next 10 years, FAA is projecting to hire 71 to 230 more ATC per year that they lose, increasing their total workforce strength to 16,095 by 2016.

**INFORMATION TECHNOLOGY**

**Figure 3-29: Projected IT Workforce**

**DOT Civilian Workforce: Actual Sep 2006 vs “No Goal” Inventory Projection Sep 2010  
MCO: IT**



Another mission critical occupation that is expected to show decline in the next four years is the Information Technology (IT) workforce. The “typical” DOT transportation IT worker is:<sup>59</sup>

- Classified as a GS-0334
- Male
- White (non-Hispanic)
- 51-55 years old
- Grade level of GS-13/14
- Has over 11 years of public sector experience
- Has less than three years of private sector experience
- Eligible to retire in the next 11 to 20 years
- Holds a Bachelor’s degree

<sup>59</sup> US Department of Transportation “Information Technology Specialist Gap Analysis Report and Improvement Plan”, May 1, 2007



If recent data trends continue, DOT will lose about 6% of its IT workforce by the year 2010. Applying recent gain/loss patterns causes very little change in the average experience levels over the next four years.

**ACQUISITION WORKFORCE**

The Federal Register notes, “The acquisition function continues to become more integrated in to Agency core business processes, and the developmental needs of [this] workforce are changing. This progress is reflected in the Service Acquisition Reform Act of 2003 (SARA)... SARA requires agency Chief Acquisition Officers to develop and maintain an acquisition career management program and ensure the development of an adequate, professional workforce.”

Further underscoring the criticality of this workforce, the Senate Homeland Security and Governmental Affairs Committee passed legislation in August 2007 to propose a Government-wide Contingency Contracting Corps and permanent extension of the Acquisition Workforce Training Fund.

In 2006, DOT had 23 employees in Occupational Series 1105 (Purchasing) and 456 employees in Occupations Series 1102 (Contracting).

**Figure 3-30: Acquisition Specialist Occupational Series  
Current and Projected Strength**

	Occ Series	2004	2005	2006	2007	2008	2009
ALLGAINS	1102	386	367	374	<b>393</b>	<b>373</b>	<b>390</b>
ALL LOSS	1102	397	379	352	<b>352</b>	<b>332</b>	<b>351</b>
<b>Strength</b>	<b>1102</b>	353	342	456	<b>500</b>	<b>587</b>	<b>624</b>
ALL GAINS	1105	15	15	15	<b>14</b>	<b>19</b>	<b>18</b>
ALL LOSS	1105	14	18	12	<b>14</b>	<b>14</b>	<b>14</b>
<b>Strength</b>	<b>1105</b>	16	16	23	<b>24</b>	<b>29</b>	<b>28</b>

Based in the workforce forecasting model (see forecast assumptions) the number of positions in Occupational Series 1102 (Contracting) is expected to increase to 624 by FY 2009.

For Occupational Series 1105 (Purchasing) total strength is projected to increase due to declining losses in the forecasted period combined with a slight increase in hires over that same period.

**PROJECTED POPULATION OVERAGE/SHORTFALL BY OA AND MCO**

Figure 3-32 and Figure 3-34 show the strength levels for 10 different Mission Critical Occupation and 13 different Operating Administrations in FY 2006, and projected levels in FY 2010. This gap analysis highlights potential changes and projected workforce surpluses and gaps.

The following assumptions were applied to the analyses.

- FY 2006 strength numbers represent current active full-time and part-time permanent employees.
- FY 2010 projected strength assumes continuation of historical gain and loss patterns.
- By FY 2010, the workforce strength of FY 2006 must be maintained as a minimum in order to insure the same level of performance.



Figure 3-31: Projected Gap Analysis of Mission-Critical Occupations at 2010

MCO	FY 2006 Strength	FY 2010 Strength	5 Year Overage/ Shortfall Compared to FY 2006 Strength	% Change
Community Planning	223	273	50	22.4%
Engineer	5,412	4,976	(436)	-8.1%
Financial Management	775	987	212	27.4%
Information Technology	2,003	1,883	(120)	-6.0%
Legal	693	741	48	6.9%
Program Management	594	616	22	3.7%
Physical Scientist	376	427	60	16.3%
Transportation Specialist	6,873	6,955	82	1.2%
Transportation Industry Analyst	122	135	13	10.7%
Transportation Safety Specialist	23,922	19,925	(3,997)	-16.7%
<b>Total</b>	<b>40,984</b>	<b>36,918</b>	<b>(4,066)</b>	<b>-9.9%</b>

The Overage/Shortage projections represent the potential changes in the MCO workforce over the next four years, compared with FY 2006 levels. These projections enable DOT to test whether apparent shortfalls are desirable and represent strategic responses to shifts in the way that OAs execute their missions (competitive sourcing, new technology, etc.) or whether action should be taken to stem the shortfall. Similarly, the apparent overages enable DOT to test whether these numbers will be a desirable response to increased requirements, or will result in an excess of talent that should be redirected through strategic sourcing.

CIVFORS analysis projects an overall decline of 9.9%, or approximately 1,000 people each year, in the MCO population until the end of FY 2010.

Three MCOs are projected to have a shortfall by FY 2010:

- The Engineering family would decrease 8.1%
- The IT family would decrease 6.0%
- The Transportation Safety Specialist family would decrease 16.7%

**Air Traffic Controllers**

FAA is implementing a 10-year strategy to address the future workforce needs for air traffic controllers. *A Plan for the Future, 2007 – 2016* is excerpted, below.

*The Air Traffic Controller Workforce Plan presents the national air traffic controller staffing levels the FAA estimates it will need through FY 2016 to manage air traffic demands. These staffing levels will be updated as necessary to reflect changes in the traffic forecasts, productivity, and other factors. An updated report will be issued every year.*



Figure 3-32: ATC Projections through 2016

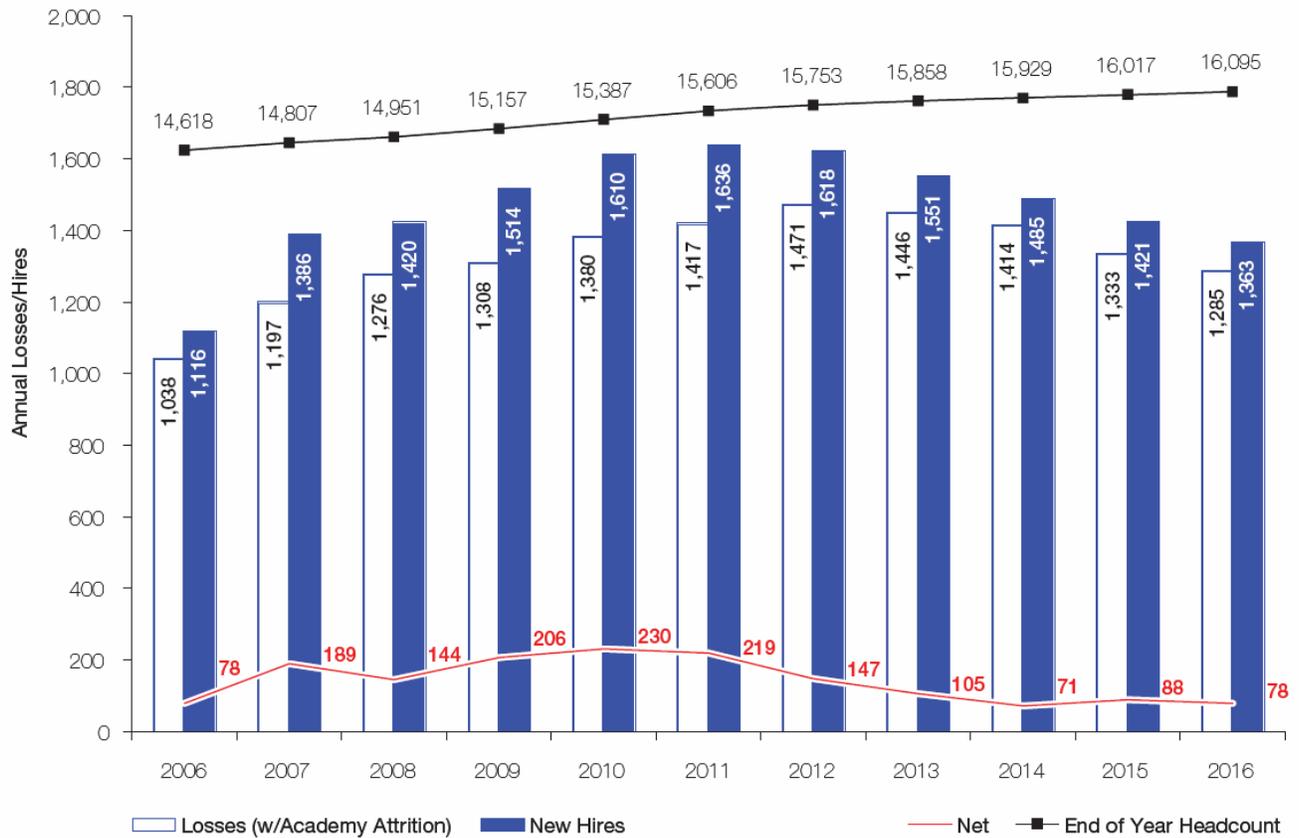


Figure 3-34 shows projections for gains and losses over the next 10 years. It is expected the total level of ATC will increase to 16,095 by 2016.

Figure 3-33: Projected Gap Analysis by Operating Administration at 2010

Operating Administration	FY 2006 Strength	FY 2010 Strength	5 Year Overage/ Shortfall Compared to FY 2006 Strength	% Change
OST	637	719	82	12.9%
FAA	43,784	39,001	(4,783)	-10.9%
FHWA	2,769	2,705	(64)	-2.3%
FRA	808	928	120	14.9%
SLSD	85	114	29	34.1%
FTA	514	623	109	21.2%
NHSTA	607	695	88	14.5%
RITA	670	758	88	13.1%
OIG	420	587	167	39.8%
MARAD	713	710	(3)	-0.4%
STB	131	159	28	21.4%
PHMSA	335	433	98	29.3%
FMCA	1,047	1,173	126	12.0%
<b>Total</b>	<b>52,520</b>	<b>48,605</b>	<b>(3,915)</b>	<b>-7.5%</b>



As previously detailed, the CIVFORS analysis projects an overall decrease of 7.5% in the DOT population by FY 2010. Despite this drop, three OAs are projected to grow over 25% during that period.

These projections enable DOT to test whether apparent shortfalls are desirable or whether action should be taken to stem the shortfall. Similarly, the apparent overages enable DOT to test whether these numbers will be a desirable response to increased requirements, or will result in an excess of talent. The largest projected shortfall, in FAA, is being addressed through the 10-year ATC Hiring Plan.



## CHAPTER 4: STAFFING CONTINUITY

Chapter 4 reviews the Department of Transportation's (DOT) programs for staffing continuity: the Continuity of Operations (COOP) plan, which relates to the Department-wide staff; and the Succession Planning Program, which relates to Mission Critical Occupations (MCO).

### CONTINUITY OF OPERATIONS (COOP) PLANNING

Continuity of Operations (COOP) planning is an effort to assure that the capability exists to continue essential Agency functions in the event of a disruption in operations due to a wide range of potential hazards.

DOT features prominently in the White House's National Pandemic Implementation Plan released in May of 2006. During a pandemic event, the Department of Transportation as whole is expected to:

*"..implement priorities to maintain essential functions of the national transportation system, and provide emergency management and guidance for civil transportation resources and systems. In its role in the global transportation network, DOT will conduct outreach with its established public and private stakeholders – strategically coordinating with international, domestic, and other Federal Government participants, consistent with its responsibilities under the NRP in support of DHS. DOT will consider the short and long term economic impacts of a pandemic on the transportation sector in order to develop strategies that might help prevent disruption of transportation services". (pp 52)*

The focus of **human capital planning** during pandemic emergencies for the DOT is two-fold: to ensure that employees performing essential functions can carry out their duties so that the flow of national transportation is not disrupted; and to keep the workforce out of harm's way.

To fulfill these responsibilities, DOT has updated its "Guidance for Human Resources" (March,2006) as part of its Continuity of Operations Plan. The "Guidance" is available to all employees on the DOT intranet under a heading "Emergency Information" that also includes links to specific information on Avian flu, the National Response Plan, Hurricane Response, Information for Employees with Disabilities, etc.

In addition, the Department has:

- Created Avian Influenza Working Groups
- Modified and reissued its telework policy. Currently, the Office of the Chief Information Officer (OCIO) is working to allow employees remote security access and assessing any required increase in technology capabilities.
- Developed a DOT Pandemic Influenza Plan to keep transportation of vital supplies, food, and medicine ongoing during an emergency. Each department is updating its COOP plan, and DOT has asked each Operating Administration (OA) to create a pandemic plan. The OAs also have policies related to alternative work arrangements/teleworking in effect or are currently in the process of updating and testing them.
- DOT's Chief Human Capital Officer has made her organization within DOT a pilot to test teleworking and communications during emergencies.
- FRA conducted telework drills for segments of the FRA during the Spring and Summer of 2007. Additional drills are scheduled.
- The Volpe Center conducted a COOP exercise in the Spring where employees teleworked for the day
- FHWA has formed a new team to explore issues and recommend solutions related to enhancing existing alternate duty location work arrangements. These issues and solutions involve training and guidance for both supervisors and employees on how to overcome challenges associated with these



arrangements and make them more efficient and productive. FHWA already has more than 100 alternate duty location employees and may expand this workforce flexibility. This initiative will play heavily into their pandemic planning policies.

- Several offices in the FAA have conducted emergency telework exercises. Typically, these have been part of broader emergency exercises, although here has been some exercising of telework in and of itself. In the largest telework exercise, 800 participants from the Office of Aviation Safety worked from home or remote locations and logged into eLMS to take a course during the drill. This exercise confirmed that FAA has the basic capability for telework and that it can be implemented with existing resources as part of FAA's emergency response capabilities.

These drills have highlighted the need for ongoing attention to the following "lessons learned" :

- Continual improvements will be needed in the areas of IT and communications.
- Managers should be included as tele-workers.
- Tele-work as an emergency measure should be implemented within a planned agency-wide structure.
- When planning emergency operations using tele-work personnel, the Department must be aware of the impact of isolation on employees' awareness of changing situations; and of the adequacy of equipment available to tele-workers:
- Emergency telework plans must be regularly worked for them to be successful.

The Department as a whole and each OA will revisit the unique challenges posed by pandemic planning, and make clear connections between existing workforce initiatives and pandemic planning policies, in their 2008 Workforce Plan updates.

## **SUCCESSION PLANNING**

DOT updated its Executive Succession Planning Report in FY 2006. The OST/HR now collects quarterly updates from each OA on Bench Strength and the following Milestones for Succession Planning:

1. When/how strategies for recruitment, selection, development, and retention of leaders for high leverage positions are being implemented
2. How OAs are communicating these strategies to the affected groups, (i.e. executives, managers/supervisors, leadership pipeline, and HR practitioners)
3. OA's efforts in maintaining senior level commitment for succession planning activities
4. Measures for the effectiveness of planning activities, including efforts to make continuous improvement

***DOT will update its Agency-wide succession plan by December, 2007.***



**CURRENT STATUS:**

**High Leverage Positions Identified by Operating Administration  
(As of June 1, 2007)**

<b>FHWA</b>	
■ SES Executive Director (1)	■ SES Federal Lands Hwy Division Administrators (3)
■ SES Associate Directors (11)	■ SES Office Directors/Deputies (26)
■ SES Directors of Field Services (3)	■ GS15 Division Administrators (47)
■ SES Division Administrators (3)	■ GS 15 Resource Center Director (1)
<b>FMCSA</b>	
■ Administrator for Policy and Program Delivery,	■ Associate Administrator for Research and Information Technology& CIO,
■ Associate Administrator for Administration,	■ Associate Administrator for Field Operations
■ Associate Administrator for Enforcement and Program Delivery,	■ Assistant Administrator and Chief Safety Officer.
<b>FRA</b>	
■ Railroad Safety Inspectors (five disciplines)	■ Office of Safety Assurance and Compliance – Operating Practices
■ Finance, Budget, and Acquisition	■ Office of Safety Assurance and Compliance – Hazardous Materials
■ Office of Policy and Program Development	■ Office of Safety Assurance and Compliance – Track and Structures
■ Office of Public Affairs	■ Office of Safety Assurance and Compliance – Signal and Train Control
■ Office of Civil Rights	■ Office of Safety Assurance and Compliance – Motive Power and Equipment
■ Executive Secretariat	
■ Office of the Administrator	
<b>FTA</b>	
■ Associate Administrators	■ Supervisory Transportation Program Specialist
■ Regional Administrators	■ Supervisory Community Planners
<b>PHMSA</b>	
■ Office directors	■ Directors
■ Regional chiefs	

The Director of Human Resources (HR) in each OA is responsible for the mode’s Succession Plan; many of the OAs have an additional member of the HR staff assigned to succession plan development.

The modes have developed a variety of measures to track the effectiveness of succession planning activities<sup>60</sup>.

- **Federal Aviation Administration (FAA)** tracks referrals and selections for leadership positions to measure the effectiveness of the Senior Leadership Development Plan (SLDP) in developing senior managers for leadership readiness... Specific metrics that will be tracked by HR include: accuracy of projected requirements; pipeline for targeted critical positions; participant evaluations of development activities; and competitiveness of SLDP graduates. To ensure the effectiveness of the FHWA Succession Plan, the following assessments will be conducted quarterly:
  1. Candidate pools for all critical positions will be assessed for number of candidates, number of internal candidates, and the number of certified candidates.
  2. Individuals qualified for key positions at time of announcement are applying.

<sup>60</sup> DOT Succession Planning Report, 2006



3. Candidates who apply for key positions can demonstrate increased performance as a result of leadership activities.

- **The National Highway Traffic Safety Administration (NHTSA)** evaluates leaders on an annual basis to determine competencies, proficiency levels, and skill gaps. In addition, skill gap closure strategies will be addressed on an annual basis during the creation of Leadership Development Plans (LDP) and leader evaluation periods. Assessment results are analyzed by the NHTSA Human Capital Team to address continuous improvement efforts.
- Pipeline and Hazardous Materials Safety Administration (**PHMSA**) measures the effectiveness of its succession planning activities by assessing the selections made for leadership vacancies, by the results of the leadership competency assessments, and by top management's annual determination of the number of positions with available "ready now" candidates. **PHMSA's** current goal is to have "ready now" candidates for 80% of its key positions and feeder positions (non-senior staff supervisory jobs by the end of FY 2009).
- The Federal Transit Administration (**FTA**) outlines various measures to safeguard the effectiveness of their succession plans. For example, FTA recently completed a Retirement Wave Report to analyze the impact of retirements and to plan ahead for staffing changes... planning is included in the FTA Strategic Business Plan. One of the deliverables is a succession plan for each organization. A planning guide has been provided to each member of the FTA Executive Management Team as well as retirement analysis data. These plans are updated annually.
- **The Federal Railroad Administration (FRA)** has been evaluating their succession plan periodically since FY 2004. For example, they evaluate the quality of selected leaders through the use of a variety of assessment tools such as the use of the cultural assessment, FRA Diversity and Customer Service Surveys. To assist in succession management, FRA continues to use the 360 assessment tool to develop action plans for SES through GS-13 managers and supervisors.
- The success of the **Volpe Center** succession planning outcomes will be evident through current and future assessment activities such as:
  - a. DOT Leadership Assessment Survey
  - b. OPM Federal Human Capital Survey
  - c. Volpe Center Human Capital Advisory Group
  - d. Continuity of the Center's Business Plan
  - e. Reduced attrition rates

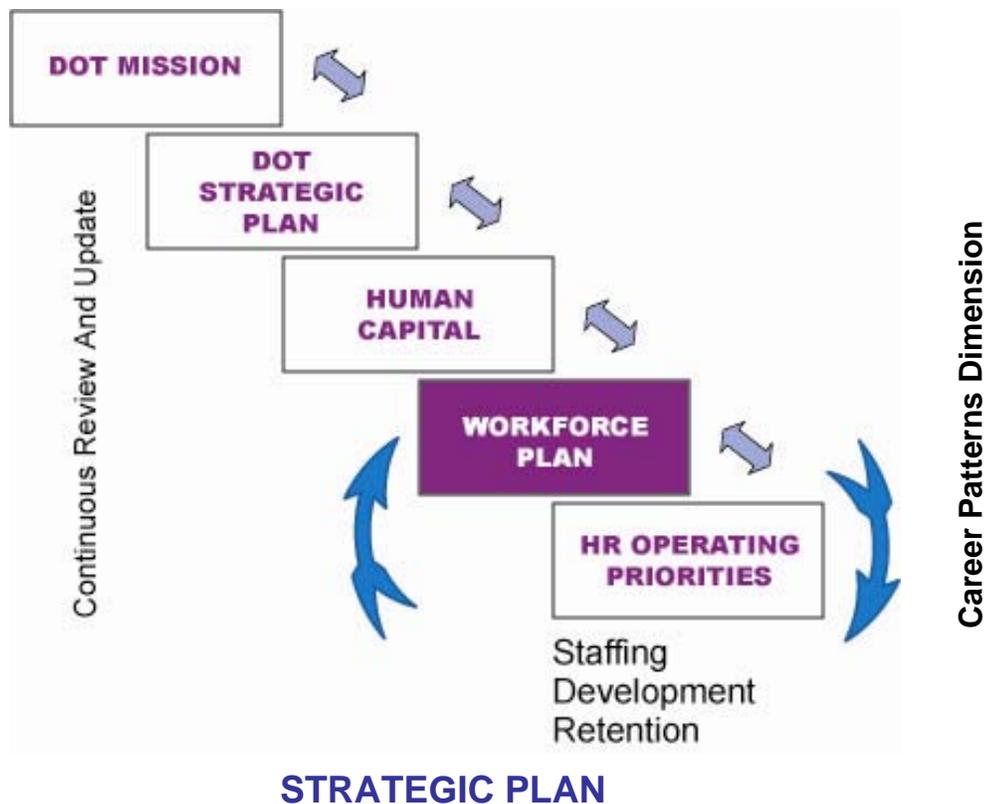
## CHAPTER 5: TALENT MANAGEMENT PROGRAMS

As originally detailed in the Introduction to this *Analysis*, the direction and initiatives outlined in a workforce plan must be implemented through Human Resources (HR) operating systems including Staffing, Development, and Retention Programs.

The purpose of this chapter is to demonstrate, through a representative sampling, the multiple operating programs and approaches in use at the Department of Transportation (DOT) to manage and develop employee talent:

- Career Patterns Dimensions
- Position Management/Restructuring/Competitive Sourcing
- Recruiting
- Retention
- Development and Training
- Knowledge Management

**Figure 5-1: Role of Workforce Plan in the Strategic Management of Human Capital**





## APPLYING THE “CAREER PATTERNS” DIMENSIONS

### THE CHALLENGE

*“The Federal Government must cultivate, accommodate and advertise the broad range of opportunities and arrangements that will characterize federal careers in the future. In short, we must develop a new mindset. We are dealing with a 21<sup>st</sup> century challenge that requires a 21<sup>st</sup> century approach.”*

In June 2006, the Office of Personnel Management (OPM) introduced the “Career Patterns” dimensions to help attract and retain workers into the Federal workforce. Career Patterns is designed to increase the accessibility of Federal service to a new generation of workers as well as to an untapped market of mid-career workers, retirees, and others. The Career Patterns program challenges agencies to address the expectations of members of the workforce who may value flexibility and non-traditional environments over predictability and job-security. OPM has outlined five dimensions within Career Patterns

Figure 5.2: OPM Career Pattern Dimensions

OPM Career Pattern Dimensions		
1.	Time in Career	The career stage at which one enters or re-enters the Federal workforce (early, middle, late/returning)
2.	Mobility	The movement of an employee to other geographic locations, between agencies, and between the public and private sectors (not mobile, mobile, highly mobile)
3.	Permanence	The duration of employment that suits the employee and the mission (short-term, revolving, long-term)
4.	Mission-focus	The mission or project that attracts one to Federal employment (public service driven, profession driven, specific mission driven)
5.	Flexible Arrangements	The work environment that best supports the employee and the work (traditional, flexible, highly flexible)

The OPM Strategic and Operational Plan requires that all Chief Human Capital Officers (CHCO) Subcommittee agencies (including the DOT) operate and hire in the Career Patterns environment as follows:

- Identify Federal Government Workforce Career Patterns (June 1, 2006)
- Categorize positions by new Career Patterns (January 1, 2007)
- Begin to put dimensions into operation, and hire in the New Career Patterns environment (October 1, 2007)

### THE APPROACH

#### **Job Requirements/Career Patterns Mapping**

Evaluating its hiring and retention practices against the Career Patterns model offers the Department a sound template for improving strategic recruiting.

For DOT, the challenge to recruit and hire more broadly was documented as early as 2003, when then Transportation Secretary Norman Mineta challenged the Department to increase its hiring at entry levels, to expand outreach to women and minorities—with particular emphasis on the Hispanic population—and to more actively recruit people with disabilities. Secretary Peters reiterated this commitment in 2007.



**☑ Identify Federal Government Workforce Career Patterns (June 1, 2006)**

The Department has identified 10 Mission Critical Occupations (MCO) that reflect the employment needs of the Agency as a whole and must be maintained in order to effectively carry out its mission. (Note that MCOs account for over 78% of the DOT workforce.) Recruitment efforts are focused on maintaining strength level in each of the 10 areas and particularly in the areas occupations vulnerable to near-term retirements, including Engineering, Transportation Safety, and Information Technology (IT) (see Chapter 3).

**☑ Categorize positions by new Career Patterns (January 1, 2007)**

The Department has evaluated the Career Patterns dimensions against mission critical occupations.)

The job families vulnerable to loss, as well as areas that have identified competency gaps (i.e., Financial Management), have been mapped to the appropriate Career Pattern Dimension. (See *Career Patterns Dimensions Mapped to Mission Critical Occupations*, below.) This provides insights into the individuals who might fill these job requirements and the work situations that will be best suited to each.

**☑ Begin to put dimensions into operation, and hire in the New Career Patterns environment (October 1, 2007)**

DOT already deploys many Career Patterns tools suited to its unique workforce characteristics (e.g., a highly stable and long-service workforce; regular opportunities to hire mid-career professionals from outside Government, an aging workforce, few new hires at entry levels). The Department has elected to focus on the *Workplace Flexibility* Dimension for additional Career Patterns attention.

Secretary Peters has charged all DOT organizations to improve their *leadership culture and performance*, and their use of *telework and other flexible arrangements*, and has issued a Telework Policy to emphasize the role of telework, and managers' responsibility in encouraging this flexibility. Training for managers has been added to the eLMS<sup>61</sup>.

The increased used of flexible schedules and telework will directly support DOT's strategic goals of reducing congestion in the nation's highways and conserving energy, and will be a valuable tool to attract and retain talent during challenging demographic times. Because this is a leadership priority, the Secretary has charged Administrators to step forward as champions and leaders of Agency efforts.

This Career Patterns dimension appears in DOT's new Human Capital Strategic Management Plan (2007):

**Goal 2:** Promote leaders' ability to manage telework, flexible schedules, and other non-traditional work arrangements that can make DOT an employer of choice while improving customer service and reducing highway congestion.

*Strategy 1:* Provide training to DOT leaders on the value of telework and on relevant management strategies.

*Strategy 2:* Use management forums and other outreach techniques to emphasize senior leaders' support for flexible work arrangements.

*Strategy 3:* Ensure that replacement strategies are developed and refreshed for high leverage positions.

<sup>61</sup> Human Capital Strategic Management Plan, 20071



**Retention Goals**

**Goal 4:** Improve use of workplace flexibilities, such as telework and flexible schedules as tools both to recruit and retain talent and to bolster emergency preparedness.

*Strategy 1:* Improve communication to applicants and current employees about possible flexible arrangements.

*Strategy 2:* Improve training and accountability for leaders to remove barriers.

*Strategy 3:* Encourage telework “drills” and leverage lessons learned to improve effectiveness of remote performance and communication.

Responses from the 2006 Federal Human Capital Survey (FHCS) indicate that DOT employees are about as satisfied with current workplace flexibility as other Federal employees. More could be gained by increasing employees’ awareness and utilization of telework and other flexibilities.

How satisfied are you with alternative work schedules?

Yr	Highly Satisfied			Satisfied			Neutral			Dissatisfied			Highly Dissatisfied			No Basis to Know		
	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002
All Govt	18.5%	20.3%	19.1%	30.7%	33.6%	36.9%	17.1%	31.2%	27.2%	6.3%	8.4%	11.0%	5.6%	6.5%	5.8%	21.8%	---	---
All DOT	26.7%	27.4%	24.3%	30.8%	35.8%	45.3%	11.6%	21.5%	15.8%	7.6%	8.2%	10.4%	9.9%	7.2%	4.1%	13.5%	---	---

How satisfied are you with telework/telecommuting?

Yr	Highly Satisfied			Satisfied			Neutral			Dissatisfied			Highly Dissatisfied			No Basis to Know		
	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002
All Govt	5.5%	6.0%	4.5%	16.3%	18.7%	17.0%	21.9%	56.9%	58.3%	6.5%	10.1%	11.3%	6.1%	8.3%	8.9%	43.7%	---	---
All DOT	5.9%	4.8%	4.6%	10.2%	13.4%	13.8%	16.8%	56.3%	52.1%	8.3%	12.7%	16.5%	10.7%	12.8%	12.9%	48.0%	---	---

The applications of additional dimensions of Career Patterns dimensions at DOT are described below:

**Time in Career:**

DOT has a “bi-modal” distribution of hires across the age and experience spectrum.

DOT regularly hires professionals, particularly engineers, at mid-career (for example, at FHWA and FRA). Anecdotal evidence from recruiting managers and hiring managers suggests that *the work itself* is the incentive for these professionals. The opportunity to utilize their professional training at the nexus of the national transportation system attracts a continuous pipeline of qualified candidates.

The Department has challenged itself to attract and hire more candidates at the entry-levels of their careers. Programs like DOT’s successful Federal Career Intern Program are directly targeted to increasing younger new hires (see *Results Achieved*).

**Mobility:** Turnover data indicate that DOT employees and employees from other Federal agencies seek inter-agency transfers at about the same rate (12-15% annually). DOT employees who responded to the 2006 FHCS reported the “intent to leave” their agency within a year at the same rate as the Federal average.

Data from the FHCS suggest opportunities to enhance DOT employees’ perception of DOT as a place to work relative to “all government” scores.



*I recommend my organization as a good place to work*

Yr	Highly Satisfied			Satisfied			Neutral			Dissatisfied			Highly Dissatisfied			No Basis to Know		
	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002
All Govt	23.8%	23.6%	19.9%	39.7%	39.9%	40.2%	20.5%	20.1%	18.2%	10.0%	10.4%	13.2%	6.0%	5.9%	8.4%	---	---	0.1%
All DOT	21.4%	22.4%	21.5%	32.4%	41.0%	40.2%	20.5%	18.0%	17.6%	11.3%	9.9%	12.5%	14.5%	8.7%	8.1%	---	---	0.1%

*I like the kind of work I do*

Yr	Highly Satisfied			Satisfied			Neutral			Dissatisfied			Highly Dissatisfied			No Basis to Know		
	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002
All Govt	38.7%	37.4%	36.3%	44.6%	45.1%	45.3%	11.1%	11.7%	11.8%	3.8%	4.3%	4.5%	1.7%	1.6%	2.1%			
All DOT	40.7%	36.5%	38.7%	45.3%	46.9%	44.9%	9.2%	10.2%	11.2%	3.6%	5.2%	3.4%	1.3%	1.3%	1.9%			

There may be other Federal agencies that could be feeder pools for DOT in specific mission-critical areas. For example, as NASA prepares to “retrain and redirect” its shuttle engineers for several years during the shuttle hiatus, there may be potential to attract them to DOT. Similarly, GSA is planning to transfer acquisition services professionals during 2007/2008. This might create opportunities for DOT to acquire staff in FY 2008.

**Permanence:** DOT has one of the highest average Length of Service figures among the Federal agencies. The specialized nature of the work (i.e., transportation and its sub-categories) mitigates for long-term assignments. DOT employees score close to the Federal average *on an item that OPM has determined is a key driver of “intent to stay”*: “My workload is reasonable”



*My workload is reasonable*

# of Respondents				Strongly Agree 2006				Agree 2006				Neither Agree nor Disagree 2006				Disagree 2006				Strongly Disagree 2006				Do Not Know 2006		
	*2006	2004	2002		2004	2002	2004		2002	2004	2002		2004	2002	2004		2002	2004	2002		2004	2002	2004		2002	
All Responses	221,433	147,903	100,656	10.6%	10.2%	13.5%	48.4%	49.9%	51.5%	16.7%	15.7%	10.1%	15.4%	15.8%	15.5%	8.3%	7.8%	9.2%	0.6%	0.6%	0.2%					
DOT	5,451	4,949	3,003	8.3%	6.8%	13.2%	48.6%	51.9%	53.8%	16.9%	16.4%	8.9%	16.6%	17.7%	15.3%	9.9%	7.1%	8.7%	0.6%	0.1%	0.0%					

DOT provides opportunities for exposure across Operating Administrations (OA) and/or within OAs to refresh employee perspectives using external and internal professional development programs that cross OAs (for example, "So You Want to be a Leader.") The Department utilizes the IPA program to offer professional exposure to employees. Detail assignments are utilized by OAs on specific assignments.

**Mission Focus:** As the FHCS data demonstrate, DOT employees are extremely mission-focused (more than 75% agreement). Two items that are drivers of long-term satisfaction also relate strongly to mission focus.

*I know how my work relates to the Agency's goals and priorities*

# of Respondents				Strongly Agree 2006				Agree 2006				Neither Agree nor Disagree 2006				Disagree 2006				Strongly Disagree 2006				Do Not Know 2006		
	*2006	2004	2002		2004	2002	2004		2002	2004	2002		2004	2002	2004		2002	2004	2002		2004	2002				
All Responses	221,450	147,908	100,656	29.0%	28.6%	36.5%	53.8%	54.5%	52.4%	10.5%	10.6%	5.2%	3.9%	3.9%	3.8%	2.1%	1.8%	1.5%	0.8%	0.6%	0.6%					
DOT	5,453	4,951	3,003	24.5%	21.4%	33.4%	49.5%	53.9%	53.4%	11.9%	15.0%	5.3%	6.5%	6.0%	5.4%	6.1%	2.7%	2.2%	1.4%	1.0%	0.4%					

*My work gives me a feeling of personal accomplishment*

Yr	Highly Satisfied			Satisfied			Neutral			Dissatisfied			Highly Dissatisfied			No Basis to Know		
	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002	2006	2004	2002
All Govt	27.6%	26.7%	25.0%	45.3%	44.2%	44.9%	14.9%	15.6%	15.0%	8.2%	9.4%	9.9%	3.9%	4.1%	5.2%			
All DOT	25.8%	23.5%	24.5%	47.5%	46.3%	45.9%	14.4%	15.1%	14.5%	7.7%	10.6%	10.3%	4.6%	4.5%	4.8%			

DOT recruiting materials emphasize the attraction and criticality of the DOT mission. The "Careers in Motion" recruitment area on DOT's website prominently features the DOT mission, which was also featured when DOT was featured by the Partnership for Public Services as the Federal Hot Jobs of the Month in February 2007; this announcement reached over 600 university deans and thousands of unique subscribers.

The Department's strategic importance to national security and the environment create an appealing base from which to recruit professionals interested in public service.



## RESULTS ACHIEVED

This section highlights a sample of the implementations of Career Pattern Dimensions at DOT. See “RECRUITING,” below, for additional examples

FHWA provides an example of how one operating agency is deploying multiple Career Pattern Dimensions. To attract candidates to its Mission Critical Occupations, FHWA promotes the use of *advance-hiring rates*, as well as *recruitment and relocation bonuses* and *leave flexibilities* to attract and recruit highly qualified applicants for hard-to-fill geographic positions and MCOs. Other initiatives include hiring and developing entry level staff<sup>62</sup>.

OPM has identified the following as next steps<sup>63</sup> for agencies to fully implement Career Patterns into its workforce planning activities:

### 1. Identify work attractors/flexibilities needed to recruit and retain the identified Career Pattern Scenarios.

The Tuition Assistance Program (TAP) – TAP assists MARAD employees who participate in continuing studies programs at universities or colleges during their off-duty hours. The area of study must be relevant to the employee’s current position. The funds are applied to the costs of tuition fees and books incurred during the semester or quarter in which the employee is a participant in the program. In FY 2006, TAP participants included a total of 19 employees – 12 African Americans, and seven Whites. Of that total, 11 were men and eight were women. In addition, MARAD’s Transportation Leadership Program was designed to train and educate a cadre of employees to effectively compete for senior leadership positions within the Agency, DOT, or Federal service. In FY 2006, the participants included three White men, one African American female, and one African American male. The FTA offered recruitment incentives to 20 program participants in FY 2006, and approved tuition reimbursement for 10 employees.

### 2. Implement project plans that market, expand, and/or improve work environments.

- a. PHMSA is in the pilot phase of testing a flexible work policy whereby hazardous materials inspectors are hired in a variety of locations and receive training for six to nine months in a regional office prior to being deployed to telecommuting locations. PHMSA is also developing policies surrounding recruitment bonuses and student loan repayments as incentives<sup>64</sup>.
- b. OIG is working closely with their managers to establish work environments that support personal and family needs and are conducive to retaining critical talent. It continues to promote workplace options such as telecommuting/telework opportunities and has established specific deadlines to develop/update policies surrounding these work flexibilities<sup>65</sup>.

### 3. Begin to include Career Patterns language in vacancy notices.

- a. PHMSA is currently adding language to certain vacancy announcement to play up the variety of issues an employee will experience while working with PMHSA<sup>66</sup>.
- b. The Department as a whole is advertising such things as Family Friendly Leave Flexibilities, Flexible Work Schedules, Part-Time Employment and Job Sharing, Telecommuting, Child-Care, and a variety of other benefits to attract interest in employment opportunities via the [www.careers.dot.gov](http://www.careers.dot.gov) website.

The opportunity ability to *fill vacant positions* using many of the proposed Career Patterns strategies and flexibilities was limited in FY 2006 by curtailed budgets across the Department.

<sup>62</sup> FHWA, *Three-year External Recruitment Plan, 2006*

<sup>63</sup> *Career Patterns: A 21<sup>st</sup> Century Approach to Attracting Talent*, OPM Presentation

<sup>64</sup> *Pipeline and Hazardous Materials Safety Administration, FY 2007/2009 Workforce Plan*, p. 23

<sup>65</sup> OIG, *Workforce Plan, January 2007*, p. 15

<sup>66</sup> *Pipeline and Hazardous Materials Safety Administration, FY 2007/2009 Workforce Plan*, p. 23



## RECRUITING

Regardless of the *rate* at which new employees are hired in FY 2007, DOT's approach to recruitment must remain strategic. DOT can not afford a simple replacement strategy. DOT must focus on its mission critical occupations, anticipated skills gaps, and outreach to people with disabilities, Hispanics, and other minorities<sup>67</sup>.

### THE CHALLENGE

In FY 2006, the *total* number of new hires failed to replace the total employees lost to retirement. Many OAs will find retaining talent and expertise a challenge in FY 2007 and future years as experienced employees continue to retire.

To supplement OA recruitment efforts, the Office of the Secretary manages Department-wide outreach and recruiting programs to position the Department as an Employer of Choice. This ONEDOT approach allows for strategic cross-leveraging of funds and resources. Under tight budgetary constraints, the ONE DOT Corporate Recruitment team can effectively leverage staff and recruitment resources across the Department by increasing the involvement of field staff to avoid travel costs of headquarters staff. Success is derived from true ONE DOT participation all stages from planning/decision-making to execution. ONEDOT recruitment events must meet at least 4 of the following criteria.

- 1) "Underrepresented" or minority participants. The event participants are likely to be in one or more groups that are underrepresented across DOT, or in minority groups that are not well-represented within the majority of OAs, or in groups that are underrepresented in certain occupations or at certain levels at DOT.
- 2) Mission-Critical Occupations/Skills. The event targets candidates with specific educational and training backgrounds that are related to DOT's mission-critical positions or departmental skills gaps.
- 3) Geographic Area. The event is in a geographical area which is likely to provide candidates from diverse backgrounds; or the event is located near DOT facilities that are hiring for the types of candidates the event targets.
- 4) Nationally Recognized. The event is a nationally recognized career fair that has a record of attracting an educated, talented and a diverse pool of workforce applicants.
- 5) Entry- or Mid-Level. The event targets entry-level or mid-level candidates.
- 6) Return on Investment. The event is likely to provide DOT a good value for the associated cost. For example: The vendor may provide a prime exhibit location in the hotel or conference center; the registration fee may include free or reduced cost for advertising in the conference program or magazine; or registration may include a resume database or disk of event participants.
- 7) Key Partners. The event is sponsored by or closely tied to an organization with which DOT has committed to having an active recruitment/outreach-related relationship. Strategic partners include OPM and the Partnership for Public Service.

### THE APPROACH

In early 2006, the Department asked each OA to submit a three-year plan addressing their external recruitment strategy for filling full-time permanent professional and technical positions in FY 2006 through FY 2008. Each OA was asked to address the following:

1. The total number of positions projected to be filled from external sources broken down by occupational groups and grade ranges

<sup>67</sup> DOT Recruitment Progress Report, March 2005



2. The specific recruitment strategies for meeting those external recruitment needs
3. Strategies for reaching individuals in groups that are underrepresented across the Department (e.g., Hispanics, People with Targeted Disabilities, Asian Females, White Females, and individuals in other diverse groups)
4. Plans for building a student pipeline
5. Plans for encouraging entry-level hiring
6. Projected Spending for Recruitment/Outreach

### RECRUITING RESULTS: "CAREERS IN MOTION"

#### **Total Number of positions projected to be filled:**

- DOT/OHR now receives quarterly updates of the number of open positions, enabling better tracking and cooperative sourcing among the OAs.
- Quarterly reports now include total employees on board, total new hires, and hires in each MCO.

A typical quarterly report<sup>68</sup> (1<sup>st</sup> Q 2007) includes the following data:

#### MCOs:

- Planning (0020) (Total hires FY 2007: 16)
- Program Management (0340) (Total hires FY 2007: 130)
- Financial Management (0501, 0505, 0510, 0511, 0525, 0540, 0544, 0560) (Total hires FY 2007: 80)
- Engineer (0801, 0802, 0803, 0806, 0807, 0808, 0809, 0810, 0817, 0818, 0819, 0830, 0850, 0855, 0856, 0861, 0871, 0873, 0896) (Total hires FY 2007: 181)
- Legal (0905, 0935, 0950, 0963, 0986) (Total hires FY 2007: 50)
- Physical Scientist (1301, 1306, 1310, 1320, 1340, 1350, 1361, 1370, 1371, 1373, 1384) (Total hires FY 2007: 13)
- Transportation Specialist (2101) (Total hires FY 2007: 206)
- Transportation Industry Analyst (2110) (Total hires FY 2007: 10)
- Transportation Safety (1825, 2121, 2123, 2125, 2152) (Total hires FY 2007: 1552)
- Information Technology (2210, 0334, 0391, 1550, 0854) (Total hires FY 2007: 76)

Or 2314 MCO hires of our total 3252 hires this FY (71% of hires in our MCOs)

We issued 4684 certificates for MCO positions (some merit promotion, some DEU, Schedule A, etc)

### SPECIFIC RECRUITING STRATEGIES:

DOT has focused its hiring activities to fill positions in key occupational areas. The most significant recruitment effort will be for the Federal Aviation Administration (FAA) OA, where over 72% of the FAA workforce is eligible to retire over the next 10 years. Over these 10 years, FAA plans to hire and train over 15,000 air traffic controllers throughout the country. In 2007 alone, the Agency plans to hire more than 1,300 new controllers, close to 200 more than it hired in 2006.

**FAA** has achieved several milestones in improving their recruiting functions, including reaching out to former military personnel through military separation centers to ensure the veteran population is aware of air traffic control opportunities. As a result, 404 veterans were hired into controller positions. FAA also planned and executed a successful job fair in Kansas City, Missouri to recruit controllers for local positions<sup>69</sup>.

<sup>68</sup> Report produced by OST

<sup>69</sup> The Federal Aviation Administration's 10-Year Strategy for the Air Traffic Control Workforce.



DOT is also measuring the impact of an expanded presence in the labor market. The Department has expanded the functionality of the database for applicant tracking. Most of the applications DOT receives in the Hiring Manager system were generated as a result of the Department's online presence/outreach.

**Strategies for reaching individuals in groups that are underrepresented across the Department; and plans for building a student pipeline and increasing entry-level hiring.** DOT has been highly successful in recruiting and hiring diverse candidates through student employment and entry-level programs.

DOT places major emphasis on implementing student programs as a pipeline to fill entry-level positions.

To further enhance the Operating Administrations' efforts in cultivating a diverse workforce, DOT developed and implemented the *2006 DOT Ambassador to Ambassador Program*, a corporate partnership with the Cesar Chavez Schools for Public Policy in Washington, D.C. DOT sponsored a group of students from June 5–June 22, 2006 with support from Federal Transit Administration, Federal Railroad Administration, National Highway Traffic Safety Administration, Maritime Administration, Federal Motor Carrier Safety Administration, the Departmental Offices of Civil Rights and Human Resource Management. The program engaged the students in the mission and culture of DOT by assigning them to a mentor within an OA and provided them the opportunity to network with the various senior leaders within the Department. DOT prepared an activity calendar that connected the students with the Department through various activities with DOT officials. The *DOT Ambassador to Ambassador Program* is designed for both the mentor and the protégé to serve as an ambassador and promote DOT as an "Employer of Choice." This corporate partnership is an effort to advance the Department's ability to manage a high performance diverse workforce as required by the strategic human capital management goals of the President's Management Agenda. This program is sponsored by the Departmental Office of Human Resource Management and the Secretary's Diversity Advisory Council.

In addition, DOT hosted high school students from the *HIGH SCHOOL/HIGH TECH Program* sponsored by the United Cerebral Palsy of Prince George and Montgomery Counties. The *HIGH SCHOOL/HIGH TECH Program* is designed to provide youth with disabilities in the Prince George and Montgomery Counties Schools with early exposure to careers in the science, engineering, mathematics, and technology-related fields. This program supports the ever-increasing demand of a high technology workforce where individuals with disabilities can serve as a recruitment source of qualified candidates.

The OAs are also using a variety of authorities and innovative approaches to expand their recruiting success. Some examples of these approaches follow.

**Transportation Career Residents.** DOT's program has been highlighted by the Partnership for Public Service as a best practice in reaching a qualified diverse applicant pool. The Career Residency Program serves as a convenient vehicle for managers to hire the next generation of exceptional individuals into MCOs at the entry level. Established in 2005, the program affords the Department the flexibility to undertake strategic recruitment efforts and allows managers to effectively bring fresh talent into the Department. Career residents are hired for two years through excepted service appointments, and after successfully completing the program, residents may be appointed to full-time civil service positions without competition. DOT experienced a 300% increase in the size of applicant pool for the Program from FY05 to FY07, resulting in approximately triple the number of hires. Of the FY 006 Residents, 58% are women and 58% are minorities. Of the FY 07 Residents, 73% are women and 73% are minorities.

**ETA** has called their Student Loan Repayment Program one of their most powerful entry-level recruitment tools. Repayments of up to \$10,000 per year are being made available to qualified employees who also sign a three-year continuing service agreement. Additionally, the FTA hopes to increase retention by fostering mentoring, training, and development opportunities<sup>70</sup>.

<sup>70</sup> Federal Transit Administration Workforce Plan, Fiscal Year 2007, p.29



**FAA** is using a variety of initiatives including the FAA Student Intern Program (FASIP), FAA Adopt-A-School, and the FAA Aviation and Space Outreach Program to expose students to careers in aviation. The FAA Student Intern Program (FASIP), for example, provides learning and development opportunities and work experience for students in high school, vocational and technical schools, undergraduate programs (both associate and baccalaureate degrees), and graduate programs. The FAA Student Intern Program (FASIP) permits on-the-spot hiring for a position, which provides experience that is directly related to the student's educational program and career goals<sup>71</sup>.

**Federal Highway Administration (FHWA):**<sup>72</sup> FHWA's recruitment strategy is concentrated on the four major recruitment categories outlined in their External Recruitment Plan:

- Student employment
- Entry-level hires
- Mid-level hires
- Senior-level hires

FHWA has included the following student programs in its long-term recruitment strategy since FY 2005:

- The Summer Transportation Intern Program for Diverse Groups (STIPDG)
- The Student Temporary Employment Program (STEP)
- And the Student Career Experience Program (SCEP)

The FHWA has launched a comprehensive recruitment program with emphasis on developing a more multidisciplinary and diverse workforce by utilizing student educational, outreach, and employment program initiatives as a pipeline to filling vacancies. The FHWA uses various programs targeted for students in grades K-through Post-graduate studies such as the Garrett A. Morgan Technology and Transportation Future Program; National Summer Transportation Institute (NSTI); Transportation and Technology Academy of Cardozo High School (TransTech) and the Dunbar Pre-Engineering High School (Washington, DC); STEP; SCEP; STIPDG; Dwight David Eisenhower Transportation Fellowship Program; and Minority Serving Institutions (MSI) and Educational Partnerships<sup>73</sup>.

The STIPDG program attracted a large applicant pool of diverse and talented youth. The factors that contribute to the program's success include a year-round website where students have access to internship opportunities at DOT, and an aggressive outreach initiative tailored to reach diverse students throughout the United States. For example, over 300 applications and resumes were received for the STIPDG in 2005, resulting in the placement of 79 student interns throughout the Department. Effective outreach activities for the STIPDG program include visits to campuses for career fairs and information forums. In 2006, 82% of DOT's STIPDG interns were minorities, with women constituting 50% of the total group. In addition, FHWA has various exhibits at the annual Transportation Research Board meetings (TRB), which focus on internships and student employment programs.

FHWA managers have pro-actively sought out the SCEP's hiring flexibilities to hire undergraduate and post graduate students in mission critical disciplines such as finance, planning, environment, and safety. Consequently, FHWA has 16 SCEP students on-board in 12 Division offices and two Resource Center locations, while three graduates were successfully converted to permanent appointments in the Professional Development Program (PDP), which is the primary recruitment source for FHWA's entry-level employees. Through the use of this results-oriented program, the PDP produced the permanent hires of three SCEP students, three former STIPDG interns, and one former Eisenhower fellow.

<sup>71</sup> [http://www.faa.gov/careers/employment/intern/FAA%20Student%20Intern%20Program%20\(FASIP\).doc](http://www.faa.gov/careers/employment/intern/FAA%20Student%20Intern%20Program%20(FASIP).doc)

<sup>72</sup> DOT FEORP for FY 2006

<sup>73</sup> FHWA, *Three-year External Recruitment Plan, 2006*



Figure 5-3: FHWA Student Recruitment Data – FY 2005  
STIPDG, STEP, SCEP, and PDP

	Male	Female	Indian	Asian	Black	Hispanic	White	Other	Total
STIPDG	43 (54%)	36 (46%)	1 (1%)	9 (11%)	21 (27)	14 (18%)	33 (41%)	1 (1%)	79
STEP	5	11		2 (13%)	12 (75%)	2 (13%)			16
SCEP	9	7			7 (44%)	2 (13%)	7 (44%)		16
PDP	13	9			2 (9%)	7 (32%)	13 (59%)		22

\*Percentage of total in program. Under the STIPDG program, participants are not considered employees, but are provided a stipend for a two-month period.

### Federal Transit Administration (FTA)

In FY 2006, FTA's recruitment and placement initiative focused on attracting a highly qualified and diverse workforce, with special emphasis on women and minorities. FTA recruitment activities focused on external sources in an attempt to increase its Full Time Equivalent (FTE) to the authorized level and bring new talent into the organization. To attract new talent, FTA utilized their delegated examining authority and open announcements to non-status candidates. These announcements were disseminated through the OPM USAJOBS, paid advertisements, and by FTA personnel attending conferences. In addition, the USAJOBS links to other websites further enhances FTA's efforts to reach women and minorities. To support and maintain a diverse workforce, in FY 2007 FTA will implement the following initiatives:

- **Competitive Examining Authority.** FTA will use the competitive examining authority to increase the Agency's potential to reach women and minorities.
- **Competitive Edge Program, Student Career Experience Program, and Presidential Management Fellows Program.** FTA will continue to utilize the following training programs: the Competitive Edge Program, Student Career Experience Program, the Presidential Management Fellows Program, and the DOT Career Residency Intern Program.
- **New Leaders Program, Executive Leadership Program, and Executive Potential Program.** FTA will participate in Government-wide Career Development Programs such as the New Leaders Program, Executive Leadership Program, and the Executive Potential Program. These Government-wide programs provide opportunities for individuals who demonstrate leadership potential and interest in management development opportunities throughout the Federal Government.
- **USAJOBS.** The agency provides vacancy information on OPM's USA JOBS including the distribution of job announcements to external sources.

### FEDERAL RAIL ROAD ADMINISTRATION (FRA)

The FRA increased its representation of minorities and females into the workforce at various grade levels through a variety of recruitment sources and appointing authorities. Specifically, the Agency hired into permanent positions eight Black females, 10 Black males, three Black males, 11 White females, three Asian/Pacific Islander males, four Hispanic males and one Hispanic female. FRA also recruited for entry-level positions for the Railroad Safety Inspector occupational series. Specifically, one White female was selected through the Upward Mobility program, and one Black Male was hired into the trainee program.

In FY 2006, FRA also participated in the *Student Temporary and Student Career Employment Programs, the Minority-Serving Institutions (MSI) Internship Program, the DOT Career Residency Program, and the DOT Career Intern Program.* Six White females, eight Black females, two Hispanic females, and one Asian



Pacific Islander male were hired under the Student Employment Programs. Accordingly, the FRA hired two Black females, one who is a former MSI Intern, under the DOT Career Residency Program. During this time, the Agency converted two white females and one Hispanic female from a Student Career appointment to a permanent position.

Furthermore, FRA used a broad spectrum recruitment approach to recruit for many of their vacancies, including two SES positions. Specifically, for the SES vacancy, FRA received applications from qualified females through personal outreach by FRA managers and executives. The Agency targeted distribution of their job announcements to organizations serving minorities, women, veterans, and persons with disabilities.

### **Saint Lawrence Seaway Development Corporation (SLSDC)**

SLSDC posted seven vacancy announcements in FY 2006. One selection was female and two were veterans, with one being a disabled veteran. In addition, the Agency selected one minority from an existing applicant list. One vacancy was filled as an executive appointment with a disabled female. The Agency also had 15 temporary appointments, which included nine veterans (two were disabled veterans); and four females, one being disabled. Furthermore, SLSDC workforce is comprised of approximately 51% veterans, of those veterans 15% are disabled; 26% female; and 10% minorities.

To cultivate a diverse and creative workforce, SLSDC partners with the Massena Independent Living Center to identifying disabled applicants. The Agency also has partnered with the Akwesasne Reservation of the St. Regis-Mohawk Tribe. SLSDC staff distributes vacancy announcements and participated in their job fair this past spring. As a result, Native Americans comprise 4.73% of the Agency's workforce.

### **Federal Motor Carrier Safety Administration (FMCSA)**

FMCSA is planning to utilize a variety of methods to enhance their recruitment efforts. For example, they plan to seek partnerships with Minority Institute of Higher Education (MIHE) and local schools that have a large population of students in diverse categories of under-representation. Volunteer programs that are initiated will afford an opportunity for students to earn points toward community service. Additionally, these partnerships and volunteer opportunities will market the organization and encourage students to consider careers in transportation and the motor carrier industry<sup>74</sup>.

## **RETENTION**

Employee retention is a key issue for all Federal agencies. Because the cost of replacement is estimated to be 1.5 times the annual salary of a departing employee<sup>75</sup> investment in knowledge management and retention is increasingly a priority.

DOT employees' "intent to stay," as measured by the 2006 Federal Human Capital Survey, mirrors the Government-wide averages.

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<sup>74</sup> *Three-Year External Recruitment Plan for the Federal Motor Carrier Safety Administration (FMCSA), 2006-2008.*

<sup>75</sup> *Saratoga Institute*



Figure 5.4: 2006 Federal Human Capital Survey: Employee “intent to stay”

Agency		# of Respondents*	Leaving					Retiring				Age Group					
			No	Yes, to retire	Yes, to other job in Govt	Yes, to other job outside Govt	Yes, other	Within 1 year	Between 1 and 3 years	Between 3 and 5 years	5 or more years	25 and under	26-29	30-39	40-49	50-59	60 or older
All Responses	2006	221,479	69.2%	6.6%	16.4%	3.6%	4.2%	11.6%	12.9%	71.3%	1.1%	2.9%	14.4%	32.2%	40.0%	9.3%	
DOT	2006	5,453	67.4%	7.1%	17.4%	4.3%	4.8%	12.5%	12.9%	69.8%	1.1%	3.1%	14.4%	30.5%	40.0%	11.0%	
	'04	4,951	70.0%	7.4%	15.5%	3.6%	4.8%	10.7%	13.8%	70.7%	----	----	15.4%	30.6%	40.6%	10.4%	
	'02	3,003	----	----	----	----	3.5%	12.1%	13.1%	71.3%	----	----	15.6%	32.9%	41.2%	7.7%	

Roughly the same percentage of DOT employees and all Federal employees said they intended to stay for at least one year (67% vs. 69%, respectively). Compared with 16% of all Federal employees, 17% of DOT employees said they intended to leave their agency to take another job in Federal Government, indicating a certain amount of steady “churn” in each agency.

Federal agencies that can identify the drivers of the intent to move among agencies, and can reduce that churn by even a small percent, would have a large impact on their cost of turnover.

The FAA currently administers a new employee survey and an exit survey to track drivers of employee satisfaction. The OST Office of HR Policy introduced a DOT-wide exit survey in early FY 2006. The Department does not yet have a full year’s data for analysis.



## POSITION MANAGEMENT/RESTRUCTURING/ COMPETITIVE SOURCING

DOT can not overemphasize that a simple replacement strategy will not suffice. Strategic initiatives must continue to be integrated with Human Capital Plans, Workforce Plans, and diversity initiatives to ensure that the Department is attracting and hiring the people it needs to accomplish its mission effectively<sup>76</sup>.

In a climate of change and constrained resources, rather than simply backfilling each position as it is vacated, many of the OAs are re-evaluating each open position to ensure that job descriptions adequately describe the competencies needed to further the mission at an appropriate level and department within the organization.

Some examples include<sup>77</sup>:

- **FHWA** projected external staffing needs for their seven MCOs through 2008. The OA's initiatives to fill these positions include encouraging attendance at major local, regional, and national job fairs to familiarize the public with the OA's corporate image. These events are often sponsored by associations with large audiences of professionals who meet knowledge, skills, and technical capabilities required for many of the FHWA's mission critical occupations. (0810 – Civil Engineering; 0020 – Planning; 0028 – Environment; 05xx – Financial Management; 0802 Engineering Technician; 1170 – Realty (Right of Way); 2101 – Transportation Specialist)
- **FAA** held the largest Federal competition to date, the AFSS A-76 competition, with explicit modernization and restructuring goals. The successful bidder, Lockheed Martin, is partnering with FAA to upgrade technology and close and consolidate offices. Financial management functions were consolidated in Oklahoma City, which is now one of the Office of Management and Budget's (OMB) four financial management Centers of Excellence. FAA is now consolidating IT professional functions and is outsourcing and/or retraining former help-desk professionals.
- **Office of the Secretary (OST)** restructured to upgrade skills and accommodate a significant budget deficit. In FY 2006, the OST headcount was restructured from 690 to 637 employees.
- **MARAD** announced an impending reorganization to modernize the Agency while improving support of its traditional missions. A message about the reorganization from MARAD's Administrator, Sean Connaughton, may be found at: [http://www.marad.dot.gov/Reorganization%2007/reorg\\_template%20w-change.html](http://www.marad.dot.gov/Reorganization%2007/reorg_template%20w-change.html)
- **FRA** is completing gap analysis reports and improvement plans for closing identified gaps during FY 2007 and FY 2009. To complement these workforce planning efforts, FRA utilized Voluntary Separation Incentive Payments (VSIP) and Voluntary Early Retirement Authority (VERA) to facilitate positions restructuring efforts through September 30, 2007.
- Competitive Sourcing Information
- **NHTSA's** third Competitive Sourcing (A-76) study conducted during FY 2006 has concluded with the Correspondence Research Division (CRD) within the Office of Defects Investigation emerging as the winner. The Most Efficient Organization (MEO) developed by the CRD for the competition proposed several process changes as well as changes to the staff mix that included contractor staff. As a result of submitting such an innovative proposal, the MEO won the competition against the private sector. Also, no NHTSA employees will be adversely affected by the outcome of this competition. The new CRD organization is projected to save NHTSA nearly \$1 million over current costs throughout the five-year period of the competition.

<sup>76</sup> DOT Recruitment Progress Report, March 2005

<sup>77</sup> (Draft) Strategic Human Capital Plan, June 2007



## DEVELOPMENT AND TRAINING

### DEPARTMENT-WIDE DEVELOPMENT PROGRAMS

In FY 2006, DOT sponsored three Department-wide career development programs: “*So You Want to be a Leader*” (a pre-supervisory program), “*Leaders for Tomorrow*” (a mentoring program) and the *GS 15 Executive Pipeline* (an executive development program), which contribute to the retention and advancement of current DOT employees. These programs provide developmental assignments to improve the skills and talents of the participants, which serve to strengthen the competencies needed at the Department.

DOT’s integrated eLMS also serves as the Department’s Competency Management System (CMS). All DOT employees now have access to eLMS, are able to view their learning history through eLMS, and can engage in training through access to nearly 2,000 web-based courses. Most non-FAA modes have been scheduling and recording learning events in eLMS since April 2004. In September 2005, FAA, FHWA, and OIG began the management of classroom-based instruction through eLMS.<sup>78</sup>

2006 Federal Human Capital Survey results indicate that 74% agree that electronic access to learning and training programs is readily available at their desks. Slightly less than half say that their training needs are assessed (49.3%), indicating an area where more could be done. A slight decline in these scores from FHCS 2004 may reflect the fact that DOT is focusing limited training resources on the highest impact area, the executive and leadership cadre. Each OA took action to close gaps in the “conflict management” area of competency within the executive ranks in FY 2006 (See Chapter 3) and achieved the desired results.

The following is a summary of actions, by OA, to develop their leadership pipeline. OAs with small numbers of SES positions have expanded their focus to leaders and supervisors in the SES “pipeline.”

**Surface Transportation Board (STB).** The STB participates in two DOT mentorship programs—Leaders for Tomorrow Mentoring Program and So You Want to be a Leader Program—to develop GS 12 and GS 15 level employees who are interested in becoming supervisors and managers.

**Federal Transit Administration (FTA).** All executives, managers, and supervisors are required to attend a seminar on “Managing the Federal Employee Discipline and Performance Process,” either onsite or at the Brookings Institution. In support of closing gaps in other competency areas, FTA has mandated Equal Employment Opportunity training for all employees, developed an online Alternative Dispute Resolution (ADR) course, and is offering conflict management training to those interested. FTA is also focusing its efforts on providing training and development to its GS 13-15 population through the USDA Executive Potential Program.

**Pipeline and Hazardous Materials Safety Administration (PHMSA).** PHMSA has set goals for its supervisors as well as its executives for improvement in conflict management and is also focusing on improvement in human resources competencies of its leaders. It is issuing a new Agency policy on the recruitment, selection, development, appraisal, and probation of its supervisors. PHMSA is also focusing on preparing GS 13-15 personnel for executive positions by using the U.S. Department of Agriculture Executive Potential Program and the Council for Excellence in Government Fellows Program. They are also supporting attendance at Federal Executive Institute’s Leadership for a Democratic Society course, courses at OPM’s Management Development Center, FAA’s Center for Management, and Executive Leadership’s Strategic Planning through the Power of Vision course.

**National Highway Traffic Safety Administration (NHTSA).** SES and GS 15 competitive development program candidates attend a Capital Hill Workshop and the Federal Executive Institute. GS 13-15 personnel may take individual courses through the OPM Management Development Center and the FAA Center for Management and Executive Leadership.

<sup>78</sup> DOT Leadership Competency Assessment Final



**Maritime Administration (MARAD)**. MARAD identified two competencies on which to focus in the second and third quarters of 2006: 1) conflict management, and 2) team building. Its intention is to design classroom training to enhance both of these competencies. In addition, GS 15s may attend the Federal Executive Institute; GS 13-14s may participate in the Transportation Leadership Program; GS 13 and below may participate in the mentoring program; and, GS 12 and below may attend OPM Management and Development seminars.

In FY 2006, MARAD successfully completed its training program on Diversity, EEO and Harassment, Accommodation, No Fear, and Affirmative Employment. Eighty seven percent of employees nationwide participated in this three-year training initiative. Also, during this time period, all of MARAD's executives took the opportunity to enhance their leadership and management skills by participating on the Conflict Resolution for Managers Training session, presented by DOT's Center for Alternative Dispute Resolution.

Providing additional training opportunities for MARAD's workforce, the Agency provided career development opportunities to employees through *the Career Opportunities Training Agreement Program*, and *the Tuition Assistance Program*.

- **The Career Opportunities Training Agreement (COTA) Program** - The COTA Program provides career advancement opportunities for Grades 1-15. In FY 2005, three MARAD employees were competitively selected, based on their potential to perform the duties of the COTA targeted positions. Upon satisfactory completion of a tailored training plan, they become eligible to be promoted to the target position. There were two participants, two African American women.
- MARAD's Career Enhancement Opportunity program for grades GS-7/9 is further expanded by the support of its leaders and managers who encourage their employees to participate in the Agency's mentoring program called WAVES (Working to Achieve your Vision of Excellence and Success). This mentoring program is designed to develop employees' skills through training opportunities, which increase their effectiveness in the workforce. Additionally, the Agency encourages managers to use the Career Enhancement Program (CEP) where employees have the opportunity to cross-train into other fields that may lead to promotion or advancement in their current positions or other professions.

**Federal Motor Carrier Safety Administration (FMCSA)**. FMCSA conducted three leadership skills classes in FY 2005, training 112 students.

**Federal Aviation Administration (FAA)**. FAA focused its attention on training those aspiring to managerial jobs through two programs – Making Opportunities to Develop Employees (MODEL) and Leadership Evaluation and Development (LEAD) (also open to current managers and supervisors up to and including executives). MODEL is designed to allow participants to develop and practice leadership skills based on 17 defined leadership success characteristics in four main areas – achieving operational results, leading people, leading strategic change, and building relationships. In addition, FAA offers a Technical Woman's Organization Mentoring Program to provide a mentee-mentor relationship to women in support of their career management.

In addition to these programs, each OA manages training and development for its wider workforce.



## KNOWLEDGE MANAGEMENT

The Departmental Human Capital Planning and Solutions Office has set up a working group, comprised of representatives from the OAs that have ongoing activities. Some examples of the group's efforts include:

- FHWA has a Chief Knowledge Officer responsible for overseeing the Agency's knowledge management initiatives, which are many. FHWA has two documents that it regularly distributes – FHWA Knowledge Sharing Initiative and FHWA Knowledge Application (paper copy).
- The FTA has created the Bus Rapid Transit Exchange (BRTE), which is used by experts nationwide to provide information and share practices on Bus Rapid Transit systems worldwide. Information can be accessed at [www.fta.dot.gov/brt](http://www.fta.dot.gov/brt).
- FAA has built a Knowledge Sharing network that has the capacity to support 80,000 users. Currently, there are approximately 18,000 users on the system with hundreds of communities of interest.
- The Knowledge Sharing Working Group has convened on three occasions to discuss collaborative opportunities, and define strategies for to 'promote' Knowledge Sharing throughout the Department. The group identified that by hosting a Forum to educate the OAs by building awareness about the functions and capabilities of this exciting resource. The plans for a Forum have not been finalized.



Figure 5-5: Career Patterns Dimensions Mapped to Mission Critical Occupations (Source: OPM)

DOT Career Patterns					
Talent Need (Job Req't)	Strategy	Career Pattern	DOT Action	Flexibility	Results
1. <b>Plan for and manage attrition due to:</b> a) aging workforce (46.7 avg age); b) retirement wave (In '06 total new hires failed to replace retirement losses); c) funding cuts; d) VERA/VSIP; e) restructuring; etc.	Recruit younger people	1. Student 2. New Professional 3. Mission-focused	1. Corporate Branding Strategy--"Careers in Motion" on DOT Website Homepage with links to student opportunities and internships. 2. Accelerated college campus recruiting. 3. Career Service Center 4. DOT supports the Partnership for Public Service in the "Call to Serve" initiative. 5. Career Residency Program--Hires entry-level employees into mission critical occupations and provides 24 month term for training in subjects addressing DOT skill gaps.	E. Student Career Experience Program (SCEP); President's Management Fellows (PMF) 2. Volunteer Program ( non-employee gaining experience) 3. FMCSA/FAA/NHTSA/OGC Intern Programs; FRA Student Loan Repayment; FAA Student intern Program (FASIP) --- FAA "Adopt-a-school" and FAA Aviation and Space Outreach programs. Employee "Ambassadors" participate. 4. Excepted Service	20% of all new hires in FY 2006 were below the age of 29, compared to 26.8% of the new hires in 2005. The proportion of employees older than 55 is increasing.
	Develop new leaders: first-time supervisors, mid-level, senior leaders	1. Mid Career 2. Experienced Professional 3. Mission-Focused	1. Professional development for leadership pipeline--"So You Want To Be a Leader;" "Leaders for Tomorrow" mentoring; GS 15 Program; Transportation Leadership Institute for executives. 2. Mandatory new supervisor training 3. DOT Leadership Competency Model and closing Leadership Competency Gaps initiative. 4. DOT's Leadership Succession Model	Research and Innovative Technology Administration's (RITA) leadership pipeline--internship program with paid work experience & tuition assistance to grad students. (Ref: OPM MCO Training Guide)	DOT has a full pipeline of leadership development programs. eg RITA VOLPE annually hires 1/3 from its SCEP.
2. <b>Fill the Department's "critical mission needs" in 5-10 yrs. "Traditional" sources to recruit and backfill are "not sufficient</b>	Begin to backfill vacancies before they are vacant. Hire at Student and also Entry Level (for some components Entry Level is at the GS 11-12-13	1. Student 2. New Professional 3. Mission-focused 4. Mid-Career	1. See Student Programs (at top of Column) 2. Career Residency Program (at top of Column) 3. Pipeline and Hazardous Material Safety Administration (PHMSA) consistently increased its entry-level targets for filling non-clerical positions (30% in 2006) and incorporates that goal into the Executive Performance Plans. (Ref: OPM MCO	1. Regular Time-Limited Appointments. 2. For Entry-Level Employees--SCEP conversions;; FCIP (Federal Career Intern Program); PMI (Presidential Mgmt Intern). 3. OGC--Honors Atty Program for new law graduates--rotational assignments for 2 years. (Ref: OPM MCO Training Guide)	1. In 2005, 16.9% of new hires were in Grade 9. Emphasis continues in this area. 2. Each Operating Administration (OA) is required to submit 3 year External



DOT Career Patterns

Talent Need (Job Req't)	Strategy	Career Pattern	DOT Action	Flexibility	Results
			Training Guide)		Recruitment Plan with quarterly status rpt. 3. PHMSA entry level hiring targets (eg 25% in 2005) have been exceeded every year.
<b>2a. The Department must increase its overall workforce diversity</b>	Hire for diversity. Expand outreach to women and minorities with particular emphasis on Hispanic Need to improve representation overall.	All	<ol style="list-style-type: none"> <li>1. Targeted outreach/recruitment events (eg National Career Fairs sponsored by the Society of Hispanic Professional Engineers and the National Society of Black Engineers)</li> <li>2. Promote entry of women, persons with disabilities, and members of diverse groups eg FHWA Summer Intern Program for Diverse Groups.</li> <li>3. Diversity Advisory Council hosts forums for management on recruitment and outreach.</li> <li>4. Career Residency Program (see 1st page) targets recruitment to achieve succession &amp; diversity goals.</li> <li>5. Maritime Administration (MARAD) links Merchant Marine Academy with HR and Civil Rights offices to attract diverse students.(Ref:OPM MCO TrngGuide) 6. FMCSA College Interest Group Recruitment Plan recruits underrepresented grps.</li> </ol>	<ol style="list-style-type: none"> <li>1. MSI (Minority Serving Institution) internship targets minority students and those with disabilities; Summer Transportation Internship Program for Diverse Groups (STIPDG)--FHWA targets women, minorities and people with disabilities (Ref: OPM MCO Training Guide)</li> <li>2. Schedule A Appointments</li> </ol>	<ol style="list-style-type: none"> <li>1. In 2005, Hispanic workforce up by 3.8%. No additional progress in 2006. Progress in <i>outreach</i> to women and minorities but need to increase number hired. Many jobs are technical, scientific, and engineering and require certifications.</li> <li>2. In 2006, the STIPDG program had 60 interns; of 46 in FHWA, 6 converted to perm positions in Prof Dev Prg</li> <li>3. 81% Career Residents were minorities and women in 2006. (Ref: OPM MCO Training Guide)</li> </ol>



DOT Career Patterns

Talent Need (Job Req't)	Strategy	Career Pattern	DOT Action	Flexibility	Results
2b. More actively recruit people with disabilities.	3. Increase representation of people with disabilities.	All	1. Targeted recruitment--Increase representation of people with targeted disabilities. 2. Outreach to disabled Veterans--eg FAA is partnering with the Dept of Veterans Affairs (VA), Vocational Rehabilitation and Employment Service (VR&E) to use VA education benefits to train qualified disabled veterans for certain positions in FAA leading to employment opportunities. 3. Disability Resource Center assists hiring mgrs. 4. Disability Council offers seminars. 5. DOT sessions on hiring flexibilities provided to 100 supervisors. 6. Workforce Recruitment Program (WRP) for students with disabilities	1. Schedule A appointments 2. DOT Minority Serving Institutions Internship Program (DOT MSI) targets students at minority colleges and those with disabilities to create a future employee pool.(Ref: OPM MCO Training Guide)	6.6% of all new hires in 2005 were people with disabilities. Representation of people with disabilities did not increase in 2006.
	4. Hire Veterans	1. New professional 2. Mid career 3. Mission-focused	1. See Disabled Vets programs above. 2. DOT coordinates with DOD and VA in "Transportation American Heroes Program" for internships for wounded military. 3. FAA seeks certification of FAA Academy (training) which could result in a special appointing authority for disabled veterans	1. Government-wide hiring authorities	In 2005, Veterans were 28.3% of workforce; 22.1% of all hires were Veterans. In FY 2006, representation of veterans decreased slightly but remained robust at <b>27.6 %</b> (down from 28.3%) Continue emphasis on recruiting /hiring Vets.
3. Focus on MCO Competencies and Fill Gaps by 2009	Establish positions and hire based on competencies. Close MCO Gaps --- <b>See</b>	1. Student 2. New professional 3. Mid-Career 4. Mission Focused	1. Dept-wide study of 4 key engineering groups (Gen Engs 801; Civil Engs 810; Mech Engs 830; Elec Engs 855) as Government Pilot. 2. Closing HR and IT Competency Gaps 3. See "Leadership" programs above .		



**DOT Career Patterns**

Talent Need (Job Req't)	Strategy	Career Pattern	DOT Action	Flexibility	Results
	<b>Separate MCO Sheet</b>		4. For additional specific MCO, see separate attached page.		
<b>4. Focus on Retention in the DOT Components who find it challenging to retain talented employees</b>	Include Retention as a Talent Management program in DOT's Workforce Plan.	All	1. Mentoring Programs 2. Training and Development as environment attractor. 3. DOT introduced a Dept-wide Exit survey in 2006 to identify reasons for leaving the job. FAA has implemented its own exit survey. 4. FAA administers a new employee survey to track employee "satisfiers."	1. Retention Bonuses 2. Student Loan Repayment 3. Telework 4. Tuition Reimbursement	DOT mirrors the Fed Gov't in FHCS stats on employee "intent to stay."
<b>Future Dept-wide Goals: 1) Develop a fact-based method to segment the employee "market" of both current and potential positions. 2) Create a variety of workplace choices that will appeal to potential employees. 3) Concentrate on Retention. 4) Focus on Competencies</b>					

Job Requirements		Career Pattern	DOT Action	Flexibility	Results
"Community Planning" – Onboard strength remains constant					
Replenish the talent pipeline with new program managers and transfer knowledge to them					
Experience Levels will drop as new hires replace retired workers					



<b>Job Requirements</b>		<b>Career Pattern</b>	<b>DOT Action</b>	<b>Flexibility</b>	<b>Results</b>
<b>Financial Management (FHWA Example based on September 2006 Improvement Plan to Close Identified Skill Gaps within the Financial Management Occupation)</b>	1. Training and Development 2. Define Career Paths 3. Review and update position descriptions, and competencies. 4. Hire outside FHWA in order to obtain skills and competencies that are not available in-house (Intermediate and Advanced)	1. Mid Career 2. Experienced Professional 3. Mission Focused 4. Student 5. New Professional	1. Professional Development Program (PDP) to hire recent college graduates in specific fields that have been identified as critical 2. Review and update Position Descriptions 3. Financial management positions re-organized	1. Flexible work environment and alternative work arrangements (telecommuting, virtual office, etc.) 2. Retention, Relocation, and Recruitment bonuses, if funds are available	1. FY 2006: four new hires and two employees placed in program; FY 2007: Approximately four positions for PDP 2. FY 2006: Hired outside the organization for required competencies not available in-house
<b>Strength will decline while average experience will increase=Little Change projected</b>	DOT's special HR/Comp Sourcing joint project on Engineering occupations and competencies				
<b>Grow by 17% over next four years; Experience Level will drop</b>					
<b>Projected to remain steady if current trends continue</b>					
<b>Projected to remain steady if current trends continue</b>					
<b>Projected to lose the most employees (nearly 25% over the next four years)</b>					



<b>Job Requirements</b>		<b>Career Pattern</b>	<b>DOT Action</b>	<b>Flexibility</b>	<b>Results</b>
<b>Transportation Safety (FRA Example based on September 2006 Gap Analysis Report for the Federal Railroad Administration)</b>	1. Training 2. Targeted Recruitment (increase applicant pool), Retention (reduce turnover), and Hiring (use of Hiring Flexibilities). 3. Recruit recently retirees from railroad industry 4. Fill position at lower grade levels. FRA has typically filled positions at GS-12 but will use the program to also fill positions at the GS-5, GS-7, and GS-9	1. Retirees 2. Mid Career 3. Experienced Professional 4. New Professionals	1. Railroad Safety Inspector Trainee Program reintroduced by FRA to bring "new blood" (GS 5 to GS 11) and also increase the representation of minorities and women in the safety-related workforce 2. Developed performance Task Standards for Inspector Trainees (Training and Development Program for GS-5 and GS-7)	1. Training and Development Programs – Tech Training Program using Level IV Evaluation 2. Pay Flexibilities and Incentives to recruit and retain Railroad Safety Inspectors 3. Competitive Salaries	MOU with OPM for Hiring 5 GS 5 and GS 7s
<b>Projected to remain steady if current trends continue</b>			1. IT Competency Gap Analysis		
<b>Attention will be focused on this during FY 2006</b>	This MCO is being addressed by the Real Property Management PMA initiative				
<b>Total strength is projected to increase due to a declining rate of total losses</b>					



## CHAPTER 6: CONCLUSIONS AND RECOMMENDATIONS

Going into FY 2008, the Department of Transportation has built a robust quantitative and qualitative picture of its present workforce and future requirements. This clear window enables the Department to see its advantages, identify its vulnerabilities, and respond to them from a position of strength.

Key results accomplished over the previous 12-month period, and challenges for the future, include:

- **Funding:** As the traditional sources of Department funding decline, the Department will need to continue to focus resources on the highest-leverage activities for development and retention of its workforce. While DOT believes that human capital strategies, including this Workforce Plan, are critical, budget and time limitations are still significant factors in the implementation of these strategies. DOT is committed to the human capital strategies outlined, balanced, however with mission priorities and the ability to sustain meaningful programs.
- **Managing Turnover:** With improved reporting at the aggregate level, the magnitude of retirement-based turnover will require the Department to address several related issues:
  - **“Strategic Shrinkage”:** As positions become vacant due to retirements or budget constraints, each OA’s Human Capital team – relying particularly on its HR Director and Workforce Planner - will need to make recommendations about which positions to fill, which positions to reshape or replace with technology, and which positions to eliminate, based on the strategic needs of the OA as a whole.
  - **Knowledge Management:** There is continued urgency to identify senior staff with critical expertise, and communicate and transfer their knowledge to junior staff, well in advance of the senior experts’ retirement.
  - **Retention:** In FY 2006, the Department introduced its first Department-wide exit survey. Consistent administration of the survey and robust data analysis will offer insights into how to deploy career patterns dimensions, and leverage increased management skill, to retain employees.
  - **Strategic Hiring:** DOT continues an aggressive program of outreach to candidates seeking entry-level positions. Additional tracking of the retention of these new hires will be required to determine whether such hires actually add to the long-term talent pipeline. Without this analysis, DOT will lack a clear picture of whether its expenditures to hire at the “front end” result in a significant rebalancing of the age distribution of employees, or produce a robust talent pipeline for more senior positions.
- **Expanding Diversity:** The Department has developed more robust outreach capability and communication plans that clearly highlight DOT’s mission. Even in an environment of limited hiring, many OAs added diverse candidates through internship programs and the focused emphasis on a broader candidate pool. The Corporate Diversity Program Manager has partnered with the Corporate Recruiter and the Disability Resource Center to leverage the Department’s outreach and presence in the job market. The “next step” will be to continue and expand the emphasis so that cumulative efforts will not only sustain current diversity representation but also yield significant positive changes in the diversity dimensions of the DOT staff.
- **Recruiting within Government:** At the same time that the Department expands the effectiveness of its external sourcing and outreach, DOT may find opportunities to recruit across the Federal government. As noted in Chapter 5, NASA and GSA are representative of agencies that may be downsizing or redirecting employees with DOT’s mission-critical skills (for example, engineering staff with transportation experience) who might be eager to apply their professional skills to the DOT mission.



- **Tracking Results:** In alignment with the requirements of the HCAAF Accountability System, the Department has already accomplished the first component of the process of integrating human capital management with increased self-accountability: *Develop Strategic Human Capital Goals and Objectives Aligned with Agency Strategic Plan*<sup>79</sup>.

The Department now requires quarterly updates from each OA concerning its measurement objectives, metrics, and methods for collecting data; and timeframes and responsibilities for reporting on objective accomplishment for workforce planning and succession planning.

These measures and timeframes will be codified in the updated DOT Human Capital Accountability Framework (December 2007), and will enable DOT to show how results on the human capital goals have been achieved in accordance with each critical success factor of the relevant HCAAF systems.

DOT has developed, updated and linked three key instruments – the Strategic Human Capital Plan, Human Capital Accountability Plan<sup>80</sup>, and Workforce Plan – in a cycle of continuous improvement, to insure that for all its employees, DOT can be the “Employer of Choice” in the Federal Government.

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<sup>79</sup> OPM presentation: “Human Capital Accountability Systems”, autumn 2005

<sup>80</sup> See Appendix



## APPENDIX A: ADDITIONAL GAINS AND LOSSES ANALYSIS

**TOTAL POPULATION: 52,520**

### Gains by Type

Nature of Action	Total
100 Career	22
101 Career-Conditional	254
130 Transfer In	176
140 Reinstatement-Career	28
141 Reinstatement-Car/Con	5
170 Excepted	1,710

**TOTAL GAINS: 2,195**

### Losses by Type

Nature of Action	Total
300 Retirement-Mandatory	19
301 Retirement-Disability	113
302 Retirement-Voluntary	2,006
303 Retirement-Early (VERA)	279
304 Retirement-Involuntary	807

**TOTAL RETIREMENTS: 3,224**

312 Position Change/CA	11
317 Resignation	480
330 Removal	99
350 Death	77
352 Transfer Out	443
355 Termination	7
356 RIF	846
357 Termination-Lack of Funds	5
385 Discharge	38
390 Separation	0

**TOTAL LOSSES: 5,230**

**TOTAL OTHER LOSSES: 2,006**

Figure A-1: Voluntary Losses (FY 2004-2006 Comparison)

FY	Resignations	% of Loss	Retirements	% of Loss	TOTAL/% of total losses
2004	427	18.2	1,920	81.8	2,347 (83.5%)
2005	394	13.4	2,543	86.6	2,937 (85.4%)
2006	480	13.0	3,224	87.0	3,704 (70.8%)

Figure A-2: Total Losses by Age Category (2006)

Age Category	Retirement	Other Losses	Total
Less than 25	0	51	51
25-29	0	144	144
30-34	0	151	151
35-39	10	231	241
40-44	22	426	448
45-49	247	504	751
50-54	796	307	1,103
55-59	1,117	132	1,249
60 and above	1,042	50	1,092
<b>Total</b>	<b>3,234</b>	<b>1,996</b>	<b>5,230</b>



Figure A-3: Retirements by Age Category (2006)

	Retirements					
	Total	Mandatory	Disability	Voluntary	VERA/ special offer	Involuntary
Less than 25						
25 - 29						
30 - 34	0		0			
35 - 39	10		10			
40 - 44	22		19		2	1
45 - 49	247		35	106	51	55
50 - 54	796		27	344	165	250
55 - 59	1,117	18	16	723	51	309
60 and Over	1,042	1	6	833	10	92
<b>Total</b>	<b>3,234</b>	<b>19</b>	<b>113</b>	<b>2,006</b>	<b>279</b>	<b>807</b>

Figure A-4: Other Losses by Retirement by Age Category (2006)

	Other Losses									
	Position Change	Resignation	Removal	Death	Termination	RIF	Termination/ Lack of Funds	Discharge	Transfers	Separations - Other
Less than 25		35			1		1	6	8	
25 - 29		65	11		1	5	1	7	54	
30 - 34		66	9			21		10	40	
35 - 39	1	81	16	2		56		5	70	
40 - 44	1	90	22	8		203	2	3	97	
45 - 49	4	61	19	12	2	322		5	79	
50 - 54	2	55	14	17		172	1		56	
55 - 59	3	20	8	17	2	56		2	24	
60 and Over		7		21		11			11	
<b>Total</b>	<b>11</b>	<b>480</b>	<b>99</b>	<b>77</b>	<b>7</b>	<b>846</b>	<b>5</b>	<b>38</b>	<b>443</b>	<b>0</b>



Figure A-5: Losses by grade (2005)

GRADE	300	301	302	303	304	312	317	330	350	352	355	356	357	385	390	TOTAL
1										1						1
2			1													1
3							3				1	3				7
4		1	1		3		24	1		1		8		2		41
5		2	15			1	21	1		12		1	3	1		57
6		1	14		1		10	1	2	13	1			1		44
7		6	42	19			38	7	1	24		1		2		140
8			6				3	3	1	21				2		36
9		1	29	7	3		42	12	5	54	2	6	1	6		168
10		2	58	11			18	4	2	44				7		146
11	3	7	55	8	14		32	10	1	23		12	1	10		176
12	3	30	372	36	617	2	92	27	13	63	3	755		5		2,018
13	3	20	358	41	112		88	15	16	78		39		2		772
14	8	33	666	103	1	4	66	17	24	72						994
15	2	3	333	43	51	2	22	1	9	24		16				506
SES			26	3	1	2	13			9						54
Wage		5	16	5			4		3	3						36
Unspecified		2	14	3	4		4			1		5				33
<b>Total</b>	<b>19</b>	<b>113</b>	<b>2,006</b>	<b>279</b>	<b>807</b>	<b>11</b>	<b>480</b>	<b>99</b>	<b>77</b>	<b>443</b>	<b>7</b>	<b>846</b>	<b>5</b>	<b>38</b>		<b>5,230</b>

Figure A-6: Losses By Gender

	300	301	302	303	304	312	317	330	350	352	355	356	357	385	390	TOTAL
Females	1	47	427	113	131	7	199	34	12	207	3	244	3	14		1,442
Males	18	66	1,579	166	676	4	281	65	65	236	4	602	2	24		3,788
<b>Total</b>	<b>19</b>	<b>113</b>	<b>2,006</b>	<b>279</b>	<b>807</b>	<b>11</b>	<b>480</b>	<b>99</b>	<b>77</b>	<b>443</b>	<b>7</b>	<b>846</b>	<b>5</b>	<b>38</b>		<b>5,230</b>

Figure A-7: Losses By persons with disabilities and by Veteran preference

	300	301	302	303	304	312	317	330	350	352	355	356	357	385	390	TOTAL
PWD	2	26	148	9	26	2	28	9	9	21		32	1	5		318
Veterans	16	34	1,112	103	518	3	88	21	35	122	1	237		4		2,294
<b>Total</b>	<b>19</b>	<b>113</b>	<b>2,006</b>	<b>279</b>	<b>807</b>	<b>11</b>	<b>480</b>	<b>99</b>	<b>77</b>	<b>443</b>	<b>7</b>	<b>846</b>	<b>5</b>	<b>38</b>		<b>5,230</b>



## APPENDIX B: CODES USED IN DEMOGRAPHIC REPORTS

### Employee Population unless otherwise noted

- Full-time, part-time, active, permanent appointment

### Handicap

- PWTD = Handicap code (see attached)
- PWD = PWTD + all other codes (other than 1, 4 and 5)

Handicap Code		Targeted Disability
Code	Meaning	
01	Handicap Not Identified	
02	Detail, Travel, Etc., Not Able to Obtain Info	
04	No Handicap (Prior to October, 1997)	
05	No Handicap	
06	Handicap Not Listed	
13	Sev Spch Malfunction or Inability to Spk, But Normal Hearing	
15	Hard of Hearing	
16	Total Deafness in Both Ears, with Understandable Speech	
17	Total Deafness in Both Ears, and Unable to Speak Clearly	
22	Ability To Read Ordinary Size Print W/Glasses, But With Loss of Peripheral(Side)	
23	Inability to Rd Ordry Sz Print, Not Correctable By Glasses	X
24	Blind in One Eye	
25	Blind in Both Eyes	X
27	Absence of Extremity-Missing One Hand	
28	Absence of Extremity-Missing One Arm	X
29	Absence of Extremity-Missing One Foot	
32	Absence of Extremity-Missing One Leg	X
33	Absence of Extremity-Missing Both Hands or Arms	X
34	Absence of Extremity-Missing Both Feet or Legs	X
35	Absence of Extremity-Missing One Hand/Arm & One Foot/Leg	X
36	Absence of Extremity-Missing One Hand/Arm & Both Feet/Legs	X
37	Absence of Extremity-Missing Both Hands/Arms & One Foot/Leg	X
38	Absence of Extremity-Missing Both Hands/Arms & Both Feet/Legs	X
44	Chronic Pain, Stiffness or Weakness-One or Both Hands	
45	Chronic Pain, Stiffness or Weakness-One or Both Feet	
46	Chronic Pain, Stiffness or Weakness-One or Both Arms	
47	Chronic Pain, Stiffness or Weakness-One or Both Legs	
48	Chronic Pain, Stiffness or Weakness-Hip or Pelvis	
49	Chronic Pain, Stiffness or Weakness-Back	
57	Chronic Pain, Stiffness or Weakness-Any Combination of Two or More parts of the Bo	
61	Partial Paralysis - One Hand	
62	Partial Paralysis - One Arm, Any Part	
63	Partial Paralysis - One Leg, Any Part	
64	Partial Paralysis - Both Hands	X



Handicap Code		
Code	Meaning	Targeted Disability
65	Partial Paralysis - Both Legs, Any Part	X
66	Partial Paralysis - Both Arms, Any Part	X
67	Partial Paralysis - One Side of Body, Including One Arm & One Leg	X
68	Partial Paralysis - Three or More Major Parts of the Body	X
70	Complete Paralysis - One Hand	
71	Complete Paralysis - Both Hands	X
72	Complete Paralysis - One Arm	X
73	Complete Paralysis - Both Arms	X
74	Complete Paralysis - One Leg	X
75	Complete Paralysis - Both Legs	X
76	Complete Paralysis - Lower Half of Body, Including Legs	X
77	Complete Paralysis-One Side Body, Including One Arm & Leg	X
78	Complete Paralysis-3 or More Parts of Body(Arms/Legs)	X
80	Heart Disease-No Limit or Restriction of Activity	
81	Heart Disease - with Limitation or Restriction of Activity	
82	Convulsive Disorder	X
83	Blood Diseases	
84	Diabetes	
86	Pulmonary or Respiratory Disorders	
87	Kidney Dis-functioning	
88	Cancer - Complete Recovery	
89	Cancer (Undergoing Surgical and / or Medical Treatment)	
90	Mental Retardation	X
91	Mental or Emotional Illness	X
92	Severe Distortion of Limbs and / or Spine	X
93	Disfigurement of Face, Hands or Feet	
94	Learning Disability	

**Veteran- preference = Veteran Status**

- Veteran - Codes 2, 3, 4, 6
- Non Veteran - 1, 5, 7

**Race and National Origin [ERI\_BRI]**

- American Indian
  - A [American Indian or Alaska Native4]
- Asian
  - B [Asian5]
  - D [Native Hawaiian or Other Pacific islander - Not H/L & NH/PI]
- Black
  - C [Black or African American - Not H/L & Black/AA]
- White
  - E [White6]
- Hispanic



- G [Unspecified]
- H [American Indian or Alaska Native]
- I [Asian or Pacific Islander]
- J [Black or African American - H/L & Black/AA]
- K [Native Hawaiian or Other Pacific islander - H/L & NH/PI]
- L [White]

**SES = Pay Plan [PAY\_PLN]**

- AD [Administratively Determined Rates, Not Elsewhere Specified]
- AL [Administrative Law Judges]
- CA [Board of Contract Appeals]
- ES [Senior Executive Service]
- EV [FAA Executive Compensation Plan]
- EX [Executive Pay]
- SL [Senior Level Positions]

**Wage = Pay Plan [PAY\_PLN]**

- FL [Wage Leaders]
- FM [Former PMRS Employees]
- FS [Wage Supervisors]
- FW [Wage Grade]
- WD [Production Facilitating Non-Supervisory]
- WG [Non-supervisory Pay Schedules - FWS]

**Permanent = Type of appointment**

- 10 [Career (Comp Serv Perm)]
- 15 [Career-Conditional (Comp Serv Perm)]
- 30 [Schedule A (Exc Serv Perm)]
- 32 [Schedule B (Exc Serv Perm)]
- 36 [Executive (Exc Serv Perm)]
- 38 [Other (Exc Serv Perm)]
- 50 [Career (SES Perm)]
- 55 [Non Career (SES Perm)]



Figure B-1: FAA grade equivalents

CROSSWALK BETWEEN AT AND FG (GS,GM) GRADES														
15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
LL	LI	LG	LF	LD			LC	GD	FD	ED	DD			
LK	LH	KG	KF	KD			KC	DF	CF		CD			
LJ	KI	JG	JF	IF	JD	ID	JC	AB		AA				
KL	KH	II	IG	GG	HF	GF	IC							
KK	JI	IH	HI	FI	FG	FF	HD							
KJ	JH	HJ	HH	FH	DI	EG	HC							
JL	IK	GK	HG	EI	DH	DG	GC							
JK	IJ	GJ	GI	EH	CI		FC							
JJ	HL	FL	GH	DK	CH		EF							
IL	HK	FK	FJ	DJ			EC							
	GL		EL	CK			DC							
			EK	CJ			CG							
			EJ				CC							
			DL											
			CL											
K	J	I	H		G	F		E		D		C	B	A

**Age ranges recode:**

- Under 25
- 25 – 29
- 30 – 34
- 35 – 39
- 40 – 44
- 45 – 49
- 50 – 55
- 55 – 59
- 60 and over

**HIRES: NOA codes, gains to the Agency—Permanent, COMPETITIVE SERVICE**

- 85 – Unspecified gain (used in CIVFORS only)
- 100 – Career Appointment
- 101 – Career – Conditional Appointment
- 130 – Transfer in (from another Federal agency)
- 140 – Reinstatement – Career
- 141 – Reinstatement – Career Conditional
- 170 – This is the NOA for permanent (without time limitation) hires



**LOSSES: NOA codes, losses to the Agency**

**Retirement:**

- 300 – Mandatory
- 301 – Disability and for Health Reasons
- 302 – Retirement
- 303 – Voluntary Early Retirement (VERA) (or special offer)
- 304 – In lieu of involuntary separation

**Other losses:**

- 75 – Unspecified Loss (used in CIVFORS only)
- 317 – Resignation
- 312 – After notice of position change, contracting out, unsatisfactory performance – in lieu of involuntary separation
- 350 – Death
- 353 – Resignation/going into military service
- 355 – Termination
- 356 – Reduction in force (RIF)
- 357 – Termination/lack of work or funds
- 330 – Removal
- 385 – Discharge
- 352 – Termination-Appointment in (another agency) Transfer
- 390 – Separation-Appointment in (another agency) Transfer



## APPENDIX C: MISSION CRITICAL OCCUPATION COMPETENCIES

### LEADERSHIP COMPETENCY MODEL

<b>Accountability</b>	Assures that effective controls are developed and maintained to ensure the integrity of the organization. Holds self and others accountable for rules and responsibilities. Can be relied upon to ensure that projects within the areas of specific responsibility are completed in a timely manner and within budget. Monitors and evaluates plans. Focuses on results and measuring attainment of outcomes.
<b>Conflict Management</b>	Identifies and takes steps to prevent potential situations that could result in unpleasant confrontations. Manages and resolved conflicts and disagreements in a positive and constructive manner to minimize negative impact.
<b>Creative Thinking/Innovation</b>	Develops new insights into situations and applies innovative solutions to make organizational improvements. Creates a work environment that encourages creative thinking and innovation. Designs and implements new or cutting-edge programs/processes.
<b>Entrepreneurship</b>	Identifies opportunities to develop and market new products and services within or outside of the organization. Is willing to take risks. Initiates actions that involve a deliberate risk to achieve a recognized benefit or advantage.
<b>External Awareness</b>	Identifies and keeps up-to-date on key national and international policies and economic, political, and social trends that affect the organization. Understands near-term and long-range plans and determines how best to be positioned to achieve a competitive business advantage in a global economy.
<b>Financial Management</b>	Demonstrates broad understanding of principles of financial management and marketing expertise necessary to ensure appropriate funding levels. Prepares, justifies, and/or administers the budget for the program area. Uses cost-benefit thinking to set priorities. Monitors expenditures in support of programs and policies. Identifies cost-effective approaches. Manages procurement and contracting.
<b>HR Management</b>	Assesses current and future staffing needs based on organizational goals and budget realities. Using merit principles ensures staff are appropriately selected, developed, utilized, appraised, and rewarded. Takes corrective action.
<b>Influencing/Negotiating</b>	Persuades others. Builds consensus through give and take. Gains cooperation from others to obtain information and accomplish goals. Facilitates "win-win" situations.
<b>Leveraging Diversity</b>	Recruits, develops, and retains a diverse high quality workforce in an equitable manner. Leads and manages an inclusive workplace that maximizes the talents of each person to achieve sound business results. Respects, understand, values, and seeks out individual differences to achieve the vision and mission of the organization. Develops and uses measures and rewards to hold self and others accountable for achieving results that embody the principles of diversity.
<b>Political Savvy</b>	Identifies the internal and external politics that impact the work of the organization. Approaches each problem situation with a clear perception of organizational and political reality. Recognizes the impact of alternative courses of action.
<b>Resilience</b>	Deals effectively with pressure. Maintains focus and intensity and remains optimistic and persistent, even under adversity. Recovers quickly from the setbacks. Effectively balances personal life and work.
<b>Service Motivation</b>	Creates and sustains an organizational culture which encourages others to provide the quality of service essential to high performance. Enables others to acquire the tools and support they need to perform well. Shows a commitment to public service. Influences others toward a spirit of service and meaningful contributions to mission accomplishment.
<b>Strategic Thinking</b>	Formulates effective strategies consistent with the business and competitive strategy of the organization in a global economy. Examines policy issues and strategic planning with a long-term perspective. Determines objectives and sets priorities. Anticipates potential threats or opportunities.
<b>Team Building</b>	Inspires, motivates, and guides others toward goal accomplishments. Consistently develops and sustains cooperative working relationships. Encourages and facilitates cooperation within the organization and with customer groups. Fosters commitment, team spirit, pride, and trust. Develops leadership in others through coaching, mentoring, rewarding, and guiding employees.
<b>Technology Management</b>	Uses efficient and cost-effective approaches to integrate technology into the workplace and improve program effectiveness. Develops strategies using new technology to enhance decision-making. Understands the impact of technological changes on the organization.
<b>Vision</b>	Takes a long-term view and acts as a catalyst for organizational change. Builds a shared vision with others. Influences others to translate vision into action.

**Figure C-1: DOT Leadership Competencies**

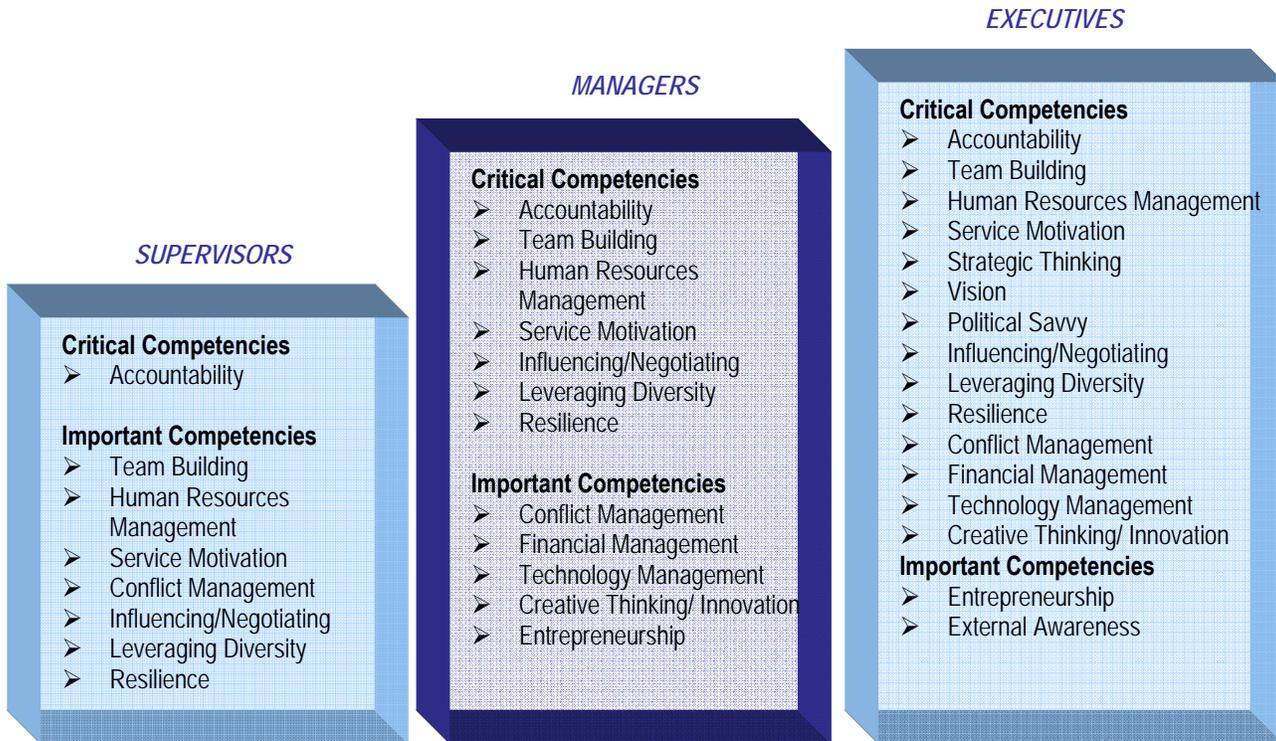




Figure C-2: FAA MANAGERIAL SUCCESS PROFILE (2006)

Achieving Results	
<b>MANAGING</b>	<p>Sets clear individual and unit or organizational performance objectives.</p> <p>Promotes a sense of individual responsibility, professionalism, and pride for organizational performance.</p> <p>Effectively addresses individual and unit or organizational performance issues.</p> <p>Adjusts the way work is performed to meet changing conditions and demands.</p> <p>Resolves conditions and work practices that pose risks to employee safety and returns injured employees to work as soon as they are able.</p> <p>Recognizes and rewards high performance</p>
<b>Accountability and Measurement</b>	<p>Translates objectives into meaningful performance measures.</p> <p>Takes responsibility for achieving individual and unit or organizational performance objectives.</p> <p>Holds individuals accountable for achieving their performance objectives.</p> <p>Reaches agreement with other managers on common goals and mutual accountability.</p> <p>Fulfills commitments.</p>
<b>Problem Solving</b>	<p>Accurately identifies and effectively resolves problems and barriers that impede success.</p> <p>Defines decision-making criteria up front.</p> <p>Identifies root causes before seeking solutions.</p> <p>Takes into account a variety of complex factors.</p> <p>Seeks win-win solutions in the face of opposing viewpoints.</p> <p>Analyzes the potential effects of different options and determines appropriate course of action</p> <p>Considers the impacts and consequences of decisions.</p> <p>Helps resolve problems beyond own function that affect overall unit or organizational performance.</p>
<b>Business Acumen</b>	<p>Justifies resource requirements with hard data and business cases, (e. g. cost-effectiveness, return on investment).</p> <p>Aligns people, finances, and other resources to achieve cost and performance objectives.</p> <p>Tracks costs of doing business and implements strategies to control them.</p> <p>Takes corrective action to ensure that critical programs meet budget and schedule requirements.</p> <p>Looks for opportunities to enhance productivity.</p> <p>Evaluates business successes and failures and applies lessons learned.</p>
<b>Customer Focus</b>	<p>Actively seeks customers' feedback &amp; suggestions regarding organizational performance.</p> <p>Uses customers' feedback &amp; suggestions to enhance organization's effectiveness.</p> <p>Shares information and ideas with customers.</p> <p>Plans for and adapts to customer's changing situations and requirements.</p> <p>Recognizes the needs and constraints of customers and other stakeholders (e.g., political and economic factors).</p>



**Leading People**

<b>Building Teamwork and Cooperation</b>	<p>Creates an environment in which people thrive and accomplish their best.          Uses teamwork effectively to achieve business results.          Capitalizes on the full range of talent to enhance team performance.          Encourages differing opinions to be expressed and respected.          Provides clear direction but gives space for initiative and creativity.          Coaches teams toward goal achievement.</p>
<b>Building a Model EEO Program</b>	<p>Demonstrates leadership and commitment to the FAA model EEO Program.          Ensures equal opportunity for all employees or applicants through compliance with applicable EEO laws and regulations.          Prevents and eliminates discrimination, harassment and retaliation.          Cooperates fully and ensures the full cooperation of employees under his/her supervision in authorized EEO complaint processing.          Allocates mission personnel, as appropriate, to participate in activities such as community out-reach and recruitment programs.          Seeks assistance and/or guidance from the FAA Office of Civil Rights and other staff offices immediately as EEO questions arise and the need for EEO training is identified.</p>
<b>Developing Talent</b>	<p>Provides feedback to employees to support their development.          Coaches, mentors, and guides development of employees.          Focuses training and development investments on defined business priorities.          Uses duty assignments to provide developmental opportunities (e.g., details, OJT).          Considers the future talent needs of the unit or organization and implements appropriate workforce planning.          Uses feedback to identify and close one's own managerial skill gaps.</p>

**Building Relationships**

<b>Communication</b>	<p>Communicates openly and honestly.          Pays attention and communicates understanding.          Effectively interprets intent, influence, and non-verbal elements of communications.          Tailors communication style to fit different groups and circumstances.          Presents financial and operational data clearly and persuasively.          Fosters open communication and exchange of ideas and knowledge</p>
<b>Building Alliances</b>	<p>Represents FAA and organizational positions effectively.          Builds and maintains external stakeholder trust and confidence          Fosters networks, alliances, and other business relationships.          Develops common ground among a wide range of stakeholders (e.g. other operational units, labor, industry, public, international, or other government entities).          Works collaboratively to resource and achieve critical priorities (e. g., business and aerospace safety objectives).          Works effectively across functions and cultures (e.g., facility, office, organization).</p>
<b>INTERPERSONAL</b>	<p>Builds and sustains commitment to decisions.          Helps build consensus          Consistently treats others with respect.          Develops rapport with other managers.          Handles emotionally charged or controversial issues responsibly.          Deals fairly and effectively with conflicts in the workplace.</p>



<b>INTEGRITY AND</b>	<p>Leads with consistency, dignity, compassion, and integrity.          Demonstrates and fosters high standards and ethical behavior.          Presents viewpoints with courage and conviction.          Makes tough decisions and stands behind them.          Models commitment to public service and the mission of the FAA.</p>
<b>Leading Change</b>	
<b>VISION</b>	<p>Anticipates changes that will impact mission (e.g., economic, technological, political, etc)          Looks for trends to determine how the organization will change in the future          Builds a shared vision with others across the organization.          Engages others in translating vision into action.          Communicates organizational direction and priorities clearly.          Articulates the connection between the efforts of employees and the mission of the agency.</p>
<b>STRATEGY</b>	<p>Balances a long-term view of mission and purpose with short-term requirements.          Identifies immediate and longer range objectives.          Plans for changing trends that can affect operations.          Develops and implements realistic business plans to achieve strategic goals and objectives.          Develops strategies to implement organizational change.</p>
<b>AGILITY</b>	<p>Works effectively under pressure (e.g., flexible, adaptable, resilient).          Changes viewpoints, behavior and work methods in response to new information.          Handles complex or ambiguous situations effectively.          Demonstrates a positive attitude to achieving results.          Recovers quickly from setbacks.          Learns from experience (failures and successes).</p>
<b>INNOVATION</b>	<p>Models creative thinking and innovation.          Challenges the status quo (e.g., seeks better efficiency, effectiveness).          Champions implementation of new systems, technology, and processes to improve quality and productivity.          Anticipates barriers and resistance to change and seeks solutions.          Supports and rewards individuals who take responsible risks.</p>



Figure C-3: ENGINEERING PILOT COMPETENCY MODEL

2007 DOT ENGINEERING COMPETENCIES		
RATING SCALE		
(1) Awareness	§	Demonstrates minimal awareness but does Not apply competency
(2) Basic	§	Demonstrates some understanding of the competency
	§	Limited application of competency with close supervision
(3) Intermediate	§	Demonstrates full knowledge and an ability to routinely apply this competency
(4) Advanced	§	Demonstrates advanced knowledge and an ability to act independently using the knowledge and ability of the competency
(5) Expert	§	Leads/guides others in using this knowledge and ability
	§	Subject Matter Expert -able to mentor and train others how to use this competency
Competency - Category	Competency with Definition	
GENERAL COMPETENCIES		
MANAGEMENT- Application		
General	Management-Application	<b>Professionalism:</b> Effectively manages self and work using ethical standards to maintain a consistently high level of productivity.
General	Management-Application	<b>Teamwork:</b> Functions effectively and contributes to the overall performance of multidisciplinary teams. Collaborates with other team members, and promotes commitment to team approach to work.
General	Management-Application	<b>Customer Focus:</b> Demonstrates a concern for the needs and expectations of customers and making them a high priority; maintains contact with customer; uses an understanding of customer needs as the basis for decision making and organizational action.
General	Management-Application	<b>Critical Thinking:</b> Uses systematic, methodical approaches to study problems and test solutions. Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.
General	Management-Application	<b>Innovation:</b> Draws on a broad knowledge to identify innovative approaches to problems and opportunities. Offers nontraditional approaches in the design of components, systems, and processes in order to find a solution that meets the needs of the situation.
General	Management-Application	<b>Leadership:</b> Fosters and participates in creating and communicating a shared vision and direction for the organization, and motivates others to work toward that vision.
General	Management-Application	<b>Decision Making:</b> Makes sound, well-informed decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals.
General	Management-Application	<b>Flexibility:</b> Is open to change and new information; adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacles; deals with ambiguity effectively.
General	Management-Application	<b>Interpersonal Skills:</b> Builds rapport and establishes and maintains productive relationships and networks across a wide range of people and groups, inside and outside the organization; is attentive to how others respond and relate interpersonally.
General	Management-Application	<b>Oral Communication:</b> Expresses information to individuals or groups effectively, taking into account the audience and nature of the information. Makes clear and convincing oral presentations. Listens to others, attends to their nonverbal cues, and responds appropriately.
General	Management-Application	<b>External Awareness:</b> Keeps up-to-date on external forces that can impact daily work activities, makes decisions, and takes action accordingly. Understands the uses, applications, impact and interplay of engineering solutions on contemporary society. Considers and responds to social, ethical, legal, safety and security issues when developing engineering solutions.
General	Management-Application	<b>Organizational Systems Awareness:</b> Understands the agency's mission, functions, and how its social, political, and operational systems work. Uses their insight into those systems to support their personal effectiveness.
MANAGEMENT-Technical		
General	Management - Technical	<b>Project Management:</b> Organizes, deploys, and manages resources to complete a project within defined scope, quality, time, and cost constraints.



General	Management - Technical	<b>Planning:</b> Organizes work, sets priorities, and determines resource requirements; determines short- or long-term goals and strategies to achieve them; coordinates with other organizations or parts of the organization.
General	Management - Technical	<b>Financial Management:</b> Acts as a responsible steward of funds. Accurately estimates budget requirements, clearly justifies requests, and manages funding to support the agency's mission.
General	Management - Technical	<b>Contracting/Procurement:</b> Applies knowledge of various types of contracts, techniques or requirements (for example, Federal Acquisitions Regulations) for contracting, procurement, contract negotiation and contract administration.
<b>TECHNICAL</b>		
<b>TECHNICAL - Core</b>		
Technical	Technical-Core	<b>Technical Knowledge:</b> Uses knowledge that is acquired through formal education, training or extensive on-the-job experience to understand and appropriately apply procedures, requirements, regulations, and policies in the oversight and delivery of work within their area of technical responsibility.
Technical	Technical-Core	<b>Technological Savvy:</b> Readily adopts and masters current technology; applies new technologies to the job to improve effectiveness.
Technical	Technical-Core	<b>Technical Drawing:</b> Accurately creates, interprets, or revises representations of objects for technical, architectural and engineering needs.
Technical	Technical-Core	<b>Technical Writing:</b> Writes reports on technical topics and documents policies procedures in simple and concise language, accurately applying the rules of punctuation, spelling and grammar.
<b>TECHNICAL - Design</b>		
Technical	Technical-Design	<b>Life-Cycle Engineering:</b> Studies and incorporates life-cycle factors, such as the environment, maintenance, re-usability, safety, disposal, and budget in the design of products and systems. Designs systems for maximal effectiveness and usefulness.
Technical	Technical-Design	<b>Design:</b> Conceptualizes, develops, produces, and uses plans, models, blueprints, and maps, including the use of tools and instruments to produce precision technical drawings, working prototypes, components, or systems.
Technical	Technical-Design	<b>Safety Design:</b> Ensures that modal systems, vehicles, and equipment are designed to comply with safety, structural soundness, and regulatory standards.
Technical	Technical-Design	<b>Design and Testing:</b> Applies both general and specialized engineering knowledge to develop practical and effective solutions related specifically to systems. Tests the practicality and quality of solutions using simulations and models.
<b>TECHNICAL - Problem Solving</b>		
Technical	Technical - Problem Solving	<b>Problem Solving:</b> Identifies problems; troubleshoots the root cause of a problem; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.
Technical	Technical - Problem Solving	<b>Mathematical and Statistical Analysis:</b> Uses basic mathematics, geometry, algebra, descriptive, and inferential statistical tests to understand engineering problems, predict outcomes, solve problems, and demonstrate support for their recommendations.
Technical	Technical - Problem Solving	<b>Cost Benefit Analyses:</b> Evaluates and documents the societal, safety, financial, and technical costs and benefits to engineering and business solutions. Makes recommendations and implements solutions that reflect those considerations.
Technical	Technical - Problem Solving	<b>Risk Analysis:</b> Identifies and evaluates the risks to the public and risks of engineering design due to such factors as: technological obsolescence, environmental conditions, financial costs, structural decay, regulatory change, supply chain interruption.
Technical	Technical - Problem Solving	<b>Diagnosing and Repairing Systems:</b> Understands the design, programming, operation, and interfaces of electronic information systems. Is capable of programming systems, diagnosing and repairing systems and applications.
Technical	Technical - Problem Solving	<b>Research:</b> Conducts investigations into engineering systems, problems, or opportunities in order to make recommendations for handling engineering and safety challenges. Locates and obtains relevant data from first-hand inspection and testing, secondary research, and through models and simulations.
Technical	Technical - Problem Solving	<b>Reverse Engineering:</b> Deconstructs devices, electrical components, and system and analyzes its workings with the intention to construct a new device or program that does the same thing .



Technical	Technical - Problem Solving	<b>Process Improvement:</b> Uses formal methodologies, such as process flow diagrams, pareto analysis, and fishbone diagrams, to identify inefficiencies and flaws in current processes and to improve them.
Technical	Technical - Problem Solving	<b>System Perspective:</b> Maintains a high-level perspective, and develops engineering solutions that consider the impacts and relationships among other technical systems as well as other social/organizational systems.
<b>TECHNICAL - Testing and Inspecting</b>		
Technical	Technical - Testing and Inspecting	<b>Quality Assurance:</b> Develops, plans, or undertakes acceptance testing to establish that systems meet, technical, safety, and quality specifications. Reviews plans to ensure technical compliance with codes, regulations, standards, requirements and industry practices.
Technical	Technical - Testing and Inspecting	<b>System Testing and Inspection:</b> Completes physical examination of a system or component to confirm and ensure that it meets the standards and requirements.
Technical	Technical - Testing and Inspecting	<b>Safety Inspection:</b> Ensures through official examination or review that modal systems, vehicles and/or equipment meet or exceed safety regulations and standards.

## HUMAN CAPITAL COMPETENCY MODEL

### CHCO COUNCIL HRM COMPETENCY MODEL

Below are the HR competencies that will be used for assessing the skill level of the Federal Government's HR workforce. The CHCO Council selected these competencies as the initial set of competencies for assessing HR staff during the Proud-to-Be III cycle. There are nine total competencies organized around four areas (i.e., HR Technical, People, Consulting, and Analytical). The competencies are based on research and work conducted by the Office of Personnel Management. All competencies will be assessed using a 5-point proficiency scale (see below).

### COMPETENCIES

#### *(1) HR Technical*

##### Technical Competence

Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job; works with, understands and evaluates technical information related to the job; advises others on technical issues.

##### Specific Technical Competencies

- **Classification** - Knowledge of classification concepts, principles, and practices related to structuring organizations and positions and determining the appropriate pay system, occupational grouping, title, and pay level of positions.
- **Compensation** - Knowledge of compensation concepts, principles, and practices, including pay and leave administration and compensation flexibilities.
- **Employee Benefits** - Knowledge of HR concepts, principles, and practices related to retirement, insurance, injury compensation, and other employee benefits programs.
- **Employee Development** - Knowledge of employee development concepts, principles, and practices related to planning, evaluating, and administering training, organizational development, and career development initiatives.
- **Employee Relations** - Knowledge of laws, rules, regulations, case law, principles, and practices related to employee conduct, performance, and dispute resolution.
- **HR Information Systems** - Knowledge of HR management concepts, principles, and practices related to identifying and analyzing HR processes, translating functional requirements into technical requirements, and delivering and maintaining HR information systems.



- **Labor Relations** - Knowledge of laws, rules, regulations, case law, principles, and practices related to negotiating and administering labor agreements.
- **Performance Management** - Knowledge of performance management concepts, principles, and practices related to planning, monitoring, rating, and rewarding employee performance.
- **Recruitment/Placement** - Knowledge of HR concepts, principles, and practices related to identifying, attracting, and selecting individuals and placing them into positions to address changing organizational needs.
- **Workforce Planning** - Knowledge of HR concepts, principles, and practices related to determining workload projections and current and future competency gaps to align human capital with organizational goals.

### **(2) Legal, Government and Jurisprudence**

Knowledge of laws, legal codes, court procedures, precedents, legal practices and documents, government regulations, executive orders, agency rules, government organization and functions, and the democratic political process.

## **PEOPLE**

### **(3) Interpersonal Skills**

Shows understanding, courtesy, tact, empathy, concern; develops & maintains relationships; may deal with people who are difficult, hostile, distressed; relates well to people from varied backgrounds & situations; is sensitive to individual differences.

### **(4) Teamwork**

Encourages and facilitates cooperation, pride, trust, and group identity; fosters commitment and team spirit; works with others to achieve goals.

## **CONSULTING**

### **(5) Customer Service**

Works with customers to assess needs, provide assistance, resolve problems, satisfy expectations, knows products and services; is committed to providing quality products and services.

### **(6) Client Engagement/ Change Management**

Knowledge of the impact of change on people, processes, procedures, leadership, and organizational culture; knowledge of change management principles, strategies, and techniques required for effectively planning, implementing, and evaluating change in the organization

### **(7) Knowledge of the Agency's Business**

Knows the organization's mission, statutory basis, and functions (e.g., programs, policies, procedures, operations, rules, and regulations) and how its social, political, and technological systems work and operates effectively within these systems.

Keeps current on national and local social, economic, and political factors (e.g., public policy documents, national trends from Presidential initiatives) that impact the organization.

Understands the organization's culture and value systems and how they influence organizational practices and effectiveness.



**ANALYTICAL**

**(8) Project Management**

Knowledge of the principles, methods, or tools for developing, scheduling, coordinating, and managing projects and resources, including monitoring and inspecting costs, work, and contractor performance.

**(9) Problem Solving**

Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

**Figure C-4: PROFICIENCY SCALE**

Proficiency Level	Definition
<b>Level 5 Expert</b>	<ul style="list-style-type: none"> <li>◆ Applies the competency in exceptionally difficult situations.</li> <li>◆ Serves as a key resource and advises others.</li> <li>◆ Demonstrates comprehensive, expert understanding of concepts and processes.</li> </ul>
<b>Level 4 Advanced</b>	<ul style="list-style-type: none"> <li>◆ Applies the competency in considerably difficult situations.</li> <li>◆ Generally requires no guidance.</li> <li>◆ Demonstrates broad understanding of concepts and processes.</li> </ul>
<b>Level 3 Intermediate</b>	<ul style="list-style-type: none"> <li>◆ Applies the competency in difficult situations.</li> <li>◆ Requires occasional guidance.</li> <li>◆ Demonstrates understanding of concepts and processes</li> </ul>
<b>Level 2 Basic</b>	<ul style="list-style-type: none"> <li>◆ Applies the competency in somewhat difficult situations.</li> <li>◆ Requires frequent guidance.</li> <li>◆ Demonstrates familiarity with concepts and processes.</li> </ul>
<b>Level 1 Awareness</b>	<ul style="list-style-type: none"> <li>◆ Applies the competency in the simplest situations.</li> <li>◆ Requires close and extensive guidance.</li> <li>◆ Demonstrates awareness of concepts and processes.</li> </ul>

Source: CHCO Council <http://64.210.244.101/FCATHR/doc/CHCOCouncilHRMCompetencyModel.pdf>

**Three new HC items were added to the Human Capital profile during FY 2006**

- 13) Performance Coaching and Facilitation – Provides guidance on all phases of the performance management lifecycle
- 14) Performance Management Communication and Training – Communicates and trains workforce for effective utilization of performance management system and practices
- 15) Performance Management Evaluation – Evaluates and adjusts performance management system and practices to align with organizational strategic needs and goals



## ACQUISITION PROFESSIONAL COMPETENCIES

Source: Report on Competencies for the Federal Acquisition Workforce Executive Summary [www.fai.gov](http://www.fai.gov)

Figure C-5: Professional Business Competencies for the Contract Specialist Series

**Oral Communication:** Expresses information to individuals or groups effectively, taking into account the audience and nature of the information; makes clear and convincing presentations, listens to others; attends to nonverbal cues.

**Decision-Making:** Makes sound, well informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change.

**Interpersonal Skills:** Shows understanding, courtesy, tact, empathy; develops and maintains relationships; deals with difficult people; relates well to people from varied backgrounds; is sensitive to individual differences.

**Problem Solving:** Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and make recommendations.

**Teamwork:** Encourages and facilitates cooperation, pride, trust; fosters commitment; works with others to achieve goals.

**Reasoning:** Identifies rules, principles, or relationships that explain facts, data or other information; analyzes information and makes correct inferences or accurate conclusions.

**Customer Service:** Works with customers to assess needs, provide assistance, resolve problems, satisfy expectations; knows products and services.

**Reading:** Understands and interprets written material including technical material, rules, regulations, instructions, reports; applies what is learned from written material.

**Attention to Detail:** Is thorough when performing work and conscientious about attending to detail.

**Contracting/Procurement:** Has knowledge of various types of contracts, techniques for contracting or procurement, and contract negotiation and administration.

**Influencing/Negotiating:** Persuades others to accept recommendations, cooperate, or change their behavior; work with others towards an agreement; negotiates to find mutually acceptable solutions.

**Integrity/Honesty:** Contributes to maintaining the integrity of the organization; displays high standards of ethical conduct and understands the impact of violating these standards on an organization, self, and others; is trustworthy.

**Planning and Evaluating:** Organizes work, sets priorities, determines resource requirements, determines goals and strategies; coordinates with other organizations, monitors progress; evaluates outcomes.

**Flexibility:** Is open to change and new information; adapt behavior or work methods in response to new information, changing conditions, or unexpected obstacle; effectively deal with ambiguity.

**Self-Management/Initiative:** Sets well-defined and realistic personal goals; displays a high level of initiative, effort, and commitment towards completing assignments in a timely manner; works with minimal supervision; is motivated to achieve; demonstrate responsible behavior.

**Stress Tolerance:** Deals calmly and effectively with high stress situations (for example, tight deadlines, hostile individuals, emergency situations, and dangerous situations).

**Writing:** Recognizes or uses correct English grammar, punctuation, and spelling; communicates information in a succinct and organized manner, produces written information that is appropriate for the intended audience.

**Creative Thinking:** Uses imagination to develop new insights into situations and applies innovative solutions to problems; design new methods where established methods and procedures are not applicable or are unavailable.

**Learning:** Uses efficient learning techniques to acquire and apply new knowledge and skills, uses training, feedback, etc., for self-learning and development.

**Self-Esteem:** Believes in own self-worth; maintains a positive view of self and displays a professional image.

**Information Management:** Identifies a need for and knows where or how to gather information; organizes and maintains information or information management systems.

**Memory:** Recalls information that has been presented previously.

**Arithmetic:** Performs computations using whole numbers, fractions, decimals, and percentages.

**Math Reasoning:** Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

Figure C-6: Technical Competencies for the Contract Specialist Series

**Strategic Planning** : Advise customers on their acquisition-related roles as well as the development and implementation of strategies needed to assure that supplies and services are available when needed to meet mission requirements.

**Understanding the Marketplace**: Collect and analyze relevant market information from Government and non-government source; analyze and provide business advice on the procurement request; review and provide business advice in the preparation of requirements documents and related elements of the procurement request.

**Understanding Sourcing (Commercial/Government Practices)**: Identify possible sources for the acquisition through effective market analysis and knowledge of suppliers. Limit competition when it is appropriate to the acquisition situation based on business strategies and market environments. Determine whether to limit competition to small business concerns, eligible 8(a) concerns, or a single 8(a) concern.

**Defining Government Requirements in Commercial and Non-Commercial Terms** : Select appropriate offer evaluation factors for incorporation into the solicitation that tie back to clear and unambiguous technical requirements included in the RFP; determine the method of acquisition.

**Defining Business Relationships** : Select the most appropriate pricing arrangement(s) to solicit. Determine whether and how to provide for recurring requirements. Prepare unpriced orders and contracts. Determine whether to provide for Government financing and where necessary the method of financing. Determine bonding requirements for the solicitation and contract. Determine the method of payment. Determine whether a written source selection plan is necessary or desirable.

**Effective Communication**: Select and implement a method or methods of publicizing the proposed procurements. Establish appropriate subcontracting and make-or buy requirements. Conduct oral solicitations. Prepare a written solicitation that includes the appropriate provisions and clauses tailored to the requirement and assembled in a format appropriate to the acquisition method and market for the required supply or service. Respond to an inquiry about the solicitation received prior to contract award or a request for information under the Freedom of Information Act. Conduct a pre-quote, pre-bid, pre-proposal conference when appropriate. Amend or cancel a solicitation.

**Detailed Evaluation Skills**: Receive bids including the safeguarding, opening, reading, recording, and abstracting of each bid. Evaluate offered bid acceptance periods and take appropriate action. Determine whether a bid is late, and if late, whether it can be considered for contract award. Identify and resolve mistakes in bids. Calculate the evaluated price for each bid and determine whether the lowest price is reasonable. Determine responsiveness for the invitation for bids (IFB).

**Effective Negotiation Skills and Effective Analytical Skills**: Receive quotations/proposals including the safeguarding, opening, tracking, assessing compliance with minimum solicitation requirements, and identifying of quotations/proposals that will not receive further consideration. Apply non-price factors in evaluating quotations, proposals, and past performance. Determine what pricing information (if any) to require from offerors. Consider the adequacy of a firm's accounting and estimating systems in making contracting decisions. Assure that a firm properly discloses its accounting practices when required by Government cost accounting standards (CAS) and that the disclosed practices comply with CAS requirements. Obtain any necessary audit support. Establish pre negotiation positions on price including: the need to cancel and re solicit for price related reasons; the need for communications; the need for cost information; and the need to negotiate. Establish pre negotiation positions related to cost reasonableness and cost realism by analyzing cost and technical data from the offeror and other sources. Develop pre negotiation positions on terms and conditions other than price. Determine whether to award without discussions. Conduct communications to enhance Government understanding of proposals; allow reasonable interpretation of a proposal; or facilitate the Government's evaluation process. Select offerors/quoters for discussions (i.e., establish the competitive range under FAR Part 15). Prepare negotiation strategy. Conduct a negotiation session and document in the contract file the principal elements of the negotiated agreement.

**Effective Award Resolution**: Determine and document the responsibility or non-responsibility of a prospective contractor. Prepare purchase orders/contract and document the award recommendation. Assist in distributing the contract award and related notifications. Debrief offerors at their request. Act to resolve acquisition complaints and concerns.

**Effective Communication of Contract Requirements for Administration**: Plan for contract administration. Conduct a post-award orientation. Monitor contractor subcontract management in accordance with prime contract requirements. Modify or adjust a contract when needed. Determine whether or not to exercise an available option. Utilize task order contracts, delivery order contracts, and basic ordering agreements.

**Effective Performance Management** : Monitor contract performance and take any necessary action related to delays in contract performance or the need to stop work under the contract. Apply remedies to protect the rights of the Government under commercial item contracts and simplified acquisitions. Apply remedies to protect the rights of the Government under noncommercial item contracts. Document past performance information.

**Effective Financial Management**: Approve or disapprove the request for an assignment of claims. Require the contractor to provide a bond or other securities to apply toward completing the contract in case the contract is terminated for cause or default. Assure that the contractor receives the appropriate contract financing in accordance with contract financing requirements and relate contract performance. Make decisions related to allowability of contract costs. Adjust the price or fee. Determine if cost or pricing data were defective (i.e., not current, accurate, and complete) and appropriate remedies. Determine whether to authorize payment against an invoice in full, in part, or not at all. Refer indications of fraud or other civil or criminal offenses to responsible officials. Determine and recover debts from contractors. Enforce Government and contractor compliance with special contract terms and conditions.

**Make Decisions Related to Allowability of Contract Costs**: Adjust the price or fee. Determine if cost or pricing data were defective (i.e., not current, accurate, and complete) and appropriate remedies. Determine whether to authorize payment against an invoice in full, in part, or not at all.



Refer indications of fraud or other civil or criminal offenses to responsible officials. Determine and recover debts from contractors. Enforce Government and contractor compliance with special contract terms and conditions.

**Effective Resolution of Contract Termination and /or Closeout** : Analyze and negotiate and prepare a Contracting Officer's decisions. Terminate contracts when it is in the best interest of the Government. Perform contract closeout.

## IT PROFESSIONAL COMPETENCIES

Source: [http://www.cio.gov/documents/IT Workforce Capability Assessment Survey Analysis \(2004\) 03-24-2005.doc](http://www.cio.gov/documents/IT_Workforce_Capability_Assessment_Survey_Analysis_(2004)_03-24-2005.doc)

### A.1 LIST OF GENERAL COMPETENCIES AND DEFINITIONS

1. **Administration and Management** - Knowledge of planning, coordination, and execution of business functions, resource allocation, and production.
2. **Contracting/Procurement** - Knowledge of various types of contracts, techniques for contracting or procurement, and contract negotiation and administration.
3. **Customer Service** - Works with clients and customers (that is, any individuals who use or receive the services or products that your work unit produces, including the general public, individuals who work in the agency, other agencies, or organizations outside the Government) to assess their needs, provide information or assistance, resolve their problems, or satisfy their expectations; knows about available products and services; is committed to providing quality products and services.
4. **Decision Making** - Makes sound, well-informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change.
5. **Financial Management** - Prepares, justifies, and/or administers the budget for program areas; plans, administers, and monitors expenditures to ensure cost-effective support of programs and policies; assesses financial condition of an organization.
6. **Influencing/Negotiating** - Persuades others to accept recommendations, cooperate, or change their behavior; works with others towards an agreement; negotiates to find mutually acceptable solutions.
7. **Interpersonal Skills** - Shows understanding, friendliness, courtesy, tact, empathy, concern, and politeness to others; develops and maintains effective relationships with others; may include effectively dealing with individuals who are difficult, hostile, or distressed; relates well to people from varied backgrounds and different situations; is sensitive to cultural diversity, race, gender, disabilities, and other individual differences.
8. **Leadership** - Influences, motivates, and challenges others; adapts leadership styles to a variety of situations.
9. **Legal, Government and Jurisprudence** - Knowledge of laws, legal codes, court procedures, precedents, legal practices and documents, Government regulations, executive orders, agency rules, Government organization and functions, and the democratic political process.
10. **Managing Human Resources** - Plans, distributes, coordinates, and monitors work assignments of others; evaluates work performance and provides feedback to others on their performance; ensures that staff are appropriately selected, utilized, and developed, and that they are treated in a fair and equitable manner.



11. **Oral Communication** - Expresses information (for example, ideas or facts) to individuals or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others; attends to nonverbal cues; and responds appropriately.
12. **Organizational Awareness** - Knows the organization's mission and functions, and how its social, political, and technological systems work and operates effectively within them; this includes the programs, policies, procedures, rules, and regulations of the organization.
13. **Planning and Evaluation** - Organizes work, sets priorities, and determines resource requirements; determines short- or long-term goals and strategies to achieve them; coordinates with other organizations or parts of the organization to accomplish goals; monitors progress and evaluates outcomes.
14. **Problem Solving** - Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.
15. **Public Safety and Security** - Knowledge of the military, weaponry, and intelligence operations; public safety and security operations; occupational health and safety; investigation and inspection techniques; or rules, regulations, precautions, and prevention techniques for the protection of people, data, and property.
16. **Strategic Thinking** - Formulates effective strategies consistent with the business and competitive strategy of the organization in a global economy. Examines policy issues and strategic planning with a long-term perspective. Determines objectives and sets priorities; anticipates potential threats or opportunities.

## A.2 LIST OF TECHNICAL COMPETENCIES AND DEFINITIONS

1. **Accessibility** - Knowledge of tools, equipment, and technologies used to help individuals with disabilities use computer equipment and software.
2. **Artificial Intelligence** - Knowledge of the principles, methods, and tools used to design systems that perform human intelligence functions.
3. **Business Process Reengineering** - Knowledge of methods, metrics, tools, and techniques of Business Process Reengineering.
4. **Capacity Management** - Knowledge of the principles and methods for monitoring, estimating, or reporting actual performance or the performance capability of information systems or components.
5. **Capital Planning and Investment Assessment** - Knowledge of the principles and methods of capital investment analysis or business case analysis, including return on investment analysis.
6. **Computer Forensics** - Knowledge of tools and techniques used in data recovery and preservation of electronic evidence.
7. **Computer Languages** - Knowledge of computer languages and their applications to enable a system to perform specific functions.



8. **Configuration Management** - Knowledge of the principles and methods for planning or managing the implementation, update, or integration of information systems components.
9. **Cost-Benefit Analysis** - Knowledge of the principles and methods of cost-benefit analysis, including the time value of money, present value concepts, and quantifying tangible and intangible benefits.
10. **Data Management** - Knowledge of the principles, procedures, and tools of data management, such as modeling techniques, data backup, data recovery, data dictionaries, data warehousing, data mining, data disposal, and data standardization processes.
11. **Database Administration** - Knowledge of the principles, methods, and tools for automating, developing, implementing, or administering database systems.
12. **Database Management Systems** - Knowledge of the uses of database management systems and software to control the organization, storage, retrieval, security, and integrity of data.
13. **Distributed Systems** - Knowledge of the principles, theoretical concepts, and tools underlying distributed computing systems, including their associated components and communication standards.
14. **Electronic Commerce (e-Commerce)** - Knowledge of the principles, methods, and tools for conducting business online, including electronic data interchange.
15. **Embedded Computers** - Knowledge of specifications and uses of specialized computer systems used to control devices (for example, automobiles, helicopters), including the appropriate programming languages.
16. **Encryption** - Knowledge of procedures, tools, and applications used to keep data or information secure, including public key infrastructure, point-to-point encryption, and smart cards.
17. **Hardware** - Knowledge of specifications, uses, and types of computer or computer-related equipment.
18. **Hardware Engineering** - Knowledge of the principles, methods, and tools for designing, developing, and testing computer or computer-related equipment.
19. **Human Factors** - Knowledge of the principles, methods, and tools used to identify and apply information about human behavior, abilities, limitations, and other characteristics to the design of tools, machines, systems, tasks, jobs, and environments for effective human use.
20. **Information Assurance** - Knowledge of methods and procedures to protect information systems and data by ensuring their availability, authentication, confidentiality, and integrity.
21. **Information Resources Strategy and Planning** - Knowledge of the principles, methods, and techniques of information technology (IT) assessment, planning, management, monitoring, and evaluation, such as IT baseline assessment, interagency functional analysis, contingency planning, and disaster recovery.



22. **Information Systems Security Certification** - Knowledge of the principles, methods, and tools for evaluating information systems security features against a set of specified security requirements.
23. **Information Systems/Network Security** - Knowledge of methods, tools, and procedures, including development of information security plans, to prevent information systems vulnerabilities, and provide or restore security of information systems and network services.
24. **Information Technology Architecture** - Knowledge of architectural methodologies used in the design and development of information systems, including the physical structure of a system's internal operations and interactions with other systems.
25. **Information Technology Performance Assessment** - Knowledge of the principles, methods, and tools (for example, surveys, system performance measures) to assess the effectiveness and practicality of information technology systems.
26. **Information Technology Research & Development** - Knowledge of scientific principles, methods, and tools of basic and applied research used to conduct a systematic inquiry into a subject matter area.
27. **Infrastructure Design** - Knowledge of the architecture and typology of software, hardware, and networks, including LANS, WANS, and telecommunications systems, their components and associated protocols and standards, and how they operate and integrate with one another and with associated controlling software.
28. **Knowledge Management** - Knowledge of the value of collected information and the methods of sharing that information throughout an organization.
29. **Logical Systems Design** - Knowledge of the principles and methods for designing business logic components, system processes and outputs, user interfaces, data inputs, and productivity tools (for example, CASE).
30. **Modeling and Simulation** - Knowledge of mathematical modeling and simulation tools and techniques to plan and conduct test and evaluation programs, characterize systems support decisions involving requirements, evaluate design alternatives, or support operational preparation.
31. **Multimedia Technologies** - Knowledge of the principles, methods, tools, and techniques of developing or applying technology using text, audio, graphics, or other media.
32. **Network Management** - Knowledge of the operation, management, and maintenance of network and telecommunication systems and linked systems and peripherals.
33. **Object Technology** - Knowledge of the principles, methods, tools, and techniques that use object-oriented languages, analysis, and design methodologies.
34. **Operating Systems** - Knowledge of computer network, desktop, and mainframe operating systems and their applications.
35. **Operations Support** - Knowledge of procedures to ensure production or delivery of products and services, including tools and mechanisms for distributing new or enhanced software.



36. **Organizational Development** - Knowledge of the principles of organizational development and change management theories and their applications.
37. **Process Control** - Knowledge of the principles, methods, and procedures used for the automated control of a process, including the design, development, and maintenance of associated software, hardware, and systems.
38. **Product Evaluation** - Knowledge of methods for researching and analyzing external products to determine their potential for meeting organizational standards and business needs.
39. **Project Management** - Knowledge of the principles, methods, or tools for developing, scheduling, coordinating, and managing projects and resources, including monitoring and inspecting costs, work, and contractor performance.
40. **Quality Assurance** - Knowledge of the principles, methods, and tools of quality assurance and quality control used to ensure a product fulfills functional requirements and standards.
41. **Requirements Analysis** - Knowledge of the principles and methods to identify, analyze, specify, design, and manage functional and infrastructure requirements; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches.
42. **Risk Management** - Knowledge of methods and tools used for risk assessment and mitigation of risk.
43. **Software Development** - Knowledge of the principles, methods, and tools for designing, developing, and testing software in a given environment.
44. **Software Engineering** - Knowledge of software engineering design and development methodologies, paradigms, and tools; the software life cycle; software reusability; and software reliability metrics.
45. **Software Testing and Evaluation** - Knowledge of the principles, methods, and tools for analyzing and developing software test and evaluation procedures.
46. **Standards** - Knowledge of standards that either are compliant with or derived from established standards or guidelines.
47. **System Testing and Evaluation** - Knowledge of the principles, methods, and tools for analyzing and developing systems test and evaluation procedures and technical characteristics of IT systems, including identifying critical operational issues.
48. **Systems Integration** - Knowledge of the principles, methods, and procedures for installing, integrating, and optimizing information systems components.
49. **Systems Life Cycle** - Knowledge of systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems.
50. **Technical Documentation** - Knowledge of procedures for developing technical and operational support documentation.



51. **Technology Awareness** - Knowledge of developments and new applications of information technology (hardware, software, telecommunications), emerging technologies and their applications to business processes, and applications and implementation of information systems to meet organizational requirements.
52. **Telecommunications** - Knowledge of transmissions, broadcasting, switching, control, and operation of telecommunications systems.
53. **Web Technology** - Knowledge of the principles and methods of web technologies, tools, and delivery systems, including web security, privacy policy practices, and user interface issues.

### A.3 LIST OF SKILLS AND DEFINITIONS

1. **Biometrics** - Activities related to technological methods of identifying individuals via biological traits, such as retinal or iris scanning, fingerprints, or face recognition.
2. **Broadband Media** - Activities related to telecommunication in which a wide band of frequencies is available to transmit information. This allows information to be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time.
3. **Cellular Network Technology** - Activities related to wireless communications network architecture. These employ "cells" or modular coverage areas typically serviced by a cell site or base station and usually provide capability between cells for roaming devices.
4. **Client-Server** - Activities related to software programs that are used to contact and obtain data from a server software program on another computer, often across a great distance. Each client program is designed to work with one or more specific kinds of server programs, and each server typically requires a specific kind of client.
5. **Collaboration Software** - Activities related to software or tools that integrate work on a single project by several concurrent users at separated workstations (also known as groupware).
6. **Continuity of Operations Planning** - Building contingencies and strategies for minimizing financial and operational losses following service interruptions caused by natural, technological, and attack-related emergencies. Such planning includes the safety of employees, information, and services.
7. **Cryptology** - The methods of transforming data for secure storage and transmission purposes. Such activities make it difficult or impossible for unauthorized individuals to access confidential or sensitive data.
8. **Data Analysis and Reporting** - Activities related to the analysis of data in a database using tools that look for trends or anomalies, establish relationships, and predict future patterns among events. Includes using statistical software (such as SAS and SPSS) to generate reports.
9. **Data Modeling** - Activities related to the analysis of data objects that are used in a business or other context and the identification of the relationships among these data objects. Creating graphical representations of the entities, and the relationships among entities, within an information system. Diagramming assists in planning the database model and communicating its design to an end user.



10. **Data Warehousing** - Population and maintenance of a central repository for all, or significant parts of, data that an enterprise's various business systems collect. Also includes the migration of data from legacy databases into a data warehouse.
11. **Desktop Applications** - Ability to productively use or employ a variety of widely-used end-user applications such as Microsoft Office, Visio, etc..
12. **Development Languages** - Ability to write or author code in a variety of programming languages (e.g., html, c++, java, java script, xml, asp) to develop applications. Encompasses 4<sup>th</sup> Generation, Low-level and Mid-level Languages.
13. **Document Management** - Activities related to the computerized management of electronic and paper-based files.
14. **Earned Value Management** - Ability to manage projects/programs by integrating technical performance requirements, resource planning, scheduling and risk management to ensure the use of effective cost and schedule management controls by the contractor.
15. **Enterprise Directory Services (EDS)** - Activities related to an Enterprise Directory Service (EDS), which identifies all resources (e.g., email addresses, computers, printers, databases) on a network and makes them accessible to users and applications. An EDS offers a unique way of naming, describing, and locating resources on a network.
16. **Enterprise Portal Development** - The creation and maintenance of a web-based framework for agency resources (e.g., email, news, search engine, policies). A portal is a single point of access for all employees in an enterprise, providing access to specific information and services.
17. **Enterprise Resource Planning (ERP)** - Activities related to the integration of all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs. Integration can include databases, tools, interfaces and applications.
18. **Extensible Markup Language (XML)** - Activities related to Extensible Markup Language (XML), a widely used system for defining data formats. XML provides a rich system to define complex documents and data structures. As long as a programmer has the XML definition for a collection of data (often called a "schema") then they can create a program to reliably process any data formatted according to those rules.
19. **Federal/OMB Enterprise Architecture** - Activities related to the business-based framework developed by the Office of Management and Budget (OMB) for Governmentwide improvement. The architecture is being constructed through a collection of interrelated "reference models" designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration within and across Federal Agencies.
20. **Firewalls** - Activities related to the combination of hardware and software that separates a network into two or more parts for security purposes.
21. **Geographic Information Systems (GIS)** - Activities related to computer software capable of capturing, storing, analyzing, and displaying geographically referenced information. Layers of information about cities, countries, or other locations may include bodies of water, roadways, agriculture, natural resources, and commerce.



22. **Joint Application Development/Rapid Application Development (JAD/RAD)** - Utilization of JAD, a methodology that involves the client or end user in the design and development of an application, through a succession of collaborative workshops called JAD sessions. A variation on JAD, Rapid Application Development (RAD) creates an application more quickly through such strategies as using fewer formal methodologies and reusing software components.
23. **Linux Operating System** - Activities related to the widely used open source UNIX-like operating system Linux. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
24. **MacOS/MacOSX Operating System** - Activities related to the operating system behind many Macintosh computers. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
25. **Mainframe Operating Systems** - Activities related to mainframe operating systems that perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
26. **Mainframes** - Activities related to mainframes, which are computers for large-scale computing purposes. Historically, a mainframe is associated with centralized rather than distributed computing, and is able to handle hundreds, or even thousands, of users simultaneously.
27. **Network Architecture and Design** - Ability to ensure that networks are structured and designed to support the success of an organization. They are responsible for making the right connections for the Internet, intranets, and extranets, including designing and maintaining local area networks and wide area networks.
28. **Network Configuration and Implementation** - Programming of the layout and settings of the computers and equipment on an enterprise's local area network (LAN) or intranet. This includes devices like routers and gateways that interconnect the LAN with other LANs or the Internet.
29. **Network Voice/Data Integration** - Activities related to packetizing and carrying normal telephony-style voice over a network circuit or channel, similar to, and often interspersed with, data packets.
30. **Object-Oriented Languages** - Ability to write or author code using object-oriented languages, which are organized around "objects" rather than "actions" and data rather than logic. Programmers define not only the data type of a data structure, but also the types of operations (functions) that can be applied to the data structure. Also, programmers can create relationships between objects. Examples of object-oriented languages include C++ and Java.
31. **OS/2 Operating System** - Activities related to the OS/2 operating system for PCs developed originally by Microsoft Corporation and IBM. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
32. **Personal Digital Assistants** - Activities related to Personal Digital Assistants (PDAs), or handheld devices that were originally designed as personal organizers, but became much more



versatile over the years. A basic PDA usually includes a clock, date book, address book, task list, memo pad and a simple calculator. One major advantage of using PDAs is their ability to synchronize data with desktop, notebook and desknote computers.

33. **Portfolio Management for IT** - Activities related to the management of IT resources, as one would manage investments in a real estate or stock portfolio. The IT portfolio facilitates the alignment of technology investments with agency business needs and the analysis and proper mitigation of IT investment risks.
34. **Process Design** - Activities related to the strategic establishment of the flow of information, control or materials from one activity to another. Examples of graphical representations of process design include the Business Process Modeling Notation (BPMN) and the Integrated Computer Aided Manufacturing Definition (IDEF).
35. **Project Management Software** - The use of software in order to manage resources and scheduling for a given project.
36. **Public Key Infrastructure (PKI)** - Activities related to Public Key Infrastructure (PKI), or the use of an unsecured public network, such as the Internet, to securely and privately exchange data and money through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority.
37. **Records Management** - Activities related to the physical or digital maintenance of public records, from creation through destruction.
38. **Relational Database Management Systems (RDBMS)** - Activities related to relational database management systems, or programs that let you create, update, and administer a relational database. Examples include Oracle, IBM's DB2 and Microsoft's SQL Server.
39. **Reusable Modules** - Activities employing reusable modules in programming, when repeating the same function multiple times. The module includes files and is inserted into the code to reduce the code's complexity and redundancy.
40. **Satellite Communications** - Activities related to the utilization of geostationary orbiting satellites to relay the transmission received from one earth station to one or more earth stations. They are the outcome of research in the area of communications whose objective is to achieve ever-increasing ranges and capacities with the lowest possible costs.
41. **Scripting/Metadata** - The use of metadata, or describing how, when and by whom a particular set of data was collected, and how the data is formatted. Metadata is essential for understanding information stored in data warehouses.
42. **SEI Capability Maturity Models** - Working knowledge of the Carnegie Mellon Software Engineering Institute's (SEI) 5-stage model of how software organizations improve, over time, in their ability to develop software. Knowledge of the model provides a basis for assessment, comparison, and process improvement.
43. **Structured Query Language (SQL)** - Activities related to SQL, a standardized query language for requesting information from a database.
44. **System Analysis and Design** - Activities related to the design, specification, feasibility, cost, and implementation of a computer system for business. Knowledge of the development and



implementation process, metrics and tools for analysis, design and project management, quality factors and post evaluation techniques.

45. **Systems Maintenance and Helpdesk** - Activities related to an enterprise's physical or online resource center for just-in-time assistance with desktop, network, hardware, and software questions and issues.
46. **Systems Security Applications** - Activities related to the applications and tools that administrators use to manage various users, roles and groups to implement access and privilege controls for certain applications or against operating system resources.
47. **Telephony/PBX** - Activities related to a telephone network used within an enterprise. Users of the PBX share a certain number of outside lines for making telephone calls external to the PBX. It allows a small number of outside lines to be shared among all of the people of the organization.
48. **Testing** - Activities related to determining whether objectives are being met during hardware/software development. Testing can take place at a variety of levels such as the module, component, or system levels. Testing is also related to the various types of verification, validation and evaluation of whether or not a system satisfies its acceptance criteria. This process enables the customer to determine whether or not to accept the system.
49. **Unified Modeling Language (UML)** - Activities related to the industry-standard Unified Modeling Language (UML) for specifying, visualizing, constructing, and documenting the artifacts of software systems. It simplifies the complex process of software design, making a "blueprint" for construction.
50. **UNIX Operating System** - Activities related to the UNIX operating system. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers. UNIX is designed for use by many people at the same time (it is multi-user) and has TCP/IP built-in. It is the most common operating system for servers on the Internet.
51. **Video Imaging** - Ability to use software tools to capture, store, manipulate, and display graphic images.
52. **Web-enabled Application Design and Development** - Ability to design and develop web-enabled applications that provide certain functionality, automate certain processes or provide access to or interface with legacy applications. Includes designing the look and feel of the application and ensuring accessibility to site content for individuals with disabilities.
53. **Web Site Management** - Activities that involve the management and maintenance of an enterprise's web site or portal. Activities include developing web pages, performing backups and ensuring user access to the site, monitoring site traffic and helping scale site capacity meet traffic demands.
54. **Windows Operating System** - Activities related to the operating system behind all Microsoft Windows-configured computers. Operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.



55. **Wireless Technologies** - Activities related to any technology that transmits information signals via radio waves rather than cables or wires, where individual units are connected to a network, such as cellular phones, networked laptops, and PDAs.

#### A.4 LIST OF CERTIFICATION AREAS AND EXAMPLES

1. **Business Applications** - PeopleSoft, SAP, Oracle, Lotus, Citrix
2. **CIO** - Chief Information Officer Certificate, GSA CIO University Program
3. **Computing** - Computer Service, Repair, Data Processing, Document Imaging, CompTIA A+, Certified Computing Professional (Institute for Certification of Computing Professionals)
4. **Database** - Microsoft MCDBA, Oracle Certified Database Administrator, IBM DB2 Database Administrator
5. **Engineering** - Licensed Engineer
6. **Evidence Collection** - Certified Electronic Evidence Collection Specialist
7. **GSA 1000 by 2000 Certification** - n/a
8. **Healthcare** - Certified Professional in Healthcare Information and Management Systems
9. **Information Systems** - CISA (Certified Information Systems Auditor), Certified System Professional, Certified Administrator, Certified Systems Engineer, Certified Solutions Architect, Microsoft MCSD, Dell DCSE, Certified Java Developer, Certified Information System Auditor Certificate
10. **Information Systems Security** - Information Systems Security Professional (CISSP), Information Systems Security Associate (ISSA), Systems Security Certified Practitioner (SSCP), Systems Security Professional NSTISSI No. 4011 Certificate (NDU / IRMC), Checkpoint
11. **Mechanical** - Certified Mechanical Inspector
12. **Network Security** - Security Certified Network Architect, Security Certified Network Professional, Certified Network Support/Administration, Certified Firewall Analyst, Certified Intrusion Analyst, Certified Incident Handler, Certified Windows Security Administrator, Certified UNIX Security Administrator
13. **Network Support** - Certified Professional, Certified Call Center Manager, Certified Help Desk Director, Certified Help Desk Manager, Certified Help Desk Professional, Certified Network Administrator, Novell (various), Netware, Cisco (various), Microsoft MCSE
14. **Operating Systems** - Microsoft MCSE, IBM AIX, Sun Solaris, HP-UX, Linux, Red Hat Certified Engineer, SCO Certification
15. **Project Management** - Project Management Institute (PMI), Defense Acquisition University (DAU), other equivalent Project Management Certification, Advanced Management Program (NDU / IRMC), eGovernment Leadership Certificate Program (eGOV) (NDU / IRMC)
16. **Quality** - Certified Quality Auditor, Certified Quality Auditor - Hazard Analysis Critical Control Point, Certified Quality Engineer, Certified Quality Improvement Associate, Certified Quality Technician, Certified Reliability Engineer, Certified Software Quality Engineer, Strategic & Tactical Advocates for Results
17. **Software Development** - Certified Software Development Professional, Microsoft MCSD, Certified Java Developer
18. **Training** - Certified Technology Trainer, Microsoft Certified Trainer
19. **Web** - HyCurve Web Design Specialist, Prosoft CIW (Certified Internet Webmaster), Master Certified Webmaster, USDA Graduate School Webmaster Certification Figure C-6: Technical

**Figure C-7: Leadership Performance Management Competencies**

<b>Performance Management Competencies (PMCs)</b>	<b>PMC Definition</b>
<b>Understanding Performance Management Processes and Practices</b>	Understands and works within the context of the performance appraisal system to actively manage self and others.
<b>Goal Setting</b>	Sets and maintains effort towards goals by establishing measurable results that support organizational mission accomplishment.
<b>Performance Coaching and Feedback</b>	Initiates and engages in performance-related conversations with others to support continual professional and personal growth.
<b>Facilitating Performance</b>	Initiates and guides the efforts of self and others toward performance goals through ongoing support, removal of performance obstacles, managing consequences, and holding employees accountable.
<b>Differentiating Performance</b>	Makes fair assessments of performance based upon measures of performance that include observable behaviors, performance feedback and demonstrated results.
<b>Building Performance Culture</b>	Creates an environment that fosters and rewards teamwork, leverages diversity, inspires collaboration and promotes results-focused mission accomplishment.

**Figure C-8: Human Resource Performance Management Competencies**

<b>HR Practitioner PMCs</b>	<b>HR Practitioner PMC Definition</b>
<b>Performance Coaching and Facilitation</b>	Provides guidance on all phases of the performance management lifecycle.
<b>Performance Management Communication and Training</b>	Communicates and trains workforce for effective utilization of performance management system and practices.
<b>Performance Management Evaluation</b>	Evaluates and adjusts performance management system and practices to align with organizational strategic needs and goals.



## APPENDIX D: INFORMATION TECHNOLOGY SPECIALIST GAP ANALYSIS REPORT AND IMPROVEMENT PLAN

### EXECUTIVE SUMMARY

This report serves as the Department of Transportation's (DOT) *Gap Analysis and Improvement Plan* as outlined in the Office of Personnel Management's (OPM) Talent Standard for the Mission Critical Occupation (MCO) of **Information Technology (IT) Specialist**. OPM's Talent Standard requires that DOT meets targets for closing competency gaps in its mission critical occupations, and that it integrates appropriate competitive sourcing and e-Government (e-Gov) solutions into these strategies. Based on a Department-wide assessment of 798 respondents, this report provides a demographic profile of the IT Specialist workforce, summarizes the competency strengths and gaps, and presents an integrated analysis of the IT competencies targeted for closure across DOT.

The Department's IT workforce demonstrates proficiency in many competency areas, particularly among those who work extensively in various specialized job activities (SJAs). Specifically, there were no gaps in the following competencies: Data Management, IT Research & Development, Computer Forensics, System Testing & Evaluation, Human Factors, Product Evaluation, Quality Assurance, IT Performance Assessment, Legal, Government, Jurisprudence, Interpersonal Skills, Problem Solving, Systems Life Cycle, and Customer Service.

Most of the gaps that were present in the workforce were in the medium or small range. We will focus on the closure of one identified competency gap and one identified skill gap that most immediately support the achievement of our strategic objectives, and where significant improvements can be made by CY 2008. Based upon these criteria, we are focusing on the following gaps:

- Capital Planning & Investment Assessment
- Earned Value Management

Although closure plan development will be tailored to each Organizational Administration (OA) to ensure mitigation strategies meet their individual and unique needs, DOT has identified several general improvement strategies to mitigate IT Specialist competency gaps. The broad improvement strategies DOT selected fell within the following three categories:

- Training
- Recruitment
- Retention

Overall, the results from gap analyses are notable and provide DOT with insight into some of the challenges facing its IT Specialist cadre. Although the competency gaps identified in the IT Specialist Competency Assessments varied from OA to OA, the identification of the types and levels of competencies currently inherent to the workforce provides DOT with a unifying framework for creating enterprise-wide programs to mitigate competency gaps. This framework will be used on an on-going basis to support one of the key elements of the President's Management Agenda (PMA) – *the Strategic Management of Human Capital*.

### SECTION I - BACKGROUND AND INTRODUCTION

The President's Management Agenda, Strategic Management of Human Capital (PMA-HC), requires that all agencies close competency and skill gaps in mission-critical occupations (MCOs) by FY 2009. As part of the PMA-HC, the government assesses IT workforce capabilities on a biennial basis. The Department of Transportation (DOT) Gap Analysis Report and Improvement Plan provides a Department-wide perspective on the Information Technology (IT) workforce capability in four Specialized Job Activities (SJAs) important in the DOT. These SJAs are:



- IT Project Management
- IT Security/Information Assurance
- IT Enterprise Architecture
- IT Solutions Architecture

In 2005, the Office of Management and Budget (OMB) initiated government-wide human capital planning for the Information Technology (IT) workforce and the development of agency plans to close important IT skill gaps in, at minimum, the four SJAs above. OMB and the Federal Chief Information Officer Council (CIOC) chose these specific SJAs for their importance at the Federal level in contributing to fulfillment of the PMA. Through agency competency and skill gap closure plans, OMB and the Federal CIOC gain a government-wide perspective on agency and IT workforce capability in these areas.

DOT leveraged the full capabilities and functionality of the Federal IT Workforce Capability Planning and Analysis Tool (CPAT) to perform a competency and skill gap analysis by looking across the enterprise to identify the types and levels of competencies and skills currently present in the IT workforce. By identifying the gaps, DOT can create enterprise-wide mitigation strategies to close them within the MCOs, and realize the following objectives of IT Workforce Planning:

- Tie mission needs and business forecasting to capability (talent) requirements of the agency's IT workforce
- Determine competencies needed to fulfill mission-critical functions (SJA Template)
- Evaluate possible options to mitigate talent gaps that may include succession planning, recruitment and retention and/or learning and development strategies
- Develop short and long term strategies to target investments in people to create a quality workplace designed to attract, acquire, and retain quality talent
- Guide human capital decisions with a detailed analysis of survey data and the perspective of long-term trend analyses (for example, in areas such as attrition)

This document includes the following summarized data from the 798 DOT IT staff members who completed the 2006 DOT IT Workforce Competency Assessment (ITWCA) from each of DOT's thirteen OAs:

- "Supply" data in the form of self-rated proficiencies for competency and skill
- "Demand" data, including competency and skill, generated through the Federal IT Workforce Capability Planning and Analysis Tool (CPAT)

## SECTION 2. ORGANIZATIONAL REVIEW OF THE DEPARTMENT OF TRANSPORTATION

The mission of the Department is to:

*Serve the United States by ensuring a fast, safe, efficient, accessible, and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.*

To adequately support the Department's mission, it is essential that a highly competent IT workforce be in place. In recognition of the importance of building capacity in IT organizations across government, the current assessment provides the foundation to begin effectively managing the talent needed by IT organizations. Shown below are common traits of the "typical" Transportation IT worker, based on demographic data obtained from the CPAT:

- Classified as a GS-0334
- Male
- White (non-Hispanic)



- 51-55 years old
- Grade level of GS-13/14
- Has over 11 years of public sector experience
- Has less than 3 years of private sector experience
- Eligible to retire in the next 11 to 20 years
- Holds a Bachelor's degree

The following figures provide a detailed demographic profile of DOT's IT workforce.

Figure D-1: DOT IT Workforce Education Levels

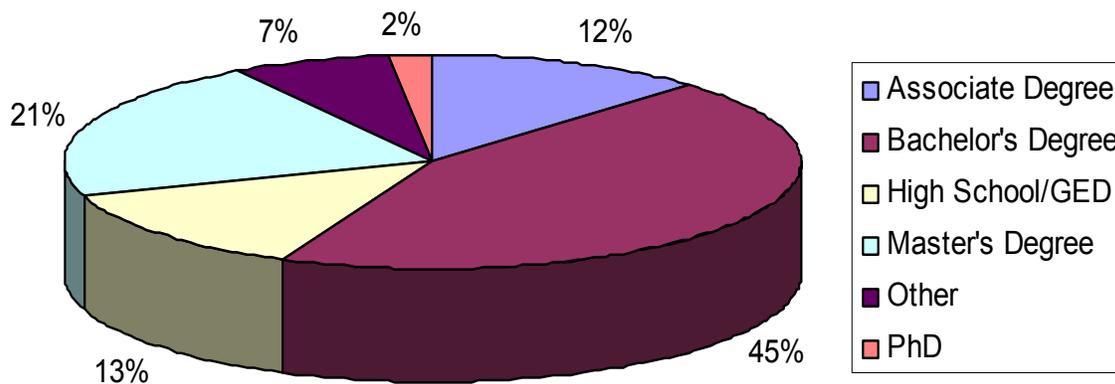


Figure D-2: DOT IT Workforce by Gender

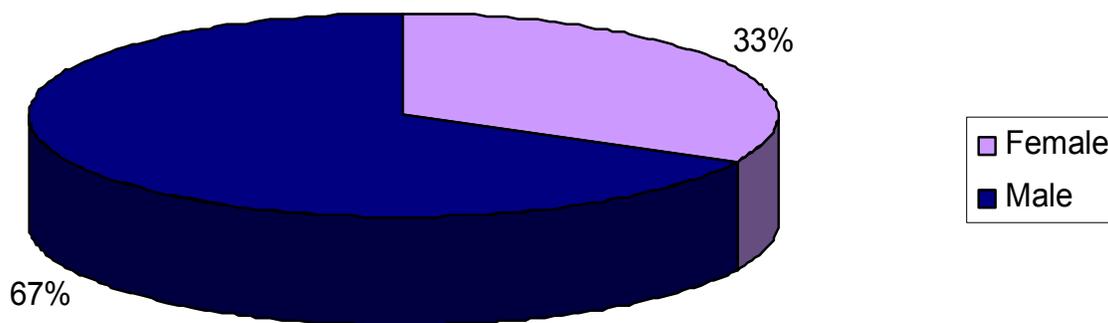


Figure D-3: DOT IT Workforce by Race

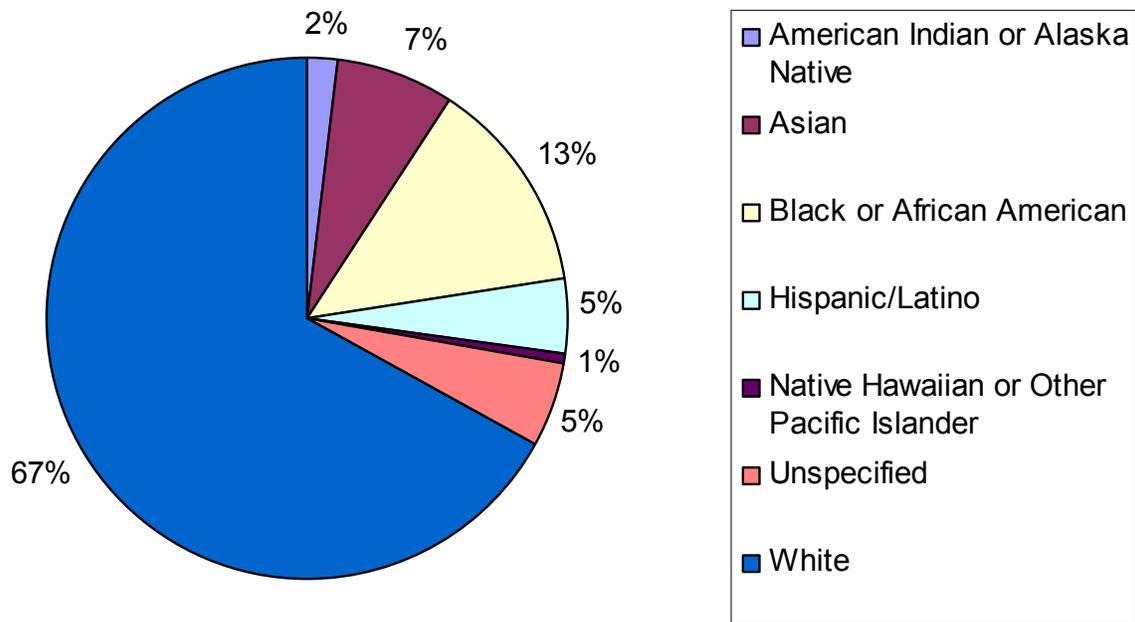


Figure D-4: DOT IT Workforce by Age

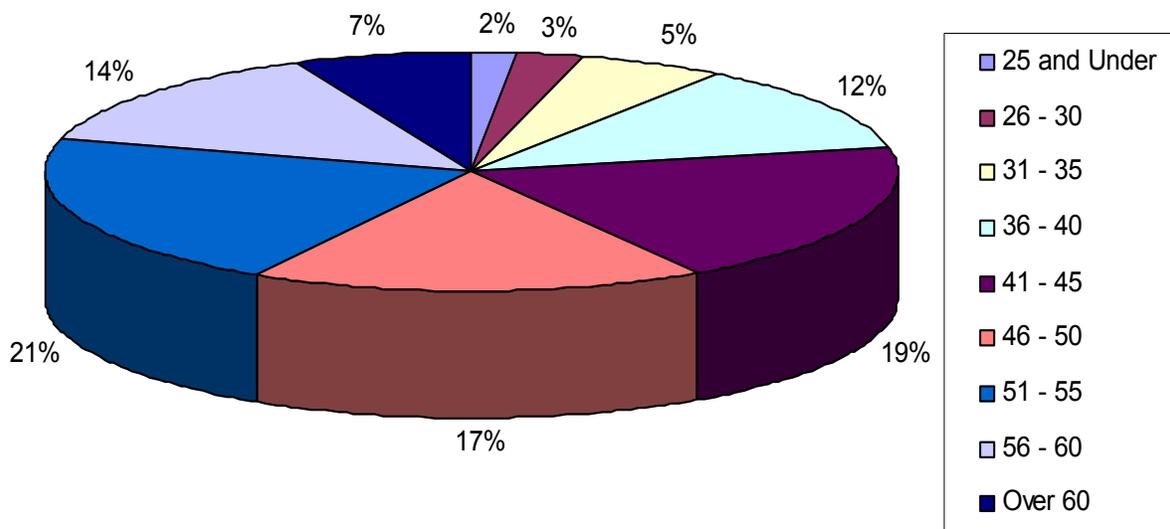




Figure D-5: DOT IT Workforce Retirement Eligibility

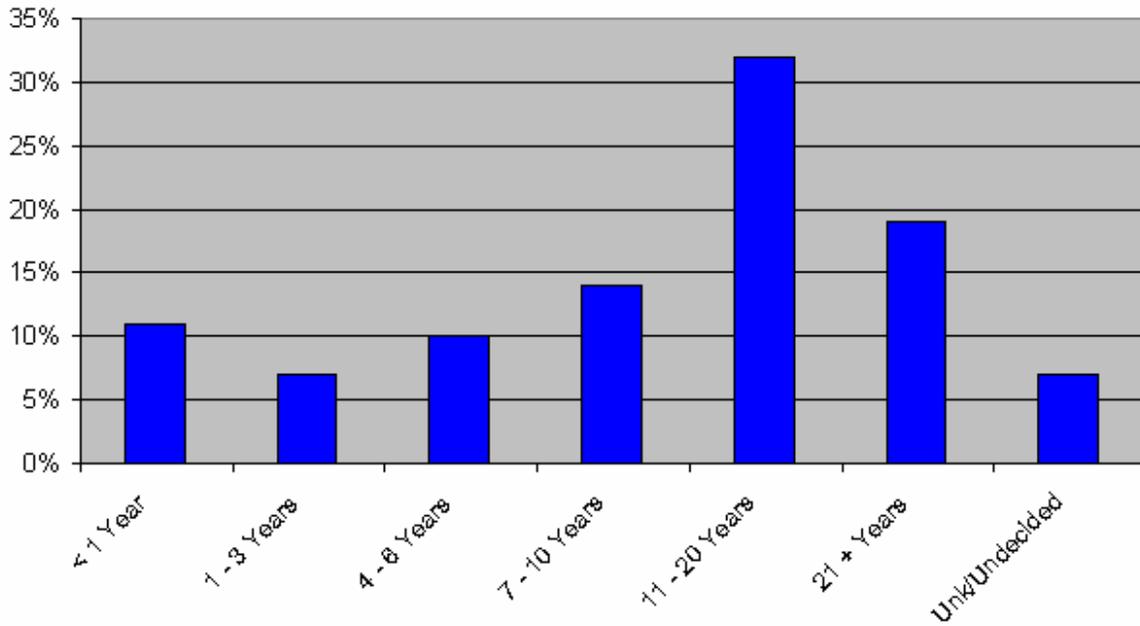


Figure D-6: DOT IT Workforce Private Sector IT Experience

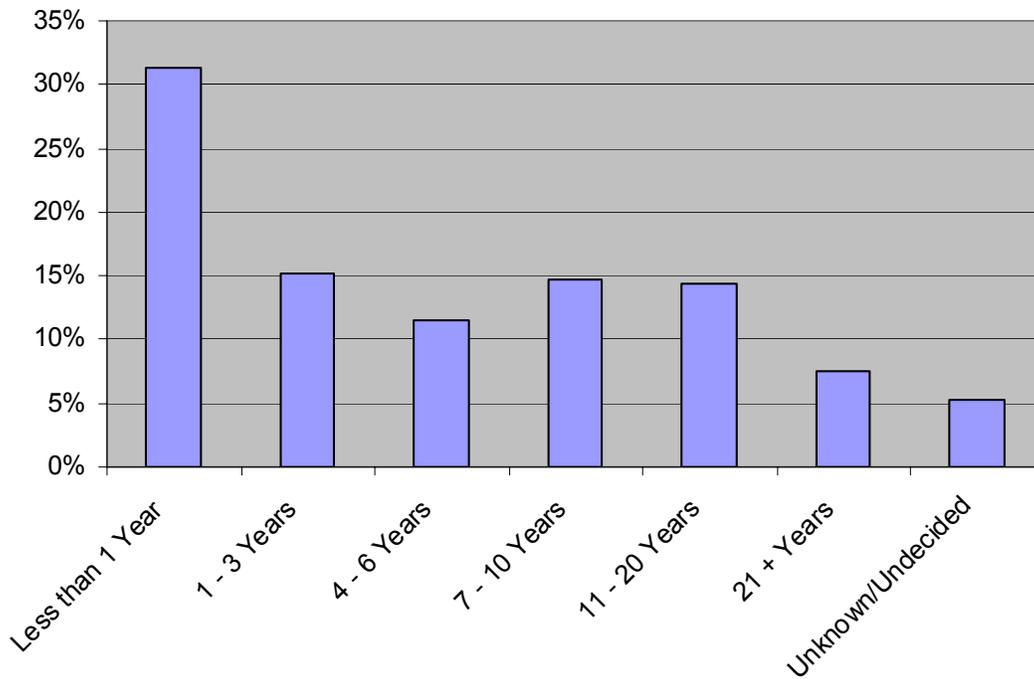




Figure D-7: DOT IT Workforce Public Sector IT Experience

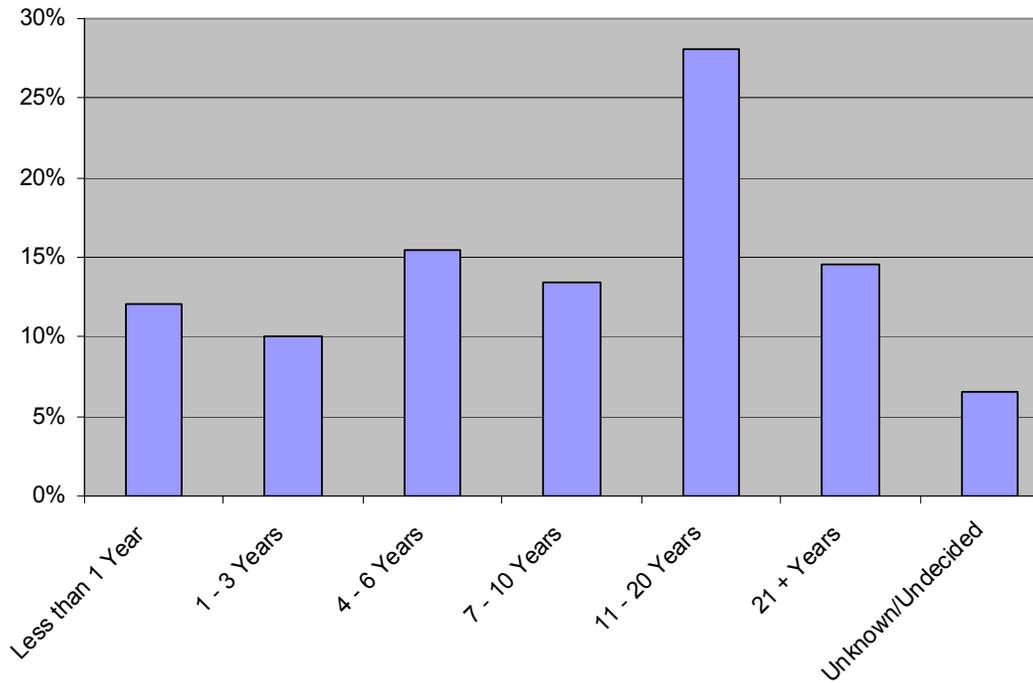


Figure D-8: DOT IT Workforce by Grade

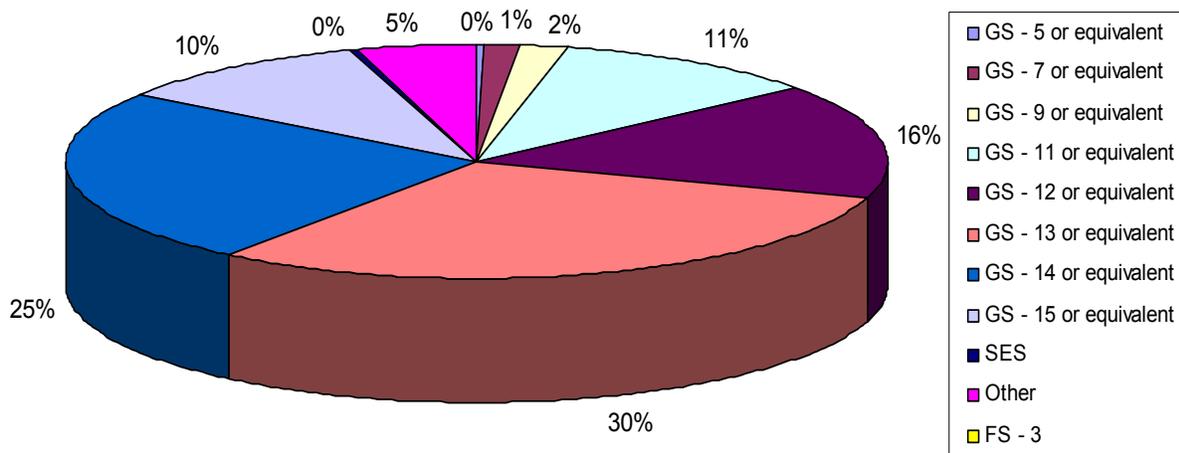
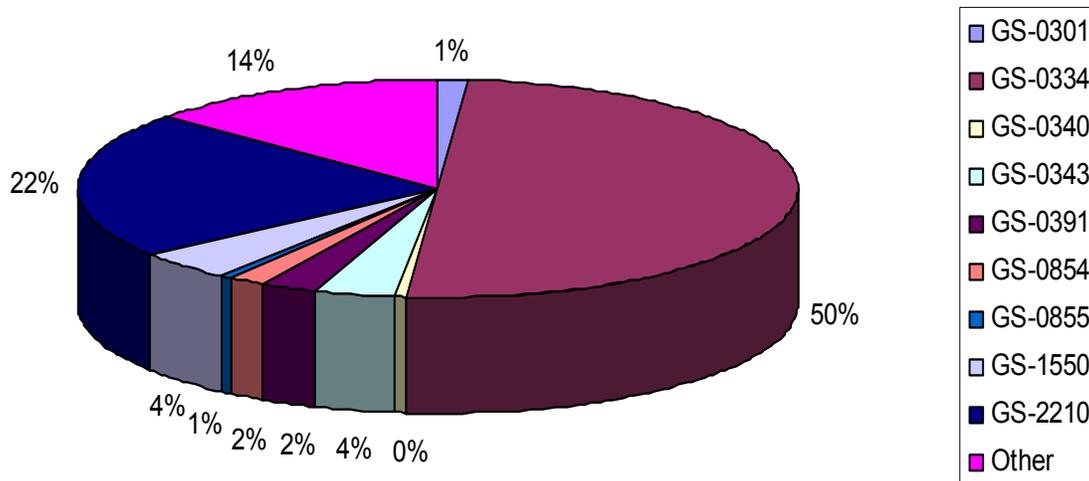


Figure D-9: DOT IT Workforce by Occupational Series



### SECTION 3. DOT COMPETENCY AND SKILL ASSESSMENT AND GAP ANALYSIS

#### METHODOLOGY

DOT, in conjunction with the CIOC, deployed the IT Workforce Capability Assessment to evaluate competency and skill “as-is” supply data for the four IT SJAs. Seven hundred ninety eight (798) of the 1,885 DOT IT employees (42.3%) participated in the voluntary and confidential survey. The survey was open to civilian employees working in the following occupational series:

- GS-2210 (Information Technology Specialist)
- GS-0334 (Computer Specialist)
- GS-0391 (Telecommunications Specialist)
- GS-1550 (Computer Scientist)
- GS-0854 (Computer Engineering)

Individuals from non-traditional IT occupational series also completed the survey if they performed IT-related work 51 percent or more of their time. The individuals in non-traditional series who met the criteria and participated in the survey were from the following occupational series:

- GS-0301 (Miscellaneous Administration and Program Specialist)
- GS-0340 (Program Manager)
- GS-0343 (Management and Program Analyst)
- GS-0855 (Electronics Engineering)

DOT demographic data from the Fedscope database corresponded closely to similar distributions shown in the ITWCA Survey. Therefore, we have a relatively high confidence level that the survey data are representative of the IT workforce as a whole.



**“AS-IS” SUPPLY ASSESSMENT**

Across the Department’s IT workforce, we see a number of highlights from the 2006 ITWCA data:

- DOT IT Specialists’ proficiency ratings were higher among general competencies than among technical competencies or skills. In particular, they rated highest in Interpersonal Skills, Problem Solving, Customer Service, Oral Communication, and Decision Making
- Across all technical competencies, IT staff report the highest proficiency levels in Hardware, Operating Systems, and Configuration Management
- Across all skills, the top three highest rated skills were Desktop Applications, Windows Operating System, and Client-Server.
- Across all IT certifications, the top three held by employees were Computing, Network Support, and Operating Systems.
- Across all SJAs, the top three in terms of time spent were Data Management, Privacy, and Records Management

OPM defines a competency as “a measurable pattern of knowledge, skills, abilities, behaviors, and other characteristics that an individual needs to perform work roles or occupational functions successfully.” The 2006 ITWCA asked respondents to identify their current proficiency in 53 technical and 16 general competencies. Respondents assessed their current competency and skill proficiency levels using the six-point rating scale shown in Figure D-10.

**Figure D-10: Proficiency Rating Scale**

Proficiency	Description
<b>0- None</b>	Do not possess proficiency in this competency [ <i>skill</i> ]
<b>1- Basic</b>	Capable of handling only the simplest assignments involving this competency [ <i>skill</i> ], but will need significant assistance beyond the easiest situations
<b>2- Foundational</b>	Capable of handling some assignments involving this competency [ <i>skill</i> ], but will need assistance beyond routine situations
<b>3- Intermediate</b>	Capable of handling many day-to-day assignments involving this competency [ <i>skill</i> ], but may seek assistance in difficult situations
<b>4- Advanced</b>	Capable of handling most day-to-day assignments involving this competency [ <i>skill</i> ], though may seek expert assistance with particularly difficult situations
<b>5- Expert</b>	Capable of handling all assignments involving this competency [ <i>skill</i> ] and may serve as a role model and/or coach others

Figures D-11 and D-12 show the highest rated general and technical competencies based on the average responses in the Foundational, Intermediate, Advanced, and Expert proficiency levels.



**Figure D-11: Highest Rated General Competencies**

General Competencies	Avg Proficiency
Interpersonal Skills	3.74
Problem Solving	3.74
Customer Service	3.65
Oral Communication	3.41
Decision Making	3.40
Leadership	3.32
Planning and Evaluation	3.18
Organizational Awareness	3.12
Influencing/ Negotiating	2.81
Administration and Management	2.58
Strategic Thinking	2.55
Managing Human Resources	2.34
Financial Management	2.10
Contracting/ Procurement	2.07

**Figure D-12: Highest Rated Technical Competencies**

Technical Competencies	Avg Proficiency
Hardware	2.95
Operating Systems	2.81
Configuration Management	2.70
Technical Documentation	2.55
Project Management	2.53
Technology Awareness	2.47
Systems Life Cycle	2.42
Operations Support	2.36
Data Management	2.34
Systems Integration	2.34
Standards	2.33
Requirements Analysis	2.31
Computer Languages	2.28
Software Development	2.26
System Testing and Evaluation	2.25
Information Assurance	2.23
Software Testing and Evaluation	2.21
Network Management	2.20
Database Management Systems	2.19
Quality Assurance	2.18
Infrastructure Design	2.17
Product Evaluation	2.16
Database Administration	2.15
Information Resources Strategy and Planning	2.15



Technical Competencies	Avg Proficiency
Web Technology	2.14
Risk Management	2.13
Knowledge Management	2.11
Information Systems/Network Security	2.01
Information Technology Architecture	2.00

In the IT Skills section of the 2006 Federal IT Workforce Capability Assessment Survey, the DOT IT staff members were asked to rate their proficiency and their ability to perform specific jobs or functions in each of the 57 skills areas. The survey differentiated skills from competencies in a number of important ways. First, skills are often related to either specific products or technologies, whereas competencies are generally described in broader terms. The skill names and definitions appropriately reflect this. In addition, skills are more “granular” and discrete, and may actually relate to or be part of a broader competency. Figure D-13 shows the top six skills based on the average responses in the Foundational, Intermediate, Advanced, and Expert proficiency levels.

Figure D-13: Highest Rated IT Skills

Skills	Avg Proficiency
Desktop Applications	3.50
Windows Operating System	3.03
Client-Server	2.44
Document Management	2.25
Testing	2.23
System Maintenance and Helpdesk	2.16

Specialized job activities (SJA) were determined federal-wide to supplement existing GS-2210 specialty titles to further delineate the activities of IT professionals. The specialized job activities that agencies are required to report gaps in are:

- **Enterprise Architecture** - The Clinger-Cohen Act requires an agency to develop, maintain, and facilitate the implementation of sound and integrated information technology architecture. The Enterprise Architecture SJA is responsible for this function. Well-defined enterprise architecture defines the business mission, the information necessary to perform the mission, the technologies necessary to perform the mission, and the transitional processes for implementing new technologies in response to the changing mission needs.
- **IT Project Management** - IT Project Management is critical to the agency mission because it is the first line of defense against cost overruns, schedule slippages, poor performance, and weakened security, which threatens agencies’ ability to deliver efficient and effective services to citizens.
- **IT Security/Information Assurance** - IT Security is critical to the agency mission because protection against the loss or destruction of systems and data is paramount.
- **Solutions Architecture** - Solutions Architecture is critical to an agency mission to define and implement individual project or systems solutions in synchronization with the enterprise architecture. In addition, sound solutions architecture ensures adherence with the Clinger-Cohen Act requirement to promote the effective and efficient design and operation of all major information resources management processes for the agency, including improvements to work processes.



These activities were selected due to their direct contribution to fulfilling the e-Gov element of the President’s Management Agenda. IT Specialists assessed SJAs on a “time spent” basis, with responses ranging from “none” to “extensive”, and the activity estimates for the identified SJAs are presented in Figure D-14.

Figure D-14: Specialized Job Activities

Enterprise Architecture	Activity Estimate	
	Extensive	36
	Moderate	152
	Minimal	252
	None	358

IT Project Management	Activity Estimate	
	Extensive	143
	Moderate	233
	Minimal	210
	None	212

IT Security/Information Assurance	Activity Estimate	
	Extensive	102
	Moderate	203
	Minimal	272
	None	221

Solutions Architecture	Activity Estimate	
	Extensive	41
	Moderate	131
	Minimal	219
	None	407

All of the Competencies, Skills, and Specialized Job Activities included in the ITCWA are described in detail in Appendices D, E, and F.

**THE ‘TO-BE’ DEMAND**

DOT competency and skill “future” demand data were obtained by using the Federal IT Workforce Capability Planning and Analysis Tool (CPAT). Each DOT OA human capital and IT Workforce representative accessed the CPAT and created agency specific demand models, which were typically derived from the Federal demand profile template. IT competency and skill proficiency gaps were categorized by relative size against the Federal template as being either a large, medium, or small gap or strength. In addition to the gaps highlighted in the CPAT, DOT IT and human capital staff prioritized them by considering questions such as:

- In what areas do we have strength in IT workforce competencies and skills?
- In what areas do we have significant gaps that need to be closed to achieve improved IT mission performance?
- What are the risks to accomplishment of our IT mission if skill gaps are not closed?
- What are near-term strategies and actions for closing skill gaps?



**THE GAP ANALYSIS**

To identify competency gaps, we compared supply data with demand data. Analyses revealed that competency gaps occurred within all four specialized job activities: Enterprise Architecture, IT Project Management, IT Security/Information Assurance, and Solutions Architecture, when using the moderate time spent variable. While gaps exist across all SJAs, most are in the medium or small range, with only one classified as a large gap (i.e., Capital Planning and Investment). Further analyses indicated that DOT IT workers age 35 and younger have slightly larger average competency gaps and more large-sized gaps than do IT workers age 36 and older, perhaps because some competencies take a long time to develop and thus may be more lacking among younger workers. Certain competency areas in which younger employees’ proficiency is notably less than older employees, and/or where younger employees have more larger-sized gaps include Human Resource Management, Capital Planning and Investment Assessment, Financial Management, and Project Management. By comparison, Computer Forensics and Encryption are competencies in which older employees’ proficiency is notably less than younger employees, and/or where older employees have more larger-sized gaps.

Figure D-15 provides a summary of all large (defined as 2.0 or above) and medium (defined as 0.6 to 1.9) competency gaps across the specialized job activities.

**Figure D-15: Department-wide Large and Medium Competency Gaps**

	Specialized Job Activity	Ext. Avg. Rating	Ext. Target	Ext. Gap	Mod. Avg. Rating	Mod. Target	Mod. Gap
Capital Planning and Investment Assessment	IT Project Management	2.6	3.9	-1.3	1.75	3.9	<b>-2.15</b>
Project Management	IT Project Management	3.92	4.9	-0.98	3.04	4.9	<b>-1.86</b>
Logical Systems Design	Solutions Architecture	2.83	4	-1.17	2.53	4	<b>-1.47</b>
Financial Management	IT Project Management	2.94	4	-1.06	2.55	4	<b>-1.45</b>
Planning and Evaluation	IT Project Management	3.89	4.7	-0.81	3.44	4.7	<b>-1.26</b>
Managing Human Resources	IT Project Management	3.1	4	-0.9	2.77	4	<b>-1.23</b>
Decision Making	IT Project Management	4.01	4.9	-0.89	3.7	4.9	<b>-1.20</b>
Risk Management	IT Project Management IT Security/ Information Assurance	3.22	3.93	-0.71	2.74	3.93	<b>-1.19</b>
Influencing/ Negotiating	IT Project Management	3.43	4.3	-0.87	3.18	4.3	<b>-1.12</b>



Business Process Reengineering	Enterprise Architecture IT Project Management Solutions Architecture	2.7	3.23	-0.52	2.23	3.34	<b>-1.11</b>
Information Systems Security Certification	IT Security/ Information Assurance	3.38	3.8	-0.42	2.69	3.8	<b>-1.11</b>
Infrastructure Design	Enterprise Architecture	3.31	4.02	-0.71	2.91	3.98	<b>-1.07</b>
Leadership	IT Project Management	3.99	4.6	-0.61	3.61	4.6	<b>-0.99</b>
Contracting/ Procurement	IT Project Management	3.1	3.4	-0.3	2.48	3.4	<b>-0.92</b>
Requirements Analysis	Enterprise Architecture IT Project Management	3.43	3.71	-0.28	2.99	3.84	<b>-0.84</b>
Cost-Benefit Analysis	IT Project Management Solutions Architecture	2.99	3.39	-0.4	2.38	3.2	<b>-0.82</b>
Information Systems/Network Security	IT Security/ Information Assurance	3.48	3.6	-0.12	2.78	3.6	<b>-0.82</b>
Information Resources Strategy and Planning	Enterprise Architecture IT Project Management Solutions Architecture	3.19	3.6	-0.42	2.8	3.6	<b>-0.8</b>
Standards	Enterprise Architecture IT Project Management IT Security/ Information Assurance Solutions Architecture	3.16	3.51	-0.35	2.86	3.62	<b>-0.77</b>
Organizational Awareness	Enterprise Architecture IT Project Management	3.66	4	-0.34	3.41	4.1	<b>-0.69</b>

Legend:

**Large Gap (2.0 or above)**

**Medium Gap (0.6 to 1.9)**



To identify skill gaps, we compared supply data with demand data. Analyses revealed that skill gaps occurred within all four specialized job activities: Enterprise Architecture, IT Project Management, IT Security/Information Assurance, and Solutions Architecture, when using the moderate time spent variable. While gaps exist across all SJAs, most are in the medium or small range, with only two classified as large gaps (i.e., Federal/OMB Enterprise Architecture, Project Management Software). Further analyses revealed that DOT IT workers age 35 and younger have slightly larger average skill gaps and more larger-sized gaps than do IT workers age 36 and older. Certain skill areas in which younger employees' proficiency is notably less than older employees, and/or where younger employees have more larger-sized gaps include Project Management Software, Earned Value Management, System Analysis and Design, Systems Security Applications, Process Design, Enterprise Resource Planning, and Desktop Applications. By comparison, Firewalls, Network Configuration and Implementation, Wireless Technologies, and Biometrics are skills in which older employees' proficiency is notably less than younger employees, and/or where older employees have more larger-sized gaps.

Figure D-16 provides a summary of all large (defined as 2.0 or above) and medium (defined as 0.6 to 1.9) skill gaps across the specialized job activities.

**Figure D-16: Department-wide Large and Medium Skill Gaps**

	All Activity Avg Prof	All Activity Target	All Activity Gap	Extensive Avg Prof	Extensive Target	Extensive Gap	Moderate Avg Prof	Moderate Target	Moderate Gap
Project Management Software	2.53		-1.87	3.01	4.4	-1.39	2.23	4.4	-2.17
Firewalls	2.43	4.2	-1.77	2.67	4.2	-1.53	2.32	4.2	-1.88
Earned Value Management	2.09	3.6	-1.51	2.57	3.6	-1.03	1.79	3.6	-1.81
Public Key Infrastructure (PKI)	1.99	3.6	-1.61	2.25	3.6	-1.35	1.85	3.6	-1.75
Federal/OMB Enterprise Architecture	1.72	3.12	-1.4	1.9	3	-1.09	1.63	3.17	-1.54
Process Design	1.8	2.93	-1.13	2.16	2.85	-0.69	1.65	2.97	-1.32
Systems Security Applications	2.72	3.8	-1.08	2.89	3.8	-0.91	2.64	3.8	-1.16
System Analysis and Design	2.59	3.54	-0.95	2.96	3.58	-0.61	2.43	3.52	-1.09
Enterprise Resource Planning (ERP)	1.85	2.72	-0.86	2.07	2.63	-0.55	1.76	2.76	-1
Wireless Technologies	2.44	3.2	-0.76	2.73	3.2	-0.47	2.3	3.2	-0.9
Network Configuration and Implementation	2.65	3.6	-0.95	2.49	3.6	-1.11	2.72	3.6	-0.88
Biometrics	1.57	2.2	-0.63	1.89	2.2	-0.31	1.41	2.2	-0.79
Continuity of Operations Planning	2.66	3.2	-0.54	2.84	3.2	-0.36	2.57	3.2	-0.63
Reusable Modules	2.15	2.3	-0.15	2.56	2.3	0.26	2.02	2.3	-0.28
Network Architecture and Design	2.51	2.57	-0.06	2.82	2.65	0.17	2.43	2.55	-0.12
Portfolio Management for IT	2.03	2	0.03	2.44	2	0.44	1.9	2	-0.1
Cryptography	1.83	1.8	0.03	1.86	1.8	0.06	1.82	1.8	0.02
Data Analysis and Reporting	2.13	2.06	0.08	2.21	2.06	0.15	2.08	2.05	0.03
Data Modeling	2.56	2	0.56	3.07	2	1.07	2.4	2	0.4
Desktop Applications	3.65	3.1	0.55	3.85	3.1	0.75	3.52	3.1	0.42
Client-Server	3.34	2.7	0.64	3.71	2.7	1.01	3.22	2.7	0.52
Testing	2.88	1.7	1.18	3.12	1.7	1.42	2.8	1.7	1.1

A second component of the gap analysis is information on current and future IT staffing requirements and the extent of the gap to be closed. The IT Mission Critical Occupation Table (see Appendix B) identifies the following:

- The number of employees on board in each of the 4 SJAs
- The number of funded positions for FY 07
- Projected attrition
- The number of employees onboard by September 30, 2007 and June 30, 2008
- The extent of the gap to be closed by June 30, 2008



## SECTION 4. COMPETENCY GAP CLOSURE IMPROVEMENT PLAN

The Department has identified the specific competency and skill areas targeted for gap closure based on comprehensive consideration of existing and emerging information technology issues, the President's Management Agenda (PMA), as well as our overall mission and strategic objectives. While there is a need to closely review all competency gaps, DOT has identified those that are most relevant to our mission accomplishment to target for closure. With this focus in mind, we recognize the necessity for closure within two targeted areas: Capital Planning & Investment Assessment and Earned Value Management.

**SJA IT Project Management: Capital Planning and Investment Assessment.** Strengthening the technical competency of Capital Planning and Investment Assessment will insure that the DOT has the organizational capacity and expertise necessary to support agency major capital investments, which are worth nearly \$2 billion. Capital Planning and investment Assessment is a large gap and is an essential component of building strong business cases and in managing programs to meet cost, schedule, and performance goals. Increasing proficiency in this competency supports our goal to receive passing scores on all Exhibit 300s, which are the business case justifications for all our major capital investments, and supports our broader strategic goals of developing and maintaining safe and efficient transportation systems.

**SJA IT Project Management: Earned Value Management.** Although not the skill with the highest gap based on the ITCWA data, strengthening the IT Project Management skill of Earned Value Management (EVM) will insure that we have the organizational capacity and expertise necessary to apply EVM concepts to major agency capital investments. As one example of the Department's commitment to this skill, the FAA has established an Earned Value Management Project Office that supports the FAA initiative of "implementing and improving program management processes to remain within acquisition cost and schedule baselines." The agency has strengthened the Acquisition Management System (AMS) policy on EVM and added EVM guidance to the FAA Acquisition System Toolset (FAST) to provide additional information.

The Chief Information Officer identifies the full implementation of EVM policy and processes as a core business activity in the Department's Business Plan, FY 2007-FY 2011. Full implementation of this policy and processes support sound business cases for agency capital programs and support the broader agency strategies of providing safe, secure, and efficient transportation systems. Improving our project management competencies and skills leads to a more efficient use of DOT resources as well as reduced time to deliver systems that support the Department's mission.

The following represents our Action Plan to address gaps in the two IT targeted areas. Strategies included will guide DOT OAs to mitigate their specific IT workforce competency, skill, and staffing gaps, and accountability for Departmental gap closure will reside with our Chief Information Officer (CIO) and Departmental Human Resources Director.

### ACTION PLAN

DOT and the OAs have been addressing the IT competency gap since 2004. Several strategies have already been put into place, but based on the current competency assessment results DOT will focus its gap reduction strategies on the following competency and skill:

- IT Capital Planning & Investment Assessment (-2.15)
- Earned Value Management (-1.81)

Given the variation in size, extent of gap, and related ongoing and planned initiatives among DOT's OAs, each was encouraged to tailor its own specific closure plan. However, the broad improvement strategies DOT will initially focus its efforts and resources on fell within the following three categories (specific quarterly deliverables are reported in Appendix C):



- **Training** – The main competency gap reduction strategy to mitigate the critical IT gaps is through training.
  - Training was selected because it is a key strategy and a resourced corporate investment currently available throughout DOT OAs.
  - Each OA has the latitude to select the appropriate training venues that support its workforce, budget and site specific requirements. For example, to reduce their Capital Planning & Investment Assessment competency gap, FAA will conduct a cost estimate pilot course for the PM community in the 3rd quarter FY07, and in the 4<sup>th</sup> quarter FY07, the will conduct a software cost estimates pilot course.
  - FAA’s evaluation methodology includes the number of related courses taken and the change in number/percent assessed at a designated proficiency level.
- **Recruitment** – Another approach DOT plans to use is to hire for those critical areas that need significant improvement - in this case, capital planning and investment assessment and earned value management. To aid in this, we plan to incorporate these skills and competencies into our vacancy announcements, as well as to develop interview guides that focus on these targeted project management areas.
  - For OAs that have current vacancies or pending losses that can not be fill in-house, they will be provided the greatest flexibility to recruit new professionals with the needed competencies from outside the organization. For example, PHMSA is in the final phase of filling their FY2006 vacant IT positions, and has utilized competencies in their recruitment and hiring activities.
  - OAs will also be urged to review current positions descriptions to ensure that they include the relevant needed competencies and include special experience requirements for vacancy announcements.
  - Consider filling positions through use of the Presidential Management Fellows Program, the Federal Career Intern Program and special appointing authorities such as veteran’s student appointments
- **Retention** – We urge OAs to develop a targeted retention strategy that focuses on ensuring IT personnel with the targeted critical competencies remain part of the organization. These retention strategies will capitalize on available flexible work arrangements and bonuses, as well as information gathered from exit interviews. In addition, we will encourage OAs to identify those employees who have institutional knowledge and the critical IT competencies needed for the areas targeted for closure. Conversations with these employees could help us determine the best retention strategies for them and similar IT staff members. In addition, identification of individuals who possess high proficiency in these targeted competency and skill areas could lead to fruitful mentoring relationships between them and newer employees in greater need of professional development and acculturation.
  - As an example, FHWA is currently exploring the following retention strategies to mitigate their IT Project Management competency gap, which may be beneficial to other OAs within the Department.
    - i. *Defined Career Paths* – Include competencies as part of the occupational career path with requirements to achieve each. Career paths will align with the competencies frameworks.
    - ii. *Attractive and Flexible Work Arrangement* - To maintain a highly skilled IT workforce, FHWA will explore alternative work arrangements, including expanding telecommuting and virtual office arrangements.
    - iii. *Retention Bonuses* - DOT follows the OPM regulations for retention bonuses. When deemed beneficial to FHWA will consider retention bonuses.
    - iv. *Communication* – FHWA intends to continuously communicate the on-going and planned initiatives related to competencies, training, flexibility, expectations, and available programs to the current workforce and potential employees.



Although the initial strategies for reducing the competency gaps are limited to three, DOT will also explore and encourage the use of other strategies that allow OAs to affect change based on their operational span of control. The following section describes some of the possible intervention strategies available:

- **Position Classification** – Explore how competencies can be integrated into how positions are described to ensure that employees and managers understand job and performance expectations.
- **Competitive Sourcing** – Assess the feasibility to supplement the existing workforce with private sector expertise in critical functions or for specific skill sets.
- **Certification** – As feasible and appropriate, support OAs' efforts to increase the numbers of people certified in IT project management or other areas as appropriate.
- **Knowledge Management** – Explore the feasibility for the development of a DOT-wide knowledge management system to capture the knowledge of employees entering retirement eligibility. Also, encourage employee participation in communities of practice to leverage best practices and share expertise both within and across OAs and private organizations.
- **Organizational Interventions**
  - Job Aids – Where appropriate, encourage the development, use, and sharing of standard tools, checklists, and/or templates for use throughout DOT's IT communities.
  - Work Redesign – Where feasible, encourage the use of structured work team formed from both within and across OAs to improve performance and promote learning and cross-training throughout DOT.
  - Standard Methodologies – Where appropriate, standardize processes in critical IT functions to help inform employee on the correct principles and practices associated with a particular job function.

## EVALUATION METHODOLOGY

Given the nature and timing of our particular improvement strategies (e.g., certain training courses are under development or in pilot phase), we feel that it will not be possible to close targeted gaps within a one-year period. In turn, we feel that it is only possible at this time to project specific quarterly deliverables through the next four quarters. Therefore, DOT will continue to report on our progress in meeting the deliverables set forth, and establish future quarterly deliverables within FY2008. Subsequently, we will leverage measures from the 2008 government-wide IT Workforce Capability Assessment data in addition to several other measures to manage IT human capital and help achieve targets and desired outcomes. For example, DOT will leverage:

- IT workforce demographic measures (e.g., average age and tenure, retirement eligibility, attrition, etc.)
- ITWCA gap analyses (e.g., competency, skill, and certification gaps)
- ITWCA trend measures (e.g., data on how competency proficiency levels change over time, data on how skill proficiency levels change over time, data on how the percentage of certified IT professionals changes over time, etc.).
- Training completions and IT certifications received and time-to-fill metrics (e.g., hiring efficiency) for information technology occupations.
- Pre- and post-tests administered in conjunction with identified training courses to measure the level of knowledge acquisition taking place among IT staff in the targeted competency and skill areas.
- Organizational performance metrics in support of current Presidential Management Agenda reporting requirements.



DOT will apply generally accepted principles of program evaluation in order to establish a cause-effect relationship between actions taken and results achieved. This process will begin with the creation of an impact-evaluation model showing:

- The expected effects (outputs and/or outcomes) for each of the actions and initiatives underway
- Measures/metrics for each expected effect
- Data sources for each measure

We will continue to obtain baseline data and conduct longitudinal analysis based on biennial updates of the government-wide IT Workforce Competency Assessment. One full quarter after we receive the 2008 IT Workforce Capability Assessment data, we will complete a reassessment gap analysis to show progress on closing our critical IT competency gaps. Upon reassessment of the IT Specialist workforce in CY 2008, the Department will determine the change in percentage for proficiency level(s) or capacity needed for targeted competencies and whether the annual performance targets have been met.

**COMPETENCY PROFILE TABLE**

Targeted Competency	Stated Profile	Basic*	Foundational	Intermediate	Advanced	Expert	Total
Cost Benefit Analysis	Baseline ("As-Is" Profile)	5	6	10	8	3	32
	Projected Attrition				2		2
	Goal ("To-Be" Profile)		2	9	13	8	32
	<b>Gap</b>	5	4	1	-7	-5	-2
Financial Management	Baseline ("As-Is" Profile)	3	4	3	10	1	21
	Projected Attrition				1		1
	Goal ("To-Be" Profile)			5	8	8	21
	<b>Gap</b>	3	4	-2	1	-7	-1
Business Process Reengineering	Baseline ("As-Is" Profile)	12	11	10	19	9	61
	Projected Attrition				1		1
	Goal ("To-Be" Profile)	3	7	13	20	13	56
	<b>Gap</b>	9	4	-3	-2	-4	4
Capital Planning and Investment Assessment	Baseline ("As-Is" Profile)	53	56	54	28	7	198
	Projected Attrition	1	2	3	3	1	10
	Goal ("To-Be" Profile)	36	32	68	35	5	176
	<b>Gap</b>	16	22	-17	-10	1	12
Risk Management	Baseline ("As-Is" Profile)	2	2	12	5	4	25
	Projected Attrition				1		1



Targeted Competency	Stated Profile	Basic*	Foundational	Intermediate	Advanced	Expert	Total
	Goal ("To-Be" Profile)		1	7	14	4	26
	<b>Gap</b>	2	1	5	-10	0	-2
Project Management	Baseline ("As-Is" Profile)	7	15	26	38	16	102
	Projected Attrition		2	2	2		6
	Goal ("To-Be" Profile)	7	5	27	41	23	103
	<b>Gap</b>	0	8	-3	-5	-7	-7
Risk Management	Baseline ("As-Is" Profile)	2	2	3	3	4	14
	Projected Attrition						0
	Goal ("To-Be" Profile)			3	6	5	14
	<b>Gap</b>	2	2	0	-3	-1	0
Information Systems Security Certification	Baseline ("As-Is" Profile)	3	2	2	6	2	15
	Projected Attrition						0
	Goal ("To-Be" Profile)			5	8	2	15
	<b>Gap</b>	3	2	-3	-2	0	0
Logical System Design	Baseline ("As-Is" Profile)	10	1	12	5	3	31
	Projected Attrition						0
	Goal ("To-Be" Profile)	3	6	9	10	2	30
	<b>Gap</b>	7	-5	3	-5	1	1
Contracting Procurement	Baseline ("As-Is" Profile)	208	57	75	40	19	399
	Projected Attrition	12	2	2	2	2	20
	Goal ("To-Be" Profile)	135	129	103	62	18	447
	<b>Gap</b>	61	-74	-30	-24	-1	-68
Influencing/Negotiation	Baseline ("As-Is" Profile)	7	9	18	15	1	50
	Projected Attrition		1	1	1		3
	Goal ("To-Be" Profile)	5	9	17	18		49
	<b>Gap</b>	2	-1	0	-4	1	-2



Targeted Competency	Stated Profile	Basic*	Foundational	Intermediate	Advanced	Expert	Total
Legal, Government and Jurisprudence	Baseline ("As-Is" Profile)	1	1				2
	Projected Attrition						0
	Goal ("To-Be" Profile)		1	1			2
	<b>Gap</b>	1	0	-1	0	0	0
Organizational Awareness	Baseline ("As-Is" Profile)			1			1
	Projected Attrition						0
	Goal ("To-Be" Profile)				1		1
	<b>Gap</b>	0	0	1	-1	0	0
Requirements Analysis	Baseline ("As-Is" Profile)	3	2	5	14	6	30
	Projected Attrition				1		1
	Goal ("To-Be" Profile)	1	3	4	15	7	30
	<b>Gap</b>	2	-1	1	-2	-1	-1
Information Assurance	Baseline ("As-Is" Profile)		1		1		2
	Projected Attrition						0
	Goal ("To-Be" Profile)			1		1	2
	<b>Gap</b>	0	1	-1	1	-1	0
Information Technology Architecture	Baseline ("As-Is" Profile)	2	1	2	3	1	9
	Projected Attrition						0
	Goal ("To-Be" Profile)		2	1	2	3	8
	<b>Gap</b>	2	-1	1	1	-2	1
Strategic Thinking	Baseline ("As-Is" Profile)			3	1	1	5
	Projected Attrition			1			1
	Goal ("To-Be" Profile)			3	2	2	7
	<b>Gap</b>	0	0	-1	-1	-1	-3
Problem Solving	Baseline ("As-Is" Profile)			5	10		15
	Projected Attrition			1	1	2	4



Targeted Competency	Stated Profile	Basic*	Foundational	Intermediate	Advanced	Expert	Total
	Goal ("To-Be" Profile)			1	8	6	15
	<b>Gap</b>	0	0	3	1	-8	-4
Configuration Management	Baseline ("As-Is" Profile)		2	4	3	1	10
	Projected Attrition						0
	Goal ("To-Be" Profile)			2	4	3	9
	<b>Gap</b>	0	2	2	-1	-2	1
Decision Making	Baseline ("As-Is" Profile)		1	3	12	10	26
	Projected Attrition				1	1	2
	Goal ("To-Be" Profile)		1		11	11	23
	<b>Gap</b>	0	0	3	0	-2	1
Information Resources Strategy and Planning	Baseline ("As-Is" Profile)	1	2	1	5	1	10
	Projected Attrition						0
	Goal ("To-Be" Profile)		1	2	1	5	9
	<b>Gap</b>	1	1	-1	4	-4	1
Process Control	Baseline ("As-Is" Profile)		1	1	2		4
	Projected Attrition						0
	Goal ("To-Be" Profile)			1	1	2	4
	<b>Gap</b>	0	1	0	1	-2	0
Quality Assurance	Baseline ("As-Is" Profile)	1	3	2	4		10
	Projected Attrition						0
	Goal ("To-Be" Profile)		1	3	2	4	10
	<b>Gap</b>	1	2	-1	2	-4	0
Infrastructure Design	Baseline ("As-Is" Profile)	2	2				4
	Projected Attrition						0
	Goal ("To-Be" Profile)		2	2			4
	<b>Gap</b>	2	0	-2	0	0	0



Targeted Competency	Stated Profile	Basic*	Foundational	Intermediate	Advanced	Expert	Total
Technology Awareness	Baseline ("As-Is" Profile)	1			3		4
	Projected Attrition						0
	Goal ("To-Be" Profile)		1			3	4
	<b>Gap</b>	1	-1	0	3	-3	0
Organizational Awareness	Baseline ("As-Is" Profile)			1		2	3
	Projected Attrition						0
	Goal ("To-Be" Profile)				1		1
	<b>Gap</b>	0	0	1	-1	2	2
Planning and Evaluation	Baseline ("As-Is" Profile)				2	1	3
	Projected Attrition						0
	Goal ("To-Be" Profile)					2	2
	<b>Gap</b>	0	0	0	2	-1	1
Computer Languages	Baseline ("As-Is" Profile)		1	2	3		6
	Projected Attrition						0
	Goal ("To-Be" Profile)			1	2	3	6
	<b>Gap</b>	0	1	1	1	-3	0
Database Management Systems	Baseline ("As-Is" Profile)			2	1		3
	Projected Attrition						0
	Goal ("To-Be" Profile)				2	1	3
	<b>Gap</b>	0	0	2	-1	-1	0
Embedded Computer	Baseline ("As-Is" Profile)	2					2
	Projected Attrition						0
	Goal ("To-Be" Profile)		2				2
	<b>Gap</b>	2	-2	0	0	0	0
Encryption	Baseline ("As-Is" Profile)	1			1		2
	Projected Attrition						0



Targeted Competency	Stated Profile	Basic*	Foundational	Intermediate	Advanced	Expert	Total
	Goal ("To-Be" Profile)		1			1	2
	<i>Gap</i>	1	-1	0	1	-1	0
Standards	Baseline ("As-Is" Profile)	3	1	2	5	3	14
	Projected Attrition				1		1
	Goal ("To-Be" Profile)	3	1	2	5	3	14
	<i>Gap</i>	0	0	0	-1	0	-1
Accessibility	Baseline ("As-Is" Profile)	3					3
	Projected Attrition						0
	Goal ("To-Be" Profile)		2	2			4
	<i>Gap</i>	3	-2	-2	0	0	-1
IT Performance Assessment	Baseline ("As-Is" Profile)	1	2				3
	Projected Attrition						0
	Goal ("To-Be" Profile)		1	2	1		4
	<i>Gap</i>	1	1	-2	-1	0	-1

*\*Note. FAA responses are captured only in the Capital Planning and Investment Assessment competency*

**MCO RESOURCE TABLE - ALL DOT\***

	CURRENT				FUTURE (PROJECTED)			
	(A) Number of Employees Onboard	(B) Number of Funded Positions	(C) Projected Attrition (April 2007 - June 2008)	(D) Gap Based on Funded Positions and Attrition	(E) Number of Employees Onboard by September 30, 2007	(F) Number of Employees Onboard by June 30, 2008	(G) Gap Closure Based on Current Number of Employees Onboard June 30, 2008	(H) Remaining Gap by June 30, 2008
IT Project Management	336	345	23	32	338	345	-9	0
IT Security	235	234	3	2	233	234	1	0
Enterprise Architecture	50	53	5	8	40	41	9	12
Systems Architecture	91	96	1	6	92	94	-3	2
<b>Totals</b>	<b>712</b>	<b>728</b>	<b>32</b>	<b>48</b>	<b>703</b>	<b>714</b>	<b>-2</b>	<b>14</b>

*\*Note. STB and SLSDC are not included in future projections FHWA is only included in IT Project Management*



## IMPROVEMENT PLAN - ALL DOT

SJA: IT Project Management	
<b>Competency</b>	Capital Planning and Investment Assessment
<b>Tactic</b>	Training, Recruitment, Retention
<b>Rationale</b>	The Department is focused on increasing proficiency in competencies/skills gaps that help support accomplishment of our initiatives. Training is a key strategy and corporate investment for the agency to improve the contribution of critical competencies and skills for DOT and IT mission success. Increasing corporate capability through training - as well as through recruitment and retention - in this competency will help with preparation and submission of business cases for major IT capital investments.
<b>Q1 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>3. Introduction to Cost Estimating</li> <li>4. Ongoing recruitment efforts (e.g., targeted competency-based vacancy announcement, competency-based interviews)</li> </ol>
<b>Q2 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>4. Capital Planning and Investment Control (CPIC)/Office of Management and Budget Exhibit 300 Training - Basic Comprehensive Course</li> <li>5. Identification of high performing employees with institutional knowledge in Capital Planning and Investment Assessment</li> <li>6. Interim status report on ongoing recruitment efforts</li> </ol>
<b>Q3 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>5. Capital Planning and Investment Control (CPIC)/Office of Management and Budget Exhibit 300 Training - Basic Comprehensive Course</li> <li>6. Cost Estimating for PMs (Pilot course)</li> <li>7. Offer expanded telework and alternative work schedule arrangements</li> <li>8. Ongoing recruitment efforts</li> </ol>
<b>Q4 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>3. Software Cost Estimates (Pilot course)</li> <li>4. Final report on effectiveness of recruitment efforts</li> </ol>
<b>Evaluation Methodology</b>	<ol style="list-style-type: none"> <li>4. Pre- and post- knowledge test in conjunction with training delivery</li> <li>5. Change in number/percentage assessed at the desired proficiency level in the CY2008 ITWCA</li> <li>6. Increase in average proficiency for competency at reassessment period</li> </ol>

SJA: IT Project Management	
<b>Skill</b>	Earned Value Management
<b>Tactic</b>	Training, Recruitment, Retention
<b>Rationale</b>	The Department is focused on increasing proficiency in competencies/skills gaps that help support accomplishment of our initiatives. Training is a key strategy and corporate investment for the agency to improve the contribution of critical competencies and skills for DOT and IT mission success. Increasing corporate capability in this skill through training - as well as through recruitment and retention - will help with preparation and submission of business cases for major programs in the Department.
<b>Q1 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>1. Program Management using Earning Value Management (EVM): Basic Course</li> <li>2. Program Management using Earned Value Management (EVM): Integrated Baseline Reviews</li> <li>3. Ongoing recruitment efforts (e.g., targeted competency-based vacancy announcement, competency-based interviews)</li> </ol>
<b>Q2 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>6. Program Management using Earning Value Management (EVM): Basic Course</li> <li>7. Program Management using Earned Value Management (EVM): Detailed Course</li> <li>8. Program Management using Earned Value Management (EVM): Integrated Baseline Reviews</li> <li>9. Identification of high performing employees with institutional knowledge in EVM</li> <li>10. Interim status report on ongoing recruitment efforts</li> </ol>
<b>Q3 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>6. Program Management using Earning Value Management (EVM): Basic Course</li> <li>7. Program Management using Earned Value Management (EVM): Detailed Course</li> <li>8. Program Management using Earned Value Management (EVM): Integrated Baseline Reviews</li> <li>9. Ongoing recruitment efforts</li> <li>10. Offer expanded telework and alternative work schedule arrangements</li> </ol>
<b>Q4 Deliverables and Milestones</b>	<ol style="list-style-type: none"> <li>3. Program Management using Earned Value Management (EVM): Basic Course</li> <li>4. Final report on effectiveness of recruitment efforts</li> </ol>
<b>Evaluation Methodology</b>	<ol style="list-style-type: none"> <li>4. Pre- and post- knowledge test in conjunction with training delivery</li> <li>5. Change in number/percent assessed at a designated proficiency level in CY2008 ITWCA</li> <li>6. Increase in average skill assessment upon reassessment</li> </ol>

*Accountable Party: Chief Information Officer (CIO) and Departmental Human Resources Director*



## CIO COUNCIL INFORMATION TECHNOLOGY COMPETENCIES

Figure D-17: Technical Competencies

Technical Competency	Definition
<b>Accessibility</b>	Knowledge of tools, equipment, and technologies used to help individuals with disabilities use computer equipment and software
<b>Artificial Intelligence</b>	Knowledge of the principles, methods, and tools used to design systems that perform human intelligence functions
<b>Business Process Reengineering</b>	Knowledge of methods, metrics, tools, and techniques of Business Process Reengineering
<b>Capacity Management</b>	Knowledge of the principles and methods for monitoring, estimating, or reporting actual performance or the performance capability of information systems or components
<b>Capital Planning and Investment Assessment</b>	Knowledge of the principles and methods of capital investment analysis or business case analysis, including return on investment analysis
<b>Computer Forensics</b>	Knowledge of tools and techniques used in data recovery and preservation of electronic evidence
<b>Computer Languages</b>	Knowledge of computer languages and their applications to enable a system to perform specific functions
<b>Configuration Management</b>	Knowledge of the principles and methods for planning or managing the implementation, update, or integration of information systems components
<b>Cost-Benefit Analysis</b>	Knowledge of the principles and methods of cost
<b>Data Management</b>	Knowledge of the principles, procedures, and tools of data management, such as modeling techniques, data backup, data recovery, data dictionaries, data warehousing, data mining, data disposal, and data standardization processes
<b>Database Administration</b>	Knowledge of the principles, methods, and tools for automating, developing, implementing, or administering database systems
<b>Database Management Systems</b>	Knowledge of the uses of database management systems and software to control the organization, storage, retrieval, security, and integrity of data
<b>Distributed Systems</b>	Knowledge of the principles, theoretical concepts, and tools underlying distributed computing systems, including their associated components and communication standards
<b>Electronic Commerce (e-Commerce)</b>	Knowledge of the principles, methods, and tools for conducting business online, including electronic data interchange
<b>Embedded Computers</b>	Knowledge of specifications and uses of specialized computer systems used to control devices (for example, automobiles, helicopters), including the appropriate programming languages
<b>Encryption</b>	Knowledge of procedures, tools, and applications used to keep data or information secure, including public key infrastructure, point
<b>Hardware</b>	Knowledge of specifications, uses, and types of computer or computer
<b>Hardware Engineering</b>	Knowledge of the principles, methods, and tools for designing, developing, and testing computer or computer
<b>Human Factors</b>	Knowledge of the principles, methods, and tools used to identify and apply information about human behavior, abilities, limitations, and other characteristics to the design of tools, machines, systems, tasks, jobs, and environments for effective human use
<b>Information Assurance</b>	Knowledge of methods and procedures to protect information systems and data by ensuring their availability, authentication, confidentiality, and integrity
<b>Information Resources Strategy and Planning</b>	Knowledge of the principles, methods, and techniques of information technology (IT) assessment, planning, management, monitoring, and evaluation, such as IT baseline assessment, interagency functional analysis, contingency planning, and disaster recovery
<b>Information Systems Security Certification</b>	Knowledge of the principles, methods, and tools for evaluating information systems security features against a set of specified security requirements
<b>Information Systems/Network Security</b>	Knowledge of methods, tools, and procedures, including development of information security
<b>Information Technology Architecture</b>	Knowledge of architectural methodologies used in the design and development of information systems, including the physical structure of a system's internal operations and interactions with other systems



<b>Technical Competency</b>	<b>Definition</b>
<b>Information Technology Performance Assessment</b>	Knowledge of the principles, methods, and tools (for example, surveys, system performance measures) to assess the effectiveness and practicality of information technology systems
<b>Information Technology Research &amp; Development</b>	Knowledge of scientific principles, methods, and tools of basic and applied research used to conduct a systematic inquiry into a subject matter area
<b>Infrastructure Design</b>	Knowledge of the architecture and typology of software, hardware, and networks, including LANS, WANS, and telecommunications systems, their components and associated protocols and standards, and how they operate and integrate with one another and with associated controlling software
<b>Knowledge Management</b>	Knowledge of the value of collected information and the methods of sharing that information throughout an organization
<b>Logical Systems Design</b>	Knowledge of the principles and methods for designing business logic components, system processes and outputs, user interfaces, data inputs, and productivity tools (for example, CASE)
<b>Modeling and Simulation</b>	Knowledge of mathematical modeling and simulation tools and techniques to plan and conduct test and evaluation programs, characterize systems support decisions involving requirements, evaluate design alternatives, or support operational preparation
<b>Multimedia Technologies</b>	Knowledge of the principles, methods, tools, and techniques of developing or applying technology using text, audio, graphics, or other media
<b>Network Management</b>	Knowledge of the operation, management, and maintenance of network and telecommunication systems and linked systems and peripherals
<b>Object Technology</b>	Knowledge of the principles, methods, tools, and techniques that use object
<b>Operating Systems</b>	Knowledge of computer network, desktop, and mainframe operating systems and their applications
<b>Operations Support</b>	Knowledge of procedures to ensure production or delivery of products and services, including tools and mechanisms for distributing new or enhanced software
<b>Organizational Development</b>	Knowledge of the principles of organizational development and change management theories, and their applications
<b>Process Control</b>	Knowledge of the principles, methods, and procedures used for the automated control of a process, including the design, development, and maintenance of associated software, hardware, and systems
<b>Product Evaluation</b>	Knowledge of methods for researching and analyzing external products to determine their potential for meeting organizational standards and business needs
<b>Project Management</b>	Knowledge of the principles, methods, or tools for developing, scheduling, coordinating, and managing projects and resources, including monitoring and inspecting costs, work, and contractor performance
<b>Quality Assurance</b>	Knowledge of the principles, methods, and tools of quality assurance and quality control used to ensure a product fulfills functional requirements and standards
<b>Requirements Analysis</b>	Knowledge of the principles and methods to identify, analyze, specify, design, and manage functional and infrastructure requirements; includes translating functional requirements into technical requirements used for logical design or presenting alternative technologies or approaches
<b>Risk Management</b>	Knowledge of methods and tools used for risk assessment and mitigation of risk
<b>Software Development</b>	Knowledge of the principles, methods, and tools for designing, developing, and testing software in a given environment
<b>Software Engineering</b>	Knowledge of software engineering design and development methodologies, paradigms, and tools; the software life cycle; software reusability; and software reliability metrics
<b>Software Testing and Evaluation</b>	Knowledge of the principles, methods, and tools for analyzing and developing software test and evaluation procedures
<b>Standards</b>	Knowledge of standards that either are compliant with or derived from established standards or guidelines
<b>System Testing and Evaluation</b>	Knowledge of the principles, methods, and tools for analyzing and developing systems test and evaluation procedures and technical characteristics of IT systems, including identifying critical operational issues
<b>Systems Integration</b>	Knowledge of the principles, methods, and procedures for installing, integrating, and optimizing information systems components
<b>Systems Life Cycle</b>	Knowledge of systems life cycle management concepts used to plan, develop, implement, operate, and maintain information systems
<b>Technical Documentation</b>	Knowledge of procedures for developing technical and operational support documentation



Technical Competency	Definition
<b>Technology Awareness</b>	Knowledge of developments and new applications of information technology (hardware, software, telecommunications), emerging technologies and their applications to business processes, and applications and implementation of information systems to meet organizational requirements
<b>Telecommunications</b>	Knowledge of transmissions, broadcasting, switching, control, and operation of telecommunications systems
<b>Web Technology</b>	Knowledge of the principles and methods of web technologies, tools, and delivery systems, including web security, privacy policy practices, and user interface issues

**Figure D-18: General Competencies**

General Competency	Definition
<b>Administration and Management</b>	Knowledge of planning, coordination, and execution of business functions, resource allocation, and production
<b>Contracting/ Procurement</b>	Knowledge of various types of contracts, techniques for contracting or procurement, and contract negotiation and administration
<b>Customer Service</b>	Works with clients and customers (that is, any individuals who use or receive the services or products that your work unit produces, including the general public, individuals who work in the agency, other agencies, or organizations outside the Government) to assess their needs, provide information or assistance, resolve their problems, or satisfy their expectations; knows about available products and services; is committed to providing quality products and services
<b>Decision Making</b>	Makes sound, well-informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change
<b>Financial Management</b>	Prepares, justifies, and/or administers the budget for program areas; plans, administers, and monitors expenditures to ensure cost
<b>Influencing/ Negotiating</b>	Persuades others to accept recommendations, cooperate, or change their behavior; works with others towards an agreement; negotiates to find mutually acceptable solutions
<b>Interpersonal Skills</b>	Shows understanding, friendliness, courtesy, tact, empathy, concern, and politeness to others; develops and maintains effective relationships with others; may include effectively dealing with individuals who are difficult, hostile, or distressed; relates well to people from varied backgrounds and different situations; is sensitive to cultural diversity, race, gender, disabilities, and other individual differences
<b>Leadership</b>	Influences, motivates, and challenges others; adapts leadership styles to a variety of situations
<b>Legal, Government and Jurisprudence</b>	Knowledge of laws, legal codes, court procedures, precedents, legal practices and documents, government regulations, executive orders, agency rules, government organization and functions, and the democratic political process
<b>Managing Human Resources</b>	Plans, distributes, coordinates, and monitors work assignments of others; evaluates work performance and provides feedback to others on their performance; ensures that staff are appropriately selected, utilized, and developed, and that they are treated in a fair and equitable manner
<b>Oral Communication</b>	Expresses information (for example, ideas or facts) to individuals or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others, attends to nonverbal cues, and responds appropriately
<b>Organizational Awareness</b>	Knows the organization's mission and functions, and how its social, political, and technological systems work and operates effectively within them; this includes the programs, policies, procedures, rules, and regulations of the organization
<b>Planning and Evaluation</b>	Organizes work, sets priorities, and determines resource requirements; determines short
<b>Problem Solving</b>	Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations
<b>Public Safety and Security</b>	Knowledge of the military, weaponry, and intelligence operations; public safety and security operations; occupational health and safety; investigation and inspection techniques; or rules, regulations, precautions, and prevention techniques for the protection of people, data, and property
<b>Strategic Thinking</b>	Formulates effective strategies consistent with the business and competitive strategy of the organization in a global economy



## CIO COUNCIL INFORMATION TECHNOLOGY SPECIALIZED JOB ACTIVITIES

Specialized Job Activity	Definition
<b>Capital Planning and Investment Control</b>	Capital Planning and Investment Control (CPI), also known as capital programming, is a decision-making process for ensuring IT investments integrate strategic planning, budgeting, procurement, and the management of IT in support of agency missions and business needs.
<b>E-Government</b>	This activity involves the use of web-based Internet applications and other information technologies, combined with processes that implement these technologies, to: (1) enhance the access to and delivery of Government information and services; and (2) bring about improvements in Government operations.
<b>End User Support</b>	This activity involves the planning and delivery of end user support services for IT systems and applications, including installation, configuration, troubleshooting, customer assistance, and/or training, in response to end user requirements. This may include: diagnosing and resolving problems in response to customer reported incidents; researching, evaluating, and providing feedback on problematic trends and patterns in end user requirements; developing and maintaining problem tracking and resolution databases; installing, configuring, troubleshooting, and maintaining end user hardware and software; developing and managing customer service performance requirements; and providing end user training. This job activity is associated with the GS-2210 Customer Support specialty title.
<b>Enterprise Architecture (EA)</b>	This activity links the business mission, strategy, and processes of an organization to its IT strategy. An EA is documented using multiple architectural models or views that show how the current and future needs of an organization will be met. It establishes an agency-wide roadmap to achieve the agency's mission through optimal performance of its core business processes within an efficient IT environment.
<b>IT Project Management</b>	IT project management is the discipline of organizing and managing resources in such a way that these resources deliver all the work required to complete an IT project within defined scope, time and cost constraints. This activity typically involves exercising centralized authority and responsibility for planning, organizing, staffing and controlling efforts of participating personnel and organizations for management of an IT project throughout the project life cycle (from initiation to deployment and project closeout). An IT project is a specific IT investment having defined goals, objectives, requirements, lifecycle cost, and a beginning and an end that delivers a specific IT product, service or result.
<b>IT Security/Information Assurance</b>	This activity involves ensuring the integrity, availability, and confidentiality of information systems through: developing policies and procedures; participating in network and systems design; reporting and investigating incidents; conducting risk and vulnerability assessments; promoting awareness and appropriate application of security policies/procedures; conducting systems security evaluations, audits, and reviews; developing systems contingency plans and disaster recovery procedures; and authenticating and validating system user qualifications.
<b>IT Workforce Management/Development</b>	This activity involves IT workforce planning, assessing talent, and addressing human capital workforce issues for the enterprise. This can include recruitment, retention and development strategies, and providing training and developmental opportunities to ensure that current and future workforce needs are met.
<b>Knowledge Management</b>	This activity involves the use of disciplined processes (and their supporting tools) to optimize application of knowledge in support of the organization's overall mission. Knowledge management is getting the right information to the right people at the right time, and helping people create knowledge and share and act upon information in ways that will measurably improve the performance of the organization.
<b>Privacy</b>	This activity ensures that appropriate data management practices are maintained by monitoring and controlling how Personal Identifiable Information (PII) is collected, used, stored, transferred, and destroyed. It includes: evaluating IT systems for privacy risks and compliance; conducting Privacy Impact Assessments; reviewing public Web sites; and assessing back-office practices pertaining to personal data handling. This activity also involves implementation of the Privacy Act.
<b>Records Management</b>	This activity includes the management of the full life cycle of information; this includes planning, controlling, directing, organizing, and other activities involved in records creation, maintenance, preservation, use, and disposition; assuring the confidentiality, integrity and availability of records; and assessing the impact of records and information management on systems design, integrity, and authenticity in compliance with FOIA and other records management statutory requirements.
<b>Solutions Architecture</b>	This activity involves studying and defining solutions for a single system, department or solution area within an agency. The Solutions Architect is primarily concerned with fundamental business and technology issues including: alignment with core agency business strategies, business process



Specialized Job Activity	Definition
	simplification and the implementation of information technology that enables the realization of key business objectives but on a small scale and within the scope of a single project or system.
<b>Applications Software</b>	This activity involves the design, development, modification, installation, implementation, and support of new or existing applications software (computer programs designed to perform a specific function directly for the user or, in some cases, for another application program) and may also include: analyzing and refining system requirements; translating system requirements into application prototypes; writing, debugging and maintaining code; determining output media/formats; designing user interfaces; working with customers to test applications; assuring software and systems quality and functionality; integrating hardware and software components; writing and maintaining program documentation; and evaluating new applications software technologies.
<b>Data Management</b>	This activity includes analyzing and defining data requirements and specifications; designing, normalizing, developing, installing, and implementing databases; maintaining, monitoring, performance tuning, backup, and recovery of databases; installing, configuring, and maintaining database management systems software; developing and administering data standards, policies and procedures; developing and implementing data mining and data warehousing programs; and evaluating and providing recommendations on new database technologies and architectures.
<b>Internet</b>	This activity includes the application of technical knowledge of Internet systems, services, and technologies. In most cases, the term Internet is used to refer generically to Internet, intranet, and extranet applications development and technical management of Web sites, systems and services. Functions may include: determining overall technical design and structure of Internet services; monitoring functionality, security, and integrity of Internet services; troubleshooting and resolving technical problems with the design and delivery of Internet services; collecting and analyzing usage and performance statistics; evaluating new services and technologies; and providing technical advice to Internet content providers.
<b>Network Services</b>	This activity includes analyzing and defining network requirements; designing and maintaining network architecture and infrastructure; configuring and optimizing network servers, hubs, routers, and switches; analyzing network workload; monitoring network capacity and performance; diagnosing and resolving network problems; developing network backup and recovery procedures; and installing, testing, maintaining, and upgrading network operating systems software.
<b>Operating Systems</b>	This activity includes the planning, installation, configuration, testing, implementation, and management of operating systems; analyzing systems requirements in response to business requirements, risks, and costs; integration of operating systems with other software packages; and updating operating systems with fixes and patches.
<b>Policy and Planning</b>	This activity involves a wide range of IT management activities that typically extend and apply to an entire organization or major components of an organization. This includes strategic planning; defining current and future business environments; assessing policy needs; developing and/or implementing policies to govern IT activities; providing policy implementation guidance; developing technical standards; preparing IT budgets; and conducting assessments of IT programs and projects.
<b>Systems Administration</b>	This activity includes planning and scheduling the installation of new or modified hardware, operating systems and applications software; managing accounts, network rights, and access to systems and equipment; implementing security procedures and tools; developing and documenting systems administration standard operating procedures; resolving hardware/software interface and interoperability problems; ensuring systems availability, functionality, integrity, and efficiency; maintaining systems configuration; and managing the installation and integration of system fixes, updates, and enhancements.
<b>Systems Analysis</b>	This activity includes performing needs analyses to define opportunities for new or improved business process solutions; consulting with customers to identify and specify requirements; developing overall functional and systems requirements and specifications; conducting business process reengineering; conducting feasibility studies; preparing business cases; defining systems scope and objectives; developing cost estimates; ensuring the integration of all systems components; and planning systems implementation.



## CIO COUNCIL INFORMATION TECHNOLOGY SKILLS AND DEFINITIONS

Skill	Definition
<b>Biometrics</b>	Technological methods of identifying individuals via biological traits, such as retinal or iris scanning, fingerprints, or face recognition.
<b>Broadband Media</b>	Telecommunications technologies in which a wide band of frequencies is available to transmit information. This allows information to be multiplexed and sent on many different frequencies or channels within the band concurrently, allowing more information to be transmitted in a given amount of time
<b>Cellular Network Technology</b>	Wireless communications network architecture that employs "cells" or modular coverage areas typically serviced by a cell site or base station and usually provides capability between cells for roaming devices.
<b>Client-Server</b>	Software programs that are used to contact and obtain data from a server software program on another computer, often across a great distance. Each client program is designed to work with one or more specific kinds of server programs, and each server typically requires a specific kind of client.
<b>Collaboration Software</b>	Software or tools that integrate work on a single project by several concurrent users at separated workstations (also known as groupware).
<b>Continuity of Operations Planning</b>	Contingencies and strategies for minimizing financial and operational losses following service interruptions caused by natural, technological, and attack-related emergencies. Such planning includes the safety of employees, information, and services.
<b>Cryptology</b>	Methods of transforming data for secure storage and transmission purposes. Such activities make it difficult or impossible for unauthorized individuals to access confidential or sensitive data.
<b>Data Analysis and Reporting</b>	Analysis of data in a database using tools that look for trends or anomalies, establish relationships, and predict future patterns among events. Includes statistical software (such as SASS and SPSS) to generate reports.
<b>Data Modeling</b>	Analysis of data objects that are used in a business or other context and the identification of the relationships among these data objects; creating graphical representations of the entities, and the relationships among entities, within an information system. Diagramming assists in planning the database model and communicating its design to an end user.
<b>Data Warehousing</b>	Central repository for all, or significant parts of, data that an enterprise's various business systems collect. Also includes the migration of data from legacy databases into a data warehouse.
<b>Development Languages</b>	Writing or authoring code in a variety of programming languages (e.g., html, c++, java, java script, xml, asp) to develop applications. Encompasses 4th Generation, Low-level and Mid-level Languages.
<b>Desktop Applications</b>	Widely-used end-user applications such as Microsoft Office, Visio, etc.
<b>Document Management</b>	Computerized management of electronic and paper-based files.
<b>Earned Value Management</b>	Process to manage projects/programs by integrating technical performance requirements, resource planning, scheduling and risk management to ensure the use of effective cost and schedule management controls by the contractor.
<b>Enterprise Directory Services (EDS)</b>	Enterprise Directory Service (EDS) identifies all resources (e.g., email addresses, computers, printers, databases) on a network and makes them accessible to users and applications. An EDS offers a unique way of naming, describing, and locating resources on a network.
<b>Enterprise Portal Development</b>	Web-based framework for agency resources (e.g., email, news, search engine, policies). A portal is a single point of access for all employees in an enterprise, providing access to specific information and services.
<b>Enterprise Resource Planning (ERP)</b>	Integration of all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs. Integration can include databases, tools, interfaces and applications.
<b>Extensible Markup Language (XML)</b>	Widely used system for defining data formats. XML provides a rich system to define complex documents and data structures. As long as a programmer has the XML definition for a collection of data (often called a "schema") then they can create a program to reliably process any data formatted according to those rules.
<b>Federal/OMB Enterprise Architecture</b>	Business-based framework developed by the Office of Management and Budget (OMB) for Government-wide improvement. The architecture is being constructed through a collection of interrelated "reference models" designed to facilitate cross-agency analysis and the identification of duplicative investments, gaps, and opportunities for collaboration within and across Federal Agencies.
<b>Firewalls</b>	Combination of hardware and software that separates a network into two or more parts for security purposes.



<b>Skill</b>	<b>Definition</b>
<b>Geographic Information Systems (GIS)</b>	Computer software capable of capturing, storing, analyzing, and displaying geographically referenced information. Layers of information about cities, countries, or other locations may include bodies of water, roadways, agriculture, natural resources, and commerce.
<b>Grid Computing</b>	Grid computing is an emerging computing model that provides the ability to perform higher throughput computing by taking advantage of many networked computers to model a virtual computer architecture that is able to distribute process execution across a parallel infrastructure. Grids use the resources of many separate computers connected by a network (usually the Internet) to solve large-scale computation problems. Grids provide the ability to perform computations on large data sets, by breaking them down into many smaller ones, or provide the ability to perform many more computations at once than would be possible on a single computer, by modeling a parallel division of labor between processes. Today resource allocation in a grid is done in accordance with SLAs (service level agreements).
<b>Joint Application Development/Rapid Application Development (JAD/RAD)</b>	Methodology that involves the client or end user in the design and development of an application, through a succession of collaborative workshops called JAD sessions. A variation on JAD, Rapid Application Development (RAD) creates an application more quickly through such strategies as using fewer formal methodologies and reusing software components.
<b>Linux Operating System</b>	Widely used open source Unix-like operating system that performs basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
<b>MacOS/MacOSX Operating System</b>	Operating system behind many Macintosh computers that performs basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
<b>Mainframes</b>	Computers for large-scale computing purposes. Historically, a mainframe is associated with centralized rather than distributed computing, and is able to handle hundreds, or even thousands, of users simultaneously.
<b>Mainframe Operating Systems</b>	Mainframe operating systems perform basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
<b>Network Architecture and Design</b>	Structure and design of networks to support the success of an organization, making the right connections for the Internet, intranets, and extranets, including designing and maintaining local area networks and wide area networks.
<b>Network Configuration and Implementation</b>	Layout and settings of the computers and equipment on an enterprise's local area network (LAN) or intranet. This includes devices like routers and gateways that interconnect the LAN with other LANS or the Internet.
<b>Network Voice/Data Integration</b>	Packetizing and carrying normal telephony-style voice over a network circuit or channel, similar to, and often interspersed with, data packets.
<b>Object-Oriented Languages</b>	Object-oriented languages are organized around "objects" rather than "actions" and data rather than logic. Programmers define not only the data type of a data structure, but also the types of operations (functions) that can be applied to the data structure. Also, programmers can create relationships between objects. Examples of object-oriented languages include C++ and Java.
<b>OS/2 Operating System</b>	Operating system for PCs developed originally by Microsoft Corporation and IBM that performs basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
<b>Personal Digital Assistants</b>	Handheld devices that were originally designed as personal organizers, but became much more versatile over the years. A basic PDA usually includes a clock, date book, address book, task list, memo pad and a simple calculator. One major advantage of using PDAs is their ability to synchronize data with desktop, notebook and desknote computers.
<b>Portfolio Management for IT</b>	Management of IT resources, as one would manage investments in a real estate or stock portfolio. The IT portfolio facilitates the alignment of technology investments with agency business needs and the analysis and proper mitigation of IT investment risks.
<b>Process Design</b>	Strategic establishment of the flow of information, control or materials from one activity to another. Examples of graphical representations of process design include the Business Process Modeling Notation (BPMN) and the Integrated Computer Aided Manufacturing Definition (IDEF).
<b>Project Management Software</b>	Software to manage resources and scheduling for a given project



<b>Skill</b>	<b>Definition</b>
<b>Public Key Infrastructure (PKI)</b>	Use of an unsecured public network, such as the Internet, to securely and privately exchange data and money through the use of a public and a private cryptographic key pair that is obtained and shared through a trusted authority.
<b>Radio Frequency Identification (RFID)</b>	Short for radio frequency identification, a technology similar in theory to bar code identification. With RFID, the electromagnetic or electrostatic coupling in the RF portion of the electromagnetic spectrum is used to transmit signals. An RFID system consists of an antenna and a transceiver, which read the radio frequency and transfer the information to a processing device, and a transponder, or tag, which is an integrated circuit containing the RF circuitry and information to be transmitted.
<b>Records Management</b>	Skills related to physical or digital maintenance of public records, from creation through destruction.
<b>Relational Database Management Systems (RDBMS)</b>	Programs that let you create, update, and administer a relational database. Examples include Oracle, IBM's DB2 and Microsoft's SQL Server.
<b>Reusable Modules</b>	Reusable modules in programming allow for repeating the same function multiple times. The module includes files and is inserted into the code to reduce the code's complexity and redundancy.
<b>Satellite Communications</b>	Utilization of geostationary orbiting satellites to relay the transmission received from one earth station to one or more earth stations. They are the outcome of research in the area of communications whose objective is to achieve ever-increasing ranges and capacities with the lowest possible costs.
<b>Scripting/Metadata</b>	Metadata describes how, when and by whom a particular set of data was collected, and how the data is formatted. Metadata is essential for understanding information stored in data warehouses
<b>SEI Capability Maturity Models</b>	Carnegie Mellon Software Engineering Institute's (SEI) 5-stage model of how software organizations improve, over time, in their ability to develop software. The model provides a basis for assessment, comparison, and process improvement
<b>System Analysis and Design</b>	Design, specification, feasibility, cost, and implementation of a computer system for business; development and implementation process, metrics and tools for analysis, design and project management, quality factors and post evaluation techniques.
<b>Structured Query Language (SQL)</b>	Standardized query language for requesting information from a database.
<b>Systems Maintenance and Helpdesk</b>	Enterprise's physical or online resource center for just-in-time assistance with desktop, network, hardware, and software questions and issues.
<b>Systems Security Applications</b>	Applications and tools that administrators use to manage various users, roles and groups to implement access and privilege controls for certain applications or against operating system resources.
<b>Telephony/PBX</b>	Telephone network used within an enterprise. Users of the PBX share a certain number of outside lines for making telephone calls external to the PBX. It allows a small number of outside lines to be shared among all of the people of the organization.
<b>Testing</b>	Determining whether objectives are being met during hardware/software development. Testing can take place at a variety of levels such as the module, component, or system levels. Testing is also related to the various types of verification, validation and evaluation of whether or not a system satisfies its acceptance criteria. This process enables the customer to determine whether or not to accept the system.
<b>Unified Modeling Language (UML)</b>	Industry-standard for specifying, visualizing, constructing, and documenting the artifacts of software systems. It simplifies the complex process of software design, making a "blueprint" for construction.
<b>UNIX Operating System</b>	UNIX operating system that performs basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers. Unix is designed for use by many people at the same time (it is multi-user) and has TCP/IP built-in. UNIX is the most common operating system for servers on the Internet.
<b>Video Imaging</b>	Software tools to capture, store, manipulate, and display graphical images.
<b>Web-enabled Application Design and Development</b>	Web-enabled applications that provide certain functionality automate certain processes or provide access to or interface with legacy applications. Includes designing the look and feel of the application and ensuring accessibility to site content for individuals with disabilities.
<b>Web Site Management</b>	Management and maintenance of an enterprise's web site or portal. Activities include developing web pages, performing backups and ensuring user access to the site, monitoring site traffic and helping scale site capacity meet traffic demands.



<b>Skill</b>	<b>Definition</b>
<b>Windows Operating System</b>	Operating system behind all Microsoft Windows-configured computers that performs basic tasks, such as recognizing input from the keyboard, sending output to the display screen, keeping track of files and directories on the disk, and controlling peripheral devices such as disk drives and printers.
<b>Wireless Technologies</b>	Technology that transmits information signals via radio waves rather than cables or wires, where individual units are connected to a network, such as cellular phones, networked laptops, and PDAs.



## APPENDIX E: POSITION MANAGEMENT

### Workforce analysis validation – DOT Human Capital Controls At the Operating Administration Level

This includes a description of the way current and projected mission critical occupations and competency needs are identified, and the way current competency levels and gaps are assessed. It also describes how the initial analysis is validated and reconciled with sources of information such as stakeholder input, third party reports (e.g., IG, GAO), and other relevant sources of information about program performance.

OA	Control Strategy
OST (and RITA/BTS)	<p>OST compiles data received from various OST/RITA organizations and uses this data in addition to data pulled from the automated data base to assess skill gaps. The Workforce Analysis Office is currently looking into acquiring additional automation software (WAS CIVPRO, etc) to further assist in reports and analysis of data.</p>
OIG	<p>The OIG conducts an annual review of hires, projected retirements, attrition, projected competency gaps, etc. This information is captured in the OIG Workforce Plan and then addressed in the annual updates to the OIG Succession and Recruitment Plans.</p> <p>The <b>Workforce Plan</b> identifies four strategies: Reduce mid-career loss of talent; acquire and enhance a high performing workforce; enhance leadership succession planning; and knowledge management. This plan identifies OIG key occupations; anticipates future attrition in those occupations; identifies critical new skills that must be possessed by the future workforce; analyzes gaps between the projected and desired workforces; and maps actions being taken to avoid them.</p> <p>The <b>Succession Plan</b> summarizes projected future vacancies in OIG leadership positions; identifies staff competencies needed to maintain high performance and meet mission requirements; and lists the actions OIG will take to enable its current and future employees to acquire these competencies, including strategies related to knowledge management and knowledge sharing.</p> <p>The <b>Recruitment Plan</b> identifies the OIG’s projected recruitment needs, assesses current recruitment strategies, highlights recruitment practices used by other agencies, and lays out a set of initiatives the OIG will pursue to enhance the effectiveness of its recruitment program. The plan focuses on projected recruitment needs through FY 2009.</p> <p>The OIG solicits input from managers at all levels and from the workforce to identify trends, concerns, and develop a strategic plan to ensure the OIG remains a high performing organization. Additionally, the OIG receives ongoing contractor support to benchmark success stories and to tackle the issuance of reports and data collection.</p>
FAA	<p>The FAA Flight Plan institutionalizes annual workforce planning and analysis in FAA organizations with mission critical workforces as an ongoing, long-term strategic initiative. Mission critical occupations comprise about 82% of the FAA workforce. On an annual basis, lines of business/staff offices review and update business and human capital challenges to mission performance. This analysis includes an assessment of future staffing requirements, capabilities, or both for FAA mission critical workforces. Line of business/staff office workforce plans identify human capital solutions related to closing talent and skill gaps, restructuring, re-deployment, and succession planning among others to meet current and anticipated workforce challenges over the coming years. Line of business/staff office workforce plans complement organizational business plans aligned to the FAA Flight Plan.</p> <p>A key strategy for sustaining workforce planning in FAA organizations is the FAA Human Capital Planning Council. The Council is comprised of workforce planners across the agency that meets quarterly to discuss cross cutting strategic workforce planning issues. The Council is supporting the FAA as it responds to mission critical issues in a collaborative manner, such as the Office of Management and Budget requirements for Information Technology workforce planning and development of a Skill Gap Closure Plan for FAA IT-related occupations.</p>



OA	Control Strategy
FHWA	<p>FHWA employs a full time Workforce Planner, and has created a Workforce Planning Advisory Committee (WFPAC) composed of a representative sample of managers from various levels in the organization. This group is responsible for assisting the leadership of the Agency in recognizing external influences (such as from the Inspector General, General Accountability Office, and Congress), mission changes that would impact the workforce of the Agency, program performance, and other influences. These influences are integrated as part of management strategies and guidance in conducting workforce planning throughout FHWA. The FHWA has developed national and unit workforce planning models that explicitly allow for and require input from managers of various units in the Agency. The workforce planning process is circular in nature and is designed to both allow incorporation of needed changes and validation of previous workforce planning results at the Agency and/or unit level.</p>
FRA	<p>FRA engages all levels of the workforce in analysis of trends and competency needs through working groups, and additionally makes use of contractor support. In addition to identifying needed skills in its most significant MCO, it has distinguished the competencies possessed by the best performers, and is making strategic use of that information. Based on workforce analyses, FRA has engaged in workforce restructuring, using VERA and VSIP authorities.</p>
NHTSA	<p>In July 2004, the NHTSA Office of Traffic Injury Control (TIC) embarked on a comprehensive Workforce Development Initiative. Expected high retirement rates combined with limited resources demand more focus and attention to clear succession planning. The initial objective was the establishment of core competencies. A TIC Workforce Development Team was organized to establish this set of competencies. Strategic objectives to be achieved include: 1) enhanced ability to recruit qualified individuals with the knowledge, skills and abilities required for successful performance in TIC positions; 2) identified levels of proficiency (basic, intermediate, advanced, expert) needed to advance through an individual's career in these positions; 3) identification of staff development opportunities and resources (self study, formal training, periodic internal briefings, on-the-job/mentoring and shadowing, etc.) that will help the workforce achieve the competency; and 4) identification of resource gaps or deficiencies – areas where formal or informal resources to build the competency are currently unavailable.</p> <p>To date, the process has resulted in the establishment of the core competencies for employees in technical positions (primarily Program Analyst and Highway Safety Specialist GS2125/ 9-14) individual and managerial assessments of staff to determine proficiency levels; identification of competency/proficiency gaps; identification of targeted learning opportunities; and a formal process for bridging competency gaps. Plans are ongoing to develop a similar process for other mission critical occupations in the other program areas of NHTSA.</p>
FTA	<p>FTA does its primary workforce analysis and planning at the office (Associate Administrator) level. Past plans have been accomplished with contractor support. The contractor meets with each office and collects information about current competency levels and needs and anticipated changes. Demographic information to support this analysis is provided by an HR staff person. The Associate Administrator for Administration and the Associate Administrator for Budget and Policy are responsible for ensuring that external information, such as reports, stakeholder or Congressional input, etc. are taken into account before the analysis is considered final.</p>
SLSDC	<p>Annually, workforce data is gathered and reviewed against the data provided for the initial workforce analysis to determine trends. Data includes current and projected staffing levels, attrition for the past year, and updated retirement projections. In addition, strategic goals and work unit functions are reviewed for any actual or projected changes. Performance standards are reviewed to ensure appropriate evaluation of work efforts toward meeting SLSDC mission and goals. Previously identified competency lists are reviewed for any needed revisions. Managers and supervisors are surveyed for any projected changes to the mission or functions of their work units. And finally, the Human Capital Strategic Plan (HCSP) is reviewed for progress in meeting its milestones and goals.</p> <p>Previously identified competency gaps are reviewed against the new staffing, mission, and work function projections. Charts are updated to reflect new data and statistics. The HCSP is revised to incorporate needed initiatives to eliminate competency gaps, or address other workforce weaknesses.</p> <p>An updated Workforce Plan is developed incorporating the analysis and review in all the above areas.</p>
MARAD	<p>MARAD reviews and analyzes demographic data from time to time as the Department's workforce planning model requires. Using that data and its own modeling tool, MARAD's Human Capital Council reassesses strategic workforce needs on an ad hoc basis as it reviews requests to fill vacancies. In addition, twice a year the Council engages in amore intensive review of workforce needs, including emerging or needed changes in grade structure and competency mix. Managers in MARAD who receive any form of feedback or report that may have a bearing on workforce planning, such as IG and GAO reports, forward copies to the Council for their use in these deliberations.</p>



OA	Control Strategy
PHMSA	<p>In 2003, then Research and Special Programs Administration (RSPA) created a Human Capital Steering Group to oversee human capital issues and more specifically to help develop the Agency's workforce plan. Membership included supervisory and non-supervisory employees in various disciplines, both headquarters and field, as well as key staff involved with competitive sourcing and other PMA initiatives. Competency needs were identified through a structured interview process with the leadership of the organization and the subject matter experts on the group. Projected gaps were largely based on Congressional mandate. Since that time, RSPA has been abolished and most of its functions transferred to either the Research and Innovative Technology Administration (RITA) or the Pipeline and Hazardous Materials Safety Administration (PHMSA).</p>
PHMSA	<p>When a new Administrator is appointed, PHMSA intends to create a Human Capital Steering Group in the summer of 2005 with the expectation that the group will again oversee the workforce planning process. This group will revalidate the agency's mission critical occupations and mission critical support occupations, as well as competency gaps in non-leadership areas, in a manner similar to that of the RSPA group. In the process, the group will be asked to determine external validation of the competency gap that the organization believes exists or will exist (e.g., IG reports, industry reports, stakeholder comments, Congressional mandates and the like).</p>
RITA (Volpe)	<p>The Center's Workforce Planning program provides refined information on anticipated workforce changes, including skill losses from attrition; identification of key positions for which successors should be groomed; and sources from which the future workforce may be effectively recruited. This analysis provides a foundation for human capital decisions and the development of programs to recruit, develop and retain, or to procure, the future workforce. The analysis is grounded in project requirements and strategic plans which have incorporated recommendations from organizational reviews (OST, (former) RSPA HQ and IG), and is provided via:</p> <ul style="list-style-type: none"> <li>❑ Workforce Analysis, to understand the nature of the current "whole" workforce (Federal and contractor), project future scenarios, identify actions to address current problems and recommendations to deal systematically with likely future problems, and identify management priorities for action.</li> <li>❑ A <a href="#">competency model</a> and associated tools, which provide a solid foundation for the assessment, selection, career development, and performance management of Center employees. The model also serves as a map for employees in charting their own career development.</li> <li>❑ Identification of <a href="#">core capabilities</a>, correlation of Federal staff to contractor staff within those core capabilities, identification of core capability and competency gaps and surpluses, and recommendation of plans for building the workforce.</li> </ul> <p>The underlying model used in the Center's workforce planning program provides information on the past, present and future status of the Center's work (projects) and people and is useful in generating resource projections, including multi-level HR plans (e.g. the Recruitment Plan) which are supplemented by integrated management information and metrics to assess progress and programs to bridge resource gaps/position the Center for a healthy future.</p>
FMCSA	<p>The current Human Capital Plan and Workforce Plan were developed to capture the state of the organization and to address barriers as well as strategies to achieve the objectives of the President Management Agenda, Departmental and Agency driven strategic goals. The Human Capital Plan was developed with the support of experienced employees in various occupations who represented a variety of headquarters and field offices. A Human Capital Working Group was appointed by senior leadership to provide organized sponsorship for Strategic human capital management in FMCSA, thus extending ownership for the initiative beyond the human resources community. The study was further supported by the participation by 69% of the workforce in completing a comprehensive workforce competency survey. The competency survey resulted in aggregate analyses for four categories of positions: Executives, Managers, Supervisors, and Team Leaders: Attorneys: Program related jobs (Most mission critical occupations, and Administrative Support Staff.</p> <p>Presently, the organization is making plans to update the Workforce Plan and the Human Capital Plan. This update will include an integrated process to validate and reconcile internal analysis with stakeholders' input.</p>



## APPENDIX F: BROADCAST MESSAGE

**From:** Broadcast Messages  
**Sent:** Tuesday, February 07, 2006 4:30 PM  
**Subject:** Message from Deputy Secretary Maria Cino

### BROADCAST MESSAGE

**TO: All U.S. Department of Transportation Employees**

**RE: Message from Deputy Secretary Maria Cino**

Last week, senior executives from DOT gathered together to discuss major issues our Department could address to change the lives of Americans. We spent two days discussing policy issues that included safety, security, the environment, and how the Nation's different modes of transportations were working. Both career and political staff reviewed data, listened to experts, and met with members of other agencies.

Our goal was to review how DOT was fulfilling its mission and to identify one or two agenda items that we could focus our energy on to show real results to the American people.

I wanted to report back to you that there was a unanimous consensus, led by Secretary Mineta, that the people working for the Department of Transportation are doing an extraordinary job. The Secretary said he believed our current organization is the best-performing Department of Transportation since the agency was created in 1967.

It was clear that this is the perfect group to tackle one of the Nation's most daunting transportation challenges – congestion. Traffic jams, freight tie ups, and airport delays waste energy, reduce air quality, and cause Americans to be less productive and spend less time with their families.

We can identify and help build projects that reduce congestion, and we have the ability to design a public policy that makes congestion-reducing infrastructure easier to build. So in addition to continuing our hard work on the strategic objectives announced in 2003 and other important transportation measures, we have determined that reducing major congestion chokepoints throughout America should be a major DOT priority moving forward.

Secretary Mineta then asked me to prepare a report in 45 days to outline how the Department could accomplish this goal. We have begun that effort. In the coming months all of us in the Department are going to be asked to contribute to this effort.

Over the days and weeks ahead, more information and modal involvement will be forthcoming. Please know all modes will have a role in this project. As always, I look forward to working with all of you as we accomplish what will be one of the Department's greatest achievements.



## APPENDIX G: DOT HR EMERGENCY GUIDANCE

### GENERAL INFORMATION

#### A. OVERVIEW

In the event of a natural disaster, health pandemic or other widespread emergency situation, this handbook shall serve as Departmental human resources (HR) guidance for the Office of the Secretary and Operating Administrations. This handbook does not create new policy but it does attempt to centralize guidance on various issues that have consistently arisen during previous emergencies.

#### B. RECORD KEEPING

A. To ensure that DOT is able to provide accurate accounts of pay and leave benefits granted to employees as a result of an emergency situation, Operating Administrations and Departmental Offices are directed to maintain records of the following:

- (1) Hours and value of excused absence granted.
- (2) Hours of premium pay authorized, including overtime pay, night differential and Sunday premium pay, compensatory time off for travel, travel pay, administratively uncontrollable overtime (AUO) and standby pay.
- (3) Travel expenses for staff assigned to assist with emergency response, clean up and relief efforts.
- (4) Travel expenses and per diem paid for employees ordered to evacuate an affected area.

#### C. HR FLEXIBILITIES

Information on human resource flexibilities, such as critical hire authority, direct hire authority and use of temporary personnel available to assist your organizations can be found at <http://www.opm.gov/oca/compmemo/2005/2005-13.asp>.

#### D. HEALTH BENEFITS

- A. DOT will be as flexible as regulations allow in permitting displaced employees who lose coverage to enroll in the FEHB program of the area to which the employee has relocated. Employees must contact their human resources office to determine eligibility and for guidance.
- B. If an employee loses coverage as the result of a declared emergency, even if the employee is not displaced outside of his/her home area, the employee may qualify to enroll in a FEHB plan or change FEHB carriers.
- C. Employees may enroll in the FEHB program if they lose health insurance coverage through their spouse's non-Federal employment. 5 CFR 890.301 (i) allows employees to enroll from 31 days before to 60 days following the loss of coverage under a non-Federal health plan.

#### E. DOT RETCO PROGRAM

- A. DOT's Regional Emergency Transportation Coordination (RETCO) Program is responsible for coordinating transportation for incoming resources for the response – everything from search and rescue teams to ice, water and generators; and for assisting people as they evacuate an area. Staffing for the RETCO program consist primarily of regional staff from various Operating Administrations. Additional information on the RETCO program is available in Appendix A.



- B. RETCO team members are entitled to premium pay according to their designation (exempt vs. non-exempt) under the Fair Labor Standards Act (FLSA). As with all employees performing work in connection with an emergency, there is no automatic entitlement to grant FLSA premium pay to RETCO employees regardless of their FLSA designation (exempt vs. non-exempt). Additional information on premium pay applicable to all employees is available in the Compensation chapter of this handbook.

## F. EMERGENCY EMPLOYEE AND MISSION-CRITICAL EMPLOYEE DESIGNATIONS

- A. All Operating Administrations and Departmental Offices are reminded to annually review and update listings of emergency employees and mission-critical emergency employees. A listing of emergency and mission-critical emergency employees should be on file with the HR Office of each Operating Administration and the Office of the Secretary. Employees should be notified in writing of their designation to ensure they are aware of their availability and reporting requirements during an emergency.
- B. *Emergency employees* are generally employees identified as critical to agency operations during all dismissal or closure situations. Additional guidance on emergency employees is available in DPM 610, Hours of Duty and is available at [http://dothr.ost.dot.gov/HRPolicy/DPM\\_610-4-21-05.pdf](http://dothr.ost.dot.gov/HRPolicy/DPM_610-4-21-05.pdf). A sample memorandum on notifying employees of their designation is available in Appendix B.
- C. *Mission-critical emergency employees* are employees who may be activated to maintain continuity of Government operations during emergencies involving national security, a natural disaster, extended emergencies, or other unique situations such as an Avian Flu outbreak.

## G. TELEWORK

- A. Telework may be used by employees designated as emergency and/or mission-critical to continue agency operations if they are prevented from accessing the traditional office building or other designated location.
- B. Employees approved to telework must have a telework agreement in place. That agreement should clearly indicate if the employee is expected to begin working or continue working during an emergency. The agreement must also specify if the employee must perform designated duties during all emergencies or specific types of emergencies.
- C. The implementation of a telework agreement for emergencies does not confer an entitlement to regular and recurring telework arrangement. While it is possible for some emergency employees and mission-critical employees to have regular telework agreements, it is more likely that situational telework will be most appropriate for these employees. Therefore, you should implement telework agreements that specify the situation for which telework is required. It is important that the necessary equipment and access to necessary Departmental servers and systems is provided to these employees to maintain operations. Operating Administrations and Departmental Offices should work with their respective Chief Information Officers in advance to ensure necessary information technology access prior to telework being used in response to an emergency situation.
- D. Additional information on telework may be found in DOT Order 1500.1 ([http://dothr.ost.dot.gov/HRPolicy/Subject/DOT\\_ORDER\\_1501.1.pdf](http://dothr.ost.dot.gov/HRPolicy/Subject/DOT_ORDER_1501.1.pdf)) and in the telework policy of the Office of the Secretary and each Operating Administration.
- E. A sample telework agreement for Emergency and Mission Critical Employees is available in Appendix C.



## LEAVE

### A. EXTENDED USE OF EXCUSED ABSENCE

- A. Heads of Operating Administrations and Departmental Offices are delegated the authority to grant excused absence in the event of an emergency or other extenuating circumstances to protect the safety or security of one or more employees.
- B. The Assistant Secretary for Administration, through the Departmental Office of Human Resource Management, may authorize the extended use of excused absence for employees impacted by a widespread emergency that impacts the Federal Government in whole, or in part. The Departmental Office of Human Resource Management will issue guidance on the use of extended excused absence, including the maximum amount authorized, to HR Directors for implementation within Departmental Offices and Operating Administrations.

### B. EXCUSED ABSENCE TO VOLUNTEER FOR PRIVATE RELIEF EFFORTS

- A. While DOT supports the enthusiasm and dedication of its employees to help those impacted by natural disasters, terrorist attacks and other emergency situations, excused absence will not be granted to employees who choose to volunteer for private response, relief and clean-up efforts. This serves to eliminate the appearance of favoritism and endorsement of specific organizations and activities.
- B. Employees may request paid or unpaid leave to participate in volunteer activities. Departmental Offices and Operating Administrations are encouraged to approve requests for both paid and unpaid leave to the maximum extent possible and to the extent that there is no adverse impact on operations.

### C. EMERGENCY LEAVE TRANSFER PROGRAM

Following declaration of a major disaster or emergency, the President may direct OPM to issue guidance authorizing the establishment of an emergency leave transfer program. Based on the impact of the disaster or emergency, DOT will determine if implementation of an emergency leave transfer program is necessary to meet the needs of its employees. If a determination is made that authorized excused absence or other leave is not sufficient, the Departmental Office of Human Resource Management will issue guidance to HR Directors regarding implementation of an emergency leave transfer program.

### D. RESTORED LEAVE

- A. Employees who accumulate leave in excess of their annual limitation as a result of performing duties related to an emergency and its aftermath may be eligible to have that leave restored. Eligibility will be determined on a case-by-case basis and in accordance with the rules established for requesting and restoring annual leave above the carryover limitation.
- B. Employees must follow procedures established by their organization to request restored leave at the end of the leave year. Operating Administrations and Departmental Offices have the delegated authority to grant restored leave to employees who would otherwise forfeit annual leave as a result of work performed in connection with an emergency. Proper documentation must be maintained that includes at a minimum the nature of the emergency, the reason for granting restored leave to the identified group, and the names of all employees eligible for restored leave as a result of the specified emergency.
- C. Employees who are prevented from working because of an emergency and who receive excused absence that results in the accumulation of annual leave in excess of their annual limitation are **not** eligible to have that excess leave restored.



## E. MILITARY LEAVE

- A. Reservists who are activated to perform duties in support of civil authorities, for clean up efforts, for relief efforts or other duties as ordered by the President or a State Governor in support of an emergency are entitled to:
  - (1) Use of the 15 days of normal military leave; and/or
  - (2) Use of the 22 days of emergency military leave.
- B. Reservists are **not** entitled or eligible to receive excused absence while performing duties in support of civil authorities, relief, recovery, rescue or other efforts.

## COMPENSATION

### A. ADVANCE SALARY PAYMENTS TO EMPLOYEES IMPACTED BY EMERGENCY

- A. The Office of the Assistant Secretary for Administration, through the Departmental Office of Human Resource Management, may delegate to each Departmental Office and Operating Administration the authority to provide pay advances to employees personally affected by a natural disaster or emergency. The Departmental Office of Human Resource Management will notify HR Directors if a delegation is authorized.
- B. Upon delegation, organizations must determine if an employee is eligible for an advance payment as described in 5 CFR 550.403 (a).
- C. The HR office for each organization is responsible for providing a written request to process an advance salary payment via e-mail or fax. The request must include:
  - (1) the employee's name,
  - (2) last 4 digits of SSN,
  - (3) department, bureau,
  - (4) gross amount of the advance,
  - (5) check mailing address or ABA Routing Number, Account Number and type of account (Checking or Savings), and
  - (6) Cost structure to be charged
- D. Departmental Offices and Operating Administrations, in coordination with the Departmental Office of Human Resource Management, will determine if a salary advancement may be waived or must be repaid in accordance with 5 USC 5522 (c). The decision to waive repayment must be applied consistently to all similarly situated employees.
- E. A request for Bill of Collection is immediately created when a salary advance is authorized. However, the Departmental Office of Human Resource Management will instruct payroll to delay issuance of the bill until instructed by OST or the Operating Administration.

### B. REPAYMENT OF ADVANCED SALARY PAYMENTS

- A. If the decision to waive repayment of a salary advance is made, payroll will not issue the Bill of Collection.
- B. If the employee is required to repay the debt:
  - (1) And the repayment occurs in the same year that the advance was authorized, the repayment will be the amount of the **net pay** received. The employee's end of year W-2 will be reduced to account for the repayment.



- (2) And the repayment occurs in another tax year, the employee must repay the **gross** amount of the salary advance, less OASDI and Medicare taxes. The employee's W-2 for the year of issuance will show the gross amount of the payment and the W-2 for the year of repayment will not show a reduction. The employee may be able to recover the taxes in the year of repayment in accordance with IRS procedures. Employees are encouraged to contact the IRS or their tax advisor for guidance.

### C. TRAVEL AND PER DIEM FOR EVACUATED EMPLOYEES

- A. Operating Administrations and Departmental Offices may be delegated the authority to provide payments for travel and subsistence expenses (per diem) to employees (and their dependents) who received a written or oral order of evacuation. Travel and per diem may be provided from the date of evacuation until arrival at a safe haven in accordance with regulations found at 5 CFR 550.403.
- B. Additionally, Operating Administrations and Departmental Offices may be delegated the authority to continue applicable per diem rates while employees (and their dependents) remain at a designated safe haven or other approved location (5 CFR 550.403 (c) and 550.405).

### D. HAZARDOUS DUTY PAY

Work performed in connection with an emergency does not automatically entitle an employee to Hazardous Duty Pay. Employee entitlement to Hazardous Duty Pay will be determined in accordance with the specific guidance outlined in 5 CFR 550.900.

### E. OVERTIME PAY

- A. Employees with rates of pay equal to or less than the rate of basic pay for GS-10, step 1, and employees covered by the Fair Labor Standards Act (FLSA), earn overtime at 1.5 times their normal hourly rate.
- B. Employees who are exempt from (not covered by) the FLSA earn overtime at the higher of the overtime rate for GS-10, step 1, or their normal straight hourly rate of basic pay.

**Example:** A GS-14, step 1 employee in the Washington, DC locality area performs overtime. The employee's normal straight hourly rate is \$43.80. The overtime rate for GS-10, step 1 in the Washington, DC locality area is \$35.51. Because the employee receives the higher amount for overtime, the employee will receive her normal straight hourly rate of \$43.80 for all overtime hours performed.

### F. EXEMPT VS. NON-EXEMPT PREMIUM PAY

- A. **FLSA non-exempt** employees earn overtime at the rate of one and a half times the hourly regular rate of pay. Non-exempt (covered by FLSA) overtime pay is not counted in annual or biweekly premium pay limitations.
- B. **FLSA-Exempt (not covered by the FLSA)** employees receive overtime compensation at the greater of (1) one and one-half times the hourly regular rate of pay of grade GS-10, Step 1; or (2) the hourly regular rate of pay of the position.
- C. In rare circumstances, FLSA exempt employees performing non-exempt duties for more than 20 percent of the workweek may be eligible to receive premium pay at the non-exempt rate in accordance with 5 CFR 551.208. Use of this authority is very rare and may only be used during a declared emergency.
- D. The final determination to change the FLSA exemption status of an employee working on an emergency is delegated to the HR Director for the Office of the Secretary and each Operating Administration. The determination to change the FLSA status of an employee is made each week



and determined by the duties performed each week. Managers will need to prepare a written justification that outlines the duties being performed by the employee and the percentage of time the employee is spending on those duties each week.

- E. Certification of premium pay entitlement for employees working with organizations other than their normal office must be made by the organization responsible for assigning and monitoring the employee's duties. *For example, an FTA employee working with OST in response to an emergency situation would have eligibility for premium pay determined by OST.*
- F. The CASTLE program manager for the Operating Administration and the Office of the Secretary must be notified in the event that a FLSA exempt employee is certified to receive premium pay at FLSA non-exempt rates in accordance with 5 CFR 551.208. Instructions on how to process the FLSA change will be issued by the Departmental CASTLE Administrator.

### G. PREMIUM PAY LIMITATION

- A. The Human Resources Director for each Operating Administration and the Office of the Secretary has the delegated authority to approve use of the annual premium pay limitation.
- B. Generally, exempt employees may earn no more than the higher of the biweekly rate for a GS-15, step 10, for their locality area or Level V of the Executive Schedule. However, the Departmental Office of Human Resource Management may issue a blanket waiver of the bi-weekly premium pay limitation for all employees performing work related to a designated emergency.
- C. Once the bi-weekly premium pay limitation is waived, exempt employees are subject to the annual premium pay limitation that is the higher of the annual rate for GS-15, step 10, in their locality area or Level V of the Executive Schedule.
- D. If the biweekly premium pay limitation is waived for an exempt employee, instructions on processing a waiver will be issued to the CASTLE program manager for each Operating Administration and the Office of the Secretary.
- E. Nonexempt employees covered by FLSA are not subject to a biweekly premium pay limitation.

### **DOT RETCO PROGRAM**

Transportation is a valuable lifeline in our communities on a daily basis, but during disasters, it is an essential component for helping the community get back on its feet and restoring its economy. To provide a centralized, effective program, the Office of Intelligence, Security and Emergency Response (S-60) of DOT performs coordinated crisis management functions for multimodal transportation emergencies. After a disaster, S-60 and other DOT staff are responsible for a variety of functions, including leadership of Emergency Support Function #1 (ESF #1) of the National Response Plan, arranging transportation of disaster relief supplies, assessing damage to the nation's transportation system, and participating in damage assessment teams.

The ESF #1 team operates out of the FEMA, or DOT headquarters in Washington DC, and may also be assigned to FEMA Regional Operations Centers, or other field facilities near the disaster site. Team Members may also participate in Preliminary Disaster Assessments at the Disaster Site, or assist with logistics at a FEMA mobilization site. Generally, employees are mobilized for two weeks to thirty days. Employees may be called upon to work long hours (12 hour shifts) over a period of several days in a stressful environment during disaster exercises or events and may also be required to travel to remote locations. During mobilization the employees' duties may include, but are not limited to:

- Working with other DOT staff to obtain transportation services and track transportation assets into and out of the disaster area in support of Federal agencies, State and local governmental entities, and voluntary organizations.



- Providing staff at DOT headquarters, FEMA headquarters, the Homeland Security Operations Center, Regional Operations Centers, or other locations to assist DOT Emergency Response personnel. Exercising due diligence and oversight of transportation expenditures.
- Facilitating the assessment of damages to the transportation infrastructure and conducting analysis of the impact of the disaster or terrorist attack on transportation operations, and monitoring transportation capacity and congestion.
- Coordinating and facilitating response and recovery functions performed under DOT statutory authorities, including the prioritization and/or allocation of civil transportation capacity, air and marine traffic control, search and rescue, emergency highway funding for federally owned highways and highways on the Federal Aid System, hazardous material containment response, and damage assessment.
- Identifying resource requirements for transportation and coordinate their allocation.

As with all employees, RETCO employees are entitled to premium pay based on their FLSA designation. During designated emergencies, premium pay entitlement may be based on actual duties performed.



## APPENDIX H: U.S. DEPARTMENT OF TRANSPORTATION ACCOUNTABILITY PLAN FOR FY 2006-2008

### PURPOSE

This is a multi-year plan, which allows DOT organizations to prepare for the resource demands of the depicted activities. The plan will be updated at least annually, and may be modified at any time in response to new information or changed circumstances. While there is a separate plan which specifically addresses strategic alignment, alignment with mission goals is also an explicit consideration in the overall planning of both subject matter and approach for every human capital driver.

### SCOPE

- Only activities that cut across DOT organizational lines are described in this document. While Operating Administrations (OAs) participate in these activities, it is also DOT policy that each organization must separately plan and document its own unique accountability activities.
- DOT recognizes that the Federal Aviation Administration (FAA), the Office of the Inspector General (OIG), and the Surface Transportation Board (STB) have statutory authority to decline participation in on-site reviews and other accountability activities conducted by outside parties.
- In every fiscal year there will be some documented review of all five human capital systems. Those systems are strategic alignment, leadership and knowledge management, performance culture, talent, and accountability. Reviews will take different forms, as depicted in the plan and will assess an aspect of strategic alignment, effectiveness, efficiency, and/or compliance for the targeted system.

### MEASURES

DOT will use a wide range of measures, choosing the ones most suitable to the activity under review. At a minimum, these will include surveys, focus groups, data and narrative reports, review by OPM or other external parties, and independent on-site reviews conducted by internal teams. These measures will be subject to continuous review and improvement.

### ON-SITE REVIEWS

- At least one on site review will be held each fiscal year. Subjects of review described in this plan have been chosen giving heavy weight to findings documented in OPM's 2005 audit of DOT human resource offices, and to other indicators, such as survey results.
- Reviews will be planned and led by the OST program manager with responsibility for the function, and will be composed of representatives from OST and OAs, with OPM participation. Teams will be composed to ensure that no employee reviews his or her own Administration, thereby preserving the necessary independence.
- A written report of findings, requirements, and recommendations will be prepared for each OA following each on-site review.

A multi-year plan for each of the five human capital systems follows.



## STRATEGIC ALIGNMENT – BACKGROUND FOR THE PLAN

### HUMAN CAPITAL PLANNING

A systematic approach to human capital planning is the necessary foundation for the strategic alignment and effectiveness of human capital efforts.

#### ***Short Range Planning***

As each fiscal year ends, each OA collects and analyzes workforce data for the prior year and makes HC plans, including formal recruitment plans, that respond to DOT and OA strategic objectives, performance measures, and long-range HC plans. These plans must take into account performance goals and other factors including:

- Workforce composition, including competencies
- Emerging trends
- Stakeholder input (managers, employees, industry officials, state partners, etc.)
- External direction/reports (from Congress, GAO, OMB, OPM, IG, etc.) and
- Projected resources

When current or emerging talent gaps are identified, OAs consider a range of human capital and other options, such as organizational restructuring, structured learning and development approaches, process reengineering, including applications of automation, competitive sourcing, and increased use of available recruitment and retention flexibilities as they map out human capital plans and strategies.

#### ***Long-Range Planning***

The cycle for long range human capital planning is tied to the Department's strategic planning cycle, and involves many contributors. Human Capital is an explicit part of the DOT Strategic Plan through the Organizational Excellence objective, which is aligned to the PMA [http://www.dot.gov/stratplan2008/strategic\\_plan.htm](http://www.dot.gov/stratplan2008/strategic_plan.htm). Additionally, each OA has representatives that participate in Department-level strategic planning for other objectives, and sets internal goals and objectives as well. DOT human capital planners review this updated mission information in conjunction with their analysis of trends revealed in annual workforce plan updates, the evaluation of strategies already in place, and direction from OPM. The result is the selection of long-term human capital goals, with milestone dates and specific assignment of responsibilities. These long-range plans are posted on the DOT web site. DOT has posted plans in 2002 and 2004, and expects to post an updated plan in 2006 upon completion of the DOT Strategic Plan update.

### HR BALANCED SCORECARD

In 1998, the DOT HR Community implemented a Balanced Scorecard based on the Kaplan and Norton model. The DOT process surveys HR customers, HR employees, and HR managers about the delivery and importance of HR services, and the infrastructure that supports service delivery. Each Operating Administration receives a number of reports showing its performance and how it compares to others. It then develops a plan to improve and communicates the plan to customers. OAs that have scored well share best practices with others.

**HCAAF System:** Strategic Alignment

**System Standard:** Agency human capital management strategies are aligned with mission, goals, and organizational objectives and integrated into its strategic plans, performance plans, and budgets.

**Human Capital Goal:** To maintain a human capital forecasting, planning, and customer service infrastructure that ensures alignment of HR information, policy, and services with DOT strategic objectives and performance goals.



**Critical Success Factor:** Workforce Planning

**Objective:** To ensure that workforce analysis and plans are based on sound and complete information, and linked to DOT and OA strategic plans and performance measures.

<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>STRATEGIC ALIGNMENT</b>				
To ensure workforce and strategic planning cycles and procedures result in HC plans that align with agency strategic objectives and performance measures.	Evaluate workforce plans for linkage to organizational goals. Incorporate HC objectives into DOT strategic plan	100 percent review of formal submitted plans PAR process, Organizational Excellence Objective	Annual	OA Mgrs/HC Planners OST Oversight
<b>EFFECTIVENESS</b>				
To ensure that workforce planning prioritizes mission critical occupations and competencies with the greatest impact on performance.-	Verify that OA plans identify trends and needs for mission critical occupations and competencies.	100 percent review of formal submitted Workforce Plans..	Annual	OA HR OST-HR Oversight
<b>EFFICIENCY</b>				
To ensure the OA workforce planning cycle for the OAs relies on the updated information from the Performance Planning cycle.	Verify that OA workforce planning reflects updates from the Performance Planning cycle. .	Performance Planning Updates OA Workforce Plans	Annual	OA HR OST-HR Oversight

**HCAAF System:** Strategic Alignment (cont.)

**Critical Success Factor:** Human Resources as Strategic Partner

**Objective:** To ensure that human resources staff serve as effective and valued consultants to line managers and involve line managers in HR decision making and activities.

<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>EFFECTIVENESS</b>				
To ensure that OA customers view HR staff as valued partners who work with them to achieve results. To ensure that HR staff has necessary competencies to partner with program managers and executives in planning and problem solving.	OA scores on Service Partnership questions in Balanced Scorecard customer surveys OA improvement plans based on Balanced scorecard results address customer concerns and result in improved scores. HR Competencies are adequate to the staff roles assigned	Balanced Scorecard Instrument includes on-line surveys administered to HR office customers, employees and leaders. Upon receiving scores, each OA meets with program manager and makes an improvement plan. FY06 OAs implement plans based on FY05 results FY07 assess plans implement in FY06 FY08 New Survey, analysis & trending Competency assessments FY06 Improvement/results reports FY07	Every 3 years	OA HR Administration and oversight by OST-HR

**LEADERSHIP AND KNOWLEDGE MANAGEMENT—BACKGROUND FOR THE PLAN**

This material provides context for the activities described in the plan.

DOT's policy **Recruiting, Selecting, Developing, and Appraising Supervisors** was issued in 2002. <http://dothr.ost.dot.gov/HRPolicy/Number/L300-26.pdf> This policy established a mandatory ranking factor to be used in the recruitment and selection of supervisors, mandated an individual development plan for each incumbent of a supervisory/management job, required at least 40 hours of training during



the supervisory probation year, and provided other requirements and best practice recommendations to improve the selection and development of supervisors.

DOT policies on performance management, established separately for executive and non-executive positions, have established and refined mandatory performance elements for all leadership positions. Additionally, DOT's SES Performance System received provisional certification in 2004 and 2005, and will be submitted for full certification in 2006. DOT policy on supervisory probation set timeframes for the required initial 40 hours of training and for explicit performance feedback for the new supervisor on at least a quarterly basis, and highlights other best practices, such as mentoring and 360 feedback.

DOT issued a succession management model in 2003 [http://dothr.ost.dot.gov/HR\\_Programs/Workforce\\_Planning/DOT\\_Succession\\_Planning\\_Model\\_-\\_complete\\_doc.doc](http://dothr.ost.dot.gov/HR_Programs/Workforce_Planning/DOT_Succession_Planning_Model_-_complete_doc.doc), and is updating it in 2006. The model guides organizations in identifying critical positions and the readiness factors for those positions, and establishes the concept of a position pipeline that must be maintained to ensure adequate bench strength. It also directs organizations to identify external recruitment sources for critical positions, and to evaluate retention factors.

DOT supports the added emphasis on the accountability of leaders by providing resources to assist them. The Supervisors' Toolkit <http://dothr.ost.dot.gov/toolkit/toolkit.html> is a web site with information on a range of topics relevant to supervisors.

Finally, DOT has established a pipeline of developmental programs to supplement the eLMS and OA-specific programs for building leadership competencies. The pipeline begins with a pre-leader program (So You Want To Be a Leader) designed to help participants gauge their own aptitude and desire for leadership roles, continues with a mentoring program (Leaders for Tomorrow), a GS-15 executive pipeline program of training events, and an executive coaching program.

#### **HCAAF System:** Leadership and Knowledge Management

**System Standard:** Agency leaders and managers effectively manage people, ensure continuity of leadership, and sustain a learning environment that drives continuous improvement in performance, and provide a means to share critical knowledge across the organization. Knowledge management must be supported by an appropriate investment in training and technology

**Human Capital Goal:** DOT's succession strategies ensure both continuity and competence in critical positions, and development approaches promote knowledge sharing and continuous learning.

#### **Critical Success Factor:** Leadership Succession Management

#### **Objectives:**

- To identify, assess, and improve leadership competencies.
- To establish objectives and strategies which ensure a continuous pipeline of prepared leadership within the organization.



<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>STRATEGIC ALIGNMENT</b>				
Ensure that succession strategies provide a pipeline of prepared talent to ensure adequate bench strength for mission critical occupations.	Review analysis of FAA pilot and other available OA strategies Review and update DOT Succession Plan Provide benchmarks and measures for all OAs	FAA pilot status and results reports and strategy descriptions from other OAs FY06 baseline documentation for other OAs DOT 2003 model, OPM model Provide benchmarks and measures for all OAs	Annual report in conjunction with workforce planning FY07	OA HR Oversight by OST-HR
Ensure that individual SES performance appraisal results show a relationship to organizational performance .	Review SES performance assessments and bonus recommendations.	OST 100 percent review, FY06. DOT SES Certification	Annual or bi-annual, depending on level of certification	OA HR OST HR Executive Resources
<b>EFFECTIVENESS</b>				
Measure employee confidence in DOT leaders	Employee index of responses.	Federal Human Capital Survey (FHCS) and/or Annual DOT Survey DOT Focus Groups and listening sessions	Annually	OAs conduct focus groups to interpret own FHCS results. OST HR oversees survey admin. and analysis.
To ensure critical leadership competencies are identified and assessed for effective recruitment and development leading to gap closure .	Results of competency assessment Performance of new hires in leader jobs	Leadership competency survey instrument administered in eLMS system. Performance assessments of new leaders	Future Leadership competency assessments done as needed on annual basis (potentially in conjunction with the performance appraisal process)	OA HR & leaders OST HR oversight
<b>EFFICIENCY</b>				
To ensure timeliness of job offers to SES candidates.	OPM 30-day model --DOT improvement plan and results	06 Track DOT improvement plan for SES hiring 07/08 Re-baseline, establish new improvement targets.	Quarterly assessment and reporting	OA HR/OA leaders OST Executive Resources Staff (oversight)
<b>COMPLIANCE</b>				
To determine that decisions, policies, processes, and practices comply with merit system principles, and related laws, rules, and regulations governing Leadership Succession Management	Annual ethics training is attended by all designated officials New leaders complete required training. Discipline reviewed/posted under No Fear requirements	Attendance is taken and monitored at ethics training Mandatory training tracked in automated system. Surveys and focus groups show understanding of ethics and merit system principles. Discipline for officials guilty of discrimination or reprisal reported under No Fear Act	Training for new leaders within probationary year All other listed activities annual	OGC (Ethics Training) OA HR Offices in partnership with OA managers OST HR Office (oversight)

\*Under the 2302(c) Certification Program, OSC certified DOT's compliance with 5 U.S.C. §2302(c) when the agency met the following five requirements:

1. Placing informational posters at agency facilities;
2. Providing information about PPPs and the WPA to new employees as part of the orientation process;
3. Providing information to current employees about PPP's and the WPA;
4. Training supervisors on PPPs and the WPA; and



<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>COMPLIANCE</b>				
To ensure DOT meets the statutory obligation to inform their workforces about the rights and remedies available to them under the Whistleblower Protection Act (WPA) and related civil service laws. Also See 5 U.S.C., 2301 (b) (4) for compliance requirements relative to the Accountability system.	Evaluate ongoing adherence to OSC's 2302(c) Certification Program.*	Completed OSC 2302 (c ) Certification Program	11/25/03 Received Certification* 11/2006 Apply for re-certification	OST HR Program Manager

5. Creation of a computer link from the agency's web site to OSC's web site.

**HCAAF System: Leadership and Knowledge Management**  
**Critical Success Factor: Continuous Learning**

<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>STRATEGIC ALIGNMENT</b>				
Verify that approved training supports mission goals.	Training evaluation includes at least Level 3 approaches. Evaluations used in future training decisions.	Incorporate in on-site review, FY08	06 Post evaluation guidance, best practices 07 Develop evaluation standards and aids. 08 on-site review of OA training administration.	06/07 L&D Council/OST 08 review Audit teams drawn from OAs under leadership of OST Program Mgr*.
<b>EFFECTIVENESS</b>				
Measure employees' belief that they have knowledge necessary for job, and knowledge is shared in workforce	Employee index of responses	FHCS/DOT Survey Employee/leader focus groups FY08 on-site review*	Annually	OA Leadership and HR OST HR oversight Audit Teams
<b>EFFICIENCY</b>				
Ensure that on-line training options support accessible, cost-effective learning	Employee use monitored and reported	Addressed in annual evaluation of training program. Training programs to be subject of on-site program review FY08.	Annual review of employee use, effectiveness performed as part of program evaluation. FY08	OA Leaders with HR OST HR oversight OA/OST Audit Teams under Program Manager direction.

**RESULTS ORIENTED PERFORMANCE CULTURE—BACKGROUND FOR THE PLAN**

The material below provides needed context for the activities described in the Plan.

In 2002, DOT formed a Performance Taskforce, composed of at least one representative from every Operating Administration, and led by the Department's Performance Culture Program Manager. The



Taskforce identifies, researches, and resolves policy and program issues and serves as a forum for speakers and group debate and a clearinghouse for relevant literature and best practices.

In 2003 the Taskforce rewrote DOT policies on Performance Management ([http://dothr.ost.dot.gov/HRPolicy/Departmental\\_Performance\\_Mgmt\\_Policy\\_12-18-03\\_rev\\_3-5-04.pdf](http://dothr.ost.dot.gov/HRPolicy/Departmental_Performance_Mgmt_Policy_12-18-03_rev_3-5-04.pdf)) and Awards and Recognition ([http://dothr.ost.dot.gov/HRPolicy/c451\\_12-18-03.pdf](http://dothr.ost.dot.gov/HRPolicy/c451_12-18-03.pdf)). The Performance Management Policy was further updated in 2004.

The recently revised DOT policy on probation gives additional direction about the timing of mandatory training for supervisors, and frequency of performance feedback, as well as highlighting recommended practices. This policy was developed with the assistance of focus groups composed of DOT supervisors. [http://dothr.ost.dot.gov/HRPolicy/DPM\\_315\\_Probationary\\_Periods.pdf](http://dothr.ost.dot.gov/HRPolicy/DPM_315_Probationary_Periods.pdf)

All Operating Administrations have completed self-assessments of their performance management programs and submitted them to OPM for scoring and feedback. All have received direction for planning the mandatory supervisory training cited in the plan. While OPM's PAAT tool requires that 50 per cent of employees and supervisors have received training on the performance system, the required DOT training covers principles and practices related to two-way communication between supervisors and employees, drafting performance expectations, making performance distinctions, and dealing with poor performance.

Finally, all Operating Administrations were required to develop and implement action plans based on results from the 2004 Federal Human Capital Survey. Activities related to improvement of performance management were included in these plans.

**HCAAF System:** Result-Oriented Performance Culture

**System Standard:** The agency has a diverse, results-oriented, high-performing workforce and a performance appraisal system that differentiates between high and low levels of performance and links individual/team/unit performance to organizational goals and desired results effectively.

**Human Capital Goal:** To build and maintain performance management programs and practices that link individual and group performance to agency mission, goals, and outcomes; hold employees accountable for results; differentiate between various levels of performance; and provide consequences based on performance

**Critical Success Factor:** Performance Appraisal

**Objectives:**

- To assess how well DOT's performance management programs meet the criteria established by OPM in its Performance Appraisal Assessment Tool
- To ensure that corrective strategies are developed and implemented resulting in OPM certification of DOT's performance appraisal system.
- To hold managers and supervisors accountable for the rigorous appraisal of their employees, including, but not limited to: (1) preparing employee performance plans that are aligned with mission, goals and objectives and results-oriented; (2) providing timely performance feedback; (3) making performance distinctions; and (4) effectively dealing with poor performance.



<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>STRATEGIC ALIGNMENT</b>				
To determine the extent to which DOT performance programs meet the OPM required criteria as defined in the Performance Appraisal Assessment Tool (PAAT).	-Internal and OPM analysis, results and recommended actions from OA submitted PAATs.	-PAAT for DOT beta site and for remaining OAs. (PAAT includes all DOT performance management programs, employee performance plans, and HRIS) -Follow up reviews on specific issues raised by OPM 2005 audit.	-Beta Site PAAT baseline review in 3/06. All other DOT PAAT results have been provided to OPM for review. -Beta Site to be certified green by December, 2006. -All other OAs to be certified green in FY-07.	-Program Manager for Performance Management at Operational Level in each OA - Departmental Program Manager for Performance Culture & Departmental HR Policy Office
<b>EFFECTIVENESS</b>				
To determine the extent to which employees perceive that their OA has a strong performance management culture.	Employee index of responses	FHCS/ DOT Survey. Focus Groups Federal Motor Carrier Safety Administration (FMCSA) special FHCS Analysis	Annual 2006 (DOT FHCS Follow-Up Focus Groups) 2006	Operational Level: OA Program Leaders OST HR Oversight
To ensure that managers and supervisors understand their role and responsibility in managing employee performance.	Managers assessment of their understanding of their role after training delivery	OAs will use a level 3- evaluation tool after training is administered.	Training requirement levied in FY06. All training to be accomplished by end of FY07. Future schedule TBD	Operational Level: OA Program Managers OST HR Office (oversight)
<b>EFFICIENCY</b>				
To ensure the completion and timeliness of the mid-year progress review and annual performance evaluation.	Percent of DOT employees receiving mid-year assessments and annual performance reviews on time	HR records and documentation. Employee and supervisor appraisals Reports showing performance ratings (FPPS)	Ongoing--Both mid-year and annual review	OA HR Offices in partnership with OA managers OST HR Office (oversight)
<b>COMPLIANCE</b>				
As required by 5 U.S.C. 1103(c), DOT managers and HR officials are held accountable for efficient and effective human capital management.	PAAT scores and feedback DOT SES Certification review OA compliance with DOT policy requiring human capital management factors in the performance plans of all leaders.	Adequacy of performance management controls is being addressed in OA improvement plans in connection with PAAT scoring. Assessment of Executive performance system in conjunction with application for certification/recertification Follow up reviews on specific issues raised in OPM 2005 audit Printouts showing ratings entered. (First runs May 2006.)	FMCSA scores 06 Baseline scores for other OAs 06. Final scores for other OAs 07. Annual or bi-annual, depending on level of certification. Ad hoc Ongoing	OPM and OST HR OPM and Executive Resources group, OST OST Program Manager OST Program Manager



**HCAAF System:** Results-Oriented Performance Culture

**Critical Success Factor:** Awards and Recognition

**Objective:** To ensure that all DOT awards and recognition policies and practices motivate excellent performance and serve as a tool for retaining good performers.

<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>STRATEGIC ALIGNMENT</b>				
To verify that awards are used strategically to advance program goals	Evaluate award reasons Confirm awards in budget Verify strategic alignment of award strategy Assess effectiveness of communication about awards	Included in on-site program review, FY06. Additional data collection TBD	Included in on-site program review, FY06.	Audit teams drawn from OAs under leadership of OST Program Mgr (with OPM).
<b>EFFECTIVENESS</b>				
To measure employee confidence that agency awards accurately reflect levels of performance	Employee index of responses Exit surveys grievances Awards distribution	Federal Human Capital Survey (FHCS) and/or Annual DOT Survey Focus groups of employees and leaders FY06 Review* grievance data exit survey results	Annually	OA Leadership and HR OST HR oversight Audit Teams as described above.
To determine the extent to which SES appraisals and awards are appropriately linked to achievement of organizational results.	Percent receiving and relative amounts of SES performance bonuses bear a credible relationship to documented organizational and individual performance.	Employee performance rating and awards records in automated/manual system Information on organizational performance provided through GAO reviews, PART reviews, etc.	Annual	Executive Resources Group in OST HR
<b>EFFICIENCY</b>				
To verify that awards and recognition strategy uses both monetary and non-monetary approaches and range of dollar amounts	DOT/OAs uses a range of methods for awards and recognition Time between action and award is appropriate Level of awards is appropriate and consistent for value	Review of OA awards and recognition policies Included in on-site program review, FY06. Additional data collection TBD	During 06 review, and as revised thereafter.	OA Leaders\HR OST HR oversight Audit Teams as described above.

## **TALENT—BACKGROUND FOR THE PLAN**

### **AUTOMATED EXTERNAL RECRUITMENT SYSTEMS.**

As an early PMA initiative, a cross-OA work group evaluated available automated staffing systems and selected QuickHire (now called Hiring Manager.) The FAA chose to retain its own automated systems, and the IG chose not to receive service from one of the components it audits. The Federal Highway Administration, which already used QuickHire, agreed to act as Executive Agent for DOT. Early in FY 06, DOT became the first Department to migrate to the web-based system that is completely integrated with Recruitment OneStop (ROS) and continues to work with Monster.com to iron out service and reporting problems with this version. As a result of painstaking collaboration with DOT's Office of Civil Rights, the



system sends vacancy announcements to an extensive and current list of diverse candidate sources. Both the Hiring Manager and FAA systems are meeting OPM's recommended hiring timeframe.

### **Corporate Recruitment cooperative efforts.**

As another early PMA initiative, OST convened a workgroup with representatives from all Operating Administrations to improve the volume and cost-effectiveness of recruitment outreach through cooperative efforts. A One-DOT recruitment web site and the brand, "Careers in Motion" were created as well as recruitment literature in both English and Spanish. The web site is at <http://careers.dot.gov/>. The group prioritizes and selects job fairs and other recruitment venues, and takes turns staffing and funding events, so that many more are now staffed than when OAs competed with one another, and attended only the ones they could individually fund. Another recent accomplishment of the Corporate Recruitment program has been the establishment of a Career Resident program which uses career intern hiring authority to recruit graduates of Masters degree programs for mission critical occupations. While both FAA and FHWA have their own professional intern programs, the Career Resident program is available to them as a supplement, and serves smaller OAs as a particularly valuable recruitment vehicle. The program piloted in FY 05. On the basis of the successful pilot, both the number of students recruited and the number of positions committed doubled in FY 06.

### **Competency Management.**

- DOT published a Workforce Planning Guide in 1999 [http://dothr.ost.dot.gov/HR\\_Programs/Workforce\\_Planning/guide.pdf](http://dothr.ost.dot.gov/HR_Programs/Workforce_Planning/guide.pdf). Among other things, it guides OAs in identifying mission critical occupations and the critical skills associated with them, as well as any gaps between the skill level needed and supplied. Additional information about identifying and closing competency gaps is in the DOT Training and Evaluation Guide at [http://dothr.ost.dot.gov/HR\\_Programs/Learning\\_Development/Training\\_Evaluation\\_Best\\_Pract/rainingEVALGUIDE.pdf](http://dothr.ost.dot.gov/HR_Programs/Learning_Development/Training_Evaluation_Best_Pract/rainingEVALGUIDE.pdf)
- DOT recognizes that insufficient numbers in a function can also constitute a gap, and recently entered an agreement with OPM to use the WASS/CivFors forecasting instrument as an aid in projecting demographic trends.
- DOT contracted with Booz Allen Hamilton to provide a leadership competency assessment model. The methodology can be used for other competencies as well.
- DOT purchased an e-LMS system which can be configured to do competency assessments, and used that system in FY 06 to assess leadership competencies.
- Individual OAs are engaged in competency assessments for critical positions and competencies specific to their own workforces. Additionally, most OAs are engaged in assessments for the IT workforce and the four engineering series involved in a cross-cutting workforce planning pilot study, and all are involved in assessments for the HR workforce.
- DOT organizations have made use of workforce restructuring, in some cases aided by VERA and VSIP authorities, to align positions to the needs identified in workforce analysis and competency assessment. Some have also used knowledge management techniques, process re-engineering, and competitive sourcing, in addition to more traditional development strategies.

### **Retention/Engagement efforts.**

- In addition to data from the Federal Human Capital Surveys, DOT's two largest OAs, FAA and FHWA, have data from pre-existing employee attitude surveys. For the 2004 FHCS, DOT received permission to have the survey administered on a census basis for the smaller administrations, so that each would receive individualized results. Then each OA was directed by the Deputy Secretary to analyze its results and develop tailored improvement and communication plans. OAs used a range of approaches, including focus groups, Town Hall meetings, and interactive web strategies to probe employee attitudes on key issues affecting engagement culture. As new survey results come in each year, it will become apparent which strategies correlate most closely with improved results.



In the process, OAs have improved the frequency and quality of their conversations with employees.

- Secretary Mineta has a Diversity Advisory Council to monitor trends related to diversity and make recommendations for improving the inclusiveness and engagement of DOT culture. One Council initiative is the requirement, effective June 2006, that OAs use exit surveys or interviews to determine reasons when employees leave the organization. Another is a series of leadership forums on alternative dispute resolution.
- DOT maintains a Disability Resource Center to ensure that all employees who require an accommodation are provided with one that is effective. In addition to analysis and procurement to meet these needs, the DRC performs outreach training and conducts regular liaison with stakeholder groups such as DOT ADA and DeafDOT.
- DOT has long been a leader in the use of flexible work schedules, and is making steady gains in telework participation. In a number of organizations, over 50 percent of those eligible to telework do so. The Telework Order is currently being revised to emphasize the importance of telework capability for emergency planning.

**HCAAF System:** Talent

**System Standard:** DOT has closed skills, knowledge, and competency gaps/deficiencies in mission-critical occupations, and has made meaningful progress toward closing skills, knowledge, and competency gaps/deficiencies in all DOT occupations,

**Human Capital Goal:** To enhance corporate recruitment initiatives and utilize hiring authorities to ensure broader outreach to potential candidates, shorten hiring time and reduce critical competency gaps.

**Critical Success Factor:** Recruitment

**Objective:** To identify, attract, select and deploy a diverse workforce with competencies needed for organizational success.

Purpose What result DOT intends to achieve	Measure What DOT looks at to determine if objective is met	Data Collection Strategy/Tool used	Frequency/ Timeframe	Responsibility
<b>STRATEGIC ALIGNMENT</b>				
To ensure OAs plan and execute recruitment strategies that support organizational goals.	Review OA recruitment plans, activities and results for linkage to organizational goals and leadership priorities, including closing competency gaps.	OA Workforce Plans, Recruitment Plans and activities, Mgt Competency findings, OA recruitment execution reporting tool DOT Corporate Recruitment Program	Annual FY06-Evaluate link between recruitment activities and workforce planning/ competency requirements FY07-Issue new Recruitment Program direction including planning/reporting/ evaluation procedures FY08-Assess if new recruitment program procedures result in improved alignment to organizational goals	OA HR OA Workforce Planners OST HR Oversight
<b>EFFECTIVENESS</b>				
To ensure OAs actively identify and manage critical competencies and that highly qualified candidates are recruited, selected and retained, and their skills kept current.	Review Competency Reports for Leadership, Information Technology (IT) employees, and agency MCOs (Mission Critical Occupations) Ensure HR Assessments, Target Gap Report, Improvement Plan, and Results Report are	Quarterly Reports. Quarterly Reports Engineering cross-functional Pilot	FY06 Quarterly and ongoing Beginning 6/06 and Continuing FY06 to FY07 FY07 Ongoing	OA HR OST HR Oversight



<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection</b> Strategy/Tool used	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
	completed Complete Engineering competency gap and project status Review MCO competency reports as required by PMA			
To determine the extent to which employees perceive that they and coworkers have necessary skills.	Employee index of responses	FHCS/DOT Survey DOT Focus Groups	Annual	OA HR OST HR Oversight
<b>EFFICIENCY</b>				
To determine job offers are timely	Job offers conform to 45 day target for GS levels and agreed target for SES As progress is made, targets will be re-baselined	Quarterly Time-to-Hire Reports. (Includes number and type of Hiring Flexibilities used) SES Hiring Timeline	Quarterly and ongoing 9/06 and continuing	Selecting Officials OA HR OST HR Oversight and Reporting.
To determine specific satisfiers and dissatisfiers (Retention)	Index of Responses	Exit Surveys and Interviews Employee Survey	As employees leave Annual	OA HR OA Leaders OST Administers Survey
<b>COMPLIANCE</b>				
To ensure that hiring processes, selections, and recordkeeping are compliant with the merit system principles, law, regulations, and policies. (See 5 U.S.C. , 2301 (b) (1), and 5 U.S.C. 2301 (b) (2))	DEU review conducted in accordance with OPM guidance Planned on-site review of personnel action processing and OPF maintenance HROA Audit Follow-Up ("Require that OAs follow the instructions in the OPM's Guide in Processing Personnel Actions and Guide to Personnel Recordkeeping to correctly maintain Ops and their contents. 5 CFR 293.304")	Delegated Examining Reviews. Identify Standard Metrics and approach On-site review Follow-up and correct issues OPM HROA Audit	Annual (2 reviews per quarter) FY06 FY07 FY08	OST Staffing Program Manager Audit teams of OA and OST employees led by OST Program Manager.

## **ACCOUNTABILITY—BACKGROUND FOR THE PLAN**

### **FORMAL HUMAN CAPITAL PLANNING**

DOT has implemented (and published) two long-term human capital plans, in 2002 and 2004, and both had milestones and accountable entities identified for each initiative. A new long-range plan is scheduled for development in 2006, in connection with the current strategic plan update.

### **CASCADING LEADERSHIP ACCOUNTABILITY**

Secretary Mineta holds his direct reports accountable for success in PMA initiatives, and receives regular briefings on progress. His Chief of Staff and Deputy are also closely involved, and he has created the senior position of Deputy Assistant Secretary for Management and Budget, filled by a non-career executive, to coordinate and oversee PMA progress and reporting. Each OA has a designated responsible official for PMA as well, and monthly briefings are held for these officials. Within Human Capital, the



Administrative Management Council receives quarterly briefings with opportunities for input, and the Human Resources Council, composed of HR Directors, takes an active role in planning, execution, and reporting.

DOT has also mandated that every leader, from political appointees to the lowest graded supervisor, have a performance plan with elements describing responsibility for human capital, business results, and diversity. These elements are being strengthened to be more explicit about the responsibility to communicate performance expectations, rate performance, and deal with poor performance.

### STRATEGIC PLAN ALIGNMENT

DOT's strategic plan aligns explicitly with the PMA, in that the Organizational Excellence objective mirrors the PMA initiatives. As a result, each initiative is tied to annual performance reporting in addition to other PMA reporting.

### HR BALANCED SCORECARD

DOT has conducted an HR Balanced Scorecard Assessment based on the Kaplan and Norton approach since 1998. The scorecard gathers perspectives of customers, and HR employees and managers in evaluating each HR organization's performance. The BSI survey measures and provides robust reporting in the following HR performance areas: Scores have shown overall improvement over the life of the initiative, with particular improvements in Service Partnership.

- Timeliness
- Excellence in HR Programs
- Quality
- Effective Use of Information Technology
- Service/Partnerships
- Quality Workforce
- Quality Work Environment
- Mission Goals
- Executive Leadership
- Financial Perspective.

#### **HCAAF System:** Accountability

**System Standard:** DOT's human capital management decisions are guided by a data-driven, results-oriented planning and accountability system. Results of the accountability system must inform the development of the human capital goals and objectives, in conjunction with DOT's strategic planning and performance budgets. Effective application of the accountability system contributes to DOT's practice of effective human capital management in accordance with the merit system principles and in compliance with Federal laws, rules, and regulations.

**Human Capital Goals:** To promote continuous improvement of DOT HC programs by assessing, measuring, documenting, and reporting the human capital management activities, processes, and results that support them; report findings to agency decisions makers and OPM.

**Critical Success Factor:** N/A –Accountability is an integrated system that is woven into all programs and actions.

#### **Objectives:**

- To establish a formal, documented agency accountability system that meets OPM requirements.
- To measure and assess all human capital management systems for mission alignment, effectiveness, efficiency, and compliance with merit system principles and civil service laws, rules, and regulations.



<b>Purpose</b> What result DOT intends to achieve	<b>Measure</b> What DOT looks at to determine if objective is met	<b>Data Collection Strategy/Tool Used</b>	<b>Frequency/ Timeframe</b>	<b>Responsibility</b>
<b>EFFECTIVENESS</b>				
To determine the extent to which DOT employees believe they work in a high performing and equitable workplace.	Employee index of responses Analysis and results of (mandatory) exit interviews or surveys	FHCS/DOT survey Employee and manager focus groups and listening sessions Exit surveys/ interviews	Annual At least annual As employees leave employment.	OA HR OA Leaders OA Civil Rights Staff OST administers surveys
<b>COMPLIANCE</b>				
To ensure that the agency describes and communicates its accountability policy, key responsibilities, outcomes, measures, and milestones.	Fulfillment of HCAAF Accountability System requirements	DOT online self-assessment of system OPM Assessment and Certification of Accountability System CHCO Review and Input	FY06 FY06 FY07	OST Acct. Program Manager OA Leaders
To determine that programs and processes are efficient, effective, and compliant and support the agency's mission as reflected in its Human Capital Plan.	Review of measures included in DOT's Accountability Plan OPM closes 2005 HROA Required Action for Accountability System ("In accordance with Civil Service Rule X , the agency must establish and maintain a system of accountability that meets OPM requirements." 5USC 1103 (c)) OA must demonstrate internal control systems to prevent and identify errors.	DOT Accountability Plan OPM Certification of DOT Accountability System DOT Accountability Audit Report Periodic on-site reviews Information on organizational performance provided through GAO reviews, PART reviews, etc.	Annual or as called for in the Acct Plan FY06 FY06 and Ongoing	OA HR Oversight by OST Acct Program Mgr and HR Director



**APPENDIX I: DOT INTERNSHIP PROGRAMS AS OF MAY, 2006**

Operating Administration	Program (* denotes participation by various OAs)	Program Type	Placement	Duration	Paid?	Cycle	How to Apply
<b>OST (M-10/HR)</b>	Career Residency Program *	Professional/Career Development	DOT-wide	2 years	Residents start at GS-9. May be eligible for promotion and may be converted to career or career-conditional appointment at the end of program.	Annual, begins in June	Targeted recruitment at specific schools and career fairs. Candidates submit application to <a href="mailto:career.residency@dot.gov">career.residency@dot.gov</a> .
<b>OST (M-10/HR)</b>	Presidential Management Fellows Program *	Professional/Career Development	DOT-wide	2 years	Fellows start at GS-9 to GS-12. May be eligible for promotion and may be converted to career or career-conditional appointment at the end of program.	Annual, begins in August	This program is coordinated with the Office of Personnel Management. Candidates submit application to OPM. Information available at <a href="http://www.pmf.opm.gov">www.pmf.opm.gov</a> .
<b>OST (S-30/Civil Rights)</b>	ONEDOT Minority Serving Institutions Internship Program *	Internship	DOT-wide (including regions)	10 weeks - Summer. (extensions granted on as-needed basis.) 15 weeks - Spring and Fall	Approx. \$500 (undergrads)/\$600 (graduate students) per week	Program follows school semester cycles - Spring, Summer, Fall.	Information about the ONEDOT MSI Internship Program is available on the Departmental Office of Civil Rights website, <a href="http://www.dotcr.ost.dot.gov/asp/dotpart/msi/dotpartmin.asp">www.dotcr.ost.dot.gov/asp/dotpart/msi/dotpartmin.asp</a> , and on the contractor's website, <a href="http://www.adnet-sys.com">www.adnet-sys.com</a> . Brochures containing information about the program are disseminated at various targeted events and at Minority Serving Institutions. Students apply online at <a href="http://www.adnet-sys.com/internship_application.php">www.adnet-sys.com/internship_application.php</a> .
<b>OST (C/Counsel)</b>	Honors Attorney Program *	Professional/Career Development	DOT-wide	2 years	Honors Attorneys start at a GS-11, step 1, after graduation from an accredited law school or completion of a law clerkship. May be eligible for promotion to GS-12 at the end of the first year and may be converted to career or career-conditional appointment at the end of program.	Program starts on even-numbered years in the pay period before Labor Day weekend.	Interested candidates apply directly to Office of General Counsel or through the on-campus recruiting process, job fairs, and consortiums. Information available at <a href="http://www.dot.gov/ost/ogc/HONORS/index.html">www.dot.gov/ost/ogc/HONORS/index.html</a> .
<b>OST (C/Counsel)</b>	Office of General Counsel (OGC) Legal Internships	Internship	OST (C)	Summer internships are 10 weeks. Spring and Fall internships are 15 weeks.	Unpaid. When budget allows for the students to be paid, students are paid between the GS-5 to GS-9 level. OGC also accepts volunteer law clerks through law school externship programs.	Program follows school semester cycles - Spring, Summer, Fall.	Students apply directly to OGC. Information available at <a href="http://www.dot.gov/ost/ogc/org/interns.html">www.dot.gov/ost/ogc/org/interns.html</a> .



Operating Administration	Program (* denotes participation by various OAs)	Program Type	Placement	Duration	Paid?	Cycle	How to Apply
FAA	Minority Serving Institutions Internship Program - Hispanic Serving Institution	Internship	FAA	Summer internships are 10 weeks. Spring and Fall internships are 15 weeks.	\$450-\$530 (depending on education level)	Program follows school semester cycles - Spring, Summer, Fall.	Students apply through Hispanic Association of Colleges & Universities (HACU) contractor under HACU National Intern Program. Application available online at <a href="http://www.hnip.net">www.hnip.net</a> .
FAA	Minority Serving Institutions Internship Program - Historically Black Colleges and Universities	Internship	FAA	Summer internships are 10 weeks. Spring and Fall internships are 15 weeks.	\$450-\$530 (depending on education level)	Program follows school semester cycles - Spring, Summer, Fall.	Students apply through Adnet contractor. Application available online at <a href="http://www.adnet-sys.com">www.adnet-sys.com</a> .
FAA	Minority Serving Institutions Internship Program - Asian American & Pacific Islander Intern Program	Internship	FAA	Summer internships are 10 weeks. Spring and Fall internships are 15 weeks.	\$450 per week (undergrad & graduate students)	Program follows school semester cycles - Spring, Summer, Fall.	Student apply through Maryland Vietnamese Mutual Association contractor. Application available online at <a href="http://www.mdvietmutual.org">www.mdvietmutual.org</a> or <a href="http://www.naanaapi.com">www.naanaapi.com</a> .
FAA	Minority Serving Institutions Internship Program - Native American & Alaska Native Intern Program	Internship	FAA	Summer internships are 10 weeks. Spring and Fall internships are 15 weeks.	\$450 per week (undergrad & graduate students)	Program follows school semester cycles - Spring, Summer, Fall.	Students apply through Minority Access Inc or through Oak Ridge Associated Universities. Application available at <a href="http://www.minorityaccess.org">www.minorityaccess.org</a> or <a href="http://www.orau.gov">www.orau.gov</a> .
FAA	FAA Student Intern Program	Internship	FAA	Varies, depending on student status	Interns paid at GS-5 level.	Continuous	Students apply directly to FAA HR office. Information available at <a href="http://www.faa.gov/careers/employment/student.htm">www.faa.gov/careers/employment/student.htm</a> .
FAA	FAA Summer Employment Program	Internship	FAA	Summer	Interns paid at GS-5 level.	Annual, begins in May	Students apply through <a href="http://www.usajobs.gov">www.usajobs.gov</a> . Information available at <a href="http://www.faa.gov/careers/employment/student.htm">www.faa.gov/careers/employment/student.htm</a> .
FAA	FAA Volunteer Service Program	Volunteer/Work Experience	FAA	Varies, depending on student status	Unpaid	Continuous	Students apply directly to FAA HR office. Information available at <a href="http://www.faa.gov/careers/employment/student.htm">www.faa.gov/careers/employment/student.htm</a> .



Operating Administration	Program (* denotes participation by various OAs)	Program Type	Placement	Duration	Paid?	Cycle	How to Apply
<b>FHWA</b>	Professional Development Program	Professional/Career Development	FHWA (including regions)	2 years	Interns start at GS-7 to GS-9 level. May be eligible for promotion and may be converted to career or career-conditional appointment at the end of program.	Continuous	Division Office and Hispanic recruiters conduct targeted recruitment. Information also available at specific schools and at <a href="http://www.fhwa.dot.gov/aaa/pdp/index.htm">www.fhwa.dot.gov/aaa/pdp/index.htm</a> .
<b>FHWA</b>	Summer Transportation Internship Program for Diverse Groups (STIPDG) *	Internship	DOT-wide	Summer (10 weeks)	\$4,000 (undergrads)/\$5,000 (law & graduate students) for 10 weeks.	Annual, begins in June	Students apply directly to FHWA HR program office. Information available at <a href="http://www.fhwa.dot.gov/education/stipdg.htm">www.fhwa.dot.gov/education/stipdg.htm</a> .
<b>FRA</b>	Federal Career Intern Program	Professional/Career Development	FRA	2 years	Interns start at GS-9. May be eligible for promotion and may be converted to career or career-conditional appointment at the end of program.	Continuous	FRA targets organizations or specific schools for on-campus recruitment.
<b>FRA</b>	Student Education Employment Program	Internship	FRA	Varies, depending on student status	Grade level varies	Continuous	Information available online. Interested candidates apply directly to FRA HR office.
<b>FTA</b>	Professional Development Opportunity Program	Professional/Career Development	FTA	30 - 120 days (detail assignments)	Grade level varies	Continuous	FTA targets specific external and internal organizations.
<b>FTA</b>	Student Career Experience Program	Cooperative Education Program (Co-Op)	FTA	Varies, depending on student status	Co-op students start at GS-4 to GS-9 level. May be eligible for promotion and may be converted to career or career-conditional appointment after graduation.	Continuous	Interested candidates apply directly to FTA HR office.
<b>FTA</b>	Student Temporary Employment Program	Internship	FTA	Summer (10-12 weeks)	Interns paid at GS-4 to GS-7 level.	Annual	Students apply through <a href="http://www.usajobs.opm.gov">www.usajobs.opm.gov</a> .



Operating Administration	Program (* denotes participation by various OAs)	Program Type	Placement	Duration	Paid?	Cycle	How to Apply
OIG	Federal Career Intern Program	Professional/Career Development	OIG	2 years	Interns start at GS-7 to GS-9 level. May be eligible for promotion and may be converted to career or career-conditional appointment at the end of program.	Semi-annual	OIG targets specific schools for on-campus recruitment.
OIG	Student Temporary Employment Program	Internship	OIG	Varies, depending on student status	Interns paid at GS-4 to GS-7 level.	Continuous	OIG targets specific schools for on-campus recruitment.
MARAD	Summer Intern Development Program	Internship	MARAD	Summer (6 weeks)	GS-2 (high school), GS-4 (undergrad), GS-5 (graduate students).	Annual	Interested candidates apply directly to MARAD HR office.
PHMSA	Student Career Experience Program	Internship	PHMSA	Varies, depending on student status	Interns paid at GS-3 level and up.	Continuous	PHMSA targets specific schools. Students apply through <a href="http://www.usajobs.opm.gov">www.usajobs.opm.gov</a> .
PHMSA	Student Temporary Experience Program	Internship	PHMSA	Summer (10 weeks with possible extension)	Interns paid at GS-2 and up.	Continuous	PHMSA targets specific schools. Students apply through <a href="http://www.usajobs.opm.gov">www.usajobs.opm.gov</a> .
PHMSA	Student Volunteer Program	Volunteer/Work Experience	PHMSA	Summer (10 weeks with possible extension)	Unpaid	Continuous	PHMSA targets specific schools. Students apply through <a href="http://www.usajobs.opm.gov">www.usajobs.opm.gov</a> .
RITA/Volpe Center	Volpe Center Co-Op Program	Cooperative Education Program (Co-Op)	Volpe Center	Varies, depending on student status	Co-Op students start at GS-4 to GS-11 level. May be eligible for promotion and may be converted to career or career-conditional appointment after graduation.	Continuous	Interested students may apply at on-campus recruitment or directly to Volpe HR office. Information available at <a href="http://www.volpe.dot.gov/career/index.html">www.volpe.dot.gov/career/index.html</a> .
RITA/Volpe Center	Federal Career Intern Program	Professional/Career Development	Volpe Center	2 years	Interns start at GS-5 to GS-9 level. May be eligible for promotion and may be converted to career or career-conditional appointment at the end of program.	Continuous	Interested candidates may apply at on-campus recruitment or directly to Volpe HR office.



Operating Administration	Program (* denotes participation by various OAs)	Program Type	Placement	Duration	Paid?	Cycle	How to Apply
RITA/Volpe Center	John Volpe Transportation Internship	Cooperative Education Program (Co-Op)	Volpe Center	1 year	Co-Op students start at GS-9 to GS-11 level. Tuition reimbursement included. May be eligible for promotion and may be converted to career or career-conditional appointment after graduation.	Annual, begins in June	Interested students may apply at on-campus recruitment or directly to Volpe HR office. Information available at <a href="http://www.volpe.dot.gov/career/index.html">www.volpe.dot.gov/career/index.html</a> .



**APPENDIX J. ENGINEERING PILOT COMPETENCY MODEL**

Competencies	Critical Success Factors
Strategic Planning	Human Capital Planning
	Workforce Planning
	Human Capital Best Practices
	Human Resources as Strategic Partner
Implementation	Leadership Succession Management
	Change Management
	Integrity and Inspiring Employee Commitment
	Continuous Learning
	Knowledge Management
	Communication
	Performance Appraisal
	Pay for Performance
	Diversity Management
	Labor/Management Relations
Recruitment	
Retention	
Evaluating Results	Regular Evaluations
	Independent Verifications



## APPENDIX K. AVERAGE LEADERSHIP COMPETENCY RATINGS FOR THE DEPARTMENT-WIDE REASSESSMENT (EXCLUDING FAA)

Figure K-1: Average Competency Ratings for Executives

EXECUTIVES

	FHWA	FMCSA	FTA	MARAD	NHTSA	OIG	OST	PHMSA	RITA	SLSDC	STB
Accountability	3.40	3.00	2.98	4.00	3.34	**	4.00	3.33	**	3.41	4.00
Conflict Management	3.20	3.00	2.93	4.00	3.21	**	3.18	3.33	**	3.16	4.00
Creative Thinking/ Innovation	3.40	4.00	2.94	4.00	3.38	**	3.68	3.00	**	3.01	4.00
Entrepreneurship	3.10	3.00	2.44	4.00	3.14	**	3.18	3.00	**	3.08	4.00
External Awareness	3.21	3.00	2.65	4.00	3.46	**	3.68	3.18	**	3.18	4.00
Financial Management	3.26	3.00	2.73	3.00	2.89	**	3.50	3.50	**	3.30	3.00
HR Management	3.20	3.00	2.82	4.00	3.34	**	4.00	2.83	**	3.16	4.00
Influencing/ Negotiating	3.37	4.00	3.18	4.00	3.51	**	3.18	3.33	**	3.08	4.00
Leveraging Diversity	3.33	3.00	2.82	4.00	3.63	**	4.00	3.15	**	2.79	4.00
Political Savvy	3.37	4.00	3.06	4.00	3.30	**	3.50	3.18	**	2.97	4.00
Resilience	3.37	4.00	3.21	4.00	3.31	**	4.00	2.83	**	3.30	3.00
Service Motivation	3.54	2.00	3.30	4.00	3.75	**	4.00	3.50	**	3.31	4.00
Strategic Thinking	3.37	3.00	2.73	4.00	3.43	**	3.18	3.33	**	3.16	4.00
Team Building	3.30	4.00	3.22	4.00	3.30	**	3.68	3.50	**	3.27	4.00
Technology Management	3.20	2.00	1.83	4.00	3.33	**	3.18	3.33	**	3.12	3.00
Vision	3.27	3.00	2.82	4.00	3.43	**	3.68	3.00	**	3.08	4.00
Building Performance Culture	3.37	*	3.30	3.00	3.54	**	3.68	3.00	**	3.30	4.00
Differentiating Performance	3.20	*	2.85	4.00	3.09	**	3.68	3.00	**	3.44	4.00
Facilitating Performance	3.14	*	2.65	4.00	3.42	**	3.68	3.00	**	3.26	4.00
Goal Setting	3.37	*	3.22	4.00	3.46	**	3.50	3.00	**	3.34	3.00
Perf Coaching & Feedback	3.17	*	3.30	4.00	3.25	**	3.68	2.83	**	3.19	3.00
Understanding Performance Mgmt Processes & Practices	3.53	*	3.26	3.00	3.46	**	4.00	3.33	**	3.38	4.00

\* FMCSA have any completed assessments for the performance management competencies

\*\* No assessments were completed for OIG and RITA



Figure K-2: Average Competency Ratings for Managers

MANAGERS

	FHWA	FMCSA	FTA	MARAD	NHTSA	OIG	OST	PHMSA	RITA	SLSDC	STB
Accountability	3.26	3.00	3.50	**	3.06	3.00	**	3.10	3.13	3.16	**
Conflict Management	2.78	3.00	2.88	**	3.13	3.65	**	2.44	2.80	2.91	**
Creative Thinking/ Innovation	3.08	2.83	3.22	**	3.40	3.00	**	2.78	2.79	2.59	**
Entrepreneurship	2.93	3.18	2.85	**	3.20	3.00	**	2.76	2.96	2.75	**
Financial Management	2.91	3.00	3.04	**	3.39	3.00	**	2.69	3.05	2.34	**
HR Management	3.10	3.00	3.26	**	2.68	3.65	**	2.69	2.84	1.67	**
Influencing/ Negotiating	3.05	3.50	2.88	**	3.39	3.00	**	2.60	2.88	3.00	**
Leveraging Diversity	2.98	3.00	2.88	**	3.01	3.65	**	3.01	2.88	2.90	**
Resilience	3.03	3.00	3.09	**	3.73	3.65	**	2.94	3.01	3.18	**
Service Motivation	3.11	3.33	3.29	**	3.20	3.65	**	3.10	3.14	3.18	**
Team Building	3.08	3.00	3.01	**	3.40	3.00	**	2.94	2.84	3.18	**
Technology Management	2.89	3.18	2.92	**	3.66	3.00	**	3.10	3.04	2.10	**
Building Performance Culture	3.06	3.00	3.21	**	3.19	3.65	**	2.85	2.80	2.68	**
Differentiating Performance	3.06	3.00	3.34	**	3.19	3.65	**	2.53	2.89	2.12	**
Facilitating Performance	3.00	3.00	3.09	**	2.93	3.65	**	2.85	2.84	2.75	**
Goal Setting	3.10	3.33	3.08	**	3.46	3.00	**	3.01	2.79	2.51	**
Perf Coaching & Feedback	3.13	3.50	3.09	**	3.13	3.65	**	3.01	2.76	2.59	**
Understanding Performance											
Mgmt Processes & Practices	3.18	3.33	3.38	**	3.33	3.65	**	3.18	2.88	3.00	**

\*\* No assessments were completed for MARAD, OST, and STB

Figure K-3: Average Competency Ratings for Supervisors

SUPERVISORS

	FHWA	FMCSA	FTA	MARAD	NHTSA	OIG	OST	PHMSA	RITA	SLSDC	STB
Accountability	3.14	2.66	3.27	3.36	3.21	2.99	3.42	3.16	4.00	3.01	**
Conflict Management	2.92	2.50	2.91	2.94	2.73	2.73	3.18	3.06	3.00	2.73	**
HR Management	3.05	2.40	3.12	3.33	3.12	3.00	3.25	3.25	2.35	2.59	**
Influencing/ Negotiating	3.02	2.53	3.25	3.00	2.93	2.80	3.21	3.06	2.35	2.70	**
Leveraging Diversity	2.97	2.35	3.24	3.09	3.10	2.60	3.38	3.44	2.65	2.73	**
Resilience	3.12	2.61	3.40	3.04	3.06	3.33	3.17	3.20	3.35	2.65	**
Service Motivation	3.18	2.58	3.27	3.42	3.18	2.86	3.58	3.15	2.35	2.90	**
Team Building	3.07	2.58	3.21	3.06	3.07	2.80	3.18	3.10	2.35	2.70	**
Building Performance Culture	2.96	2.45	3.00	2.88	3.03	2.86	3.16	3.06	2.35	2.70	**
Differentiating Performance	3.03	2.44	3.09	3.28	3.35	3.20	3.24	2.91	2.35	3.00	**
Facilitating Performance	2.91	2.48	3.06	3.10	3.27	2.66	3.33	2.87	2.35	3.00	**
Goal Setting	2.89	2.46	2.94	2.73	3.16	2.60	3.16	2.91	2.65	2.95	**
Perf Coaching & Feedback	2.96	2.32	3.15	3.00	3.15	2.67	3.21	2.83	2.00	2.75	**
Understanding Performance											
Mgmt Processes & Practices	3.00	2.49	3.00	3.03	3.28	2.67	3.24	3.06	2.35	2.92	**

\*\* No assessments were completed for STB



## APPENDIX L: DOT-OFFERED LEADERSHIP DEVELOPMENT PROGRAMS

Figure L-1: DOT-Offered Leadership Development Programs

Department or Agency	Targeted Audience			Program(s)		Components	Web Link
	GS Level(s)	In-House Only	Fed Gov-Wide	Name	Definition	Coursework, Coaching, Rotations, etc.	Website or Point of Contact
Department of Transportation Office of the Secretary (OST)	All Grade Levels	X		Learning Management System	e-LMS is DOT's learning management system. The course catalog contains Skillssoft (off-the-shelf) training.	<ul style="list-style-type: none"> <li>Distance Learning</li> </ul>	Cora McVey 202-366-7958
OST	SES/GS-15	X		Executive Pipeline	A series of 2-hour programs that target competency gaps identified through organizational needs assessments. Examples include Ethics & Conflict Management Training.	<ul style="list-style-type: none"> <li>Seminars</li> </ul>	Cora McVey 202-366-7958
OST	GS-13/14/15	X		Leaders for Tomorrow	The 10-month program designed to engage its participants in heightened levels of learning and organizational development. The program adds value to DOT by enhancing professional leadership skills within the organization, increasing employee job satisfaction and transferring institutional knowledge and corporate expertise, thus establishing a cadre of trained professionals who are prepared to meet the future goals of DOT. Program objectives include management skills development, creating a career plan and networking opportunities.	<ul style="list-style-type: none"> <li>Coursework</li> <li>Individual Development Plan</li> <li>Mentoring</li> <li>Team Projects</li> </ul>	Cora McVey 202-366-7958
OST	GS-11/12	X		So You Want to Be a Leader	The 9-week program offering non-supervisory employees the opportunity to participate in leadership activities prior to applying for supervisory positions at DOT.	<ul style="list-style-type: none"> <li>Coursework</li> <li>Team Projects</li> </ul>	Cora McVey 202-366-7958
OST	SES	X		Executive Coaching	Executive members can request to be assigned a coach who assists them with building leadership competencies and addressing career issues. This service is purchased from FEI.	<ul style="list-style-type: none"> <li>Coaching</li> </ul>	Maria Hernandez 202-366-6939
Federal Transit Administration (FTA)	GS-5 and GS-7	X		Competitive Edge Program	Employees who are moving from clerical and paraprofessional positions to professional positions. A Learning Plan is developed but most courses are taken outside of FTA	<ul style="list-style-type: none"> <li>Coursework</li> <li>Individual Development Plan</li> </ul>	Pamela Bell-Payton 202-366-2228
Federal Aviation Administration (FAA)	SES	X		Forum for Executive Excellence (FEE)	A 20-hour series of seminars that addresses an important phase of development for FAA executives: understanding and carrying out responsibilities in the context of today's workplace reality. Participants receive tangible tools, and experience opportunities to make influential connections within their peer group. The interactive format encourages thinking strategically, communicating powerfully, and interacting positively.	<ul style="list-style-type: none"> <li>Networking</li> <li>Seminars</li> </ul>	Jeff DePeiza, (202) 267-3403



Department or Agency	Targeted Audience			Program(s)		Components	Web Link
	GS Level(s)	In-House Only	Fed Gov-Wide	Name	Definition	Coursework, Coaching, Rotations, etc.	Website or Point of Contact
FAA	SES	X		FAA Executive Series	The series of half-day sessions held at FAA Headquarters and is webcast to executives in the field. Each seminar features a prominent speaker who provides critical success strategies and best practices for leaders. Topics focus on one or more of the FAA leadership dimensions and associated competencies.	<ul style="list-style-type: none"> <li>Distance Learning</li> <li>Seminars</li> </ul>	Kerry M. Lange Kerry.Lange@faa.dot.gov (202) 267-3272
FAA	All Levels		X	FAA Center for Management and Executive Leadership (CMEL)	Provides non-technical training for team leaders, managers, and executives in the FAA, emphasizing interpersonal, management, and leadership skills. CMEL also works in collaborative partnership with FAA organizations and other government agencies to develop additional customized opportunities for their personnel.	<ul style="list-style-type: none"> <li>Coursework</li> </ul>	<a href="http://www.faa.gov/about/office%5F0rg/headquarters%5Foffices/arc/programs/academy/cm el/">http://www.faa.gov/about/office%5F0rg/headquarters%5Foffices/arc/programs/academy/cm el/</a>
FAA	Senior Managers	X		Senior Leadership Development Program	1-2 year program designed to enhance the pipeline of highly qualified senior managers who could fill projected executive vacancies.	<ul style="list-style-type: none"> <li>360 Degree Assessment</li> <li>Coaching</li> <li>Individual Development Plan</li> <li>Rotations</li> </ul>	Sheila D. White 202-267-3417
FAA/ASH	Pay Band I (equivalent to GS 13)	X		Making Opportunities to Develop Employees for Leadership (MODEL)	An 18-month management development program to prepare non-supervisory employees for consideration for future management vacancies. It is designed around the FAA Leadership Success Competencies for managers. Participation in the program is based on a competitive selection process.	<ul style="list-style-type: none"> <li>Coursework</li> <li>Individual Needs Assessment</li> <li>Mentoring</li> <li>Rotational Assignments</li> <li>Shadowing Assignment</li> </ul>	Jesse R. Bennett, <a href="mailto:Jesse.r.bennett@faa.dot.gov">Jesse.r.bennett@faa.dot.gov</a> 202-493-5441
FAA/Airports	K-L: SES	X		Airports Leadership Development Program (ALDP)	A 3-year program that provides training and continuing education opportunities as well as tools and techniques to help new managers develop management skills and more experienced managers adapt to a changing organization and aviation environment.	<ul style="list-style-type: none"> <li>Coursework</li> <li>Coaching</li> <li>Consulting</li> </ul>	Margarete Berrios 202-267-8757 <a href="http://intranet.faa.gov/arp/aldp/guides.htm">http://intranet.faa.gov/arp/aldp/guides.htm</a>
FAA/Aviation Safety	All Levels	X		Aviation Safety Leadership and Enhancement Program (LEAD)	The program is a vehicle used to identify and develop employees for supervisory managerial, or leadership positions. It provides opportunities for employees to demonstrate their skills while participating on assignments that will enhance their qualifications and experience.	<ul style="list-style-type: none"> <li>Details</li> <li>Temporary Promotions</li> </ul>	Janette Ramos <a href="mailto:Janette.ramos@faa.dot.gov">Janette.ramos@faa.dot.gov</a> 202-267-9802
Federal Highway Administration (FHWA)	GS-12/13	X		Building a Foundation for Visionary Leadership	A 6-day, project-based course addressing a variety of "problem statements". Through group work, speaker sessions, and round table discussions, participants develop basic leadership competencies such as emotional intelligence, strategic planning, and communication skills.	<ul style="list-style-type: none"> <li>Coursework</li> <li>Individual Needs Assessment(s)</li> <li>Mentoring</li> </ul>	Nicole Hicks 202 366-1202 <a href="mailto:Nicole.Hicks@dot.gov">Nicole.Hicks@dot.gov</a>



Department or Agency	Targeted Audience			Program(s)		Components	Web Link
	GS Level(s)	In-House Only	Fed Gov-Wide	Name	Definition	Coursework, Coaching, Rotations, etc.	Website or Point of Contact
<b>FHWA-FLH</b>	All Grade Levels	X		Federal Lands Highways Leadership Academy	A 2-week program with project follow up for employees to improve their leadership skills by developing competencies related to working effectively with others to achieve intended results. The primary focus of the Academy is developing emotional intelligence - self-awareness, self-management, and building relationships.	<ul style="list-style-type: none"> <li>• Coursework</li> <li>• Individual Needs Assessment(s)</li> </ul>	Ann Crouch-Rowland 202-366-9492 <a href="mailto:Ann.Crouch@dot.gov">Ann.Crouch@dot.gov</a>
<b>FHWA-Maryland Division Office</b>	All Grade Levels	X		Maryland Division Leadership Development Program	A program designed to develop employee skills in alignment with the mission of the Maryland FHWA. Such alignment requires technical credibility as well as other leadership attributes such as communication, creativity, problem solving, partnering, and strategic thinking.	<ul style="list-style-type: none"> <li>• Individual Needs Assessment(s)</li> <li>• Seminars</li> <li>• Team Projects</li> </ul>	Nelson J. Castellanos 410-962-4440 <a href="mailto:nelson.castellanos@fhwa.dot.gov">nelson.castellanos@fhwa.dot.gov</a>
<b>FHWA</b>	GS 4 - 7	X		The Support Staff Development Certificate Program	The Certificate Development Program provides for the development of basic competencies including oral and written communication, interpersonal skills, decisiveness, problem solving, self-direction, technical credibility, and customer service. Emphasis is placed on development of competencies through courses in the DOT Electronic Learning Management System (ELMS).	<ul style="list-style-type: none"> <li>• Distance Learning</li> <li>• Individual Needs Assessment(s)</li> <li>• Team Projects</li> </ul>	Joseph Ramseur 202 366-6517 <a href="mailto:Joe.Ramseur@dot.gov">Joe.Ramseur@dot.gov</a>
<b>FHWA</b>	All GS Employees	X		The Support Staff Advanced Certificate Program	The Advanced Certificate program supports written communication, personal development, administration, human resources, and finance. The 18 courses will be completed in the DOT electronic Learning Management System (ELMS).	<ul style="list-style-type: none"> <li>• Distance Learning</li> <li>• Individual Needs Assessment(s)</li> <li>• Team Projects</li> </ul>	Joseph Ramseur 202 366-6517 <a href="mailto:Joe.Ramseur@dot.gov">Joe.Ramseur@dot.gov</a>
<b>FHWA-Washington Division Office</b>	All Grade Levels	X		Washington Division's Leadership Development Program	A-2-year program designed to facilitate the development of Washington FHWA employees' leadership skills and to provide opportunities to exercise their leadership talents at the local and national levels.	<ul style="list-style-type: none"> <li>• Individual Needs Assessment(s)</li> <li>• Seminars</li> </ul>	Daniel M. Mathis 360-753-9413 <a href="mailto:Daniel.Mathis@fhwa.dot.gov">Daniel.Mathis@fhwa.dot.gov</a>



Department or Agency	Targeted Audience			Program(s)		Components	Web Link
	GS Level(s)	In-House Only	Fed Gov-Wide	Name	Definition	Coursework, Coaching, Rotations, etc.	Website or Point of Contact
<b>FHWA-FLH</b>	All Grade Levels	X		Federal Lands Highways Leadership Academy	A 2-week program with project follow up for employees to improve their leadership skills by developing competencies related to working effectively with others to achieve intended results. The primary focus of the Academy is developing emotional intelligence - self-awareness, self-management, and building relationships.	<ul style="list-style-type: none"> <li>Coursework</li> <li>Individual Needs Assessment(s)</li> </ul>	Ann Crouch-Rowland 202-366-9492 <a href="mailto:Ann.Crouch@dot.gov">Ann.Crouch@dot.gov</a>
<b>FHWA-Maryland Division Office</b>	All Grade Levels	X		Maryland Division Leadership Development Program	A program designed to develop employee skills in alignment with the mission of the Maryland FHWA. Such alignment requires technical credibility as well as other leadership attributes such as communication, creativity, problem solving, partnering, and strategic thinking.	<ul style="list-style-type: none"> <li>Individual Needs Assessment(s)</li> <li>Seminars</li> <li>Team Projects</li> </ul>	Nelson J. Castellanos 410-962-4440 <a href="mailto:nelson.castellanos@fhwa.dot.gov">nelson.castellanos@fhwa.dot.gov</a>
<b>FHWA</b>	GS 4 - 7	X		The Support Staff Development Certificate Program	The Certificate Development Program provides for the development of basic competencies including oral and written communication, interpersonal skills, decisiveness, problem solving, self-direction, technical credibility, and customer service. Emphasis is placed on development of competencies through courses in the DOT Electronic Learning Management System (ELMS).	<ul style="list-style-type: none"> <li>Distance Learning</li> <li>Individual Needs Assessment(s)</li> <li>Team Projects</li> </ul>	Joseph Ramseur 202 366-6517 <a href="mailto:Joe.Ramseur@dot.gov">Joe.Ramseur@dot.gov</a>
<b>FHWA</b>	All GS Employees	X		The Support Staff Advanced Certificate Program	The Advanced Certificate program supports written communication, personal development, administration, human resources, and finance. The 18 courses will be completed in the DOT electronic Learning Management System (ELMS).	<ul style="list-style-type: none"> <li>Distance Learning</li> <li>Individual Needs Assessment(s)</li> <li>Team Projects</li> </ul>	Joseph Ramseur 202 366-6517 <a href="mailto:Joe.Ramseur@dot.gov">Joe.Ramseur@dot.gov</a>
<b>FHWA-Washington Division Office</b>	All Grade Levels	X		Washington Division's Leadership Development Program	A-2-year program designed to facilitate the development of Washington FHWA employees' leadership skills and to provide opportunities to exercise their leadership talents at the local and national levels.	<ul style="list-style-type: none"> <li>Individual Needs Assessment(s)</li> <li>Seminars</li> </ul>	Daniel M. Mathis 360-753-9413 <a href="mailto:Daniel.Mathis@fhwa.dot.gov">Daniel.Mathis@fhwa.dot.gov</a>





INDICATORS	YES	NOTES
<ul style="list-style-type: none"> <li>– staffing trends (20)</li> <li>• Examination of demographic and environmental impacts on workforce plans               <ul style="list-style-type: none"> <li>– changing labor market availability for occupations and competencies (21)</li> <li>– changing labor market demographics (22)</li> <li>– changing competency requirements (23)</li> </ul> </li> <li>• Benchmarking to other organizations with similar occupations (24)</li> <li>• Uses information from FHCS, other surveys/interviews/focus groups, client/customer information, and other sources (25)</li> </ul>		<p>Census where available. (Note that most recent data years from several sources are still 2004 or 2005.)</p> <p><b>Chapter 3</b> workforce projection models examine workforce availability demographics as well as internal and external influences on workforce planning.</p> <p><b>Chapter 2</b> addresses current and changing competency requirements, and strategies to close gaps, with an emphasis on MCOs. Chapter 3 also reviews the availability of the workforce with similar occupations, with specific attention to transportation specialists.</p> <p><b>Benchmarking:</b> Human Capital Council meets regularly, discusses all WFP issues and shares best practices and benchmarking data</p> <p><b>FHCS Data</b> are used :</p> <ul style="list-style-type: none"> <li>• To detail the results of the Leadership Competency Assessment;</li> <li>• To illustrate employee “intent to stay” and “engagement” in discussion of retention and turnover;</li> <li>• To illustrate overall employee attitudes towards diversity in discussion of minority representation</li> </ul>
INDICATORS	YES	NOTES
<p><b>Workload and Staffing Needs Analyses</b></p> <ul style="list-style-type: none"> <li>• Workload and staffing needs analysis based on organization’s strategic plan, mission, and goals               <ul style="list-style-type: none"> <li>– mission critical occupations identified (26)</li> <li>– competency requirements identified for each occupational group (27)                   <ul style="list-style-type: none"> <li>– types of competencies (28)</li> <li>– levels of competencies (29)</li> <li>– future orientation (3-5 years) (30)</li> </ul> </li> </ul> </li> </ul>	X	<p><b>Chapter 2</b> details mission critical occupations and the use of the CAMT tool to identify types and levels of competencies and existing gaps. Workforce projections uncover future gaps based on trends (retirement, turnover, new competency requirements). The competency requirements designed for positions within DOT (e.g. Engineering; FAA leadership) do look at current functions and how they are evolving.</p> <p>Government wide: The HC competencies are also forward leaning. However, development of the competencies for government-wide positions (Leadership, IT, Acquisition, HR) was outside DOT’s control.</p>
INDICATORS	YES	NOTES
<p><b>Gap Analysis</b></p> <ul style="list-style-type: none"> <li>• Comparison of workforce/competency supply and workload/competency demands used to identify gaps by               <ul style="list-style-type: none"> <li>– workforce size needs (31)</li> <li>– demographics (grades, career stage/retirement eligibility, length of service, diversity.) (32)</li> <li>– occupational groups (33)</li> <li>– geographical locations (34)</li> <li>– competencies (35)</li> <li>– mix of supervisory and non-supervisory positions (36)</li> </ul> </li> <li>• Gaps prioritized in alignment with mission critical (core) competency needs and agency goals/service delivery strategies (37)               <ul style="list-style-type: none"> <li>– funding requirements prioritized (38)</li> </ul> </li> </ul>		<p>Chapter 2 details workforce competency requirements and gaps identified by MCOs and levels.</p> <p>All data displayed are as of 9/30/06 which was the end of the Fiscal Year covered in this Analysis. On a current basis, the OAs now report quarterly MCO workforce (supply and demand numbers, forecasts, and gaps.) At the SES level, supply and demand and gaps are tracked centrally at OST/OHR.</p> <p>Gaps and action plans are prioritized in alignment with mission critical needs and agency goals, particularly in the section devoted to DOT-specific MCO groups.</p> <p>“Gaps and action plans are prioritized in alignment with mission critical needs and agency goals, particularly in the section on DOT specific MCO groups.” MCO competency gaps for attention were selected to align with the Acquisition Strategic Plan (Acquisition MCO) or some other overarching document, or strategic need. Thus, the largest gap was not always selected if another gap was more salient to DOT’s strategic goals.</p>



INDICATORS	YES	NOTES
<p><b>How to Address the Identified Gaps</b> Strategies developed to address gaps</p> <ul style="list-style-type: none"> <li>– explanation of how chosen strategies will address gaps (39)</li> <li>– consideration for alternative strategies (40)</li> <li>– consideration for how strategies align with other HR systems and programs (41)</li> <li>– multi-faceted approach (42)</li> </ul> <p>Specific strategies address</p> <ul style="list-style-type: none"> <li>– executive succession planning (43)</li> <li>– compensation (44)</li> <li>– performance management (45)</li> <li>– employee-friendly workplace (46)</li> <li>– restructuring &amp; redeployment and retraining plans (47)</li> <li>– competitive sourcing (48)</li> <li>– technology solutions (49)</li> <li>– recruitment &amp; hiring (50)</li> <li>– training &amp; professional development (51)</li> <li>– knowledge management (52)</li> <li>– sharing and gathering information on best practices (53)</li> </ul>		<p>Chapter 2 contains information on MCOs and gaps and strategies to address gaps by occupational group. Additional information on gaps, activities, and results ongoing in the OAs is also provided</p>
INDICATORS	YES	NOTES
<p><b>Action Plan with Milestones</b></p> <ul style="list-style-type: none"> <li>• [Action plans for executing strategies establish <ul style="list-style-type: none"> <li>– milestones (54)</li> <li>– schedules and deadlines (55)</li> <li>– responsible parties (56)</li> <li>– resource needs (57)]</li> <li>• [Communication plans and materials to educate employees, managers, and other stakeholders on strategic human capital plans (58)]</li> <li>• [A documented change management/implementation process to facilitate change (59)]</li> </ul> </li> </ul>		<p>The Strategic Human Capital Plan contains a section specifically addressing implementation plans and milestones. Progress on gaps is presented the table in the Executive Summary. The Analysis illustrates continued efforts to diversity the applicant pool. DOT's Diversity Program Manager has partnered with the Corporate Recruiter as well as the disability Resource Center to leverage DOT's presence in the job market, especially in activities targeted to diverse candidate pools. (<i>Chapter 5</i>)</p>
INDICATORS	YES	NOTES
<p><b>Evaluation /Accountability</b> [The HC plan provides for a formal agency-wide evaluation of progress on strategies and goals in the HC plan and its implementation</p> <ul style="list-style-type: none"> <li>• data collection and tracking plans (60)</li> <li>• responsible parties (61)</li> <li>• analysis plans (62)</li> <li>• metrics that represent successful achievement of HC plans (63)</li> <li>• long- and short-term goals/metrics (64)</li> <li>• mechanisms to feed back findings to improve future plans and inform agency stakeholders (65)]</li> </ul>		