
**OFFICE OF
THE INSPECTOR GENERAL**

SOCIAL SECURITY ADMINISTRATION

**THE SOCIAL SECURITY ADMINISTRATION'S
HIRING AND TRAINING OF
INFORMATION TECHNOLOGY SPECIALISTS**

March 2010

A-13-09-19082

**EVALUATION
REPORT**



Mission

By conducting independent and objective audits, evaluations and investigations, we inspire public confidence in the integrity and security of SSA's programs and operations and protect them against fraud, waste and abuse. We provide timely, useful and reliable information and advice to Administration officials, Congress and the public.

Authority

The Inspector General Act created independent audit and investigative units, called the Office of Inspector General (OIG). The mission of the OIG, as spelled out in the Act, is to:

- Conduct and supervise independent and objective audits and investigations relating to agency programs and operations.
- Promote economy, effectiveness, and efficiency within the agency.
- Prevent and detect fraud, waste, and abuse in agency programs and operations.
- Review and make recommendations regarding existing and proposed legislation and regulations relating to agency programs and operations.
- Keep the agency head and the Congress fully and currently informed of problems in agency programs and operations.

To ensure objectivity, the IG Act empowers the IG with:

- Independence to determine what reviews to perform.
- Access to all information necessary for the reviews.
- Authority to publish findings and recommendations based on the reviews.

Vision

We strive for continual improvement in SSA's programs, operations and management by proactively seeking new ways to prevent and deter fraud, waste and abuse. We commit to integrity and excellence by supporting an environment that provides a valuable public service while encouraging employee development and retention and fostering diversity and innovation.



SOCIAL SECURITY

MEMORANDUM

Date: March 15, 2010

Refer To:

To: The Commissioner

From: Inspector General

Subject: The Social Security Administration's Hiring and Training of Information Technology Specialists (A-13-09-19082)

OBJECTIVE

Our objective was to assess the Social Security Administration's (SSA) human capital activities related to the hiring, training, and retention of staff who occupy the mission-critical position of information technology (IT) specialist.

BACKGROUND

SSA, like many other Federal agencies, is being challenged to address its human capital shortfalls. To minimize the impact of the loss of human capital and address expected workload increases, SSA plans to increase its use of automation to continuously provide superior services to the American public. The IT specialist,¹ identified by SSA as 1 of its 15 mission-critical occupations,² is crucial to the effective operation of the Agency's present and future information systems.

As of June 30, 2009, approximately 3,715 (about 6 percent) of SSA's 65,034 employees were classified as IT specialists. The Agency projects about 42 percent of its IT specialists will retire by Fiscal Year (FY) 2016. It is imperative that SSA focus on its human capital needs as its workloads increase and their complexity requires an increased level of expertise and skill.

¹ Unless otherwise stated, the term IT specialist is used generically in this report to refer to all IT specialist-related positions regardless of position specialty titles.

² According to SSA's FY 2009 *Human Capital Implementation Plan*, the Agency has 15 mission-critical occupations, 14 of which are formalized by specific series. The 15th, leadership, appears in several of the 14 mission-critical occupations.

There are 11 specialty titles for IT specialists. Specialty titles, as identified by the Office of Personnel Management (OPM), are assigned to further identify the duties and responsibilities performed and the special knowledge and skills needed for the IT specialist position. In certain cases, specialty titles are combined when two specialties are significant to the position. Finally, the basic IT specialist position title is used when there is no established specialty area or for positions involving work in more than two established specialties. See Appendix B for OPM's classifications for IT specialists.

During our review, we assessed certain human capital activities related to the IT specialist position. We reviewed the five Deputy Commissioner offices with the highest number of IT specialists. These offices included the Deputy Commissioners for Systems (DCS); Operations (DCO); Quality Performance (DCQP); Budget, Finance and Management (DCBFM); and Disability Adjudication and Review (DCDAR). See Table 1 for the distribution of IT specialists in these offices.

**Table 1: Distribution of the Agency's IT Specialists Among OPM's Position Specialty Titles
June/July 2009**

IT Specialty Position Titles	DCS		DCO		DCQP		DCBFM		DCDAR		TOTALS	
	Staff	%	Staff	%	Staff	%	Staff	%	Staff	%	Staff	%
Policy and Planning	167	6	7	3	--	--	7	9	20	27	201	6
Enterprise Architecture	1	--	--	--	--	--	--	--	--	--	1	--
Security	91	3	17	6	5	5	17	22	5	7	135	4
Systems Analysis	1,045	35	28	10	--	--	3	4	--	--	1,076	31
Applications Software	814	27	83	30	--	--	7	9	2	3	906	26
Operating Systems	79	3	--	--	37	38	2	3	--	--	118	3
Communications and Network Services												
	94	3	30	11	--	--	3	4	--	--	127	4
Data Management	46	2	19	7	2	2	5	7	--	--	72	2
Internet- Web Development	3	--	16	6	3	3	8	11	--	--	30	1
Systems Administration	220	7	19	7	20	21	15	20	28	38	302	9
Customer Support	67	2	56	20	30	31	9	12	18	24	180	5
IT Specialists	323	11	--	--	--	--	--	--	--	--	323	9
SES Positions	15	1	--	--	--	--	--	--	1	1	16	--
Totals	2,965		275		97		76		74		3,487	

IT specialists in the five Deputy Commissioner offices we reviewed comprised approximately 94 percent of all IT specialists in the Agency. Since about 85 percent of the IT specialists reviewed are in DCS, our work results generally focused on the human capital activities of this office. See Appendix C for our Scope and Methodology. See Appendix D for additional background information on the IT specialists' role at SSA.

RESULTS OF REVIEW

For the five Deputy Commissioner offices reviewed, we did not identify problems or concerns regarding the offices' human capital activities related to the hiring, training, and retention of IT specialists. The offices reported using a multitude of efforts to attract, hire, train, and retain IT specialists.

HIRING OF IT SPECIALISTS

The five Deputy Commissioner offices reported using several hiring and recruitment initiatives to attract IT specialists to the Agency. In addition, we found the hiring of IT specialists in SSA was mostly a decentralized process with each component determining the skills its new hires should possess. Finally, we determined over the last 7 years, the components had hired approximately 1.3 new IT specialists for every one specialist who separated from the Agency.

DCS staff used a biennial internal Skills Inventory Analysis³ to determine the critical skills needed in the component. Based on this Analysis, DCS staff stated entry-level IT specialists possessing knowledge or experience in JAVA or COBOL/CICS are generally in the highest demand in the component. According to DCS staff, 190 IT specialists were hired with COBOL experience from FYs 2005 through 2008. In addition, 105 IT specialists have been trained in COBOL over the last 5 years. We requested information from DCS about the extent to which COBOL is still used in the Agency's computer programs. Staff from DCS provided a timeline indicating the Agency intends to convert its COBOL systems to Web-based technology by the end of FY 2017. SSA expects to continue to be able to hire and/or train sufficient staff with COBOL experience to sustain Agency operations.

DCQP staff reported entry-level IT specialist positions generally require a basic knowledge of current commercial computer processing standards and techniques. Further, DCDAR staff stated the knowledge, skills, and abilities needed for IT specialists in the component include experience in developing, testing, modifying, and documenting programming activities as well as experience in using Visual Basic and WebFocus.

To identify qualified candidates for employment as IT specialists, the Agency relies on employee referrals, email/mail submissions, and internal/external job postings. In addition, SSA uses such recruitment tools as the Student Career Experience Program (SCEP), Federal Career Intern Program (FCIP), Career Opportunities Training Agreements, and President Management Fellows Program to identify qualified candidates. Based on data provided by the Agency, we determined SSA hired 381 IT specialists under SCEP and FCIP during FYs 2005 through 2009. See Table 2 for more information.

³ See DCS' Skills Analyses, page 7.

**Table 2: IT Specialists Hired Under SCEP and FCIP
FYs 2005-2009**

	Hiring Authorities	FY05	FY06	FY07	FY08	FY09	TOTAL
DCS	SCEP	2	--	2	--	--	4
	FCIP	65	7	27	66	166	331
DCO	SCEP	--	1	1	2	--	4
	FCIP	2	1	1	3	4	11
DCQP	SCEP	--	--	2	2	--	4
	FCIP	--	--	--	1	1	2
DCBFM	SCEP	2	2	3	--	--	7
	FCIP	3	3	3	7	2	18
DCDAR	SCEP	--	--	--	--	--	--
	FCIP	--	--	--	--	--	--
TOTALS		74	14	39	81	173	381

The five Deputy Commissioner offices reported using a multitude of recruitment efforts to attract entry-level IT specialists. For example, DCS and DCBFM staff stated they participate in 20 to 30 local and national career fairs. DCS staff reported they target universities and colleges with strong IT curriculums for recruitment efforts. In addition, DCS staff explained they have established collegial relationships with local universities so students who are obtaining the knowledge necessary for DCS to carry out its mission are familiar with the office's employment opportunities.

DCS staff explained that, for the last 3 years, the office has hosted an IT Job Shadow Day event to attract local high school students enrolled in IT programs with an interest in pursuing IT studies and careers. Students have toured SSA's facilities, spoken with technical professionals and DCS executives, and participated in hands-on activities that were intended to provide students a firsthand look at a workday for an IT specialist at SSA.

Based on data provided by the Agency, we computed the number of IT specialists hired for the Deputy Commissioner offices reviewed and the number of IT specialists separated from these components. These personnel actions fluctuate significantly from year to year, with the majority of new hires occurring in DCS during FYs 2005 and 2009. In total, the components hired approximately 1.3 new IT specialists for every IT specialist who separated from the Agency over the 7-year period. See Table 3 for more information.

Table 3: Comparison of IT Specialists Hired and IT Specialists Separated from the Five Components Under Review FYs 2003-2009

	Personnel Actions	FY03	FY04	FY05	FY06	FY07	FY08	FY09	TOTAL
DCS	Hires	85	243	396	58	121	176	378	1,457
	Separations	124	133	214	167	172	133	113	1,056
	Change	(39)	110	182	(109)	(51)	43	265	401
	(Hires/Separations) Ratio	0.69	1.83	1.85	0.35	0.70	1.32	3.35	1.38
DCO	Hires	27	29	16	7	12	6	11	108
	Separations	10	21	20	18	21	18	15	123
	Change	17	8	(4)	(11)	(9)	(12)	(4)	(15)
	(Hires/Separations) Ratio	2.70	1.38	0.80	0.39	0.57	0.33	0.73	0.88
DCQP	Hires	--	--	--	--	--	3	4	7
	Separations	--	--	--	--	6	6	8	20
	Change	--	--	--	--	(6)	(3)	(4)	(13)
	(Hires/Separations) Ratio	--	--	--	--	--	0.5	0.5	0.35
DCBFM	Hires	6	3	3	6	2	8	3	31
	Separations	4	4	7	10	2	4	2	33
	Change	2	(1)	(4)	(4)	--	4	1	(2)
	(Hires/Separations) Ratio	1.50	0.75	0.43	0.60	1.00	2.00	1.50	0.94
DCDAR	Hires	--	--	--	2	4	--	3	9
	Separations	--	--	--	1	3	2	2	8
	Change	--	--	--	1	1	(2)	1	1
	(Hires/Separations) Ratio	--	--	--	2	1.33	--	1.50	1.13
TOTALS	Hires	118	275	415	73	139	193	399	1,612
	Separations	138	158	241	196	204	163	140	1,240
	Change	(20)	117	174	(123)	(65)	30	259	372
	(Hires/Separations) Ratio	0.86	1.74	1.72	0.37	0.68	1.18	2.85	1.30

DCS and DCO staff expressed concern over the impending retirement wave of IT specialists at the Agency. Yet, each of the five offices we reviewed indicated current IT specialist hiring efforts are adequate for meeting current workload needs and goals. However, DCO, DCQP, and DCBFM were not able to replace the number of IT specialists separated from those offices from FYs 2003 through 2009.

Future Staffing Needs

The Agency's IT Systems Plan covers 2 FYs and documents the allocation of its resources, including IT specialists. Currently, DCS employees and contractors provide the technical support needed for carrying out initiatives identified in the Agency's IT Systems Plan.⁴ DCS staff indicated the component's hiring of IT specialists is often determined by the workyears required to address the Agency's workloads included in the IT Plan. DCS staff also explained the component uses contractors for its IT

⁴ See Appendix E for an Overview of SSA's IT planning process.

workloads, depending on whether there is additional funding in the DCS budget, or when unplanned or ad-hoc projects occur. DCS staff explained the office used approximately 4,539 IT contractor workyears during FYs 2005 through 2009. Based on the skills needed to fulfill initiatives included in the IT Plan, DCS determines its future staffing needs.

IT SPECIALIST TRAINING

The five Deputy Commissioner offices reported having a variety of training opportunities for their IT specialists. Staff from the components under review reported different training plans had been developed for entry-level and senior-level IT employees. Finally, the staff explained strategies for promoting knowledge sharing between entry- and senior-level employees before employees leave or retire from the Agency.

Entry-Level Training

Generally, we found the Deputy Commissioner offices included in our review determined training needs of the entry-level IT specialists individually. IT specialist training depends on the position being filled⁵ as well as the specific employee's knowledge and skills. A combination of centralized group training, "in house" Government courses, and private vendor training is offered for entry-level employees.

In DCS, entry-level new hires are automatically scheduled to complete a set of training classes. See Table 4 for the list of classes. Also, DCS' Office of Systems' Training, Communications and Recruitment Branch contacts the components in DCS to determine job-specific training needs for entry-level new hires. Using information provided by these offices, the Training, Communications and Recruitment Branch schedules job-specific training. The training may include courses listed in Table 5.

⁵ Pending legislation entitled "Senate Bill 773, Cybersecurity Act of 2009" would require employees in the "IT Security" position to have a professional certification to be employed with the Government in the future. If enacted, certification would be required within 3 years. (S.773 Cybersecurity Act of 2009, § 7, Licensing and Certification of Cybersecurity Professionals).

**Table 4: Group Training Courses for Entry-Level IT Specialists
FYs 2005-2009**

Group Training Classes	Number of IT Specialists Who Completed Training
Title II/XVI Fundamentals	366
Customer Service	400
Overview of Web Technologies	319
Overview of Mainframe Languages and Technologies	383
Structured Writing for User Procedures and Systems Documentation	673
Team Building	147
Generation Mix	314

**Table 5: Job-Specific Training Courses for Entry-Level IT Specialists
FYs 2005-2009**

Job-Specific Training	Number of IT Specialists Who Completed Training
COBOL Programming	105
Java Training	507
Websphere Training	728
DB2 Training	648
Requirements Analyst Training	428
Web Design Training	423
Cisco-related Training	22

DCO explained that its entry-level employees—who are hired from outside the Agency—are often mandated to complete training that provides information on general policy and the structure of SSA's organization. In addition, the training is monitored, and the IT specialists are able to provide feedback. DCQP staff explained training for its IT specialists may be obtained through SSA-sponsored classroom and online sources, external vendors, and/or colleges and universities.

DCS' Skills Analyses

DCS uses a skill analysis tool to determine where skill gaps exist and training and hiring are needed. DCS conducts a comprehensive skills inventory analysis (IT Workforce Survey) every 2 years to assess the skills of its IT specialist workforce. The most recent analysis was completed in 2008. The information obtained from the analysis is also used as a vehicle for recruitment and training.

During this process, DCS supervisors are asked to complete an IT Workforce Survey, and record the current competencies and targeted skills for each of their IT specialists. DCS supervisors also record future staff and contractor needs for each competency and targeted skill.⁶ The difference between the component's future needs for the next

⁶ See Appendix F for the full listing of competencies and targeted skills.

2 years and the current skills equate to competency gaps.⁷ DCS minimizes and/or closes competency gaps by training current staff and/or hiring new staff. See Table 6 for the top 10 competency gaps identified during the 2008 survey.

Table 6: DCS Top 10 Competency Gaps

Competency	Number of Additional IT Specialists In Need of Competency
Websphere	385
Web Technology	356
Problem Solving	352
Microsoft Desktop Tools	340
Oral and Written Communications	338
General Analytic Skills	289
Business Process Analysis	275
Computer Languages	245
Customer Relations/Service	243
Peer Review	240

According to DCS staff, competency gaps identified during the 2008 Survey have been closed. The gaps were closed as a result of hiring and training that took place in DCS in 2009. In some cases, an IT specialist who was hired may have possessed more than one of the needed competencies. DCS staff explained, “An employee’s ability to grasp the competency through training and on the job experience determines the length of time for [an] individual to become proficient. [DCS] provides basic training in all the competencies listed, as well as intermediate and advanced training in the computer language competencies. Proficiency varies on an individual basis.” See Table 7 for updated information.

⁷ DCS defines a competency gap as the number of additional employees who should have a particular competency.

Table 7: DCS' Closure of Competency Gaps

Competency	Gaps Identified in 2008	Employees Who Received Training in 2009	Employees Hired During 2009 Who Possessed Competency	Number of Additional IT Specialists In Need of Competency
Websphere	385	130	293	-38
Web Technology	356	130	293	-67
Problem Solving	352	90	305	-43
Microsoft Desktop Tools	340	103	378	-141
Oral & Written Communications	338	239	272	-173
General Analytic Skills	289	22	272	-5
Business Process Analysis	275	89	272	-86
Computer Languages	245	307	326	-388
Customer Relations/Service	243	129	218	-104
Peer Review	240	0	326	-86

Senior-Level Training

DCDAR staff explained training opportunities for senior-level IT specialists are generally the same as those for entry-level specialists. However, senior-level employees can attend Government-sponsored and/or vendor-provided training designed exclusively for IT management staff. In DCS, team leaders, managers, and individuals in senior technical positions are required to complete a Management Leadership Curriculum (see Table 8 for details). DCS staff indicated 352 IT specialists completed the Management Leadership Curriculum over the last 5 years. In addition, DCS requires that its Project Managers for "executive oversight projects,"⁸ complete a 19-day DCS Project Management Curriculum (see Table 9). DCS staff explained 58 IT specialists completed the Project Management Curriculum during FYs 2006 through 2009.

Table 8: DCS Management Leadership Curriculum

Training Courses	Time Frame
Personnel Management Workshop - Nuts and Bolts for Managers	4 Days
Performance Management - Using the Performance Assessment and Communication System	2 Days
Customer Service and Coping with Change	1 Day
Effective Meetings and Winning Relationships	1 Day
Strategic Planning and Responding Not Reacting	1 Day
Successful Negotiating and Team Building	1 Day
Problem Solving and Goal Setting	1 Day
Coaching and Mentoring Roles in Leadership	1 Day

⁸ Executive oversight projects are the Agency's highest priority Office of Systems projects.

Table 9: DCS 19-Day Project Management Curriculum

Training Courses	Time Frame
Project Management Workshop I: Microsoft Project and Introduction to Project Management	5 Days
Project Management Workshop II: Project Scope, Requirements, Time, and Cost	5 Days
Project Management Workshop III: Risk, Quality, and Communication	5 Days
Contracting Officer Technical Representative (Basic Project Officer)	4 Days

Staff in the five Deputy Commissioner offices we reviewed stated all IT specialists are given the opportunity to develop an Individual Development Plan. The staff explained the training needs are generally discussed between the IT specialist and his or her supervisor, as necessary.

Knowledge Sharing

To facilitate knowledge sharing between senior- and entry-level IT specialists, the Deputy Commissioner offices we reviewed assigned a senior-level mentor to each entry-level employee. DCS staff indicated the mentors were experienced IT specialists who were instructed to share knowledge with, guide, and review the work of entry-level IT specialists. In addition, DCDAR staff stated it encourages shared work assignments and cross-trains its IT specialists for several different IT job specialties. According to staff, cross-training employees minimizes competency gaps among IT specialists and mitigates employee turnover disruption.

In addition, both DCS and DCO use Windows SharePoint Services to facilitate the transfer of knowledge in the organization. SharePoint is a browser-based collaboration and document management platform. DCS staff stated they use the technology for document management with centralized storage, secure access, version control, content approval, reporting abilities, and real-time collaboration. In addition, a DCS staff member indicated by implementing SharePoint Agencywide, teams and staffs with similar functions are able to streamline and automate numerous processes, thereby reducing mistakes, wait times, and miscommunications.

RETENTION OF IT SPECIALISTS

The five Deputy Commissioner offices reported using several activities to retain their IT specialists including awards, training, promotional opportunities, and a special pay supplement to IT specialists.

Offices also report IT specialists are provided opportunities to expand the scope of their work. DCS staff explained different divisions within their office work under a matrix style of management, so employees are given the opportunity for variety and change, if requested. Likewise, the DCDAR staff stated "Our IT specialists are encouraged to participate in the continual surge of new developments and processes, which provides

a forum for our IT specialists to be involved in various pilots and tests, and [remain] at the helm of new and leveraging technologies."

In addition, SSA uses special salary rates to attract and retain IT specialists, as authorized by OPM. As stated in OPM guidance, "Employees [are] paid a special rate or a special pay supplement, established under appropriate authority to recruit or retain well qualified individuals in selected agencies, occupations, work levels and locations."⁹ Effective January 1, 2010, IT specialists receive the following percentage supplements in addition to the General Schedule (GS) basic rates: 40 percent at the GS-5 level; 35 percent at the GS-7 level; 30 percent at the GS-9 level; and 20 percent at the GS-11 level.

DCS staff stated a collegial work environment, developmental opportunities, and a diverse/multi-cultural working environment are offered to IT specialists. These efforts in DCS are to retain its IT specialists.

In addition to these activities, staff from DCQP explained that telework and tuition reimbursement are retention initiatives offered to its IT specialists. The staff stated approximately 3.3 percent of its IT specialists participate in telework, while 10 percent have received tuition reimbursement for coursework directly related to their positions.

Analysis of information provided by SSA indicated most IT specialists who left the Agency were not transferring to other employers. Of the 1,240 IT specialists separated from the Agency over the last 7 years (see Table 2), we determined approximately 83 percent left the Agency because of retirement, health, or disciplinary actions. Only about 17 percent separated for other reasons.

CONCLUSION

We determined over the last 7 years, the components have hired approximately 1.3 new IT specialists for every one IT specialist who separated from the Agency. Based on our examination of data and discussions with SSA staff, the five Deputy Commissioner offices we reviewed have established human capital activities regarding the hiring, training, and retention of IT specialists. The offices reported using a multitude of efforts to attract, hire, train, and retain IT specialists. We encourage the offices to continue to periodically reassess their recruitment, training, and retention efforts to ensure the Agency has an IT specialist workforce to meet its current and future needs.

⁹ OPM's Central Personnel Data File Standards, Pay Rate Determinant, page 3.
http://www.opm.gov/feddata/guidance_gp59.asp

AGENCY COMMENTS

SSA did not have any comments on our findings. (See Appendix G for the full text of the Agency's comments.)

A handwritten signature in black ink, appearing to read "Patrick P. O'Carroll, Jr."

Patrick P. O'Carroll, Jr.

Appendices

APPENDIX A – Acronyms

APPENDIX B – Office of Personnel Management Classifications for Information Technology Specialists

APPENDIX C – Scope and Methodology

APPENDIX D –The Information Technology Specialists’ Role at the Social Security Administration

APPENDIX E – Overview of the Social Security Administration’s Information Technology Planning Process

APPENDIX F – Deputy Commissioner for Systems’ 2008 Information Technology Workforce Planning—Competencies and Targeted Skills

APPENDIX G – Agency Comments

APPENDIX H – OIG Contacts and Staff Acknowledgments

Appendix A

Acronyms

DCBFM	Deputy Commissioner for Budget, Finance and Management
DCDAR	Deputy Commissioner for Disability Adjudication and Review
DCO	Deputy Commissioner for Operations
DCQP	Deputy Commissioner for Quality Performance
DCS	Deputy Commissioner for Systems
FCIP	Federal Career Intern Program
FY	Fiscal Year
GS	General Schedule
IT	Information Technology
OIG	Office of the Inspector General
OPM	Office of Personnel Management
SCEP	Student Career Experience Program
SSA	Social Security Administration
OIG	Office of the Inspector General
SSN	Social Security Number

Office of Personnel Management Classifications for Information Technology Specialists

In 2008, the Office of Personnel Management (OPM) established 11 distinct specialties for the information technology (IT) specialist position. In its guidance, OPM stated, "The growing use of information technology throughout our economy has resulted in an unprecedented explosion in the demand for skilled IT workers." An advantage of specialty titles is the ability to more easily identify the composition of the current IT population for IT workforce planning purposes and the ability to more readily link job titles with required competencies.¹

INFORMATION TECHNOLOGY MANAGEMENT, GS-2210

Occupational Information	<p>The specialties are ordered throughout this standard according to the system development life cycle management process. A general description of the relationships among the specialties is presented below:</p> <ul style="list-style-type: none">• Policy and Planning – develop, implement, and ensure compliance with plans, policies, standards, infrastructures, and architectures that establish the framework for the management of all IT programs.• Enterprise Architecture – analyze, plan, design, document, assess, and manage the IT enterprise structural framework to align IT systems with the mission, goals, and business processes of the organization.• Security – plan, develop, implement, and maintain programs, policies, and procedures to protect the integrity and confidentiality of systems, networks, and data.• Systems Analysis – consult with customers to refine functional requirements and translate functional requirements into technical specifications.• Applications Software – translate technical specifications into programming specifications; develop, customize, or acquire applications software programs; and test, debug, and maintain software programs.• Operating Systems – install, configure, and maintain the operating systems environment including systems servers and operating systems software on which applications run.• Network Services – test, install, configure, and maintain networks including hardware (servers, hubs, bridges, switches, and routers) and software that permit the sharing and transmission of information.• Data Management – develop and administer databases used to store and retrieve data and develop standards for the handling of data.• Internet – provide services that permit the publication and transmission of information about agency programs to internal and external audiences using the Internet.• Systems Administration – install, configure, troubleshoot, and maintain hardware and software to ensure the availability and functionality of systems.• Customer Support – provide technical support to customers who need advice, assistance, and training in applying hardware and software systems.
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¹ OPM's *Job Family Standard for Administrative Work in the Information Technology Group*, page 20. <http://www.opm.gov/fedclass/html/gsseries.asp#2200>.

Scope and Methodology

To accomplish our objective, we:

- Reviewed prior Government Accountability Office and Office of the Inspector General reports.
- Reviewed various Office of Personnel Management publications.
- Reviewed various Social Security Administration documents pertaining to Human Capital Planning.
- Interviewed Agency personnel familiar with the hiring, training, and retaining information technology (IT) specialists at the Agency.
- Requested and reviewed information from the five Deputy Commissioner offices with the highest number of IT specialists on staff at the Agency. These were the Offices of the Deputy Commissioners for Systems; Operations; Quality Performance; Budget, Finance and Management; and Disability Adjudication and Review. We assessed these offices' practices, policies, and procedures regarding hiring, training, and retaining IT specialists. Specifically, we reviewed the Agency's
 - ✓ procedures for hiring and recruiting IT specialists,
 - ✓ plans for ensuring new IT specialists are properly trained,
 - ✓ efforts to have experienced staff assist in training newly hired IT specialists before leaving or retiring from the Agency, and
 - ✓ plans for retaining IT specialists once trained.

The principal entities reviewed were the Offices of the Deputy Commissioners for Systems; Operations; Quality Performance; Budget, Finance and Management; and Disability, Adjudication and Review. We performed our review in Baltimore, Maryland, from April to September 2009. We conducted this review in accordance with the President's Council on Integrity and Efficiency's *Quality Standards for Inspections*.¹

¹ In January 2009, the President's Council on Integrity and Efficiency was superseded by the Council of the Inspectors General on Integrity and Efficiency, *Inspector General Reform Act of 2008*, Public Law Number 110-409 § 7, 5 U.S.C. App. 3 § 11.

The Information Technology Specialists' Role at the Social Security Administration

The information technology (IT) specialists at the Social Security Administration (SSA) play a vital role in helping the Agency accomplish its goals. Below is a summary of the IT specialists' functions in the five Deputy Commissioner offices included in our review.

Deputy Commissioner for Systems (DCS)

As of June 2009, DCS reported approximately 2,965 IT specialists on staff. DCS further reported these specialists contribute directly to the Agency's achievement of its strategic goals. The IT specialists in DCS provide the vast majority of the technical support needed to complete the maintenance, cyclical, carryover, and developmental projects included in the Agency's 2-year IT Systems Plan. Any project selected for inclusion in the IT Systems Plan must support the goals identified in the Agency's Strategic Plan.

Examples of projects selected for inclusion in the Fiscal Year 2009 - 2010 Plan include the *iClaim* rollout, *Ready Retirement* releases, *Representative Payee System* redesign, *Compassionate Allowance* releases, etc.

Deputy Commissioner for Operations (DCO)

As of June 2009, DCO reported approximately 275 IT specialists on staff. DCO reported the IT specialists develop regional workload management tools. In addition, DCO staff explained the specialists provide technical systems support and serve as subject matter experts for new automated processes that include (but are not limited to) *Ready Retirement* and *iClaim*. Finally, IT specialists in regional locations provide a vital layer of network support to several thousand users in the regions. By supporting day-to-day operations of the network in the regions and implementation of important infrastructure upgrades, these IT specialists enable thousands of employees to serve the public.

IT specialists in DCO also provide support for the transition from paper to electronic folders by streamlining and automating case tasks to decrease the time it takes to prepare and send notices, schedule hearings, and transfer workloads.

Deputy Commissioner for Quality Performance (DCQP)

As of July 2009, DCQP reported approximately 97 IT specialists on staff. Further, DCQP reported its IT specialists were indirectly involved in supporting all the Agency's strategic goals, since the component has major responsibilities for evaluating and advancing quality activities in SSA. Several automation tools developed by DCQP assist the Agency in developing and processing disability and overpayment cases. According to DCQP staff, these tools have proven to be critical in improving the quality and efficiency of field office claims and development activities.

DCQP staff further explained its IT specialists are directly involved in the Access to Financial Information project. The specialists provide support for the workstations and networks used by Access to Financial Information team members; support the analysis of data associated with the pilot; and provide expert consultation on such topics as database architecture and systems security.

Deputy Commissioner for Budget, Finance, and Management (DCBFM)

As of July 2009, DCBFM reported approximately 76 IT specialists on staff. Further, DCBFM reported that, as an Agency support component, its IT specialists primarily contribute to achieving the Agency's strategic goals by supporting end-users, back-end services, and applications used SSA-wide, such as SSA's Streamlined Acquisition, Budget Execution, Online Accounting and Reporting, Managerial Cost Accounting Systems, and Electronic Government.

DCBFM staff stated its IT specialists also contribute to achieving Agency strategic goals by supporting SSA's Digital Library and by working closely with disability determination services and hearing offices to improve Digital Library response times.

Deputy Commissioner for Disability Adjudication and Review (DCDAR)

As of June 2009, DCDAR reported approximately 74 IT specialists on staff, including 8 specialists in DCDAR headquarters, 10 specialists in regional offices, and 56 specialists in field locations. DCDAR staff explained its IT specialists in headquarters automate administrative applications that replace manual or paper processes used in DCDAR, including workload summary reports, statistical indexes, on-line surveys, and ad hoc reports for workload management purposes that supplement standard management information derived through case processing. In addition, IT specialists in DCDAR's Division of Security develop and implement component-specific security policies and procedures and provide security support and guidance to DCDAR personnel nationwide.

In the regions, DCDAR's IT specialists act as coordinators for all electronic folder design and implementation activities for their regions, represent management in a full-range of electronic workload initiatives, and direct major projects that introduce new equipment, case handling, and training efforts to enhance electronic case processing. In addition, the IT specialists diagnose and fix systems-related problems associated with various electronic initiatives, monitor performance of processes in offices, and oversee and support the introduction of new equipment to support electronic processes.

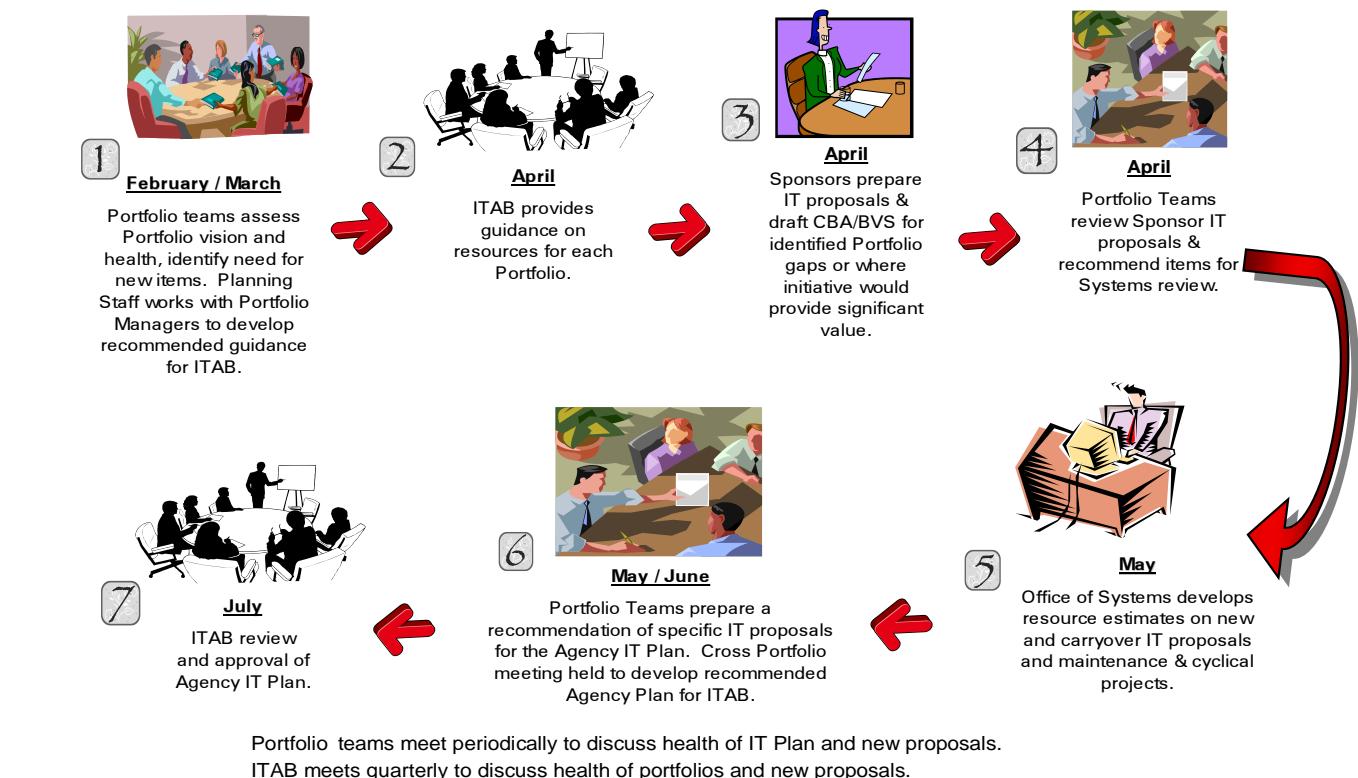
Finally, in field locations, DCDAR's IT specialists upload documents through the electronic folder process, act as a central coordination point for administrative law judge electronic signature administration and support, and implement and support central printing operations to lessen the need for notice preparation in hearing offices.

Appendix E

Overview of the Social Security Administration's Information Technology Planning Process

Below is an overview of the Agency's Information Technology (IT) Planning Process. IT planning is the effort to allocate Agency resources associated with its IT processes. This allocation includes both Agency employees and contractor resources. At present, the Agency's IT planning efforts are focused on employees in the Office of Systems and contractors funded through the IT systems budget.

SSA IT Planning Process Overview



Prepared by ODCS Planning Staff

Acronym Legend	
BVS	Benefit Value Score
CBA	Cost Benefit Analysis
ITAB	Information Technology Advisory Board

Deputy Commissioner for Systems' 2008 Information Technology Workforce Planning—Competencies and Targeted Skills

Every 2 years, the Office of the Deputy Commissioner for Systems (DCS) conducts an Information Technology (IT) Workforce Survey Analysis to assess the skills of its IT specialist workforce. The most recent analysis was completed in 2008. During the analysis, all DCS supervisors are asked to complete a survey and record the current competencies and targeted skills for each of their IT specialists. The difference between the component's future needs for the next 2 years and the current skills equate to competency gaps. See the list below for the complete listing of future competencies and targeted skills used to assess DCS' 2008 IT specialist workforce.

COMPETENCIES

Analysis and Design

- Business Process Analysis, General Analytic Skills, Information Architecture and Design, Regression Testing, Requirements Engineering, System Design (Logical & Physical), User Centered Design

Enterprise Architecture

- Oversight, Solutions

Infrastructure/Networking

- Configuration Management, Data Management, Data Management-XML, Database Administration, Distributed Systems, Infrastructure Design, IT Architecture, IT Performance Assessment, LAN Administration, Network Management, Systems Integration, Telecommunications

Organizational Oversight

- Financial Management, Human Resource Management, Leadership/Managerial, Performance Assessments, Process/Change Management, Strategic Thinking

Organizational Support

- Accessibility, Audio Visual Expertise, Customer, Relations/Service, Education & Training, Facilities Management, General Office Support, Graphical Presentations, Group Facilitation, Human Resource Support, Knowledge Management, Microsoft Desktop Tools, Multimedia Technologies, Oral and Written Communications, Organizational Development, Problem Solving, Product Evaluation, Team Building, Technical Writing, Technology Awareness

Program/Project/Contract Management

- Contracting/Contract Management, Earned Value Analysis, MS Project, Peer Review, Planning, Program Management, Project Management, Systems Life Cycle/Software Development

SSA Business/Systems' Knowledge

- Debt Management Knowledge, Disability Knowledge, Earnings Knowledge, Enumeration Knowledge, Financial Knowledge, Human Resources Knowledge, Management Information/Work Measurement Knowledge, Medicare Knowledge, Title II Knowledge, Title XVI Knowledge

Security

- Continuity of Operations Planning, Disaster Recovery, Encryption, Information Systems Security Certification, Network Security, Risk Management, Security Related Software Administration

Systems Management and Operations

- Capacity Management, Hardware, Hardware-System I, Help Desk Support, Imaging/Image Management, Monitoring Tools, Operating Systems, Operations Support, Storage Management, Systems Integration Testing, Systems Software Maintenance

Systems/Software Development

- Artificial Intelligence, CMM Compliant Processes, Computer Languages, Database Application Development, Document Management, Geographic Information Systems, Object Oriented Application Development, Quality Assurance/Quality Control, Reporting Tools, Software Engineering, Software Evaluation, Software Testing, Software Validation, Usability Testing

Web Development Technology

- e-Commerce, Web Technology, Websphere

TARGETED SKILLS

Computer Languages

- ALC (Assembler Language Code), COBOL, Cold Fusion, Customer Information Control System (CICS), Java, Job Control Language (JCL), PowerBuilder

Database Administration

- CA>IDMS Database Administration, Content Manager, DB2 Database Administration, MADAM, Object Access Method (OAM), Oracle Database Administration

Database Application Development

- DB2 Application Development, IDMS Application Development

Appendix G

Agency Comments



SOCIAL SECURITY

MEMORANDUM

Date: March 2, 2010

Refer To: S1J-3

To: Patrick P. O'Carroll, Jr.
Inspector General

From: Margaret J. Tittel /s/
Acting Chief of Staff

Subject: Office of the Inspector General (OIG) Draft Report, "The Social Security Administration's Hiring and Training of Information Technology Specialists" (A-13-09-19082)--NFORMATION

Thank you for the opportunity to review and comment on the draft report. We appreciate your efforts in conducting this review and are pleased that you found that we have an effective hiring, training, and retention strategy for Information Technology Specialists. We do not have any comments on the report findings.

Please let me know if we can be of further assistance. Please direct staff inquiries to Ms. Candace Skurnik, Director, Audit Management and Liaison Staff, at extension 54636.

Appendix H

OIG Contacts and Staff Acknowledgments

OIG Contacts

Shirley E. Todd, Director, Evaluation Division

Randy Townsley, Audit Manager

Acknowledgments

In addition to those named above:

Nicole Gordon, Auditor

For additional copies of this report, please visit our web site at
www.socialsecurity.gov/oig or contact the Office of the Inspector General's Public Affairs Staff Assistant at (410) 965-4518. Refer to Common Identification Number A-13-09-19082.

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Social Security Advisory Board

Overview of the Office of the Inspector General

The Office of the Inspector General (OIG) is comprised of an Office of Audit (OA), Office of Investigations (OI), Office of the Counsel to the Inspector General (OCIG), Office of External Relations (OER), and Office of Technology and Resource Management (OTRM). To ensure compliance with policies and procedures, internal controls, and professional standards, the OIG also has a comprehensive Professional Responsibility and Quality Assurance program.

Office of Audit

OA conducts financial and performance audits of the Social Security Administration's (SSA) programs and operations and makes recommendations to ensure program objectives are achieved effectively and efficiently. Financial audits assess whether SSA's financial statements fairly present SSA's financial position, results of operations, and cash flow. Performance audits review the economy, efficiency, and effectiveness of SSA's programs and operations. OA also conducts short-term management reviews and program evaluations on issues of concern to SSA, Congress, and the general public.

Office of Investigations

OI conducts investigations related to fraud, waste, abuse, and mismanagement in SSA programs and operations. This includes wrongdoing by applicants, beneficiaries, contractors, third parties, or SSA employees performing their official duties. This office serves as liaison to the Department of Justice on all matters relating to the investigation of SSA programs and personnel. OI also conducts joint investigations with other Federal, State, and local law enforcement agencies.

Office of the Counsel to the Inspector General

OCIG provides independent legal advice and counsel to the IG on various matters, including statutes, regulations, legislation, and policy directives. OCIG also advises the IG on investigative procedures and techniques, as well as on legal implications and conclusions to be drawn from audit and investigative material. Also, OCIG administers the Civil Monetary Penalty program.

Office of External Relations

OER manages OIG's external and public affairs programs, and serves as the principal advisor on news releases and in providing information to the various news reporting services. OER develops OIG's media and public information policies, directs OIG's external and public affairs programs, and serves as the primary contact for those seeking information about OIG. OER prepares OIG publications, speeches, and presentations to internal and external organizations, and responds to Congressional correspondence.

Office of Technology and Resource Management

OTRM supports OIG by providing information management and systems security. OTRM also coordinates OIG's budget, procurement, telecommunications, facilities, and human resources. In addition, OTRM is the focal point for OIG's strategic planning function, and the development and monitoring of performance measures. In addition, OTRM receives and assigns for action allegations of criminal and administrative violations of Social Security laws, identifies fugitives receiving benefit payments from SSA, and provides technological assistance to investigations.