Office of Pollution Prevention and Toxics Workforce Analysis

Fiscal Year 2015 – Fiscal Year 2020



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1. Introduction

Purpose of the Workforce Plan

OPM defines Workforce Planning as the systematic process for identifying and addressing the gaps between the workforce of today and the human capital needs of tomorrow. Effective workforce planning enables the organization to:

- align workforce requirements directly with the agency's strategic and annual business plans,
- develop a comprehensive picture of where gaps exist between competencies the workforce currently possesses and future competency requirements,
- identify and implement gap reduction strategies,
- make decisions about how best to structure the organization and deploy the workforce considering future workforce trends, and
- identify and overcome internal and external barriers to accomplishing strategic workforce goals.

Workforce Planning determines what mix of experience, knowledge, and skills are required and sequences steps to get the right number of right people, in the right place, at the right time. Workforce planning

Vision, Values, and Goals²

is a strategic effort designed to forecast talent needs and talent supply, while utilizing existing human resource programs and activities to align the two.

In 2018, the agency released its FY 2018-2020 U.S. EPA Strategic Plan to identify and communicate its strategic objectives and direction. The Office of Pollution Prevention and Toxics (OPPT) workforce analysis utilizes the Strategic Plan as the foundation of the workplace development process and builds upon the planning process for the organization to accomplish its mission, vision, and goals. Additionally, this workforce analysis provides baseline data for assisting resource decisions, since there is a clear connection between objectives and the resources needed to accomplish them.

The Office of Chemical Safety and Pollution Prevention's Objective 1.4 in the Strategic Plan is to, "effectively implement the Toxic Substance Control Act (TSCA), and the Federal Insecticide, Fungicide, and Rodenticide Act, to ensure new and existing chemicals and pesticides are reviewed for their potential risks to human health and the environment and actions are tame when necessary."¹

OPPT workforce development is a key component of OPPT's 2022 Vision and Goals to establish a strong chemical safety program and a focused and effective pollution prevention program. Having an organization that is positioned to excel means that the OPPT workforce understands and is committed to the Office's vision and goals and has the skills and diversity

² Source: OPPT Vision and Goals -<u>https://intranet.epa.gov/opptwork/email-msgs-from-oppt-director/2014/vision_goals.html</u>

¹ Source: 2018-2022 EPA Strategic Plan, Page 19 https://www.epa.gov/sites/production/files/2019-09/documents/fy-2018-2022-epa-strategic-plan.pdf

that make it possible to embrace leadership, collaboration, and innovation to achieve this vision.

OPPT values integrity, sound science, diversity of cultures and thinking, competence, creativity and innovation, collaboration, and continuous learning and development. OPPT treats its people fairly and with respect and encourages consistent practice of these values

OPPT's vision, values, and strategic goals provide the Office's blueprint for successfully advancing OPPT strategic goals.

OPPT vision consists of three parts:

- 1. A Strong Chemical Safety Program
- 2. A Focused and Effective Pollution Prevention Program
- 3. An Organization that is Positioned to Excel

OPPT's workforce analysis identifies four key strategic goals that are aligned to support OPPT's 2022 Vision and Goals:

- 1. Talented & Diverse Workforce
- 2. Learning & Developing Workforce
- 3. Results-focused Workforce
- 4. Engaged & Satisfied Workforce

Together, these four goals will ensure that OPPT employees have and utilize the needed skills and competencies to achieve OPPT's 2022 Vision and Goals to position the Office as a model employer for the 21st century.

Goal 1: Talented & Diverse Workforce

To be successful in accomplishing its vision and goals, OPPT must retain and attract a diverse and highly skilled workforce—ensuring that it has the right staff and managers, with the necessary critical skills and abilities, to carry out the mission.

Goal 2: Learning & Developing Workforce

To be successful in accomplishing its vision and goals, OPPT employees must be self-driven learners who strive for continual improvement. OPPT must ensure that its employees share knowledge and collaborate with other employees and stakeholders. New and unanticipated challenges require a learning workforce capable of taking responsibility for their own learning, growth and development, and adapting to dynamic work.

Goal 3: Results-Focused Workforce

To be successful in accomplishing its vision and goals, OPPT employees must perform to their highest potential, work effectively and efficiently, and deliver high-impact results.

Goal 4: Engaged & Satisfied Workforce

To be successful in accomplishing its vision and goals, OPPT employees must find their work meaninful, be valued and treated with the respect, and be recognized and appreciated for good work. The workforce analysis will be the basis for creating action plans to focus on specific gaps/areas that need improvement, and re-tooling our workforce, as directed by senior management. Being "strategic" in nature, this document does not include the detailed action plans, milestones, or metrics for measuring success. It does, however, include major workforce development milestones for FY 2015-2020.

As part of the Workforce Analysis, OPPT will:

- inventory the competencies that currently reside in the workforce, per occupational series;
- identify the numbers of employees that will be needed to effectively implement our strategic and tactical plans;
- identify skills/competencies gaps and surpluses; and
- develop recruiting strategies, employee development programs, and other approaches to retool our workforce and address those gaps and surpluses.

OPPT's Workforce Analysis evaluates the current state of OPPT's workforce, compares the current state to the desired future state, and identifies and closes existing gaps. The workforce planning process gives focus to demographics, geographical diversity, retirement projections, and core competencies to provide more refined information on anticipated changes in the workforce. The process helps plan for changes in workforce competencies. The workforce plan also assists OPPT to systematically address issues driving workforce changes, such as growing retirement eligibility.

While this compilation of data provides a valuable "snapshot" of OPPT's workforce

and serves as a starting point for a human capital strategy, the analysis is not a detailed assessment of current competencies held by each employee. This document provides a general overview of the structure of OPPT's workforce that is currently in place to implement OPPT's Strategic Plan and direction. OPPT has used the competency model established by the Office of Personnel Management (OPM) to categorize current competencies as identified within OPPT's existing occupational series.

The plan, while prescriptive in defining specific workforce development actions plans, is intended to allow adjustments as emerging and unanticipated business needs occur. Structurally, the plan conforms to the Federal Workforce Planning Model established by OPM.



Workforce Planning Model

2. Background

In June 2016, TSCA was amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act. The amendments give EPA significant new, as well as continuing, responsibilities for reviewing chemicals in or entering commerce to prevent unreasonable risks to human health and the environment, including unreasonable risks to potentially exposed or susceptible subpopulations. Proper implementation of the TSCA amendments is one of EPA's top priorities. There is immense public interest in the agency's efforts since the TSCA amendments were the first significant environmental legislation enacted in over a decade and the first update to America's outdated chemical safety infrastructure in more than 40 years. The public as well as local, state and tribal governments and other federal agencies depend on EPA's timely release of critical chemical safety information. The TSCA mandates have presented significant implementation opportunities and challenges for both the New Chemicals (TSCA Section 5) and **Existing Chemicals Programs (TSCA** Section 6).

In its 2019 report evaluating EPA's implementation of the Lautenberg Act, the Government Accountability Office cited concerns about appropriate resources and staff capacity within the Chemical Control Division (responsible for risk management) and the Risk Assessment Division (responsible for risk assessment). These are the two divisions implementing key portions of the amended TSCA ³requirements. Additionally, In the OIG Draft Report entitled "Lack of Planning for Staff and Resources Puts EPA's Ability to Meet TSCA Deadlines at Risk," OCSPP agreed the following recommendations:

1. Recommendation - Develop a workforce analysis focused on the Office of Pollution Prevention and Toxics and its ability to implement the requirements of the Toxic Substances Control Act.

• Proposed Corrective Action: OCSPP will conduct a workforce analysis specifically focused on the Office of Pollution Prevention and Toxics capability to implement the requirements of the Toxic Substances Control Act.

• Target Completion Date: December 31, 2020

2. Recommendation - Specify what skill gaps must be filled to achieve the Toxic Substances Control Act implementation capacity and how and when those gaps will be filled in the fiscal year 2021 workforce plan that the EPA agreed to develop in their Corrective Action Plan to the U.S. Office of Personnel Management.

- **Proposed Corrective Action:** OCSPP will complete a skills gap analysis and will utilize its hiring plan to fill the remaining identified gaps.
- Target Completion Date: March 31, 2021

OPPT's strategic focus is on filling missioncritical positions in the risk assessment and risk management programs and focusing its employment efforts on hiring qualified employees for mission critical occupations.

³ Source: Chemical Assessments Status of EPA's Efforts to Produce Assessments and Implement the Toxic Substances Control Act

3. **OPPT's Current Workforce**

The current state provides a summary of the FY 2020 workforce demographics and analyses in the following areas: acquisitions, age, years of service, grade, gender, race/national origin, persons with disabilities, veterans, and supervisors/leaders. All data was compiled with the help of a variety of source documents from OPPT, EPA's Office of Human Resources, Oracle Business Intelligence Enterprise Edition (OBIEE), and PeoplePlus, as of October 1, 2020.

At the end of FY 2020, OPPT had 332 permanent employees,162 were concentrated in the Risk Assessment Division and the Chemical Control Division. This inclucludes staff, managers, and supervisors. This workforce includes professional, technical, administrative, and supervisory positions. The organizational chart shows OPPT's current internal structure.



OPPT's Organizational Chart (FY 2020)

Current Workforce Demographics

The following charts provide a general snapshot of OPPT's demographics at the end of FY 2020, compared to the end of FY 2020 for OCSPP and EPA. Graphical representation of this data shows employment type, race, sex, education, pay scale, and age.



Figure 1 - Employment Status, FY 2020

Figure 2 - Race, FY 2020





Figure 3 - Sex, FY 2020









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Figure 8 - Average Years of Service, FY 2020



Figure 9 - Permanent on-board counts of OPPT by division as of September 30, 2020. Temporary student trainees (interns), reemployed annuitants, and contractors (grantees) under the National Older Worker Career Center (NOWCC) program are not included in the permanent onboard number.



Figure 9 - Permanent Onboard by Division, FY 2020

Figure 10 -The changes that have occurred in the last six fiscal years.

Figure 10 - Workforce Onboard by Division

Division	FY15	FY16	FY17	FY18	FY19	FY20
Immediate Office	9	9	9	9	13	11
Toxics Release Inventory Program	0	25	26	24	21	23
National Program Chemicals Division	31	28	29	27	27	26
Information Management Division	42	43	41	37	33	30
Environmental Assistance Division	35	35	38	39	39	30
Chemistry, Economics and Sustainable Strategies Division	54	64	65	58	54	50
Chemical Control Division	41	41	49	53	59	59
Risk Assessment Division	76	79	80	79	87	103
Total	288	324	337	326	333	332



Figure 11 - Workforce Onboard by Fiscal Year

Figure 12 - The percentage of major occupational groups. Appendix B details which series numbers are associated with the occupational groups.





Figure 13 - Occupational Title by Division, FY 2020

Division	Occupational Title	Count				
	Division Total:	11				
	Environmental Protection Specialist	4				
	General Natural Resources Management	1				
Immediate Office	Management and Program Analysis	1				
	Miscellaneous Admin & Program					
	Program Management	3				
	Public Affairs	1				
	Division Total:	59				
	Chemical Engineering	1				
	Chemistry	4				
	Environmental Engineering	1				
	Environmental Protection Specialist	40				
	General Attorney	2				
Chemical Control	General Natural Resources Management	3				
Division	General Physical Science	2				
	Information Technology Management	1				
	Management and Program Analysis	1				
	Miscellaneous Admin & Program	2				
	Program Management	1				
	Industrial Hygiene	1				
	Division Total:	50				
	Chemistry	8				
	Economist	11				
	Environmental Engineering	1				
. . .	Environmental Protection Specialist	16				
Chemistry, Economic	General Natural Resources Management	3				
& Sustainable Strategles	General Physical Science	3				
DIVISION	General Student Trainee	1				
	Management and Program Analysis	3				
	Program Management	1				
	Technical Information Services	1				
	Toxicology	2				

Division	ivision Occupational Title				
		Division Total:	30		
	Administrative Officer		1		
,.	Chemical Engineering		1		
Environmental	Environmental Protection Specialist		12		
Assistance Division	General Attorney		2		
	Management and Program Analysis		13		
	Miscellaneous Admin & Program		1		
		Division Total:	30		
	Environmental Protection Specialist	7			
	General Natural Resources Management		1		
Information Management Division	Information Technology Management		13		
Management Division	Management and Program Analysis		3		
	Miscellaneous Admin & Program		5		
	Program Management		1		
		Division Total:	26		
National Program	Environmental Protection Specialist		24		
Chemicals Division	General Physical Science		1		
	Program Management		1		
		Division Total:	103		
	Administrative Officer		1		
	Chemical Engineering		17		
	Chemistry		2		
	Environmental Engineering		5		
Diele Assessment	General Health Science		2		
RISK ASSessment	General Natural Resources Management		42		
DIVISION	General Physical Science		12		
	Industrial Hygiene		1		
	Microbiology		3		
	Miscellaneous Admin & Program		1		
	Technical Information Services		1		
	Toxicology		16		
		Division Total:	23		
	Chemical Engineering		1		
	Chemistry		2		
Toxic Release Inventory	Ecology		1		
Program Division	Environmental Protection Specialist		13		
	General Natural Resources Management		2		
	Management and Program Analysis		3		
	Miscellaneous Admin & Program		1		
		Grand Total:	332		



Figure 14 - Workforce Pay Plan Distribution, FY 2020⁴





⁴ SL is Non-SES and Non-GS



Figure 16 - Senior Executive Service (SES) by Fiscal Year





Figure 18 - OPPT Eligibility for Retirement by Division and Occupational Title, FY 2020

Division	Occupational Title	FY20	FY21	FY22 – FY26
	Chemical Engineering	1		
	Chemistry			
Chemical Control	Environmental Engineering			1
Division	Environmental Protection Specialist	1		3
	Miscellaneous Admin & Program	1		
	Chemistry			2
	Economist	1	1	
Chemistry, Economics and	Environmental Engineering	1		
Sustainable	Environmental Protection Specialist			2
Strategies Division	Management and Program Analysis			1
Division	Miscellaneous Admin & Program			
	Program Management			1
	Budget Analysis			
Environmental	Environmental Engineering			
Assistance	Environmental Protection Specialist			2
Division	General Attorney			
	Management and Program Analysis		1	6
Immediate Office	Miscellaneous Admin & Program			
Infinediate Office	Program Management			3
	Environmental Protection Specialist			1
	General Natural Resources Management			
Information Management	Information Technology Management			4
Division	Management and Program Analysis			1
	Miscellaneous Admin & Program			
	Program Management		1	1
National	Chemistry			
Program Chemicals	Environmental Protection Specialist			4
Division	Program Management			
	Administrative Officer			1
	Chemical Engineering	1	1	2
	Environmental Engineering			1
	General Health Science			1
Risk Assessment Division	General Natural Resources Management	1		5
	General Physical Science			
	Industrial Hygiene			
	Program Management			
	Toxicology	1		1
Toxic Release	Environmental Protection Specialist		1	1
Program Division	Management and Program Analysis			
	Total	8	5	44



Figure 19 - Age by Number and Percentage, FY 2020









Persons with Disabilities and Veterans

Figure 22 - Persons with Disabilities, FY 2020									
Disability	Number of Staff	Percent of Office							
Do not wish to Identify	22	6.63%							
Handicap	29	8.73%							
No Handicap	281	84.64%							



Figure 23 - Persons with Disabilities in OPPT, OCSPP, and EPA, FY 2020

Figure 24 - Veterans, FY 2020

Veterans	Numbers of Staff	Percent of Office
Not a Veteran	312	93.98%
Veteran	20	6.02%



Figure 25 - Veterans in OPPT, OCSPP, and EPA, FY 2020

4. **OPPT's Departing Workforce**

This section provides an analysis of the future workforce occurences by reviewing the following information:

- recent fiscal year arrivals and departures and
- forecast of future workforce loses through retirement.

Attrition Analysis, FY 2015 – FY 2020

Attrition is the reduction in the number of employees through normal retirements and resignations. An analysis of employee attrition— losses and gains to an organization— makes it possible to evaluate whether an organization will be positioned to meet its future mission needs. An attrition analysis forms the basis for developing workforce plans and associated recruitment plans, succession plans, and career management objectives.

Figure 26 - Attrition Rate, FY 2015 - FY 2020

FY	Onboard ⁵	Hires	Departures
2015	288	1.4%	10.8%
2016	324	10.8%	7.7%
2017	337	8.9%	6.8%
2018	326	2.6%	6.1%
2019	333	14.1%	8.1%
2020	332	12.3%	8.7%

Figure 27 - Reasons for Departure, FY 2015 - FY 2020

FY	Retired	Transferred out of Agency	Other Departures from Federal Service	Total Departures	Percent of Departures
2015	22	6	3	31	10.8%
2016	20	4	1	25	7.7%
2017	15	2	6	23	6.8%
2018	13	3	4	20	6.1%
2019	12	7	8	27	8.1%
2020	19	4	6	29	8.7%
Total	101	26	28	155	8.0%

⁵ The attrition rate may differ from previous reports. In this report, the calculation only considers OPPT's on-board workforce numbers and does not factor in leave without pay (LWOP), detailee departures, or temporary employees (student interns).

	FY 2	20156	FY 2	2016	FY 2	2017	FY	2018	FY	2019	FY	2020
Division	Hires	Departures	Hires	Departures	Hires	Departures	Hires ⁷	Departures	Hires	Departures	Hires	Departures
Immediate Office	1	3	2	2	3	2			1	3	2	2
Chemical Control		6	7	3	7	1	4	1	9	3	5	7
Chemistry, Economic & Sustainable Strategies	1	2	8	6	6	6		3	2	3	4	4
Environmental Assistance		2	1		3	2	2	2	1	4	2	2
Information Management	1	5	5	3	1	3		4		3	4	6
National Program Chemicals		1	5	2	1	3		2	3	1	0	2
Risk Assessment	1	12	7	9	7	5	2	7	22	7	23	5
Toxic Release Inventory Program					2	1		1			1	1
Totals	4	31	35	25	30	23	8	20	38	24	41	29

Figure 28 - Hires and Departures by Division, FY 2015 - FY 2020

Figure 29 - Total Hires and Departures, FY 2015 - FY 2020



⁶ EPA offered a Voluntary Early Retirement Authority (VERA)/ Voluntary Separation Incentive Payment (VSIP) in FY 2015.

⁷ Source: Presidential Hiring Freeze Memorandum issued January 23, 2017, the joint U.S. OPM/OMB Memorandum, M-17-18, issued January 31, 2017, and agency guidance.

Retirement Eligibilities

Figure 30 -	OPPT	Fligibility	for	Retirement b	v Division	and	Occupational Title	8 م
			101			and		-

Division	Occupational Title	FY20	FY21	FY22 – FY26
	Chemical Engineering	1		
	Chemistry			
Chemical Control	Environmental Engineering			1
DIVISION	Environmental Protection Specialist	1		3
	Miscellaneous Admin & Program	1		
	Chemistry			2
	Economist	1	1	
Chemistry,	Environmental Engineering	1		
Sustainable	Environmental Protection Specialist			2
Strategies Division	Management and Program Analysis			1
DIVISION	Miscellaneous Admin & Program			
	Program Management			1
	Budget Analysis			
Environmental	Environmental Engineering			
Assistance	Environmental Protection Specialist			2
Division	General Attorney			
	Management and Program Analysis		1	6
	Miscellaneous Admin & Program			
Immediate Office	Program Management			3
	Environmental Protection Specialist			1
	General Natural Resources Management			
Information Monogement	Information Technology Management			4
Division	Management and Program Analysis			1
	Miscellaneous Admin & Program			
	Program Management		1	1
National	Chemistry			
Program Chemicals	Environmental Protection Specialist			4
Division	Program Management			
	Administrative Officer			1
	Chemical Engineering	1	1	2
	Environmental Engineering			1
	General Health Science			1
Risk Assessment	General Natural Resources Management	1		5
Division	General Physical Science			
	Industrial Hygiene			
	Program Management			
	Toxicology	1		1

⁸ This table is copied from a previous section.

Toxic Release	Environmental Protection Specialist		1	1
Program Division	Management and Program Analysis			
	Total	8	5	44

Figure 31 - Eligible for Retirement by Category and Position Classification, FY 2020

Category	Position Classification	Number	Percent
EPS & Program Analysts	Environmental Protection Specialist	1	1%
	Chemical Engineering	2	10%
	Economist	1	9%
Science & Engineering	Environmental Engineering	1	14%
	General Natural Resources Management	1	2%
	Toxicology	1	6%
Business Management support	Miscellaneous admin & program	1	9%

Figure 32 - Retirement Eligibility by GS-Level, FY 2020

Grade	Number of	Percent of	Percent of
	Staff	Grade	Office
GS-14 to GS-15	8	7%	2%

Figure 33 - Retirement Eligibility by Division, FY 2020

Division	Number of Staff	Percent of Grade	Percent of Office
Chemical Control	3	3%	1%
Chemistry, Economics and Sustainable Strategies	2	2%	1%
Risk Assessment	3	3%	1%

5. OPPT's Future Workforce

Key competencies are the combination of pooled knowledge and technical capacities that makeup OPPT's workforce. Competency means a measurable pattern of knowledge, skills, abilities, behaviors, and other characteristics that an individual needs to perform work roles or occupational functions successfully. The snapshot of OPPT's current workforce competencies have been identified by performing an analysis on the classification series used to perform the work across the organization.

The chart below identifies the seven most common occupational series that OPPT identified as core competencies and critical to carrying out the program's mission.

Without minimizing the importance of any individual job series, the following job series have been identified as OPPT's Mission Critical Occupations (MCOs). Based on the frequency of each occupational series, MCO's are determined and recognized as the critical skills/competencies needed to accomplish OPPT's goals and objectives. These MCOs have direct ties to OPPT's mission and operational goals, they are:

Occupational Title	Series	Core Competencies
Biologist	0401	Knowledge of the environment, plant and animal living tissue, cells, organisms, and entities, including their functions, interdependencies, and interactions with each other and the environment. <u>https://www.opm.gov/policy-data-oversight/assessment-and-selection/competencies/mosaic-studies-competencies.pdf</u>
Chemical Engineer	0893	Knowledge of the concepts, principles, and theories related to the chemical composition or physical characteristics of materials for the design, construction, operation, and improvement of processes or systems. <u>https://www.opm.gov/policy-data-oversight/assessment-and-selection/competencies/mosaic-studies-competencies.pdf</u>
Chemist	selection/competencies/mosaic-studies-competencies.pdf Knowledge of the concepts, principles, and theories of the composition structure and properties of substances, and of the chemical processe and transformations, including uses of chemicals and their interaction danger signs, production techniques, and disposal methods. https://www.opm.gov/policy-data-oversight/assessment-and-selection/competencies/mosaic-studies-competencies.pdf	
Economist	0010	Knowledge of economic policy, principles, and practices, market and non-market values, and the analysis and reporting of economic data. <u>https://www.opm.gov/policy-data-oversight/assessment-and-</u> <u>selection/competencies/mosaic-studies-competencies.pdf</u>
Information Technology	2210	Technology Management - Knowledge of current technological developments. Makes effective use of technology to achieve results. Ensures access to and security of technology systems.

Figure 34 - MCO Core Competencies

		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. <u>https://www.opm.gov/policy-data-oversight/assessment-and-</u> <u>selection/competencies/mosaic-studies-competencies.pdf</u>
Physical Scientist	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. <u>https://www.opm.gov/policy-data-oversight/classification-gualifications/classifying-general-schedule-positions/standards/1300/gs1300p.pdf</u>
Toxicologist	0415	 This series covers positions that manage, supervise, lead, or perform professional, research, or scientific work in the field of toxicology. Toxicology involves studying the adverse effects of chemical, biological and physical agents on humans, animals, and/or the ecosystems, the mechanisms by which foreign substances adversely affect health, and the toxic effects of exposure doses (including forensic measurements). Toxicologists identify the relationships between exposure to chemical and biological agents and their effects on human and animal health and populations by: investigating the relationship of chemical and biological substances or similar agents with physical phenomena to determine their actual or potential injurious effects on organisms; designing, developing, validating, and/or reviewing research protocols to evaluate compounds of poorly known or unknown characteristics; evaluating probable adverse effects, including possible carcinogenic, mutagenic, teratogenic, or other effects, to estimate the relative hazard and environmental and probable metabolic fate of substances; and developing and interpreting data and evaluating chemicals and biological and physical agents for actual or potential human and animal health effects and environmental safety. Toxicologists usually concentrate in one of the following areas: Laboratory Toxicology, Research Toxicology, and Regulatory Toxicology.

6. Mission Critical Occupations

The Office of Personnel Management defines 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"⁹

EPA and OPPT have focused their attention on the following categories of employees designated as mission critical across the agency. These MCOs have ties to OPPT's mission and operational goals.

Figure 35 - EPA's Mission Critical Occ	upations
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EPA	Series
Biologist	0401
Environmental Engineer	0819
Mechanical Engineer	0830
Physical Scientist	1301
Chemist	1320

Figure 36 - OPPT's Mission Critical Occupations

OPPT	Series
Biologist	0401
Chemical Engineer	0893
Chemist	1320
Economist	0110
Information Technologist	2210
Physical Scientist	1301
Toxicologist	0415

⁹Source: Human Capital Framework Reference Materials, Office of Personnel Management <u>https://www.opm.gov/policy-data-oversight/human-capital-framework/reference-materials/</u>



Figure 37 - Most Common Occupations, FY 2020

Figure 38 - Most Hired Positions, FY 2020

Occupational Title	Series Number	Percent Hired
Biologist/ General Natural Resources Management	0401	17%
Physical Scientist	1301	17%
Environmental Protection Specialist	0028	12%
Toxicologist	0415	7%
Chemical Engineer	0893	5%
Chemist	1320	5%
Economist	0110	5%
Environmental Engineer	0819	5%
IT Specialist (DATAMGT)	2210	5%
Program Analyst	0343	5%



OPPT's MCOs Definitions and Demographics

Biologist (0401)

Figure 40 – Biologist Demographics, FY 2020

Educa	tion	Se	ex			Pay a	nd Grade		
Bachelors or Master's	Doctorate	Female	Male	GS-11	GS-12	GS-13	GS-14	GS-15	SL-00
23	29	31	21	5	3	29	6	8	1
44%	56%	60%	40%	10%	6%	56%	11%	15%	2%

This group is classed along with a number of positions whose duties are to advise on, administer, supervise, or perform research or other professional and scientific work or subordinate technical work in any of the fields of science concerned with living organisms, their distribution, characteristics, life processes, and adaptations and relations to the environment; the soil, its properties and distribution, and the living organisms growing in or on the soil; and the management, conservation, or utilization thereof for particular purposes or uses.

This series covers positions that involve professional work in biology, agriculture, or related natural resource management when there is no other more appropriate series. Thus included in this series are positions that involve (1) a combination of several professional fields with none predominant or (2) a specialized professional field not readily identified with other existing series.

Chemical Engineer (0893)

Education		ę	Sex			Pay and Grade		
Bachelors or Master's	Doctorate	Female	Male	GS-09	GS-12	GS-13	GS-14	
17	3	6	14	2	3	12	3	
85%	15%	30%	70%	10%	15%	60%	15%	

Figure 41 – Chemical Engineer Demographics, FY 2020

Knowledge of the concepts, principles, and theories related to the chemical composition or physical characteristics of materials for the design, construction, operation, and improvement of processes or systems.

Economist (0110)

Figure 42 - Economist Demographics, FY 2020

Education		Sex		Pay and Grade			
Bachelors or Master's	Doctorate	Female	Male	GS-12	GS-13	GS-14	GS-15
8	3	5	6	2	5	2	2
73%	27%	45%	55%	18%	46%	18%	18%

Knowledge of economic policy, principles, and practices, market and non-market values, and the analysis and reporting of economic data.

Chemists (1320)

Figure 43 - Chemists Demographics, FY 2020

Education		Sex		Pay and Grade			
Bachelors or Master's	Doctorate	Female	Male	GS-12	GS-13	GS-14	GS-15
6	10	7	9	1	8	5	2
38%	62%	44%	56%	6%	50%	31%	13%

This group is classed with a number of positions whose duties are to advise on, administer, supervise, or perform research or other professional and scientific work, or subordinate technical work, in any of the fields of science concerned with matter, energy, physical space, time, nature of physical measurement, and fundamental structural particles; and the nature of the physical environment.

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.

Information Technologist (2210) Figure 44 - Information Technologist, FY 2020

Education		Se	ex	Pay and Grade			
Some College	Bachelors or Master's	Female	Male	GS-09	GS-13	GS-14	GS-15
8	6	4	10	1	11	1	1
57%	43%	29%	71%	7%	79%	7%	7%

This series covers administrative positions that manage, supervise, lead, administer, develop, deliver, and support information technology (IT) systems and services. Information technology refers to systems and services used in the automated acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission, assurance, or reception of information. Information technology includes computers, network components, peripheral equipment, software, firmware, services, and related resources.

Work that involves developing, delivering, and supporting IT systems and services is *Information Technology Specialist* or *IT Specialist*. The specialty titles below are parenthetical titles— e.g., IT Specialist (Systems Analysis)— and should be used with the basic title to further identify the duties and responsibilities performed and the special knowledge and skills needed. Specialties include the following :

Application Software, Customer Service, Data Management, Internet, Network Services, Operating Systems, Security, Systems Analysis, System Administration

Physical Scientist (1301)

Figure 45 – Physical Scientist, FY 2020

Education			Sex	Pa	ay and Gr	ade		
Bachelors or Master's	Doctorate	Female	Male	GS-07	GS-09	GS-12	GS-13	GS-14
10	8	9	9	1	1	1	10	5
56%	44%	50%	50%	6%	6%	6%	56%	28%

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.

Toxicologists (0415)

Figure 46 - Toxicologists Demographics, FY 2020

Education Sex		ex						
Bachelors or Master's	Doctorate	Female	Male	GS-11	GS-12	GS-13	GS-14	GS-15
7	11	11	7	1	3	7	5	2
39%	61%	61%	39%	5%	17%	39%	28%	11%

This series covers positions that manage, supervise, lead, or perform professional, research, or scientific work in the field of toxicology. Toxicology involves studying the adverse effects of chemical, biological and physical agents on humans, animals, and/or the ecosystems, the mechanisms by which foreign substances adversely affect health, and the toxic effects of

exposure doses (including forensic measurements). Toxicologists identify the relationships between exposure to chemical and biological agents and their effects on human and animal health and populations by:

- investigating the relationship of chemical and biological substances or similar agents with physical phenomena to determine their actual or potential injurious effects on organisms;
- designing, developing, validating, and/or reviewing research protocols to evaluate compounds of poorly known or unknown characteristics;
- evaluating probable adverse effects, including possible carcinogenic, mutagenic, teratogenic, or other effects, to estimate the relative hazard and environmental and probable metabolic fate of substances; and
- developing and interpreting data and evaluating chemicals and biological and physical agents for actual or potential human and animal health effects and environmental safety.

Toxicologists usually concentrate in one of the following areas: Laboratory Toxicology, Research Toxicology, and Regulatory Toxicology.

7. Mission Critical Occupations Gap Analysis

Once the MCOs are identified, it is important to initiate a discussion on the issues and challenges in managing each MCO over the next three to five years to ensure that those employees are available at optimum staffing strength and capacity to do the work needed. During the workforce planning process you will want to set a framework for making decisions about how to recruit, retain and develop the people who are in the MCOS. Senior managers determine the current and future outlook for these occupations based on the strategic goals and objectives for OPPT.

One way of capturing the needs of the office, specifically in the MCO positions, is to develop a "dashboard," which will track the current and optimal reading of OPPT common issues, such as turnover rates, FTE usage, unfilled vacancies, interns, etc. (See Appendix Dfor details.)

Another way of analyzing the current workforce is by identifying skill gaps in the Mission Critical Position Gap Analysis. After taking into consideration the competencies needed to fulfill the Agency's mission, and the current competencies in place, managers can identify the skills or positions needed to carry on the work of the office and quantify the potential staffing gaps in the organization (see Appendix D).

In September 2017, OPPT led workforce planning efforts conducting a gap analysis (click on hyperlink)



This table is a template, which factors in the current number of FTEs in each position and identifies the number of vacancies on the critical hire list (as of 9/03/019) as the number of gaps. Manager and supervisors, however, are advised to take note of Figure 35 (see Appendix D) and consider skills and knowledge of the current workforce in order to calculate the MCO position gaps and determine which areas of weaknesses, in either numbers or skills, might affect fulfillment of the office's goals.

Position	Series Number	Optimal Number of FTEs	Current Number of Position FTEs	Identified Gaps
Biologist	0401			
Chemical Engineer	0893			
Chemist	1320			
Economist	0110			
Information	2210			
Technologist				
Physical Scientist	1301			
Toxicologist	0415			
Total				

Figure 47 - Mission-Critical Position Gaps

Figure 48 - Critical Skills

	Top Critical Skill	Category
	Project Management	Task Management
	Analytical Reasoning	Thinking
	Communication - General	Communication
	Teaming	Leadershin
	Analysis & Interpretation	Thinking
	Partnering / Collaboration	Leadershin
	Communication - Summarization	Communication
	Risk Assessment	Scientific
	Contracts & Grants Management	Business Acumen
10	Critical Thinking	Thinking
	Regulatory Development & Analysis	Technical
	Problem Solving	Thinking
	Strategic Thinking	Thinking
	Exposure Assessment	Scientific
	Fate and Chemistry Assessment	Scientific
	Hazard / Toxicity Assessment	Scientific
	Public Speaking	Leadership
	Communication - Written	Communication
	Communication - Technical	Communication
20	Multi-Tasking	Task Management
20	Statutory Expertise	Technical
	Deskton Technology (e.g. Word Excel etc.)	Task Management
	Research Skills	Task Management
	Active Listening	Leadership
	Communication - Oral	Communication
	Financial Management	Business Acumen
	Records / Information Management	Technical
	IT Services Support	Technical
	Time Management	Task Management
30	Process Coordination	Task Management
	General Knowledge: Chemistry	Scientific
	Technical/Scientific Tool Development	Scientific
	Leadership (General)	Leadership
	Program Marketing & Outreach	Communication
	Administrative Support Services	Business Acumen
	Budget Formulation / Planning	Business Acumen
	Legal Services (Attorney Advisor)	Technical
	Risk Management	Thinking
	Website Management	Technical
40	Decision-Making	Task Management
	General Knowledge: Biology	Scientific
	General Knowledge: Exposure Science	Scientific
	General Knowledge: Toxicology	Scientific
	Expertise: Chemistry	Scientific
	Quality Assurance	Technical
46	Customer Service	Business Acumen

8. Conclusion

Talent Management - Recruitment

In summary, new obligations under amended TSCA coupled with a competitive job market and lengthy timeframes for recruiting new hires require OPPT to recruit and retain the best scientific and technical talent aggressively. OPPT's strategic focus is on filling mission-critical positions in the risk assessment and risk management programs. OPPT is seeking to exceed its FTE ceiling based on a 10.4%¹⁰ average attrition rate and incoming fee revenue expected by the first quarter of 2021.

Additionally, to address attrition, OPPT has standardized vacancy announcements and posts them on USA Jobs quarterly. OPPT has also augmented its hiring strategy through Schedule A Authority, Pathways student interns, Public Health Service Officers, and ORISE Fellows. Although OPPT is making good use of a variety of recruitment strategies to address long and short time hiring goals, hiring 152 employees from FY 2016 to FY 2020; during the same period, OPPT lost 121 employees through retirement, voluntary, and involuntary separations.

It is important to understand in addition to who is leaving, the key drivers for their departure". With this information, strategies can be developed to retain employees or prepare to transfer knowledge and replace those who unavoidably will leave due to retirement. "According to organizational development researchers; the cost of attrition involves more than money, turnover costs fall into five categories and include."¹¹ Review of OPPT's Federal Employee View Survey results (FEVS), employee engagement provides additional insights.

- Separation processing costs—the time, expenses, and resources required to process a departing employee
- Replacement hiring costs—sourcing of new candidates, interviewing, and hiring expenses to find new staff
- Training new hire costs—onboarding time and expenses, manager time spent familiarizing new employees with their job, and new hire training
- Lost productivity or operational costs associated with delays and backups in completing tasks as well as lost revenue
- Lost institutional knowledge, potentially decreased employee morale and a performance gap as the new employee gets up to speed

Performance Management - Federal Employee View Survey Results (FEVS)

A review of the 2019 FEVS scores reflects how employees view leadership, employee

¹⁰ Source: OCSPP Recruitment Strategy

¹¹ Source: T. Simmons and T. Hinkin, T. The effect of employee turnover on hotel profits: A test across multiple hotels, Cornell Hotel and Restaurant Administration Quarterly, August/September 2001.

engagement, accountability, and innovation. For example, OPPT had good scores related to the significance of work and the support provided by first-line supervisors, including support for work-life balance. The central areas for improvement, workload, internal communications, personal empowerment, and senior leadership-generated motivation.

Recently OCSPP embarked on a Great Place to Work (GP2W) Initiative. The goal of GP2W is to develop, maintain, and continuously improve OCSPP as an organization that effectively achieves its mission and is an office where people thrive. By prioritizing workforce-related initiatives, cultivating a culture that attracts and retains employees is an approach that contributes to OCSPP's Great Place to Work (GP2W) Initiative.

Recommendations

- Realign OPPT's structure and functions to realize efficiencies and meet the challenges of the 2016 Lautenberg amendments to TSCA.
- Establish an OPPT HR dashboard in Qlik Sense for FY 2021 and allocate adequate resources in the Program Plan.
- Review mission-critical gaps (Figure 37) and assign the optimal number of FTE.
- Align mission-critical gaps with critical skills (Figure 38).
- Develop and dedicate time for internal risk assessment training.
- Invest in-person exit and stay interviews with senior leaders.
- Use feedback from FEVS and recommendations from the Moving Beyond FEVS¹² report to implement best organizational practices.

¹² Source: FEVS and Moving Beyond FEVS Report - https://intranet.epa.gov/opptwork/evs-results/

Workforce Planning Process

The model of the workforce planning process depicts five steps that are commonly used by federal organizations in linking strategic direction with HR practices. If leaders in an organization can define where they are going and what the measures of success are, they can effectively map out HR strategies and practices to attain the mission and goals. The model below illustrates the workforce planning process, which should be updated routinely.



This document serves as part one of step two: *Analyze Workforce & Identify Skill Gaps*. In this step, the organization determines what the current workforce resources are and how they will evolve over time. The organization uses the information from *Setting Strategic Direction* to develop specifications for the kinds, numbers, and locations of workers and managers needed to accomplish the mission and goals of the office. Finally, the organization determines what gaps exists between the current and the projected workforce requirements. Now that part one of step two has been completed, and the OPPT workforce has been adequately analyzed, it is now the responsibility of senior managers to utilize this information in their assessment of the knowledge, skills, and abilities needed in order to reach and/or maintain the office's optimal performance level.

9. Appendices

Appendix A: Glossary

Attrition	Attrition rate measures the number of people who leave an organization when compared to the average number of employees in the organization. Formula: (#of attritions/Average # of employees over the year) x 100
General Schedule (GS)	The GS graded pay system established under the Classification Act of 1949, as amended. (5 U.S.C. chapter 53, subchapter III, and 5 CFR part 531)
Job Description	A statement of duties and responsibilities comprising the work assigned to a civilian employee.
Mission Critical Occupations	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
Occupational Groups	A major category of white-collar occupations, embracing a group of associated or related occupations; e.g., the Accounting and Budget Group, GS-0500; the Engineering and Architecture Group, GS-0800; the General Administrative, Clerical, and Office Services Group, GS-0300).
Pay Plan	The pay system or pay schedule under which the employee's rate of basic pay is determined, e.g., General Schedule (GS), Executive Schedule (EX), and Leader under the Federal Wage System (WL).
Position Classification	Means the analysis and identification of a position and placing it under the position classification plan established by OPM under chapter 51 of title 5, U.S. Code.
Retention	Refers to the ability of an organization to retain its employees.
Retirement Eligible	Describes the number of employees that meet retirement requirements by the end of fiscal year.
Senior Executive Service (SES)	Positions that are classified above GS-15 of the General Schedule or in level IV or V or the Executive Schedule or equivalent positions, which are not required to be filled by an appointment by the President by and with the advice and consent of the Senate, and in which employees direct, monitor and manage the work of an organizational unit or exercise other executive functions.
Senior Level (SL)	Positions established under the Federal Employees Pay Comparability Act of 1990 (Pub. L. 101-509) to replace positions at grades GS-16, GS-17, and GS-18 of the General Schedule. SL positions are classified above GS-15 of the General Schedule and are ungraded. (5 CFR part 319)
Occupational Series	Classes of positions similar in specialized line of work but differing in difficulty or responsibility of work, or qualifications requirements and, therefore, differing in grade and pay range.
On-board	The number of permanent employees on board as of the end of the fiscal year.

Appendix B: Position Classification Break-Out

OCCUPATIONAL GROUPS AND POSITION CLASSIFICATION

F

Α	Administrative	D	Attorney Advisor
	Administrative / Other (0300)*		Attorney Advisor (0950)

- B
 Environmental Protection Specialist / Other
 E
 Economists

 Environmental Protection Specialist (0028)
 Economist (0110)
- C Science / Technological
 Natural & Biological Scientists (0400)
 Epidemiologist / Industrial Hygienists (0600)
 Environmental / Chemical Engineering (0800)
 Environmental Scientists / Chemists (1300)
 Technical Information Specialists (1400)
 Statisticians (1500)
 Information Technology Specialists (2200)
- ManagementOffice DirectorDeputy Office DirectorDivision DirectorProgram ManagerSupervisory Positions

OHR OCCUPATION TYPES

Administrative

Environmental Protection Specialist Information Management Specialist Program Specialist Information Management Coordinator Policy Analyst Program Manager / Director Program Analyst Technical Information Specialist Information Technology Specialist

- Clerical Secretary
- Other
 Student Trainee

Professional Economist Biologist Microbiologist Toxicologist Epidemiologist Industrial Hygienist Environmental Engine

Environmental Engineer Chemical Engineer Attorney-Advisor Environmental Scientist Chemist Statistician

Technical Program Assistant

* Charts do not include 300-series managers under Administrative title (i.e. no series number 0340, program directors).

OPM FEDERAL POSITION CLASSIFICATIONS

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- А Miscellaneous (0000) Unclassified Position (0000) Environmental Protection Specialist (0028) В Social Sciences, Psychology, & Welfare (0100) Economist (0110) С Administrative / Other (0300) Information Management Specialist (0301) Policy Analyst (0301) Program Specialist (0301) Information Management Coordinator (0303) Secretary (0318) Office Automation Clerk (0326) Deputy Director / Director (0340) Management Analyst (0343) Program Analyst (0343) Program Assistant (0344) Student Trainee (0399)
- D Natural Resources Management & Biological (0400) Biologist (0401) Microbiologist (0403) Toxicologist (0415)

- E Medical, Hospital, & Public Health (0600) Epidemiologist (0601) Industrial Hygienist (0690)
- F Engineering & Architecture (0800) Environmental Engineer (0819) Chemical Engineer (0893)
- G Law & Kindred (0900) Attorney-Advisor (0905)
- H Physical Science (1300) Environmental Scientist* (1301) Chemist (1320)
 - Library Archives (1400) Technical Information Specialist (1412)
- J Mathematics & Statistics (1500) Mathematical Statistician (1529) Statistician - General (1530)
- K Information Technology (2000) IT Specialist (2200)

Appendix C: Setting Strategic Direction for Workforce Planning

During this step, OPPT identifies the major strategic business issues of OPPT. These key issues should serve as a guiding framework for linking the workforce planning process with the organization's key strategic goals and objectives.

The OPPT Strategic Plan identifies business issues and charts the future with mission-related goals, objectives, targets and milestones. Once the direction of OPPT is set, the organization can identify the work that needs to be accomplished. Strategic planning plus the budget process drive the future workforce where it needs to be. Workforce planning, when successful, is linked to key organizational issues and to the organizational culture. Workforce planning is aligned with:

- Organizational vision, mission, and strategy
- People, processes, and technology
- Structure of the mission-critical functional areas
- Competencies of the people to achieve results
- Organizational environment that shapes what people can achieve

External Forces On Workforce Planning

While workforce planning is largely an internal process, there are also external forces operating on programs and organizations that impact the workforce and the organization's objectives. These influences are frequently both uncontrollable and high-impact, affecting mission direction, program objectives, and overall funding. Workforce planning efforts should include environmental scanning to ascertain the potential impact external forces. Evaluating the environmental impact and forecasting the availability of skilled talent based on workforce needs should focus on the following:

- Customer expectations ability to respond quickly to the changing needs and expectations of customers in delivering quality services.
- Worldwide availability and supply of labor ability to accurately forecast the quality, cost and availability of labor in all work locations (e.g., regional and geographical locations).
- Competition for labor economic growth, strength of competitive industry to attract and retain workers we need, when and where we need them.
- Economic and environmental factors inflation rates, economic growth, interest rates, unions, unemployment rates, political climate.
- Quality of workforce skill levels of less prepared workers, and appropriate training programs developed to prepare workers for changing skill levels of the next generation of jobs.
- Demographics, diversity, and Quality of Work Life new and necessary strategies to attract and retain the new-age workforce.
- Technology available databases, Web resources, software, and computers that make it easier to accurately forecast headcount needs, as well as supply and quality of workforce.

 New competencies — identification of new skills and competencies that do not presently exist to develop new recruiting, screening, and training tools for emerging competencies.

Another way to look at external forces is to consider the following questions:

- What are the biggest external issues that are likely to affect OPPT? How are things changing? Consider these factors:
 - Environment
 - Customer needs
 - Economy
 - Budget
 - Technology
 - Politics
 - Social Change
 - Mission/Program changes
- What impact will these trends have on OPPT? What do they mean for OPPT?
- How might those changes affect work requirements and employees? What will take on a greater importance? What will take on less importance?

Internal Factors On Workforce Planning

What are the biggest internal issues that are likely to affect OPPT? How are things changing? Consider these factors:

- Customer needs
- Strategy
- Leadership
- Policies and procedures
- Staffing levels
- Diversity
- Age of workforce
- Changes in the workplace
- What impact will these trends have on OPPT? What do they mean for OPPT?
- How might those changes affect work requirements and employees? What will take on a greater importance? What will take on less importance?

Worksheet 1 – Strategic Issues

Worksheet 1 provides space for listing both the short-term and long-term business issues. These issues may impact workforce planning and the strategies that OPPT uses now and in the future to ensure it has the best people with the appropriate skills and competence to meet the mission.

Mission Critical Occupation (MCO)	Short-Term Issues (Over the Next Year)	Long-Term Issues (Next 2-5 years)
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.
5.	5.	5.

Figure 49 - Strategic Issues Worksheet 2 Projected Figure

Organizational Changes

Worksheet 2 provides you with a structured format for highlighting specific changes that will be needed to meet future business challenges. The worksheet has been designed to focus on three possibilities:

- New positions that need to be added to the organization by FY 2022
- Current positions that need to be redefined by FY 2022
- Positions that need to be eliminated by FY 2022

New Positions to Be Added by FY 2022					
Title of New Position	Will Report To	Roles and Responsibilities			
	Current Positions to	o Be Redefined by FY 2022			
Title of Redefined Position	Will Report To	Roles and Responsibilities			
Current Positions to Be Eliminated by FY 2022					
Title of Position	Rationale for Elimination				

Figure 50 - Anticipated Organizational Changes Worksheet

Appendix D: Analyzing Workforce and Identifying Skill Gaps

This is the step in which OPPT decides the type of data it wants to track over time, and the sources of workforce data it will use in determining the trends and patterns that provide a profile of what is happening with the workforce. This allows OPPT to select strategies that will provide a continuing pipeline of employees to perform the mission and meet expectations. In this step, OPPT will conduct several analyses:

- Supply
- Demand
- Gap

Supply Analysis

Supply analysis focuses on the existing workforce and projects future workforce supply. First, OPPT must create baseline data on the existing organization and the current staff. Then they will use worksheets contained in this section to identify competencies required for the future. In supply analysis, OPPT needs to:

- Decide on the data it will track
- Establish a baseline of data to compare in subsequent years
- Decide its "optimal reading" or target for the major data elements
- Track the trends to determine patterns

OPPT selects a variety of data so it can determine how changes in mission and the workplace affect the OPPT workforce. OPPT reviews trends to forecast how turnover, retirements and other events will affect the workforce needed for the future. OPPT uses the "Data Dashboard" to track the data in relation to the baseline that is developed. This allows OPPT to compare the past with its future needs and requirements. In developing the dashboard, OPPT selects data it wants to track and then runs the data to use as a baseline for future planning. OPPT looks at the baseline data and determines what its "optimal reading" or target should be.

Demand Analysis

Demand analysis identifies the workforce needed to carry out the mission and goals for OPPT in the future. It also describes the competency sets needed by the workforce of the future. OPPT uses the information gathered in Step 1 to make predictions about the workforce of the future based on strategic direction. Examples of information needed for this analysis:

- Expected workforce changes driven by changes in mission, goals, objectives, technology, workload
- Expected changes as a result of economic, political and social conditions
- Are new programs being added and older ones being replaced?
- Are new skill sets needed to support new programs?

- Have work processes changed that require a change in skills or competencies in the workforce
- Anticipated increase/decrease in the number of employees?
- Impact of budget increases/decreases
- Do shifting work patterns impact the composition of the workforce?
- Are there legislative changes affecting OPPT priorities?
- What are the sources of people to fill OPPT positions— other agencies, private sector, colleges, etc.?
- What is the employment outlook for mission critical occupations?

In Supply Analysis, OPPT is looking at what it has. In Demand Analysis, OPPT is looking at what it needs for the future.

Gap Analysis

Gap Analysis identifies the differences between the workforce of today and the workforce needed in the future. The key elements are demographics, trends, and competencies. Together, this information and data provide baselines against which change is planned and measured. Below is a way to look at Gap Analysis. OPPT is considering both organizational and individual performance to help it move toward its priorities.

Desired Performance - Actual Performance = Gap

During Gap Analysis, OPPT may find that it has several conditions: 1) a gap indicating shortages of needed employees or competencies; 2) a surplus indicating future excesses in staff or competencies; or 3) OPPT is right where it needs to be.

Some questions, OPPT may want to ask include:

- Is the workforce going to change? What are the reasons?
- What new skills or competencies are needed?
- Does the workforce have the anticipated skills and competencies?
- What skill or competencies may not be needed because of changing mission and priorities?

OPPT Human Capital Vital Signs (VS) Dashboard

This is an example of how OPPT would use the Dashboard. You decide on the appropriate data you want to track. Then you decide what benchmark you will use to determine if you are meeting your workforce goals.

Figure 51 - Dashboard Template

Current Reading	Current Reading	Current Reading	Current Reading
[Number of Retirement Eligible]	[Number of separations in MCOs]	[Number of vacancies in MCOs]	[Number of interns hired to build succession for future]
Vs	Vs	Vs	Vs
Optimal Reading	Optimal Reading	Optimal Reading	Optimal Reading
Only 4% actually retire per year	Less than 4% separations in MCOs	No more than 5% of MCOs are unfilled	4-7 interns hired for replacement
Current Reading	Current Reading	Current Reading	Current Reading
Vs	Vs	Vs	Vs
Optimal Reading	Optimal Reading	Optimal Reading	Optimal Reading

The purpose of tracking the dashboard data is to assess OPPT progress toward the optimum workforce configuration and to see if strategies for achieving that configuration need to change. Therefore OPPT needs to track data that provides information. There are all sorts of data, but not all are needed for every situation. It is important, therefore, to be clear about the value to OPPT.

For example, if separations are currently below 4%, OPPT may determine it needs to have a lower rate of separations for a specific mission-critical occupation because of future mission requirements. OPPT would track this data to determine if it is meeting its optimal reading or target. If separations are greater than the optimal reading, in this example, then OPPT knows it needs to take special actions to retain individuals in that occupation.

Worksheet 3 – Staffing Gap Analysis

Figure 52 – Staffing Gap Analysis

Projected Date FY 2021	Occupational Title	Occupational Title	Occupational Title	Occupational Title	Occupational Title
	Toxicologist	Chemist	Economist	Information Technologist	Biologist
A. Current Position FTE					
B. Expected Transfers Out of the Position					
C. Expected Retirements					
D. Other Turnover (dismissals, voluntary departure)					
E. Net FTE as of Projected Date E = (A -B -C -D)					
F. Expected Number of Available Replacements for Transfer or Promotion into the Position					
G. Authorized FTE as of Projected Date					
Gap Gap = (G –E –F)					
(Indicate Surplus with –)					

Worksheet 3 – Staffing Gap Analysis: *Worksheet 3* is designed to help OPPT quantify potential staffing gaps in your organization. A gap may be either a shortage of qualified internal candidates or a surplus of candidates. The worksheet provides space for five positions. The key information needed is as follows:

- Projected Date The future date that you are establishing for your forecast. A time horizon of Fiscal Year 2021 is suggested.
- Current Position FTE Simply the current authorized headcount number for the position.
- Expected Transfers & Promotions The number of current incumbents you expect to be promoted or transferred out of the present position by Fiscal Year 2021.
- Expected Retirements The number of current incumbents you expect to retire by Fiscal Year 2021.

- Other Turnover The number of other current incumbents you expect to leave the position for reasons other than transfer, promotion, or retirement. This may include voluntary turnover, dismissals, etc.
- Number of Incumbents as of the Projected Date The number of current incumbents you expect to remain in the current position as of your projected date (or the number of incumbents remaining after transfers, promotions, expected retirements, and other turnover).
- Number of Available Replacements The number of individuals you expect to be ready to move into the position by Fiscal Year 2021.
- Number of Positions as of Projected Date This is the number of authorized positions as of Fiscal Year 2021. The information can be found in your current Staffing Plan.
- Gap The number of projected positions minus the number of remaining incumbents and available replacements. A positive number represents a staffing shortage; a negative number represents a surplus
- Tally your numbers across the columns to compute a grand total for your organization.

Worksheet 4 – Key Position Analysis

Instructions: List all the Positions in your organization. For each position, answer the three questions listed on the worksheet below. *Key Positions* are those for which the answer is "Yes" to all three questions.

Occupational Title	Strategic Impact	Replace as Defined	Difficult to Fill	Key Position
List all Positions below. "Key Positions" are those for which the answer is "Yes" to all the following questions.	Do the responsibilities associated with the position directly impact the organization's strategy and mission?	If this position became vacant in the next 18 months will it be filled as presently defined?	If this position were to become vacant, would it be difficult to fill?	Is the position considering a "Key Position"?
Occupational Title	(Yes/No)	(Yes/No)	(Yes/No)	("Yes" to all 3)

Figure 53 – Key Position Analysis Template

Worksheet 4 – Key Position Analysis: In Demand Analysis, OPPT decides which positions are essential for the greatest strategic impact. Many of the key positions may be in mission-critical occupations, but not all of them may be. For example, there may be information technology or contracting officer positions that are critical to the success of OPPT. This worksheet has been formatted to approximate a decision tree to help OPPT identify the Key Positions in the organization. Key Positions are those that:

- Are directly related to the organization's strategy and mission
- Are expected to be filled if they become open in the future, and
- Are difficult to fill