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Center for Army Analysis

THE ASSISTANT SECRETARY OF THE ARMY (ASA) MANPOWER AND RESERVE AFFAIRS (M&RA) – ORGANIZATIONAL CAPACITY PLANNING (OCP)

APRIL 2018



CENTER FOR ARMY ANALYSIS 6001 GOETHALS ROAD FORT BELVOIR, VA 22060-5230

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THE ASSISTANT SECRETARY OF THE ARMY (ASA) MANPOWER AND RESERVE AFFAIRS (M&RA) – ORGANIZATIONAL CAPACITY PLANNING (OCP)

SUMMARY

THE PROJECT PURPOSE was to conduct an independent assessment of the current state of manpower strength of the Assistant Secretary of the Army (Manpower & Reserve Affairs) (ASA (M&RA)) and DCS, G-1 workforce.

THE PROJECT SPONSOR was Hon. Debra S. Wada, Assistant Secretary of the Army (Manpower & Reserve Affairs).

THE PROJECT OBJECTIVES were to:

- (1) Develop a manning risk profile for each function performed within each suborganization of ASA (M&RA) and DCS, G-1.
- (2) Determine the current manning level of each sub-organization within ASA (M&RA) and DCS, G-1.
- (3) Determine the priority of each function performed by ASA (M&RA) and DCS, G-1.
- (4) Identify opportunities for reassignment of resources (full-time equivalents (FTEs)) in order to optimize the performance across both organizations.

THE SCOPE OF THE PROJECT included all subordinate organizations to ASA (M&RA) and DCS, G-1 except for three large field operating agencies with specialized functions that are in locations spread across the country; namely the Civilian Human Resources Agency, the Human Resources Command, and the Army Research Institute.

THE MAIN ASSUMPTION is that all FTEs are equal in terms of ability to perform a given set of tasks (i.e., no distinction for grade, rank, or skill).

THE PRINCIPAL FINDINGS are:

- (1) Given the current manning level of ASA (M&RA) and DCS, G-1, it is not possible to reach the aggregate moderate risk level for all sub-organizations and functions without divesting some workload or increasing manpower.
- (2) Moving FTEs within sub-organizations to higher priority functions can increase utility.
- (3) Quantitative data suggests that minor shifts in manpower between ASA (M&RA) and DCS, G-1 can greatly increase utility.

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THE PROJECT EFFORT was conducted by Elena Krupa, along with other members of the Resource Analysis Division.

COMMENTS AND QUESTIONS may be sent to the Director, Center for Army Analysis, ATTN: CSCA-RA, 6001 Goethals Road, Suite 102, Fort Belvoir, VA 22060-5230.

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1 INTRODUCTION

1.1 Background

There have been numerous Headquarters, Department of the Army (HQDA) review studies directing cuts, the most recent being the Comprehensive Review. A September 2015 Army Management Action Group (AMAG) tasker directed an independent assessment of ASA (M&RA) and DCS, G-1, an excerpt of which is displayed in Figure 1. There is a potential overlap of functions between ASA (M&RA) and DCS, G-1 that is resulting in redundant work.

b. Overlaps and Redundancies

(1) Assistant Secretary of the Army for Manpower and Reserve Affairs (ASA (M&RA)) and DCS, G-1 identifies and integrates similar functions or directs sole responsibility in one organization of overlapping functions. Directed action: ASA (M&RA) and DCS, G-1 determines where to consolidate existing overlapping or similar functions into either ASA (M&RA) or DCS, G-1 and examine redundant missions and functions to free manpower for future missions or other projects (i.e., Integrated Personnel Pay System—Army). Provide analysis and recommendations through the AMAG to SA/CSA for decision within 90 days.

Figure 1. Extract from AMAG Memorandum

There is a need in HQDA for a quantitatively robust method for determining resource requirements and to avoid the "salami slice" method for taking cuts in the future. "Robust" meaning that the method should apply during times of decreasing, increasing, or unchanging manpower levels.

1.2 Problem Statement

ASA (M&RA) and DCS, G-1 do not have the means to quantifying the degree to which resource gains or losses impact the functions they perform. They are also unable to compare how alternative manpower levels and their distributions across workforce functions affect organization value. An inability to describe *how* a function responds to changes in full-time equivalents (FTEs) limits insights of manpower assessments.

The *fundamental* problem is that true requirements are unknown! Managers report a minimum, maximum, and most likely value for a triangular distribution to express uncertainty in subject matter expert approximations.

1.3 Sponsor, Purpose, Objectives

The Honorable Debra S. Wada, the Assistant Secretary of the Army (Manpower and Reserve Affairs), was the sponsor of this study.

The purpose of the study was, in response to the AMAG tasker, to conduct an independent assessment of the current state of manpower strength of the ASA (M&RA) and DCS, G-1 workforce.

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The objectives for the study were:

- Develop a manning risk profile for each function performed within each sub-organization of ASA (M&RA) and DCS, G-1.
- Determine the current manning level of each sub-organization within ASA (M&RA) and DCS, G-1.
- Determine the priority of each function performed by ASA (M&RA) and DCS, G-1.
- Identify opportunities for reassignment of resources (FTEs) in order to optimize the performance across both organizations.

<u>Overarching Objective</u>: Provide a model for future organizational assessments. Establish a capability to conduct future organizational assessments more efficiently/effectively.

1.4 Literature Review/References

Gen. Odierno and Secretary McHugh distributed a memo, "re: 2013 Focus Area", directing the 25% cuts for HQDA. This memo was the impetus for this study.

An AMAG tasker, "SUBJECT: Headquarters, Department of the Army Comprehensive Review Recommended Areas for Further Analysis", called for an independent assessment of the DCS, G-1 and ASA (M&RA) workforce and therefore lead to CAA receiving direction to conduct this study.

U.S. Army Manpower Analysis Agency (USAMAA) was initially tasked with creating a methodology for this study ("Organizational Design & Manpower Effectiveness Review of ASA (M&RA)"). Later, CAA was approached to perform this study. This allowed for the study to be performed by an independent agency, as USAMAA resides under ASA (M&RA) and is included in the study. We also reviewed USAMAA's essential manpower study methodology document, "Army Availability Factors (AAF) Updated Study Results & Recommendations".

James Surowiecki's "The Wisdom of Crowds" is the source for the "crowd sourced" priority assignment methodology.

1.5 Key Definitions

<u>Full-time Equivalent (FTE)</u> – A year's worth of work. Equivalent to the standard 1,740 hours that USAMAA uses in their manpower analyses.

Functions – The activities composed of tasks performed by each sub-organization.

<u>Priority</u> – An assessment of how a given function contributes to the ASA (M&RA) and DCS, G-1 roles, responsibilities, and missions. We used a crowd-sourcing method to determine the priorities of each function. For assessing relative priorities among functions, we used a rank percentile.

<u>Manning Risk Profile</u> – Management defined FTE levels for each function corresponding to low, moderate, or high risk.

<u>Coverage</u> – The probability that a function's true requirement is less than or equal to the current manning level. We use the cumulative distribution function of a triangular distribution to determine this.

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<u>Utility</u> – The quantification of value produced based on the coverage and priority of a function. This value is derived by multiplying the calculated coverage by the priority rank percentile.

1.6 Scope

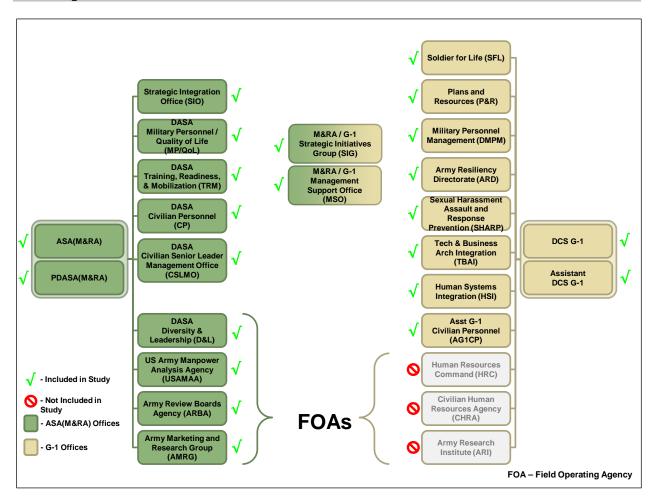


Figure 2. Scope.

In general, most of ASA (M&RA) and DCS G-1 were included in the study, which is shown in Figure 2 above. Human Resources Command (HRC), Civilian Human Resources Agency (CHRA), Army Research Institute were scoped out of the Comprehensive Review and scoped out of this study for several reasons: 1) they are large organizations spread across the country; 2) CHRA and HRC personnel dwarf the HQDA personnel counts with over 5,000 personnel; 3) they have a very unique mission; and 4) they were being examined in other ongoing studies. We did not consider contractors in this study. Complete and accurate data with respect to contractors are hard to find and their employment can fluctuate over time.

1.7 Assumptions

• The major assumption in this methodology is that all FTEs are equivalent. In the future, we would like to add greater resolution to this type of analysis by including consideration regarding similar FTEs.

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- There is "wisdom of crowds" and all assumptions necessary to employ the *Theory of Collective Accuracy* are met.
- Survey respondents account for all FTEs in ASA (M&RA) and DCS, G-1.
- Management-derived list of functions represent all functions needed to be performed by the organizations.
- Manning risk profiles for each function within a sub-organization are accurate and can be cumulated to formulate manning risk profiles for functions, sub-organizations, and organizations.
- The sigmoidal relationship between manpower and coverage is representative of the actual relationship. This assumption was imposed by the study sponsor.

Note that there is no assumption for symmetry – triangular distributions can be but do not have to be symmetric.

1.8 Limitations

- Army institutional databases no longer maintain contractor data. Time was not allocated
 to investigating the potential extent of contractors supporting the ASA (M&RA) and
 DCS, G-1 workforce. There was insufficient time to fully examine bias or attempts by
 individuals to try to "game the system" with their responses regarding manning risk
 profiles or function priority.
- Self-reported data may reflect biases. For instance, a group of individuals could report all functions.

1.9 Essential Elements of Analysis (EEAs) and Measures of Effectiveness (MOEs)

- EEA 1: What is the manning risk profile associated with each function performed by the sub-organizations within ASA (M&RA) and DCS, G-1?
 - MOE 1.1: FTEs required to perform a given function at low, moderate, or high risk.
- EEA 2: What is the current state of risk?
 - MOE 2.1: Current FTEs assigned to given sub-division.
 - MOE 2.2: Calculated "coverage" for each sub-organization's responsibility.
- EEA 3: How is the work of the personnel within ASA (M&RA) and DCS, G-1 distributed among the functions?
 - MOE 3.1: Calculated "coverage" for each function over all.
 - MOE 3.2: Distribution of risk and coverage for each sub-organization, function.
 - MOE 3.3: Distribution of risk and coverage for each function over all.
- EEA 4: What is the priority of each function?
 - MOE 4.1: Crowd sourced survey results on a 0-5 scale for each function.

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- MOE 4.2: Leadership priority determinations.
- MOE 4.3: Combined, weighted priority.
- EEA 5: Where can FTEs be rearranged in order to maximize value?
 - MOE 5.1: Calculated utility of a function given the priority and calculated coverage.
 - MOE 5.2: Total utility of a given organizational design.

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2 METHODOLOGY

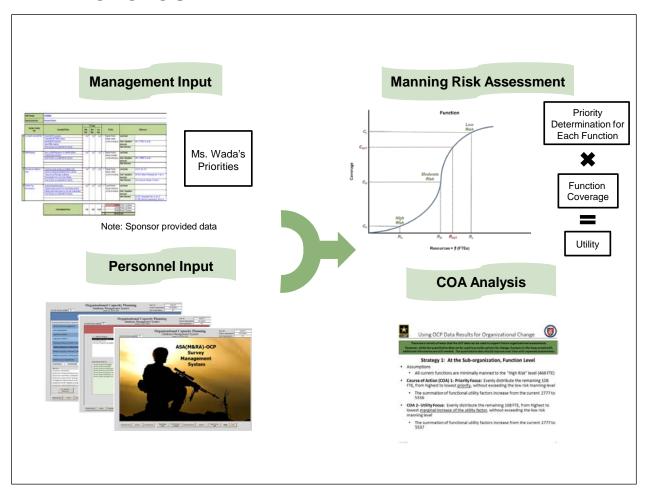


Figure 3. Methodology.

The study methodology is depicted in Figure 3. The sponsor provided management input data. Management input includes the manning risk profile data and the senior leader's designated priorities. Ideally, we would have a greater number of senior leaders' input to compare to the personnel survey results. Personnel input came from data collected using the CAA-created Access database shown in the screenshots in Figure 5 below. Data from both sources were combined to create manning risk profiles to include a current manning level. Additionally, utilities were computed using these data and then utilized in course of action (COA) development to compare "strengths" among COAs. COA Analysis was not conducted in order to provide recommendations for personnel changes, rather to demonstrate options for analysis in the future with this type of data.

The following chapters are breakouts for each component of the methodology. COA Analysis is addressed in the Results section of this documentation.

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2.1 Management Input

	Staff Principal	ASA(M&RA)			
	Division/Directorate	Personnel Division			
				FTE Req't	
	Function / Activity Title	Associated Tasks	High Risk	Mod Risk	Low Risk
1	Co-Chair/Co-Exec MM PEG	Provide MM PEG guidance. Conduct MM PEG MDEP reviews. Submit MM PEG worksets. Attend PPBE meetings Insert key tasks associated with this function.	0.50	1.00	2.00
2	MDEP Manager	Serve as MDEP Manager for 14 x MM PEG MDEPs Conduct program analysis. Insert key tasks associated with this function.	2.00	3.50	7.00
3	Recruiting and Retention Policy	Provide Army-wide recruiting and retention policy. Oversee recruiting and retention for the AC and RC. Conduct annual Recruiting Conference. Develop/publish Army Accessions Strategy Insert key tasks associated with this function.	1.00	1.50	2.00
4	Directive Type Memorandums	Analyze transgender policies. Establish award policy for Fort Hood shooting incident. Establish policies/procedures for chemical contamination Insert key tasks associated with this function.	2.00	3.00	4.00
		Total Estimated Req'ts	5.50	9.00	15.00

Figure 4. Management Data.

The sponsor created the data set shown in Figure 4 and tasked the managers of each of the sub-organizations within DCS, G-1 and ASA (M&RA)to identifying the quantity of FTEs required to perform a given function at the low, moderate, and high risk levels. For the purpose of this study, risk is "based on an assessment of the level of resources necessary to complete the workload and achieve the outcomes/objectives associated with the function/activity. Not a function of priority, capability, productivity, or grade." Mr. Jeffrey Angers (ASA (M&RA) – SIO) vetted the management inputs to attempt to achieve the most accurate manning risk profile.

Mr. Angers defined the levels of risk as follows:

High Risk: Level of resources that is sufficient to only complete the minimal workload requirements and achieve the minimal outputs/objectives associated with the function/activity.

- Achievement of strategic objectives/outcomes requires extraordinary measures.
- Requires significant additional manpower and/or time to complete the workload requirements and achieve most of the objectives/outcomes.

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• Unable to manage unanticipated requirements without significant adjustments (e.g., stopping activity on other priorities, significantly extending timelines, steep learning curve results in inefficient work and/or lower quality output).

Moderate Risk: Level of resources that is sufficient to complete most of the workload requirements and achieve most of the outputs/objectives associated with the function/activity.

- Achievement of strategic objectives/outcomes is likely.
- Requires additional manpower and/or additional time to complete all workload requirements and achieve all the objectives/outcomes.
- Unable to manage unanticipated requirements without some adjustments (e.g., reallocation of some resources from other priorities, extending timelines).

Low Risk: Level of resources that is sufficient to complete the workload requirements and achieve all of the outputs/objectives associated with the function activity.

- Achievement of strategic objectives/outcomes is certain.
- Can complete workload and achieve all outputs/objectives with available manpower within available time.
- Able to manage unanticipated requirements with minimal impact.

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2.2 Personnel Input

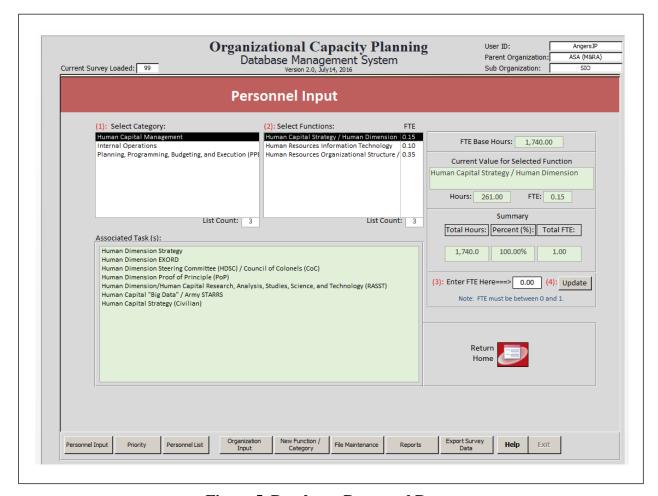


Figure 5. Database: Personnel Data.

We used management data to develop an Access database for personnel to input data related to what kind of work they do. More specifically, a user selects a category of work, the specific function that applies to them, and then they designate how much of their time (portion of an FTE) they spend doing that type of work. When the user selects a function, a list of tasks appears in the "Associated Task(s)" box to help them better understand what type of work falls under a given function. The user continues to input data until they reach a total of 1.00 FTE. At this point, the database will not allow the user to input additional data without taking time away from somewhere else.

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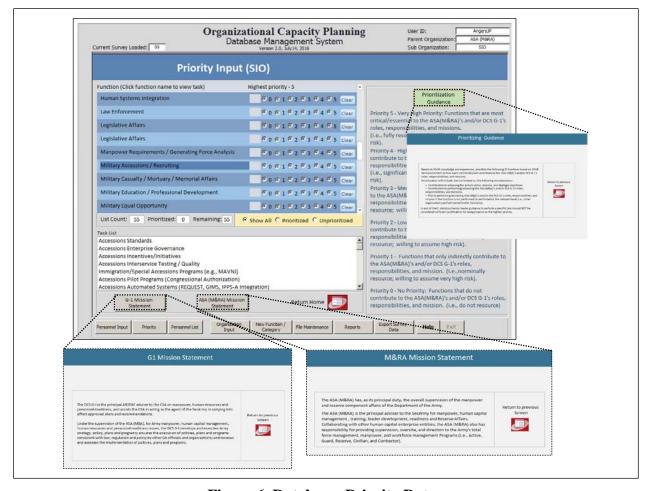


Figure 6. Database: Priority Data.

Figure 6 shows the screen that a user would see when they click on the "Priority" button along the bottom of the screen. The database interface allows users to click on buttons to receive guidance regarding how they are to assess the list of functions. "Prioritization Guidance" then references the DCS, G-1 and ASA (M&RA) Mission Statements and the Priority Definitions included in Figure 6. The text shown when each of the respective buttons is clicked is shown below. This content was developed by the sponsor and is shown below.

 <u>Prioritization Guidance</u> – Based on YOUR knowledge and experience, prioritize the following 55 functions based on YOUR best assessment on how each contributes/will contribute to the ASA (M&RA) and/or DCS,G-1 roles responsibilities, and missions.

Prioritization will include, but is not limited to, the following considerations:

- o Contribution to achieving the Army's vision, mission, and strategic objectives.
- O Contribution to performing/achieving the ASA (M&RA) and/or DCS, G-1 roles, responsibilities, and missions.
- Risk to performing/achieving ASA (M&RA) and/or the DCS, G-1 roles, responsibilities, and mission if the function is not performed or performed at a reduced level.

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In and of itself, statutory/senior leader guidance to perform a specific task should NOT be considered sufficient justification for categorization as the highest priority.

• <u>DCS, G-1 Mission Statement</u> - The DCS, G-1 is the principal military adviser to the ASA (M&RA) for manpower, human capital management, human resources and personnel readiness.

The DCS G-1 is the principal Army Staff adviser to the Chief of Staff of the Army (CSA) on manpower, human resources, and personnel readiness; and assists the CSA in acting as the agent of the Secretary of the Army (SecArmy) in carrying into effect approved plans and recommendations.

For Army manpower, human capital management, human resources and personnel readiness issues, the DCS, G-l, under the supervision of the ASA (M&RA), develops and executes Army strategy, policy, plans and programs; ensures the execution of policies, plans and programs consistent with law, regulation and policy by other HQDA officials and organizations; and reviews and assesses the implementation of policies, plans and programs.

ASA (M&RA) Mission Statement - The ASA (M&RA) has, as its principal duty, the
overall supervision of manpower and reserve component affairs of the Department of the
Army.

The ASA (M&RA) is the principal adviser to the SecArmy for manpower, human capital management, training, leader development, readiness, and Reserve Affairs. Collaborating with other human capital enterprise entities, the ASA (M&RA) also has responsibility for providing supervision, oversight, and direction to the Army's total force management, manpower, and workforce management programs (i.e., Active, Guard, Reserve, Civilian, and Contractor).

Responsible for setting the strategic direction for and ensuring Army policies, plans and programs for personnel, force structure, manpower management, training, military and civilian personnel readiness, Reserve Affairs and Army protection are executed consistent with law, regulation and policy.

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2.3 Manning Risk Assessment

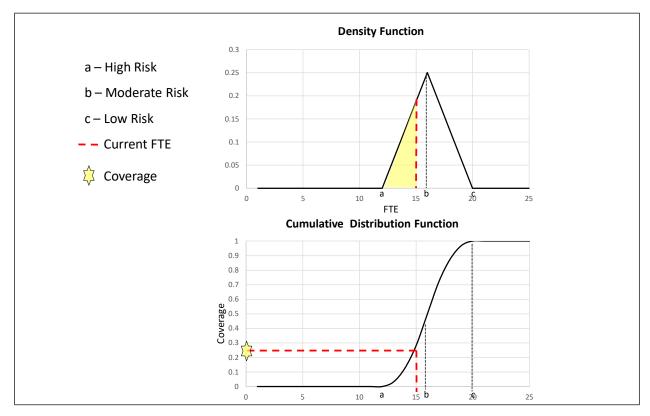


Figure 7. Assessment Model

We used the triangular distribution to approximate each function's resource demand and determine coverage. Area under the triangle is equivalent to "coverage": the probability that the unknown but true manpower requirement is less than or equal to the allocated FTE-level. Symmetry is not required for this model. If we were to force symmetry, we would forfeit the ability to learn more about the unique behavior between supply and demand in the future. This shape should be a source of learning and refinement over time - *not understanding our* requirements is the fundamental source of many problems.

Example: The manning risk profile for the function shown in Figure 7 above shows 15 FTEs assigned; therefore, the function is being manned at approximately 28% coverage.

The equation for the cumulative distribution function used to determine the coverage variable is as follows:

$$f(x) = \begin{cases} 0, & x \le a \\ \frac{(x-a)^2}{(b-a)(c-a)}, & a < x \le b \\ 1 - \frac{(c-x)^2}{(c-a)(c-b)}, & b < x < c \end{cases}$$

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The coverage value is reported as a percentage, which is done simply by multiplying the output of the above function by 100.

The current FTE number, depicted with the red dashed line in Figure 7, is the sum of the FTE allocations that the personnel entered into the database for a particular function.

This model is in contrast to traditional linear models used for manpower analysis, whereby increases in manpower will continue endlessly to give a greater return. With this model, there are diminishing returns and losses considered at a given point. This sigmoidal relationship between coverage and resources is based on the sponsor's assumption that it is more accurate than a linear relationship, but there were no validating data that we used to prove this. Once again, this shape is a starting place, and should be further refined over time when more knowledge of true requirements is acquired.

The "critical range" is a concept used to illustrate that resource modifications to a given function, sub-organization, or some other segment of FTEs, determined to be at the moderate risk level will have a greater impact than changes made at low or high risk levels. This region is assumed to be some range about the moderate risk level, where the slope of the curve is steepest. Any loss or gain of resources in this region has a significant impact on the coverage of a given function.

3 RESULTS

3.1 Manning Risk Profile Results

Table 1 below displays results that address EEA 1 and EEA 2, "What is the manning risk profile associated with each function performed by the sub-organizations within ASA (M&RA) and DCS, G-1?" and "What is the current state of risk?", respectively. Again, manning risk profiles are made up of an assigned number of FTEs to characterize High Risk, Moderate Risk, and Low Risk manning levels. Management within each sub-organization provided these data. The FTE count in the table is a sum of the total responses by personnel that assigned time to a given function within a certain organization and sub-organization.

We calculate the coverage value based on the current FTE count and manning risk profile as a way to identify the current state of risk at the sub-organization and functional level.

Table 1. Manning Risk Profile Results.

Org	Sub-Org	Function	FTE	High risk	Mod risk	Low risk	Coverage
G-1	AG1CP	Civilian / Senior Executive Pay, Compensation, Benefits, and Incentives	5.39	2.49	5.50	8.26	48%
G-1	AG1CP	Civilian / Senior Executive Performance Management	0.83	1.40	2.25	3.60	0%
G-1	AG1CP	Civilian / Senior Executive Personnel Actions	1.23	0.88	2.50	3.63	3%
G-1	AG1CP	Civilian / Senior Executive Personnel Policy	8.82	5.74	9.00	11.51	50%
G-1	AG1CP	Civilian / Senior Executive Recruiting / Hiring	1.51	1.16	2.25	3.09	6%
G-1	AG1CP	Civilian / Senior Executive Talent Management	0.27	0.21	0.75	1.04	1%
G-1	AG1CP	Civilian / Senior Executive Workforce Management	1.48	1.93	3.00	3.58	0%
G-1	AG1CP	Civilian Career Program Management	6.79	5.26	7.75	10.49	18%
G-1	AG1CP	Civilian Expeditionary Workforce	3.73	0.93	2.00	2.58	100%
G-1	AG1CP	Civilian Intern Program	6.32	1.90	3.25	4.10	100%
G-1	AG1CP	Civilian Labor-Management Relations	3.90	1.13	2.75	3.88	100%
G-1	AG1CP	Civilian Workforce Analysis	9.21	11.59	16.25	20.66	0%
G-1	AG1CP	Human Resources Information Technology	2.76	0.95	1.50	2.05	100%
G-1	AG1CP	Programming, Budgeting, and Execution	2.16	2.85	5.00	6.15	0%
G-1	ARD	Programming, Budgeting, and Execution	2.26	0.95	1.50	2.05	100%
G-1	ARD	Public Affairs / Strategic Communications	0.73	0.95	1.50	2.05	0%
G-1	ARD	Ready and Resilient	23.20	27.63	42.75	57.88	0%
G-1	ARD	Sexual Harassment, Assault and Response Prevention (SHARP)	0.01	2.75	5.00	8.25	0%
G-1	DMPM	Command / Special Programs	1.32	2.38	3.75	5.13	0%

Org	Sub-Org	Function	FTE	High risk	Mod risk	Low risk	Coverage
G-1	DMPM	Military Accessions / Recruiting	13.53	7.60	12.00	16.40	79%
G-1	DMPM	Military Health Affairs	1.78	1.90	3.00	4.10	0%
G-1	DMPM	Military Individual / Institutional Training	6.42	5.85	7.00	9.15	9%
G-1	DMPM	Military Pay, Compensation, Benefits, and Incentives	1.61	0.90	2.00	3.10	21%
G-1	DMPM	Military Personnel Actions	25.00	12.50	18.00	23.50	100%
G-1	DMPM	Military Personnel Policy / Management	6.91	4.65	8.00	12.35	20%
G-1	DMPM	Military Personnel Reporting	5.40	3.80	6.00	8.20	26%
G-1	DMPM	Military Retention	4.28	2.90	4.00	5.10	72%
G-1	DMPM	Personnel Security / Insider Threat / Suitability	1.96	1.75	4.00	7.25	0%
G-1	DMPM	Readiness	4.77	3.85	5.00	7.15	22%
G-1	DMPM	Reserve Component (RC) Mobilization/Demobilization	1.19	0.90	2.00	3.10	3%
G-1	HSI	Human Resources Organizational Structure / Business Processes	3.79	1.51	4.44	8.52	25%
G-1	HSI	Human Systems Integration	2.23	1.97	3.45	5.88	1%
G-1	P&R	Army Campaign Plan	1.00	0.09	0.20	0.31	100%
G-1	P&R	Civilian Career Program Management	5.00	2.90	4.00	5.10	100%
G-1	P&R	Force Management	11.26	1.85	3.00	5.15	100%
G-1	P&R	Military Manpower / Strength Analysis	9.74	6.70	10.00	13.30	42%
G-1	P&R	Military Manpower Management	6.54	14.56	22.65	30.84	0%
G-1	P&R	Military Pay, Compensation, Benefits, and Incentives	8.02	3.80	6.00	8.20	100%
G-1	P&R	Military Personnel Actions	1.51	1.83	4.10	6.36	0%
G-1	P&R	Programming, Budgeting, and Execution	16.96	8.23	11.00	14.28	100%
G-1	P&R	Strategic Planning	0.36	0.09	0.20	0.31	100%
G-1	SFL	Military Retirement / Transition	20.17	21.25	29.00	37.75	0%
G-1	SHARP	Programming, Budgeting, and Execution	1.36	1.38	1.60	1.93	0%
G-1	SHARP	Public Affairs / Strategic Communications	2.20	2.46	3.00	3.29	0%
G-1	SHARP	Sexual Harassment, Assault and Response Prevention (SHARP)	12.19	2.75	5.00	8.25	100%
G-1	SIG	Current Operations	1.73	1.01	2.25	4.14	13%
G-1	SIG	Human Capital Strategy / Human Dimension	1.50	0.48	0.70	1.03	100%
G-1	SIG	Legislative Affairs	3.00	0.77	1.49	2.44	100%
G-1	SIG	Programming, Budgeting, and Execution	0.15	0.23	0.35	0.62	0%
G-1	SIG	Public Affairs / Strategic Communications	3.59	3.26	4.20	5.29	6%
G-1	SIG	Strategic Planning	0.55	0.49	0.55	0.71	27%
G-1	TBAI	Army Library Program	1.01	0.89	1.00	1.11	59%

Org	Sub-Org	Function	FTE	High risk	Mod risk	Low risk	Coverage
G-1	TBAI	Human Resources Information Technology	31.01	27.15	45.00	67.85	2%
M&RA	AMRG	Army Marketing and Research	55.74	40.77	67.40	92.14	16%
M&RA	ARBA	Army Review Boards	94.51	83.42	97.17	111.1	32%
M&RA	ARBA	Law Enforcement	1.34	1.45	2.00	2.55	0%
M&RA	ARBA	Legislative Affairs	0.10	0.90	2.00	3.10	0%
M&RA	CLSMO	Civilian / Senior Executive Performance Management	3.33	0.95	1.50	2.05	100%
M&RA	CLSMO	Civilian / Senior Executive Personnel Actions	3.88	0.95	1.50	2.05	100%
M&RA	CLSMO	Civilian / Senior Executive Personnel Policy	1.11	4.18	5.00	5.83	0%
M&RA	CLSMO	Civilian / Senior Executive Recruiting / Hiring	2.05	4.13	5.50	6.88	0%
M&RA	CLSMO	Civilian / Senior Executive Talent Management	1.45	0.45	1.00	1.55	98%
M&RA	CLSMO	Civilian / Senior Executive Training, Education Training, Education, and Professional Development	4.38	5.30	7.50	9.70	0%
M&RA	CLSMO	Civilian / Senior Executive Workforce Management	0.27	2.45	3.00	3.55	0%
M&RA	CLSMO	Public Affairs / Strategic Communications	0.61	1.90	3.00	4.10	0%
M&RA	СР	Civilian / Senior Executive Pay, Compensation, Benefits, and Incentives	0.36	0.18	0.31	0.44	81%
M&RA	СР	Civilian / Senior Executive Personnel Actions	0.38	0.15	0.20	0.26	100%
M&RA	СР	Civilian / Senior Executive Personnel Policy	0.83	0.23	0.50	0.78	100%
M&RA	СР	Civilian / Senior Executive Recruiting / Hiring	1.66	0.10	0.15	0.21	100%
M&RA	СР	Civilian / Senior Executive Workforce Management	1.54	1.63	3.00	4.38	0%
M&RA	CP	Civilian Career Program Management	0.18	0.14	0.25	0.36	7%
M&RA	CP	Civilian Expeditionary Workforce	0.14	0.34	0.50	0.67	0%
M&RA	CP	Civilian Intern Program	0.19	0.69	0.85	1.02	0%
M&RA	CP	Civilian Labor-Management Relations	0.18	0.19	0.35	0.52	0%
M&RA	CP	Civilian Workforce Analysis	0.15	0.23	0.50	0.78	0%
M&RA	СР	Human Resources Organizational Structure / Business Processes	0.11	0.15	0.20	0.26	0%
M&RA	СР	Public Affairs / Strategic Communications	0.08	0.02	0.04	0.06	100%
M&RA	D&L	Civilian Career Program Management	2.15	0.68	1.50	2.33	98%
M&RA	D&L	Civilian Equal Employment Opportunity	14.05	14.65	18.50	22.35	0%
M&RA	D&L	Command / Special Programs	0.45	0.68	1.50	2.33	0%
M&RA	D&L	Diversity / Inclusion	3.10	0.90	2.00	3.10	100%
M&RA	D&L	Military Equal Opportunity	4.56	1.90	3.00	4.10	100%

Org	Sub-Org	Function	FTE	High risk	Mod risk	Low risk	Coverage
M&RA	M&RA Front Office	Personnel Security / Insider Threat / Suitability	1.88	1.45	2.00	2.55	31%
M&RA	MP/QoL	Human Capital Strategy / Human Dimension	2.50	0.71	1.00	1.54	100%
M&RA	MP/QoL	Human Resources Information Technology	0.07	0.23	0.50	0.78	0%
M&RA	MP/QoL	Legislative Affairs	0.46	1.18	2.00	2.83	0%
M&RA	MP/QoL	Military Accessions / Recruiting	0.87	1.18	2.00	2.83	0%
M&RA	MP/QoL	Military Casualty / Mortuary / Memorial Affairs	1.08	0.48	0.75	1.03	100%
M&RA	MP/QoL	Military Education / Professional Development	0.36	0.00	1.00	1.84	7%
M&RA	MP/QoL	Military Health Affairs	3.82	1.44	2.00	2.81	100%
M&RA	MP/QoL	Military Pay, Compensation, Benefits, and Incentives	1.00	0.00	0.50	0.79	100%
M&RA	MP/QoL	Military Personnel Actions	1.40	0.93	2.00	2.58	13%
M&RA	MP/QoL	Military Personnel Policy / Management	0.80	3.35	4.75	6.65	0%
M&RA	MP/QoL	Military Retirement / Transition	1.25	0.00	0.50	0.79	100%
M&RA	MP/QoL	Personnel Security / Insider Threat / Suitability	0.28	0.00	0.50	0.79	20%
M&RA	MP/QoL	Programming, Budgeting, and Execution	1.63	0.93	1.75	2.58	37%
M&RA	MP/QoL	Ready and Resilient	0.20	0.23	0.50	0.78	0%
M&RA	MP/QoL	Soldier / Family / Quality of Life Programs	2.87	1.09	2.00	4.66	66%
M&RA	SIO	Army Campaign Plan	0.45	0.21	0.75	1.04	13%
M&RA	SIO	Human Capital Strategy / Human Dimension	1.30	0.71	1.00	1.54	87%
M&RA	SIO	Human Resources Information Technology	0.50	0.23	0.50	0.78	50%
M&RA	SIO	Human Resources Organizational Structure / Business Processes	0.50	0.48	0.75	1.03	0%
M&RA	SIO	Programming, Budgeting, and Execution	1.25	0.73	1.00	1.28	100%
M&RA	SIO	Strategic Planning	1.17	0.73	1.00	1.28	93%
M&RA	TRM	Force Management	2.32	0.90	2.00	3.10	75%
M&RA	TRM	Human Systems Integration	0.07	0.00	0.05	0.11	79%
M&RA	TRM	Military Individual / Institutional Training	0.28	0.48	0.75	1.03	0%
M&RA	TRM	Programming, Budgeting, and Execution	2.25	1.27	2.00	3.08	65%
M&RA	TRM	Readiness	1.53	0.95	1.50	2.05	55%
M&RA	TRM	Reserve Affairs / Total Force Policy	3.65	0.98	2.30	3.62	100%
M&RA	TRM	Reserve Component (RC) Mobilization/Demobilization	2.56	0.90	2.00	3.10	88%
M&RA	TRM	Total Workforce Management	6.29	1.96	3.40	5.15	100%

Org	Sub-Org	Function	FTE	High risk	Mod risk	Low risk	Coverage
M&RA	TRM	Unit / Collective Training	0.87	0.95	1.50	2.05	0%
M&RA	USAMAA	Civilian Workforce Analysis	3.93	1.90	2.75	4.10	99%
M&RA	USAMAA	Manpower Requirements / Generating Force Analysis	27.03	21.54	31.90	44.97	12%

Aggregate coverage at the functional level is shown in Table 2 below. This calculation was performed by adding the manning risk profiles and surveyed FTEs for each function and then performing the coverage calculation on these aggregate values. These results address EEA 3, "How is the work of the personnel within ASA (M&RA) and DCS, G-1 distributed among the functions?"

Table 2. Functional Level Manning Risks Profile Results.

Functions	FTE	High risk	Mod risk	Low risk	Coverage
Army Campaign Plan	1.45	0.30	0.95	1.35	100%
Army Library Program	1.01	0.89	1.00	1.11	59%
Army Marketing and Research	55.74	40.77	67.40	92.14	16%
Army Review Boards	94.51	83.42	97.17	111.17	32%
Civilian / Senior Executive Pay, Compensation, Benefits, and Incentives	5.75	2.67	5.81	8.70	50%
Civilian / Senior Executive Performance Management	4.16	2.35	3.75	5.65	65%
Civilian / Senior Executive Personnel Actions	5.49	1.97	4.20	5.93	97%
Civilian / Senior Executive Personnel Policy	10.76	10.14	14.50	18.11	1%
Civilian / Senior Executive Recruiting / Hiring	5.22	5.38	7.90	10.17	0%
Civilian / Senior Executive Talent Management	1.72	0.66	1.75	2.59	53%
Civilian / Senior Executive Training, Education Training, Education, and Professional Development	4.38	5.30	7.50	9.70	0%
Civilian / Senior Executive Workforce Management	3.29	6.00	9.00	11.50	0%
Civilian Career Program Management	14.12	8.98	13.50	18.27	61%
Civilian Equal Employment Opportunity	14.05	14.65	18.50	22.35	0%
Civilian Expeditionary Workforce	3.87	1.26	2.50	3.24	100%
Civilian Intern Program	6.51	2.59	4.10	5.12	100%
Civilian Labor-Management Relations	4.08	1.31	3.10	4.39	98%
Civilian Workforce Analysis	13.29	13.71	19.50	25.54	0%
Command / Special Programs	1.77	3.05	5.25	7.45	0%
Current Operations	1.73	1.01	2.25	4.14	13%
Diversity / Inclusion	3.10	0.90	2.00	3.10	100%
Force Management	13.58	2.75	5.00	8.25	100%
Human Capital Strategy / Human Dimension	5.30	1.90	2.70	4.10	100%
Human Resources Information Technology	34.34	28.55	47.50	71.45	4%
Human Resources Organizational Structure / Business Processes	4.40	2.13	5.39	9.80	21%
Human Systems Integration	2.30	1.97	3.50	5.98	2%

Functions	FTE	High risk	Mod risk	Low risk	Coverage
Law Enforcement	1.34	1.45	2.00	2.55	0%
Legislative Affairs	3.56	2.85	5.49	8.36	3%
Manpower Requirements / Generating Force Analysis	27.03	21.54	31.90	44.97	12%
Military Accessions / Recruiting	14.40	8.78	14.00	19.23	57%
Military Casualty / Mortuary / Memorial Affairs	1.08	0.48	0.75	1.03	100%
Military Education / Professional Development	0.36	0.00	1.00	1.84	7%
Military Equal Opportunity	4.56	1.90	3.00	4.10	100%
Military Health Affairs	5.60	3.34	5.00	6.91	75%
Military Individual / Institutional Training	6.70	6.33	7.75	10.18	3%
Military Manpower / Strength Analysis	9.74	6.70	10.00	13.30	42%
Military Manpower Management	6.54	14.56	22.65	30.84	0%
Military Pay, Compensation, Benefits, and Incentives	10.63	4.70	8.50	12.09	92%
Military Personnel Actions	27.91	15.26	24.10	32.43	86%
Military Personnel Policy / Management	7.71	8.00	12.75	19.00	0%
Military Personnel Reporting	5.40	3.80	6.00	8.20	26%
Military Retention	4.28	2.90	4.00	5.10	72%
Military Retirement / Transition	21.42	21.25	29.50	38.54	0%
Personnel Security / Insider Threat / Suitability	4.12	3.20	6.50	10.59	3%
Programming, Budgeting, and Execution	28.02	16.55	24.20	31.95	87%
Public Affairs / Strategic Communications	7.21	8.59	11.74	14.79	0%
Readiness	6.30	4.80	6.50	9.20	30%
Ready and Resilient	23.40	27.85	43.25	58.65	0%
Reserve Affairs / Total Force Policy	3.65	0.98	2.30	3.62	100%
Reserve Component (RC) Mobilization/Demobilization	3.75	1.80	4.00	6.20	39%
Sexual Harassment, Assault and Response Prevention (SHARP)	12.20	5.50	10.00	16.50	74%
Soldier / Family / Quality of Life Programs	2.87	1.09	2.00	4.66	66%
Strategic Planning	2.08	1.31	1.75	2.30	91%
Total Workforce Management	6.29	1.96	3.40	5.15	100%
Unit / Collective Training	0.87	0.95	1.50	2.05	0%

3.2 Priority Results

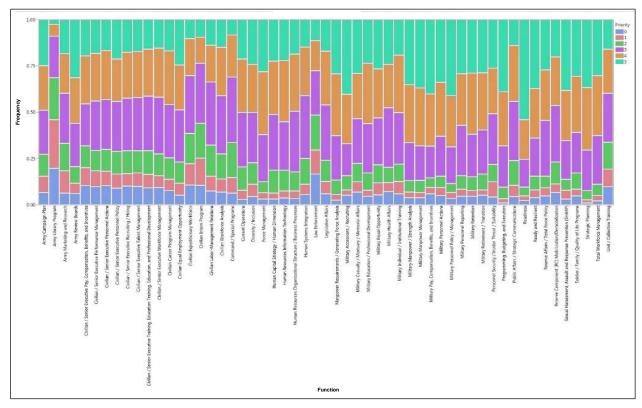


Figure 8. Survey Results.

All personnel were asked to select a priority (0-5) for each of the 55 functions performed by DCS, G-1 and ASA (M&RA). Figure 8 above shows the distribution of survey responses with functions along the x-axis and the frequencies of responses shown as stacked bars. From top to bottom, turquoise bars represent "5" ratings, orange bars represent "4" ratings, purple bars represent "3" ratings, green bars represent "2" ratings, pink bars represent "1" ratings, and blue bars represent "0" ratings. Most functions received fairly high priority ratings from survey respondents. Army Library Program (second bar from the left) garnered the lowest ratings, while Readiness (ninth bar from the right) received the highest.

Table 3. Survey Results.

ASA (M&RA)	DCS, G-1	Combined	Functions	
2	1	1	Readiness	
1	3	2	Strategic Planning	
3	4	3	Programming, Budgeting, and Execution	
7	2	4	Military Personnel Policy / Management	
13	5	5	Military Manpower Management**	
9	7	6	Sexual Harassment, Assault and Response Prevention (SHARP)**	
8	8	7	Military Pay, Compensation, Benefits, and Incentives	
6	9	8	Military Accessions / Recruiting	
14	6	9	Military Manpower / Strength Analysis**	

ASA (M&RA)	DCS, G-1	Combined	Functions	
5	13	10	Total Workforce Management*	
10	11	11	Ready and Resilient	
17	10	12	Manpower Requirements / Generating Force Analysis*	
11	15	13	Force Management	
18	12	14	Military Personnel Actions	
19	14	15	Military Retention*	
15	18	16	Soldier / Family / Quality of Life Programs*	
20	17	17	Military Retirement / Transition	
24	16	18	Military Personnel Reporting**	
12	26.5	19	Reserve Affairs / Total Force Policy*	
16	23	20	Military Education / Professional Development*	
4	32	21	Army Review Boards*	
31	19	22	Human Resources Information Technology	
30	20	23	Human Capital Strategy / Human Dimension	
27	24	24.5	Military Casualty / Mortuary / Memorial Affairs*	
22	28	24.5	Military Equal Opportunity	
33	21	26	Current Operations	
32	22	27	Human Resources Organizational Structure / Business Processes	
29	26.5	28	Personnel Security / Insider Threat / Suitability	
23	29	29	Diversity / Inclusion	
25	30	30	Civilian Equal Employment Opportunity	
21	35	31	Military Health Affairs	
28	34	32	Military Individual / Institutional Training	
26	37	33	Reserve Component (RC) Mobilization/Demobilization	
48	25	34	Army Campaign Plan	
37	33	35	Legislative Affairs	
36	36	36	Public Affairs / Strategic Communications	
34	38	37	Civilian Career Program Management	
47	31	38	Human Systems Integration	
39	39	39	Civilian / Senior Executive Personnel Policy	
38	41.5	40	Civilian Workforce Analysis	
42	41.5	41	Civilian / Senior Executive Workforce Management	
40	46	42	Civilian / Senior Executive Performance Management	
43	43	43	Civilian / Senior Executive Recruiting / Hiring	
49	40	44	Civilian / Senior Executive Talent Management	
44	47	45	Civilian / Senior Executive Pay, Compensation, Benefits, and Incentives	
41	48	46	Civilian / Senior Executive Training, Education Training, Education, and Professional Development*	
46	44.5	47	Civilian / Senior Executive Personnel Actions	
35	50	48	Army Marketing and Research*	
45	51	49	Unit / Collective Training*	

ASA (M&RA)	DCS, G-1	Combined	Functions
50	49	50	Civilian Labor-Management Relations
52	44.5	51	Command / Special Programs
51	52	52	Civilian Expeditionary Workforce
54	53	53	Civilian Intern Program
53	54	54	Law Enforcement
55	55	55	Army Library Program**

Priority survey responses by rank are shown in Table 3 filtered by each organization and both organizations combined. This meets the objective of EEA 4, "What is the priority of each function?" Rank was determined by calculating the frequency of scores (0-5) that each function received and then adding those frequencies together. We sorted these totals from largest to smallest and then assigned a number between 1 and 55 based on this sorted list. Any functions with equivalent "scores" received the average of the two rankings. Functions unique to ASA (M&RA) or DCS, G-1 are marked with a "*" or "**" respectively.

3.3 Over- and Under-manned Functions

Table 4. Over-manned Functions (above low risk).

Function	Current FTE	Excess FTE	Percentile Rank
Force Management	13.58	5.33	13
Civilian Intern Program	6.51	1.40	53
Human Capital Strategy / Human Dimension	5.3	1.20	23
Total Workforce Management	6.29	1.15	10
Civilian Expeditionary Workforce	3.87	0.63	52
Military Equal Opportunity	4.56	0.46	25
Army Campaign Plan	1.45	0.10	34
Military Casualty / Mortuary / Memorial Affairs	1.08	0.06	24
Reserve Affairs / Total Force Policy	3.65	0.03	19
Total	46.29	10.36	

[&]quot;Over-manned", in this case, is defined as the status associated with a current manning level above what was defined as the "low risk" level. Table 4 displays the functions that are currently assessed to be "over-manned". The priority percentile rank is included for context with respect to the general impact of this circumstance.

It is worth noting that these manning-level determinations are based solely on the management-derived manning risk profiles.

Table 5. Under-manned Functions (below high risk).

Function	Current FTE	Shortage FTE	Percentile Rank
Military Manpower Management	6.54	8.02	5
Ready and Resilient	23.4	4.45	11
Civilian / Senior Executive Workforce Management	3.29	2.71	41
Public Affairs / Strategic Communications	7.21	1.38	36
Command / Special Programs	1.77	1.28	51
Civilian / Senior Executive Training, Education Training, Education, and Professional Development	4.38	0.92	46
Civilian Equal Employment Opportunity	14.05	0.60	30
Civilian Workforce Analysis	13.29	0.42	40
Military Personnel Policy / Management	7.71	0.29	4
Civilian / Senior Executive Recruiting / Hiring	5.22	0.16	43
Law Enforcement	1.34	0.11	54
Unit / Collective Training	0.87	0.08	49
Total	89.07	20.42	

Conversely, "under-manned" indicates when a function is currently manned at a level that falls below the "high risk" level defined by the manning risk profiles. Table 5 displays the functions that are currently assessed to be "under-manned". The total shortage FTE count is almost twice as much as the excess.

Org	Sub-Organization	FTE	Coverage
	AMRG	55.74	16.39%
	ARBA	95.95	19.47%
	CLSMO	17.08	0.00%
	СР	5.8	17.68%
M&RA	D&L	24.31	23.61%
MAKA	M&RA Front Office	1.88	30.56%
	MP/QoL	18.59	20.30%
	SIO	5.17	59.24%
	TRM	19.82	91.97%
	USAMAA	30.96	17.27%
	AG1CP	54.4	21.86%
	ARD	26.2	0.00%
	DMPM	74.17	43.77%
	HSI	6.02	10.73%
G-1	P&R	60.39	44.26%
	SFL	20.17	0.00%
	SHARP	15.75	100.00%
	SIG	10.52	64.43%
	TBAI	32.02	0.75%

Figure 9. Under-/Over-Manning (Sub-Organizational Level).

Figure 9 shows the current state of all sub-organizations within DCS, G-1 and ASA (M&RA) that were included in this study. Within these sub-organizations, 15 of the 19 are currently manned at less than moderate risk manning level.

Three sub-organizations, one in ASA (M&RA) (CLSMO) and two in DCS, G-1 (ARD and SFL), do not have enough FTEs to meet their requirements at high risk (highlighted in red). The only sub-organization manned above its low risk level is SHARP (highlighted in green). Notice, when FTEs are rolled up to the sub-organization level in this way, there are fewer under- or overmanned sections than when viewed at the functional level. Based on this fact, we recognize that FTEs can remain within sub-organizations, but be redistributed among internal functions to increase utility and limit the "shake-up" of personnel associated with reallocation of resources.

Overlapping Functions Military Personnel Management Special Interest Civilian Personnel Management Human Capital Management Other Training Readines

3.4 Overlapping Functions

Figure 10. Overlapping Functions.

Overlap exists in 34 of the 55 functions. DCS, G-1 accounts for the majority of FTEs in most overlapping functions. Figure 10 shows the functions with overlap and how many FTEs are assigned to each organization. The functions are grouped by category.

We can explain much of the duality of these functions either as doctrinally required civilian oversight of military organizations, or as the tasks being performed within a given function differ between organizations.

For instances where there is actually a duplication of effort, attention should be paid to determine which organization is actually contributing effectively to a function. This will help to identify opportunities for reassignment of resources.

3.5 CAA Analysis

Functions selected to accept risk are those that are the most resourced and the least prioritized. Reduction in risk is focused on functions that are under resourced but have a high priority. Functions that are under resourced and ranked low among other functions should be considered as possible areas of divestment. The argument here is, if we do not consider something to be important, and we are not committing much in the way of manpower to it, do we need to continue doing it?

- Should ASA (M&RA)/DCS, G-1 face additional reductions, consider accepting greater risk in:
 - Civilian Intern Program
 - Civilian Expeditionary Workforce
 - Army Campaign Plan
- Should ASA (M&RA)/DCS, G-1 face additional resources, consider reducing risk in:
 - Military Personnel Policy/Management
 - Military Manpower Management
 - Ready and Resilient
- ASA (M&RA)/DCS, G-1 should consider eliminating/divesting resources allocated to:
 - Army Library Program
 - Law Enforcement
 - Command Special Programs

Risk Quadrants Strategic Planning Military Personnel Policy / Management 100% 247 136.85 **FTEs FTEs** High Risk, High Priority Low Risk, High Priority 75% (Under Resourced) (No Changes Needed) 50% Civilian Workforce Analysis Civilian / Senior Executive Personnel Actions Low Risk, Low Priority High Risk, Low Priority (Reassess Need to Perform) (Over Resourced) 56.86 134.23 **FTEs FTEs** Law Enforcement High Risk Moderate Risk Low Risk

3.6 Risk vs. Priority at the Functional Level

Figure 11. Risk vs. Priority at the Functional Level.

Each dot on the Figure 11 chart represents 1 of the 55 functions. We sum manning risk profiles associated with each function to create an aggregate profile. Then we compared the aggregate risk profiles to the sum of all FTEs committed to each function to determine their aggregate coverage or risk level.

The FTE numbers in each corner are the total number of FTEs currently residing in each risk quadrant. Risk quadrants are labeled "Under Resourced", "Reassess Need to Perform", "No Changes Needed", and "Over Resourced" based on the contextual interpretation of the combination of risk and priority factors.

We have called out several of the extreme cases within each quadrant, as they may be points of interest and to demonstrate the capability of the application created in R to display descriptive details about each point upon mouse hover. Additional information about the R app can be found in APPENDIX E.

3.7 Optimizing Function Coverage

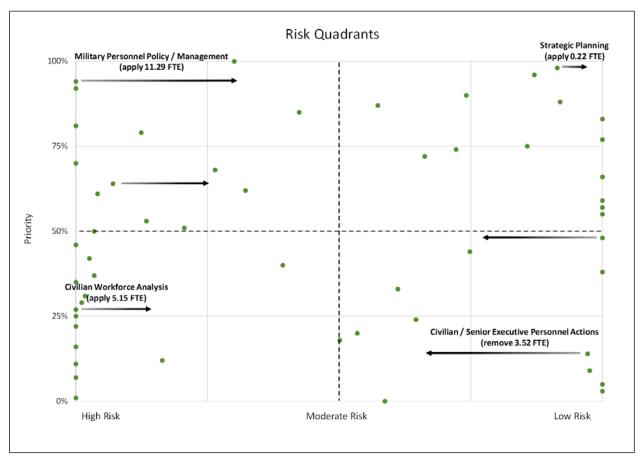


Figure 12. Optimizing Function Coverage (1 of 2).

One method for addressing the misallocation of resources, displayed in Figure 12, is according to the following:

- Functions in the bottom quartile by priority (0-25%), the lowest priority functions, are assigned to the high risk level according to the manning risk profile.
- Functions in the next priority quartile (26-50%) are assigned to a constructed "high-moderate risk". We derived this value by taking 40% of the difference between the low and high risk value of a manning risk profile and adding it to the high risk value for each function.
- Functions in the third priority quartile (51-75%) are assigned to a constructed "moderate-low risk". We derived this value by taking 60% of the difference between the low and high risk value of a manning risk profile and adding it to the high risk value.
- Functions in the highest priority quartile (75-100%), the highest priority functions, are assigned to the low risk level according to the manning risk profile.

The intention with this methodology is to approach a linear configuration of a functions' risk to priority. With this arrangement of functions, considerations with respect to functions to divest in or eliminate would be at the bottom left of the chart.

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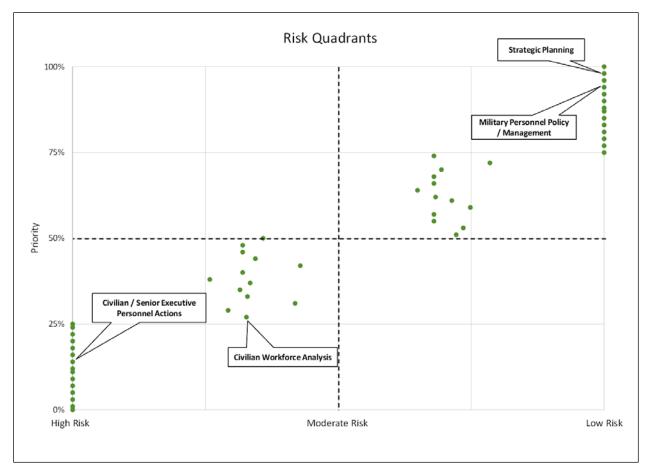


Figure 13. Optimizing Function Coverage (2 of 2).

Figure 13 displays the result of the methodology presented on the previous page. The four functions highlighted previously are shown as a demonstration of their final position after the treatment.

To reach this configuration, an additional 132.64 FTEs are required.

3.8 Using OCP Data Results for Organizational Change

There are a variety of ways that the OCP data can be used to support future organizational assessments. However, while the quantitative data can be used to provide options for change, humans-in-the-loop, armed with additional information, are still needed. The quantitative data should improve over time with repeated assessments.

The study sponsor was not interested in us providing suggestions for personnel changes. However, we developed several courses of action for analysis to demonstrate what can be done using this type of data.

Strategy 1: At the Sub-organization, Function Level –

Overarching Assumption: No functions are cut and all are minimally manned to the "High Risk" level.

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COA 1: Priority Focus: Evenly distribute the remaining 108 FTEs, from highest to lowest priority, without exceeding the low risk manning level

COA 2: Utility Focus: Evenly distribute the remaining 108 FTEs, from highest to lowest marginal increase of the utility factor, without exceeding the low risk manning level.

Strategy 2: At the Function Level –

COA 1: Priority Focus: Evenly distribute the remaining 108 FTEs, from highest to lowest priority, without exceeding the low risk manning level

COA 2: Utility Focus: Evenly distribute the remaining 108 FTEs, from highest to lowest marginal increase of the utility factor, without exceeding the low risk manning level.

Strategy 3: Reduce the size of the workforce –

COA 1: Cut FTEs by 15%-25% by taking from the low ranked, low resourced functions.

COA 2: Review G-1 and ASA (M&RA) for overlapping functions to determine which organization should divest some functions and tasks.

3.9 Insights

575 FTE Available*	High Risk	Moderate Risk	Low Risk
Manning Requirement	463	661	875
FTE Excess/Shortage	112	-86	-300
Percent of Requirement	124%	87 %	66%

^{*} Excludes FTEs for which manning risk profile was not defined.

Figure 14. Insights.

Figure 14 displays the total FTE required for the risk levels at the overall aggregate level. Given the current resource strength of ASA (M&RA) and DCS, G-1 (shown in the top left corner of Figure 14), it is not possible to reach the aggregate moderate risk level for all sub-organizations and functions without divesting in some functions and reassigning FTEs. In other words, without increasing manpower, according to the overall manning risk profile, the organization will not be able to reach the moderate risk level.

Utility can be increased by moving FTEs within sub-organizations to higher priority functions.

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Quantitative data suggests that utility can be greatly increased with minor shifts in manpower between ASA (M&RA) and DCS, G-1.

The major take-away from the data analysis is, if all functions were to be retained and distributed across the Sub-Organizations as it is now, at the aggregate level, ASA (M&RA) and DCS, G-1 would not be able to reach the moderate risk level. In order to reach the moderate risk manning level, according to the management-defined assessment, an increase in 86 FTEs is needed.

3.10 Questions to Ask

After completing this study, there are questions that remain unanswered.

If reported FTEs are outside the management-provided estimate required to execute a given function *and* if FTEs are below the high risk level:

- Is there general acknowledgement that this function is not getting done?
- If the results are satisfactory, is the management-provided estimate accurate?
- If the results are not satisfactory, does the function need to be performed?
- Are there mitigating circumstances allowing the function to be executed such as contract support or Contingency Active Duty for Operational Support (CO-ADOS) personnel not reflected in the Table of Distribution and Allowance (TDA)?

If FTEs are above the low risk level, what indications are there that the management-provided estimate is accurate?

In the future, with a repeated drill using the database to collect data, how does the picture change? Are there new functions to add or delete?

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APPENDIX A PROJECT CONTRIBUTORS

A-1 PROJECT TEAM

Project Director: Elena Krupa

Team Members: Abram Gross (initial study director), Bill Wright, Melissa Wickers

Other Contributors: LTC Tom Deveans, Mike Pannell, Nancy Zoller, Renee Carlucci

A-2 PRODUCT REVIEWERS

Mr. Russell Pritchard, Quality Assurance

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APPENDIX B REQUEST FOR ANALYTICAL SUPPORT

Performin	g Division: R	A	Account Num	ber: 20	15140	FY: 2015
Acronym:	ASA(MRA)-C	OCP	Start Date: 01	-Jul-15	Est Compl Date:	12-Nov-15
Title: Assi	istant Secretary	of the Army (Manpower and	Reserve Affairs)	- Organiza	ational Capacity Plannir	ıg
		Resource Analysis			Method: I	
Sponsor (i	.e., DCS-G3)	Name: ASA(MRA)		Offic	e Symbol: ASA(M&F	(A)
Phone:		E-Mail: jeffrey.p.angers.ci	v@mail.mil	POC	Mr. Jeffrey Angers	
Resource 1	Estimates:	a. Estimated PSM:		b. E	Estimated Funds:	
Models to b	e Used:		Product:	Briefing	and Report	*
Request is for responsibiliti defined. Inte fulfilled at va	es. Functions are nt is to inform sta ried staffing level		de of contribution	toward the	mission; valuation metric	s are to be
Study Dire	ector/POC Sig	nature: Un A	_		Phone: 703-806-51	72
Study Dire	ctor/POC: M	r. Abram A Gross				
D /	1/0:		ART 2			
The Director, determining a requirements. in value, to th reductions).	n effective, efficie It must also incl	cion Office, ASA(M&RA) request ent organizational structure. The sude a valuation methodology that and in failing to perform lower-val	model must accou t reflects the impor	nt for M&I tance of fur	RA functions and associat nctionals and helps to ider	ed manning ntify any loss
necessary to e	xamine related or	n ASA(M&RA) functions and assimilar organizations (e.g., HQL izational boundaries.	sociated manning r OA G-1) and consid	equirement er potentia	s. Expansion of the study I duplication of effort due	may be to functional
		of functions may be controversial g methodology needs to be assess				
Milestones:						
values between	1 functions by dev	nap that links organizational brea veloping utility functions conditions as for varied resource (manning)	oned on staff comp	osition. 3.	Develop a model that asse	esses
			ee & Ca	lucc	Date 2	JUL15
G .	CAA Divisio	on Chief Name: Ms. Re	nee G Carlucci			,
Signature	Sponsor Co.	ncurrence Signature:			Date 2.	50/15
	Sponsor Na	me (COL/DA Div Chief G	OSES: TO	Frey F	merc	
				1	Print Date:	01-Jul-15

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APPENDIX C ACRONYMS

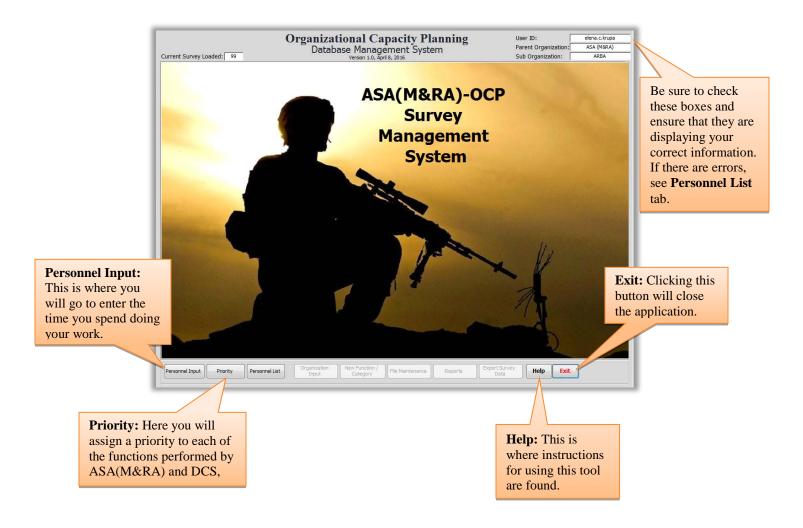
- (U) AG1CP Assistant G-1 Civilian Personnel
- (U) AMAG- Army Management Action Group
- (U) AMRG Army Marketing Research Group
- (U) ARBA- Army Review Boards Agency
- (U) ARD Army Resiliency Directorate
- (U) ARI Army Research Institute
- (U) CHRA Civilian Human Resources Agency
- (U) CLSMO Civilian Senior Leader Management Office
- (U) COA course of action
- (U) CO-ADOS Contingency Active Duty for Operational Support
- (U) CP Civilian Personnel
- (U) D&L Diversity and Leadership
- (U) FOA Field Operating Agency
- (U) FTE Full-Time Equivalent
- (U) HQDA Headquarters, Department of the Army
- (U) HRC Human Resources Command
- (U) HSI Human Systems Integration
- (U) ASA (M&RA) Assistant Secretary of the Army, Manpower and Reserve Affairs
- (U) MP / QoL Military Personnel / Quality of Life
- (U) MSO Management Support Office
- (U) OCP Occupational Capacity Planning
- (U) P&R Personnel and Resources
- (U) PDASA Principle Deputy Assistant Secretary of the Army
- (U) PPBE Planning, Programming, Budgeting, and Execution
- (U) SHARP Sexual Harassment Assault and Response Prevention
- (U) SIG Strategic Initiatives Group
- (U) SIO Strategic Integration Office
- (U) TBAI Technology and Business Architecture Integration
- (U) TDA Table of Distribution and Allowance
- (U) TRM Training, Readiness, and Mobilization
- (U) USAMAA U.S. Army Manpower Analysis Agency

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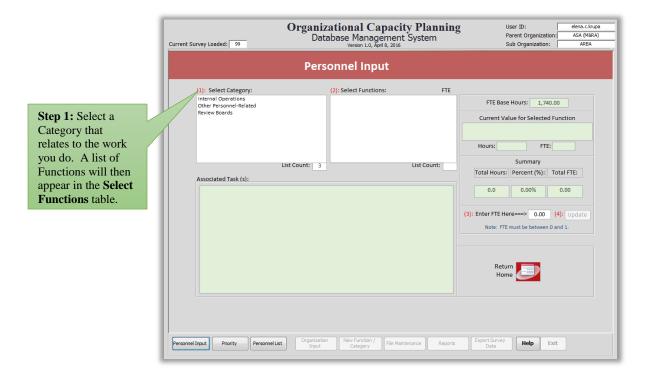
APPENDIX D OCP DATABASE USER GUIDE

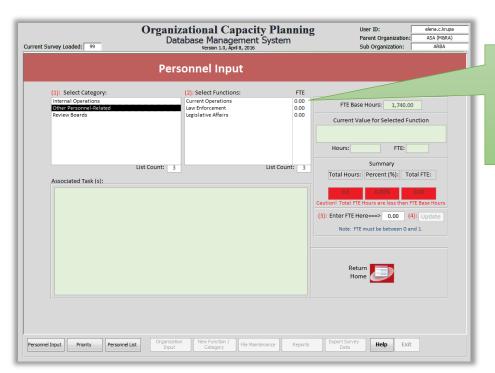
HOME PAGE ORIENTATION



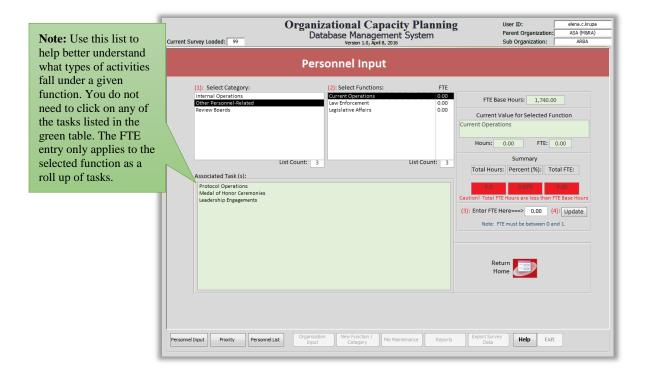
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PERSONNEL INPUT INSTRUCTIONS





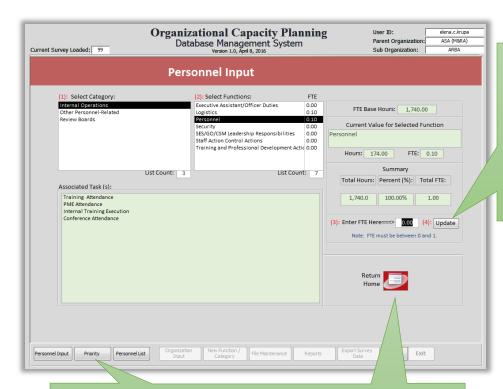
Step 2: Choose a function that relates to work that you do. Once you select a function, a list will appear in the green table, Associated Task(s).





*FTE=Full-time Equivalent - A year's worth of work

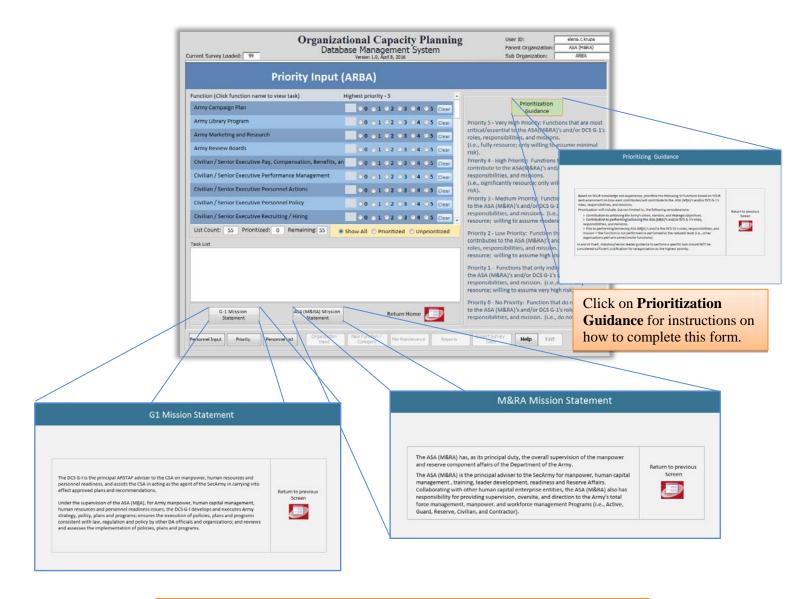
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Step 4: Repeat steps 1 through 3 until you have entered a full FTE (i.e. 100% of the time you spend in a year of work). The boxes in the summary table will turn green when you have fully entered your time.

Now you have completed the **Personnel Input** and you should now enter the **Priority** page using the button along the bottom of the screen or click **Return Home** if you have already completed the **Priority** page.

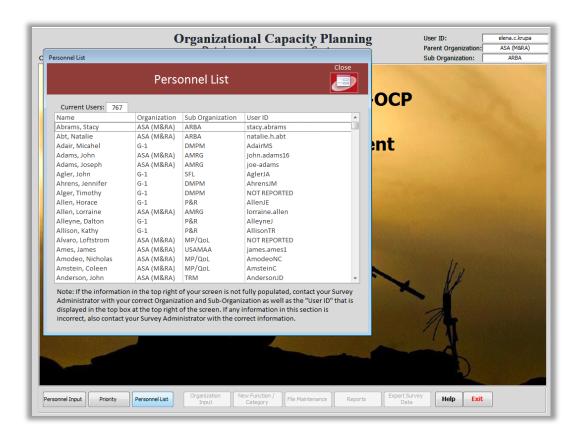
PRIORITY INSTRUCTIONS



The two **Mission Statement** buttons will display the mission statement of G-1 or ASA (M&RA) and are meant to help you determine how each function relates to the mission Statement of your organization.

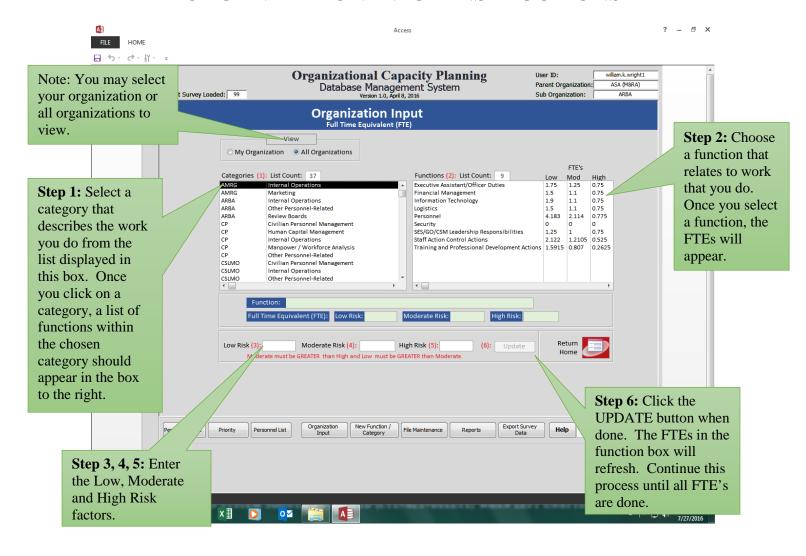
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PERSONNEL LIST INSTRUCTIONS



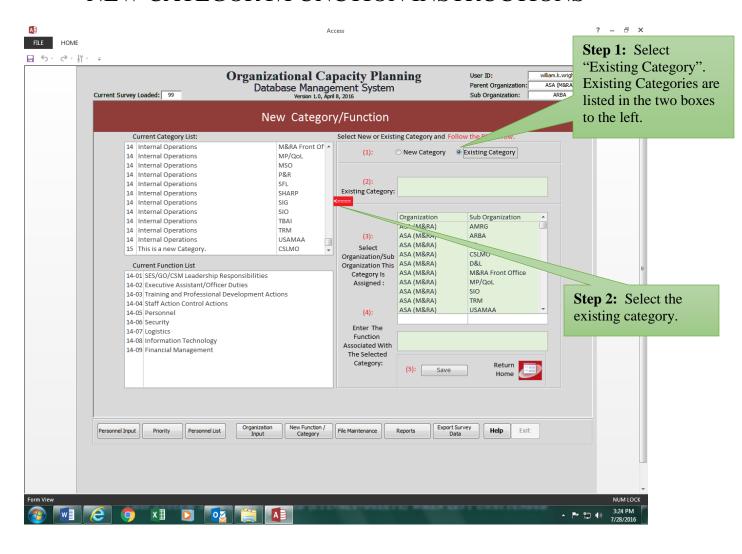
If the information at the top right of the Home Page is not complete or incorrect, you will click on this tab. Here you can scroll to your name and see what information is currently stored in the database for you. If your **User ID** is the only thing displayed in the top right box, send THAT **ID** being displayed to your assigned admin for the database. If the **Organization** information is displayed incorrectly, send the correct information to your admin as well.

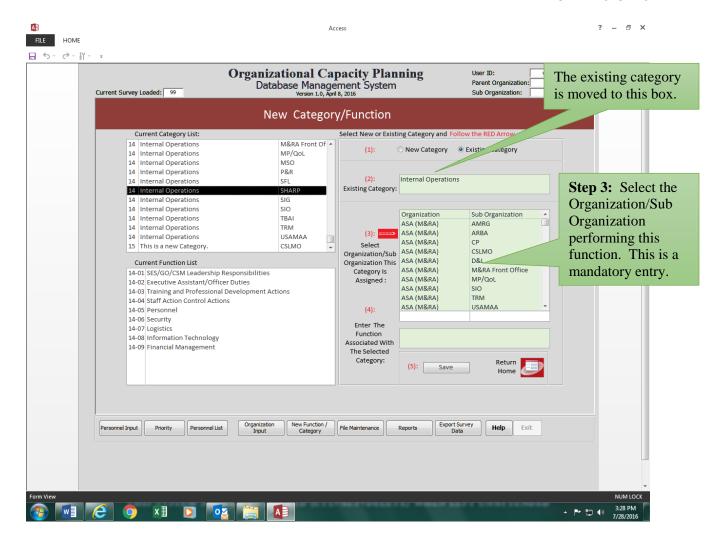
ORGANIZATION INPUT INSTRUCTIONS



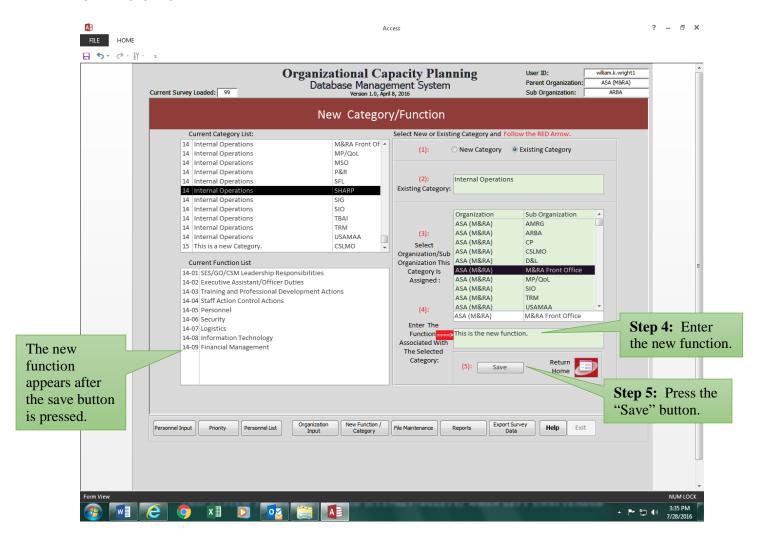
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NEW CATEGORY/FUNCTION INSTRUCTIONS



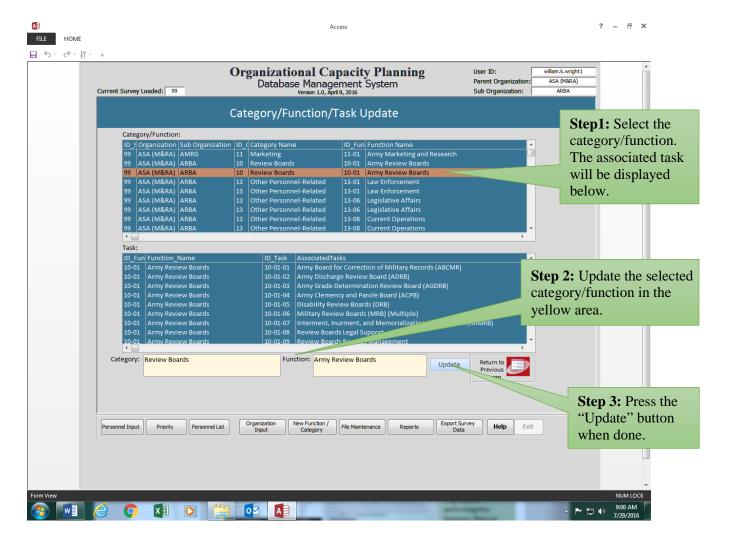


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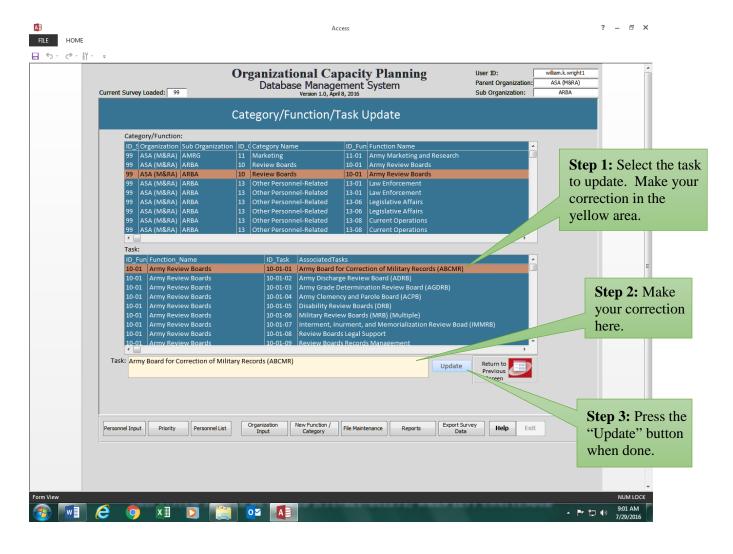
EDIT CATEGORY/FUNCTION/TASK INSTRUCTIONS

EDIT CATEGORY OR FUNCTION



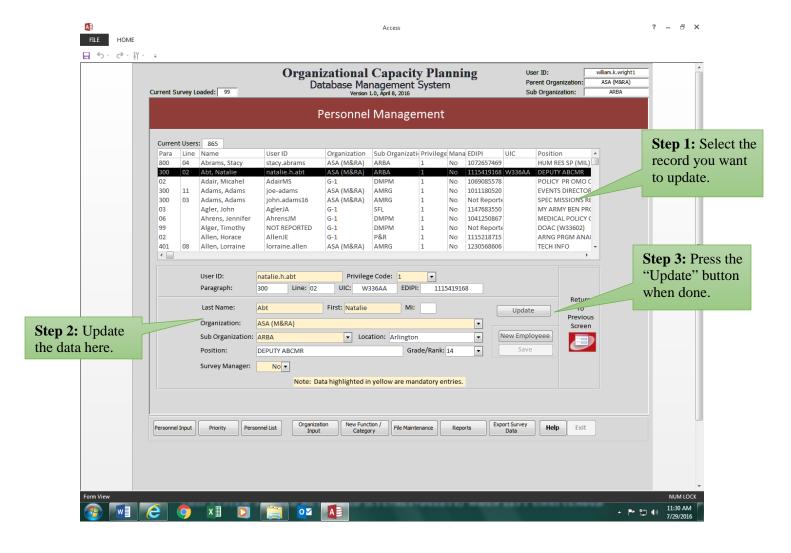
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EDIT TASK



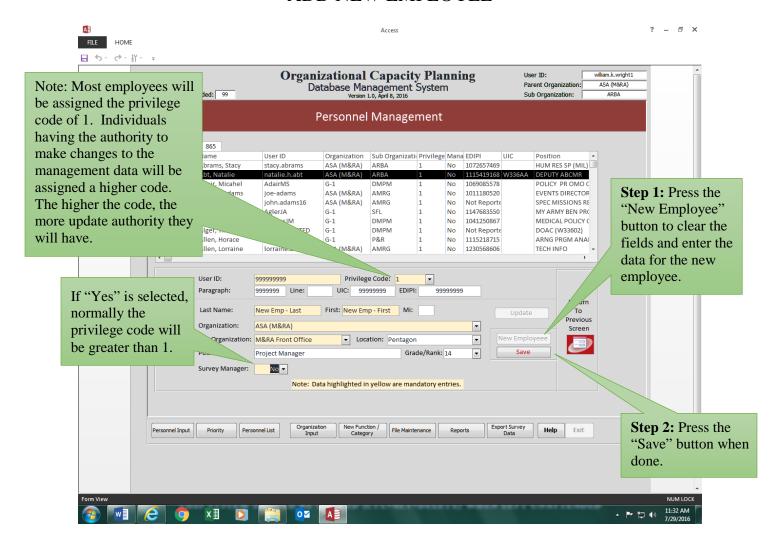
PERSONNEL MANAGEMENT INSTRUCTIONS

EDIT EMPLOYEE DATA

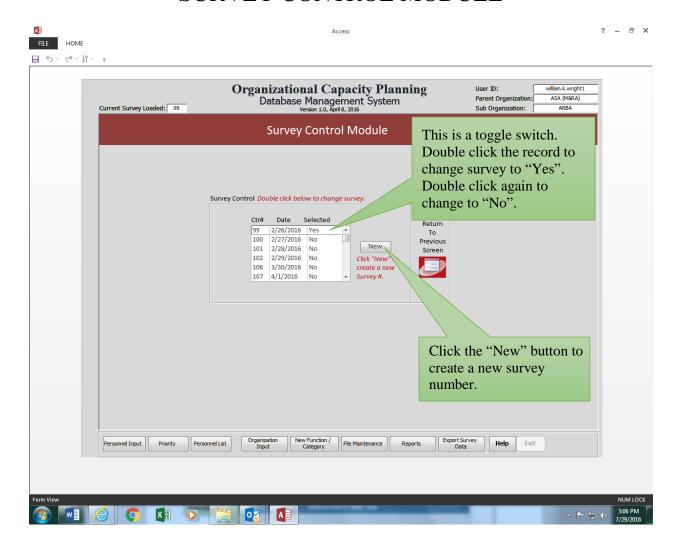


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ADD NEW EMPLOYEE

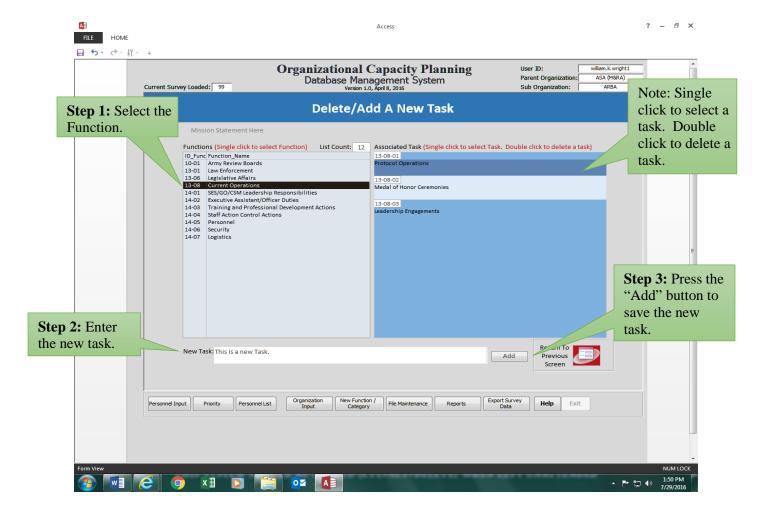


SURVEY CONTROL MODULE



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ADDING A NEW TASK



APPENDIX E RSHINY APPLICATION

To access the application, enter the URL below.

URL: http://ec2-52-61-9-65.us-gov-west1.compute.amazonaws.com/shiny/OCPApp/

Enter Username and Password when prompted.

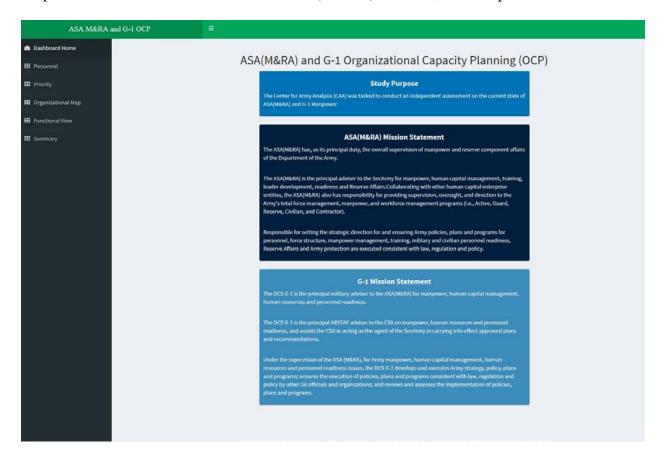


Username: OCPApp Password: OCPapp2017

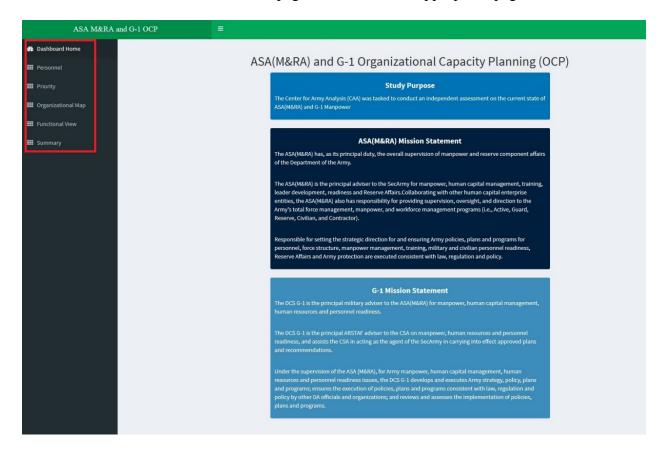
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CAA-2015140

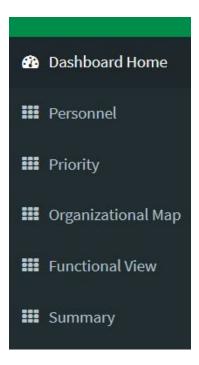
Once entered, the web application will open to the homepage. On the homepage, the Study Purpose and the Mission Statements for ASA (M&RA) and DCS, G-1 are present.



The sidebar on the left-hand side of the page directs traffic to appropriate pages.



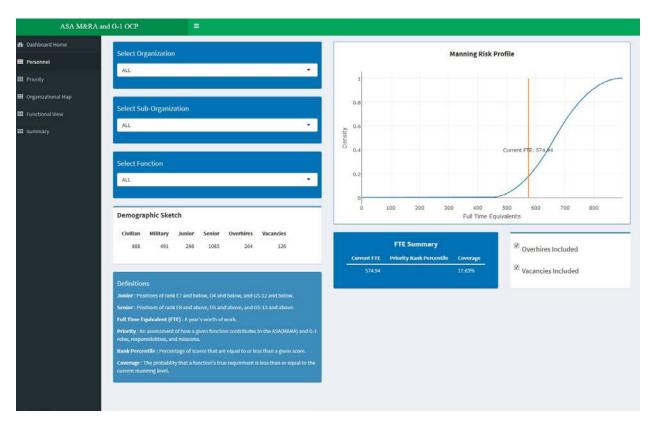
Click on an icon to view preferred page.



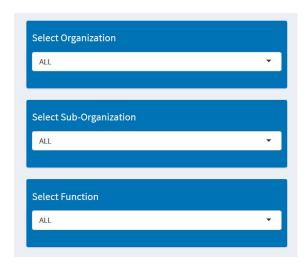
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Personnel Page

Click on the Personnel tab in the sidebar. Once clicked, the Personnel Page will look as follows.



The user can choose which Organization, Sub-Organization and Function will be graphically represented by selecting from each of the drop down boxes shown below. The page also shows the current FTE, priority rank percentile, coverage, and a demographic sketch for each.



The current FTE automatically accounts for overhires and vacancies based on the selection above. Uncheck each box, shown below, to view the current FTE without overhires, vacancies, or both.



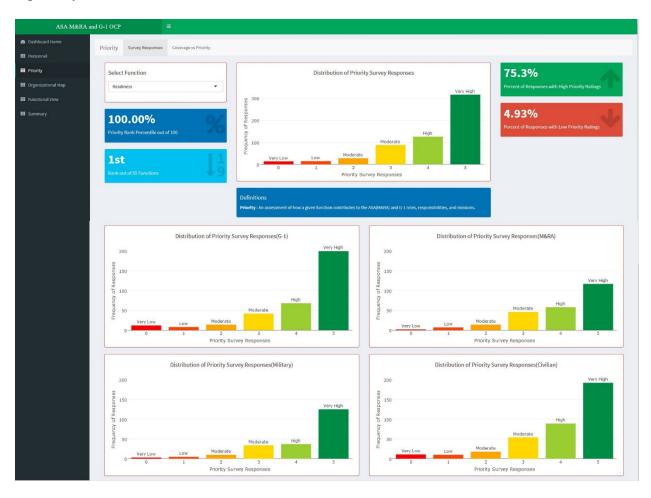
The demographic sketch depicts how many civilian and military positions are in each Organization, Sub-Organization, or Function based on the selection above. Then, it is broken down into rank, overhires, and vacancies.

cinogra	phic Sket				
Civilian	Military	Junior	Senior	Overhires	Vacancies
888	491	298	1085	264	126

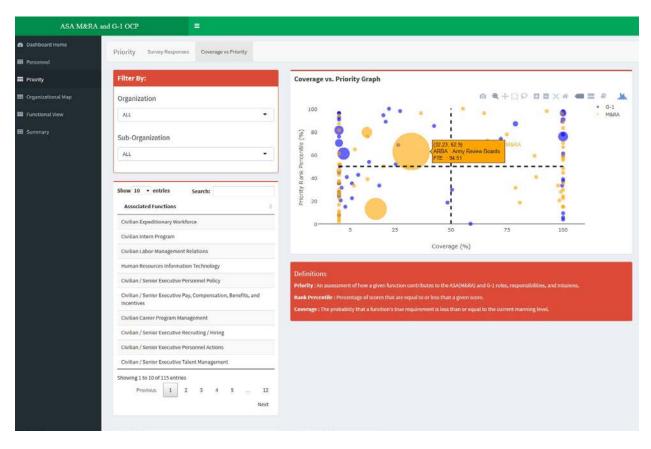
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Priority Page

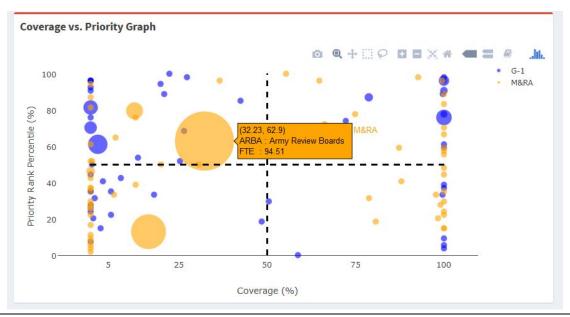
Click on the Priority tab in the sidebar. The page will appear as below. The user selects a function in the top left drop-down box to view the Distribution of Priority Survey responses. Each graph represents a different demographic. The top graph represents the survey responses as a whole, while the bottom graphs represent ASA (M&RA)/G-1 and Military/Civilian responses separately.



By selecting the Coverage vs. Priority tab at the top of the page, it switches over to show a bubble chart of the coverage vs. priority for each function. The graph can also be filtered by Organization and Sub-Organization.



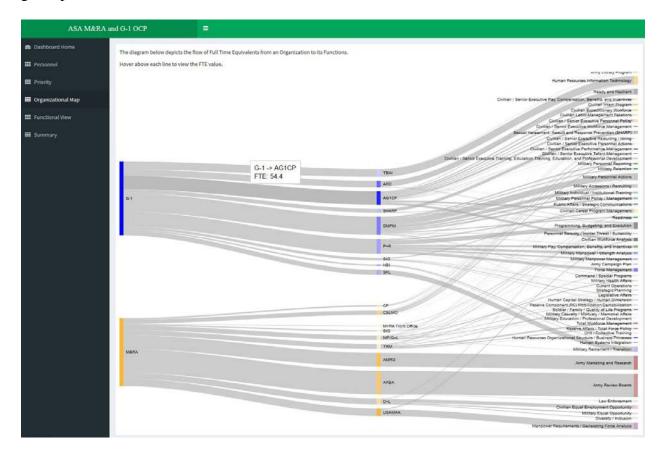
Hovering over each bubble allows the user to see a breakdown of each function. The breakdown shows what Function is selected and the corresponding FTEs currently assigned to it.



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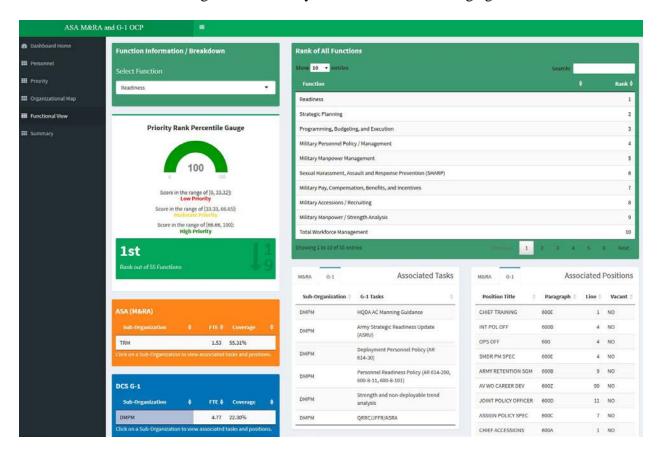
Organizational Map Page

By selecting the Organizational Map tab in the sidebar, a Sankey Diagram, which depicts the flow of FTEs from an Organization to its Sub-Organizations and then the Functions each performs, is available. Hovering over the diagram allows the user to see the FTE value at any given point.



Functional View Page

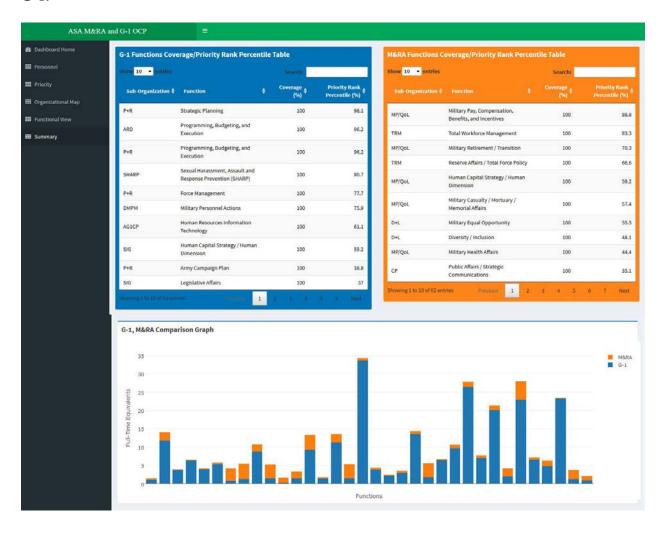
The Functional View page gives an overview of each function selected from the drop-down menu at the top left. By clicking on a Sub-Organization from the orange or blue boxes at the bottom left, the user is able to view the associated tasks and assigned positions of a given function. A static table listing all functions by rank is shown in the large green table.



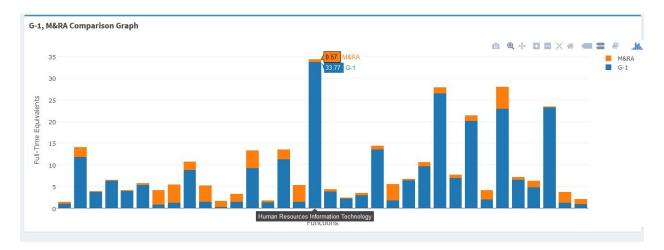
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Summary Page

On the Summary page, functions performed by each sub-organization within G-1 and ASA (M&RA) are shown along with their current coverage and priority rank percentile. The graph at the bottom compares FTEs of each function that is common between ASA (M&RA) and DCS, G-1.



When hovering over the bar graph, the Function and the corresponding FTE in each Organization are displayed.



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