



Defense Acquisition Workforce Key Information

Engineering

As of FY16Q1 (31 December 2015)



Overview

- AT&L HCI is committed to providing the Functional Leader and FIPT Executive Secretary up-to-date key workforce information on a quarterly basis – we welcome questions and recommendations for improved information and analysis support
- HCI provides defense acquisition workforce-wide updates online also at http://hci.dau.mil/inf_sum.html
- Key HCI support contacts
 - **HCI Functional Leader/FIPT Liaison Mr. Charles Sumpter**
 - **HCI Data/Analysis**
 - **Mrs. Adrienne Evertson (adrienne.evertson@hci.mil)(703-805-2338)**



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Fact Sheet



Human Capital Fact Sheet

Defense Acquisition Workforce Engineering	FY 2008				FY2016Q1			
	Engineering Civilian (Civ)	Engineering Military (Mil)	Total Engineering (Civ+Mil)	Defense Acquisition Workforce	Engineering Civilian (Civ)	Engineering Military (Mil)	Total Engineering (Civ+Mil)	Defense Acquisition Workforce
Size & Composition								
Workforce Size	32,385	2,116	34,501	125,879	39,417	1,602	41,019	156,457
Change in size from 2008	-	-	-	-	22%	-24%	19%	24%
Civilian/Military Composition	94%	6%	-	88% / 12%	96%	4%	-	90% / 10%
Educational Attainment								
Bachelor's Degree or Higher	98%	95%	98%	77%	99%	98%	99%	84%
Graduate Degree	36%	45%	36%	29%	42%	62%	42%	39%
Certification								
Level I or Higher Achieved	78%	57%	77%	72%	89%	79%	88%	85%
Level II or Higher Achieved	70%	25%	68%	61%	78%	53%	77%	74%
Level III Achieved	58%	8%	55%	36%	59%	21%	57%	43%
Position Certification Requirement Met or Exceeded	67%	31%	64%	58%	82%	60%	81%	76%
Within 24 Months of Certification Requirement	18%	52%	20%	27%	16%	37%	17%	21%
Does Not Meet Certification Requirement	15%	17%	15%	14%	2%	4%	2%	3%
Planning Considerations								
% Baby Boomer / Traditional Gen.	60%	8%	57%	62%	39%	1%	37%	40%
Average Age	44.6	32.5	43.8	45.7	44.1	32.2	43.7	45.3
Workforce Life-Cycle Model (YRE)* % Future/Mid-Career/Senior	27/24/49(%)	-	-	20/23/57 (%)(Civ)	34/21/46(%)	-	-	26/24/50(%)
Average Years of Service	16.7	8.9	16.2	17.3	15.6	9.5	15.4	15.2
Retirement Eligible*	3,965(12%)	-	-	19,051(17%) (Civ)	5,974(15%)	-	-	23,072(16%)
Retirement Eligible w/in 5 Years*	4,804(15%)	-	-	21,315(19%) (Civ)	7,254(18%)	-	-	26,095(18%)
Total Gains/Losses*	4,050/4,197	-	-	14,245/15,030 (Civ)	4,868/2,603	-	-	17,638/10,727

Source: The Human Capital Fact Sheet is based on end of FY2008 and FY2016Q1 data and was generated by OUSD(AT&L)/Human Capital Initiatives using the AT&L Workforce Data Mart.

*Analysis support from RAND using FY2008 and FY2016Q1 DMDC data.



Highlights



Defense Acquisition Workforce Size Highlights

- The current Engineering Defense Acquisition Workforce count is 41,019, up from 34,537 in FY08, a total increase of 6,482
- The Engineering Defense Acquisition Workforce count was at its highest point 41,050 in FY15, and its lowest point (34,537) in FY08
- The Agencies with the largest increases, since FY08, are NAVY, AIR FORCE, and DCMA, with increases of 4,598 (28%), 2,366 (37%), and 899 (319%), respectively
- The Agencies with the largest decreases, since FY08, are ARMY, DISA, and OSD, with decreases of 1,690 (-16%), 22 (-25%), and 8 (-26%), respectively

Defense Acquisition Workforce DAWIA Certification Highlights

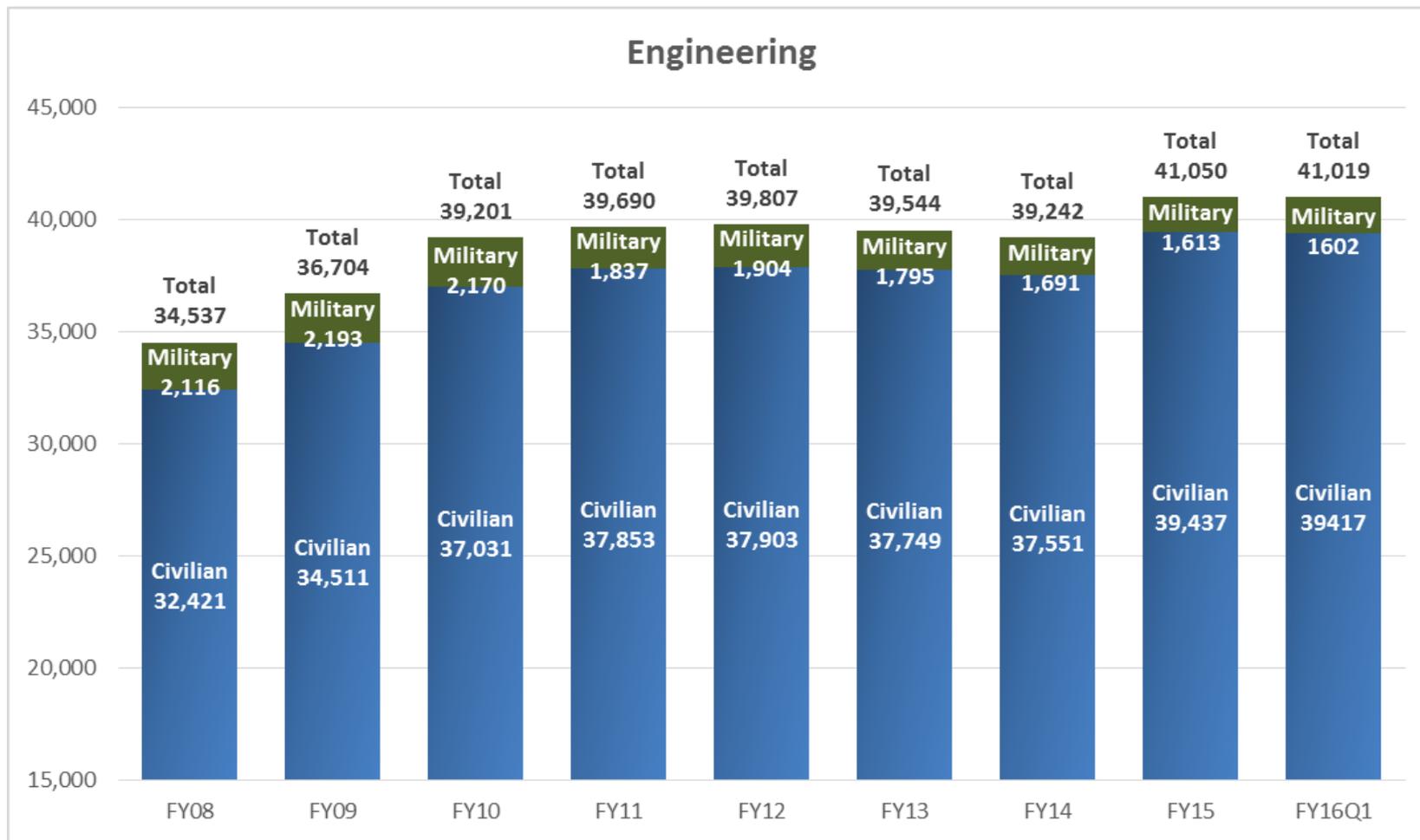
- The current Engineering Defense Acquisition Workforce DAWIA Meets/Exceeds certification rate is 81.1%; up from 64.3% in FY08
- The current Engineering Meets/Exceeds certification rate is up 16.9% from FY08
- The current Engineering Defense Acquisition Workforce DAWIA 24 month grace period rate is 16.6%; down from 20.5% in FY08
- The current Engineering Defense Acquisition Workforce DAWIA Does Not Meet certification rate is 2.2%; down from 15.2% in FY08

Defense Acquisition Workforce Retirement Eligibility Highlights

- Senior Career Group 45.7% (17,991) (10 years or less to retirement eligibility or retirement eligible)
- 15.2% (5,974) are currently eligible to retire, ↑ from 12.3% in FY08
- Mid Career Group 20.5% (8,086) (11 to 20 years to retirement), 24.1% in FY08
- Future Career Group 33.8% (13,312) (21 to 25+ years to retirement), ↑ from 26.6% in FY08



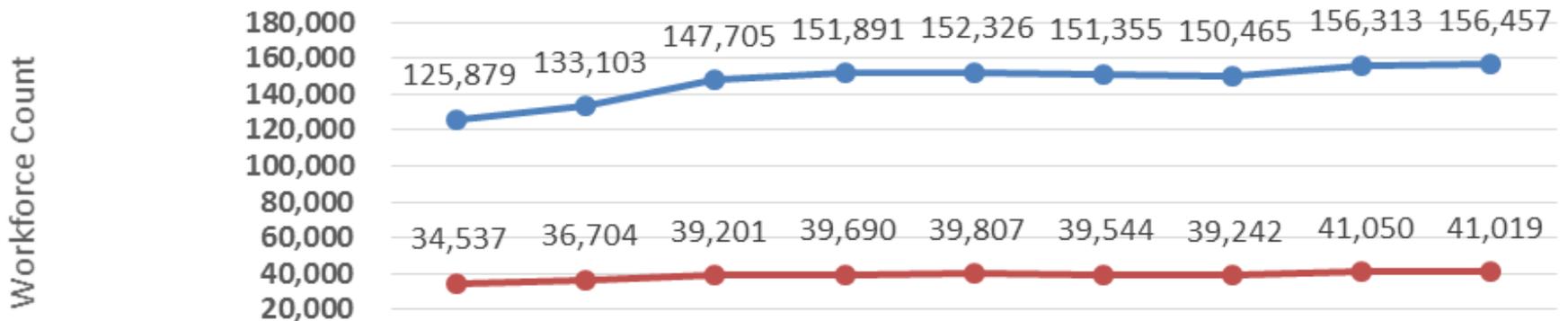
Engineering Total Workforce





Engineering Total Workforce

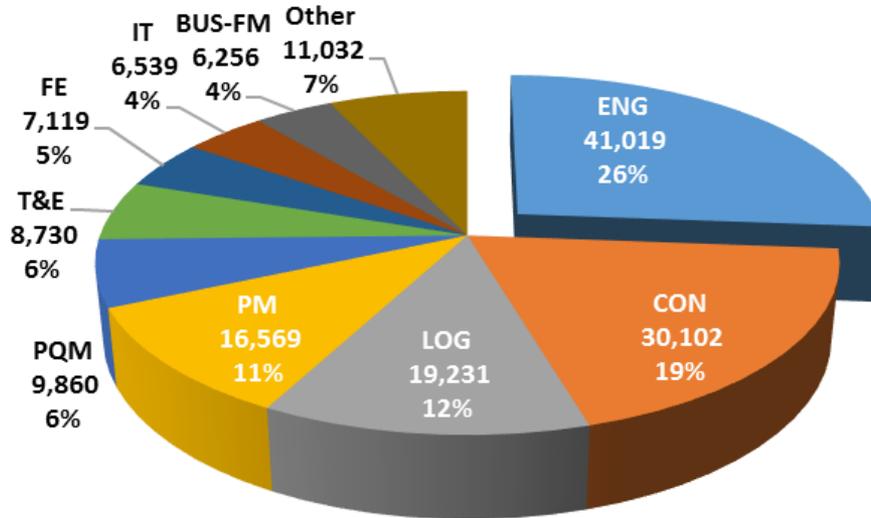
AWF - Historical Workforce Size FY08 -FY16Q1



	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16Q1
Total AWF	125,879	133,103	147,705	151,891	152,326	151,355	150,465	156,313	156,457
ENG % of Total AWF	22%	23%	25%	25%	25%	25%	25%	26%	26%
ENG Workforce	34,537	36,704	39,201	39,690	39,807	39,544	39,242	41,050	41,019



AWF by Component and Career Field



AWF Count by Career Category	Army	DoN	Air Force	4th Estate	Totals	% Total
FY16Q1						
Auditing	-	-	-	4,261	4,261	2.7%
Business - CE	250	569	462	80	1,361	0.9%
Business - FM	1,701	2,042	1,924	589	6,256	4.0%
Contracting	8,011	6,194	8,357	7,540	30,102	19.2%
Engineering	9,079	21,174	8,795	1,971	41,019	26.2%
Facilities Engineering	1,514	5,353	186	66	7,119	4.6%
Information Technology	1,690	2,863	1,158	828	6,539	4.2%
Life Cycle Logistics	7,191	6,214	3,017	2,809	19,231	12.3%
Production, Quality and Man	1,399	2,850	378	5,233	9,860	6.3%
Program Management	3,263	6,367	5,351	1,588	16,569	10.6%
Property	47	63	13	257	380	0.2%
Purchasing	286	489	74	526	1,375	0.9%
S&T Manager	423	492	2,537	131	3,583	2.3%
Test and Evaluation	1,934	3,370	3,052	374	8,730	5.6%
Unknown/Other	10	1	31	30	72	0.05%
FY16Q1 Totals (as of 12-31-2015)	36,798	58,041	35,335	26,283		
Component %	23.5%	37.1%	22.6%	16.8%		
					156,457	



Engineering Workforce Historical Size by Agency FY05 – FY16Q1



Engineering	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16Q1	% Change Since FY08	% Change Since FY15
Defense Acq Workforce														
ARMY	11,138	11,964	11,050	10,769	10,208	10,644	10,108	9,810	9,419	8,981	8,986	9,079	-16%	1%
DoN	16,886	16,688	16,804	16,576	18,085	19,270	19,325	19,498	19,588	19,797	21,181	21,174	28%	0%
AIR FORCE	6,505	6,237	6,162	6,429	7,197	7,625	8,514	8,649	8,521	8,473	8,903	8,795	37%	-1%
DCMA	30	59	393	282	660	813	917	974	1,134	1,157	1,181	1,181	319%	0%
DLA	23	14	42	19	16	16	15	11	12	11	11	13	-32%	18%
DCAA	-	-	-	-	-	-	-	-	-	-	-	-		
MDA	111	117	135	281	363	623	615	644	631	605	582	577	105%	-1%
DISA	4	16	96	89	74	58	69	69	76	74	70	67	-25%	-4%
DHA	-	-	2	2	8	9	9	10	8	6	2	2	0%	0%
DTRA	11	1	1	7	11	27	17	35	45	44	43	42	500%	-2%
DAU	26	30	-	33	41	46	48	49	45	40	38	37	12%	-3%
OSD	18	15	16	31	19	25	24	21	29	23	24	23	-26%	-4%
JCS	-	-	2	-	-	-	-	12	12	10	8	8		0%
DeCA	-	-	-	-	-	-	-	-	-	-	-	-		
WHS	-	-	-	-	-	-	-	-	-	-	-	-		
DFAS	-	1	1	-	-	-	-	-	-	-	-	-		
DoDEA	-	-	-	-	-	-	-	-	-	-	-	-		
DMEA	-	-	-	-	-	29	26	23	23	20	20	20		0%
DoD HRA	-	-	1	-	-	-	-	-	-	-	-	-		
TRMC	-	-	-	-	-	-	-	1	1	1	1	1		0%
DSCA	-	-	-	1	-	-	-	-	-	-	-	-	-100%	
DMA	-	-	-	-	-	-	-	-	-	-	-	-		
DSS	-	-	-	-	-	-	-	-	-	-	-	-		
DTIC	-	-	-	1	-	-	-	-	-	-	-	-	-100%	
DARPA	-	-	1	-	-	-	-	-	-	-	-	-		
NDU	-	-	-	-	-	-	-	-	-	-	-	-		
IG	-	-	-	1	-	-	-	-	-	-	-	-	-100%	
ASD	-	-	-	-	4	4	3	1	-	-	-	-		
PFFA	-	-	-	-	-	-	-	-	-	-	-	-		
4th Estate Other	-	-	4	16	18	12	-	-	-	-	-	-		
TOTAL	34,752	35,142	34,710	34,537	36,704	39,201	39,690	39,807	39,544	39,242	41,050	41,019	18.8%	-0.1%





President's FY17 Budget PB23 Projection FYDP Size (Civ + Mil) Projections



PB23 Jan 2016 Submission	Defense Acquisition Workforce Projection by Career Category (Civilian + Military)								
	Career Field	FY15	FY16	FY17	FY18	FY19	FY20	FY21	Change from FY15
→ Engineering	40,829	41,655	41,446	41,126	41,046	41,078	41,053	224	0.5%
Contracting	29,638	29,954	29,734	29,673	29,619	29,630	29,628	(10)	0.0%
Life Cycle Logistics	18,350	18,531	18,287	18,030	17,968	17,941	17,902	(448)	-2.4%
Program Management	16,463	16,930	16,825	16,625	16,479	16,463	16,442	(21)	-0.1%
Production, Quality & Manufacturing	9,227	9,624	9,628	9,520	9,507	9,454	9,445	218	2.4%
Test and Evaluation	8,633	8,860	8,823	8,764	8,765	8,770	8,769	136	1.6%
Business, Cost Estimating, Financial Management	7,545	7,667	7,552	7,399	7,360	7,356	7,349	(196)	-2.6%
Facilities Engineering	7,083	6,968	6,992	6,980	6,985	6,991	6,991	(92)	-1.3%
Information Technology	6,235	6,255	6,176	6,088	6,088	6,095	6,099	(136)	-2.2%
Auditing	4,203	4,132	4,048	3,986	4,056	4,009	4,022	(181)	-4.3%
SPRDE - S&T Manager	3,285	3,295	3,297	3,296	3,296	3,296	3,296	11	0.3%
Purchasing	1,558	1,710	1,663	1,650	1,645	1,642	1,639	81	5.2%
Industrial and Contract Property Management	368	407	400	397	397	397	397	29	7.9%
Grand Total	153,417	155,971	154,871	153,534	153,211	153,122	153,032	-385	-0.3%

Data Source: OSD CAPE SNAP Database;



President's FY17 Budget PB23 Projection FYDP Size (Civ + Mil) Projections

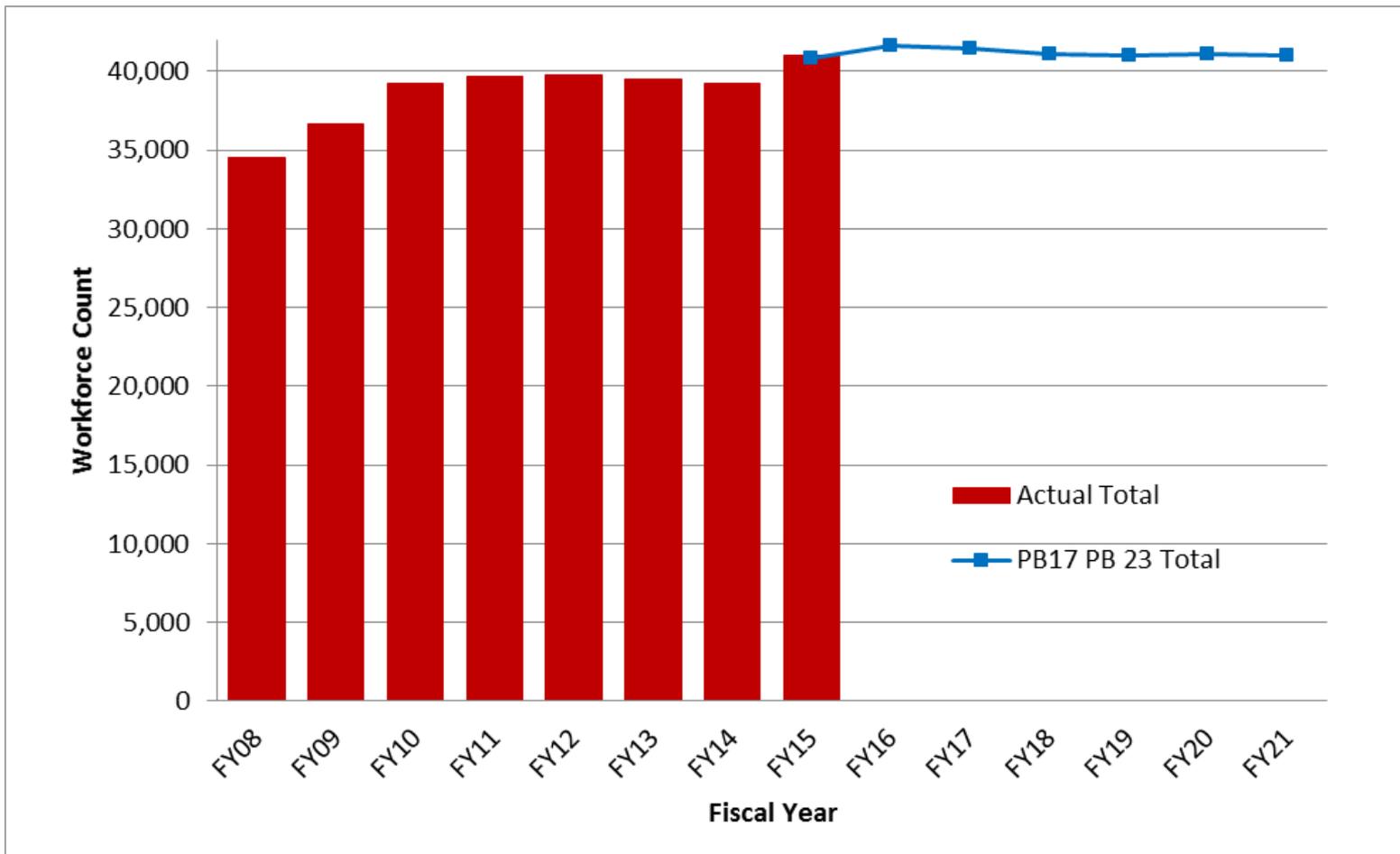


PB23 Jan 2016 Submission		Defense Acquisition Workforce Projection By Component (Civilian + Military)								
Engineering Career Field Workforce Component/Agency	Resource Type	FY15	FY16	FY17	FY18	FY19	FY20	FY21	Change from FY15	% change
ARMY	Civilian FTE	9,381	9,268	9,195	9,035	9,035	9,035	9,035	(346)	-3.7%
DAU	Civilian FTE	37	40	40	40	40	40	40	3	8.1%
DCMA	Civilian FTE	1,057	1,056	1,039	1,063	1,063	1,108	1,108	51	4.8%
DECA	Civilian FTE	1	1	1	1	1	1	1	0	0.0%
DHA	Civilian FTE	2	2	2	2	2	2	2	0	0.0%
DLA	Civilian FTE	27	30	30	30	30	30	30	3	11.1%
DTRA	Civilian FTE	16	16	16	16	16	16	16	0	0.0%
MDA	Civilian FTE	678	626	579	557	561	568	568	(110)	-16.2%
NAVY	Civilian FTE	20,106	20,946	20,988	20,931	20,883	20,884	20,884	778	3.9%
SOCOM	Civilian FTE	29	29	29	29	29	29	29	0	0.0%
USAF	Civilian FTE	7,520	7,436	7,329	7,223	7,186	7,165	7,140	(380)	-5.1%
USMC	Civilian FTE	361	347	347	347	347	347	347	(14)	-3.9%
ARMY	Military ES	2	2	2	2	2	2	2	0	0.0%
NAVY	Military ES	213	215	209	209	209	209	209	(4)	-1.9%
USAF	Military ES	1,384	1,620	1,620	1,621	1,622	1,622	1,622	238	17.2%
USMC	Military ES	15	21	20	20	20	20	20	5	33.3%
	Civilian FTE Total	39,215	39,797	39,595	39,274	39,193	39,225	39,200	(15)	0.0%
	Military ES Total	1,614	1,858	1,851	1,852	1,853	1,853	1,853	239	14.8%
	Engineering Total	40,829	41,655	41,446	41,126	41,046	41,078	41,053	224	0.5%

Data Source: OSD CAPE SNAP Database;



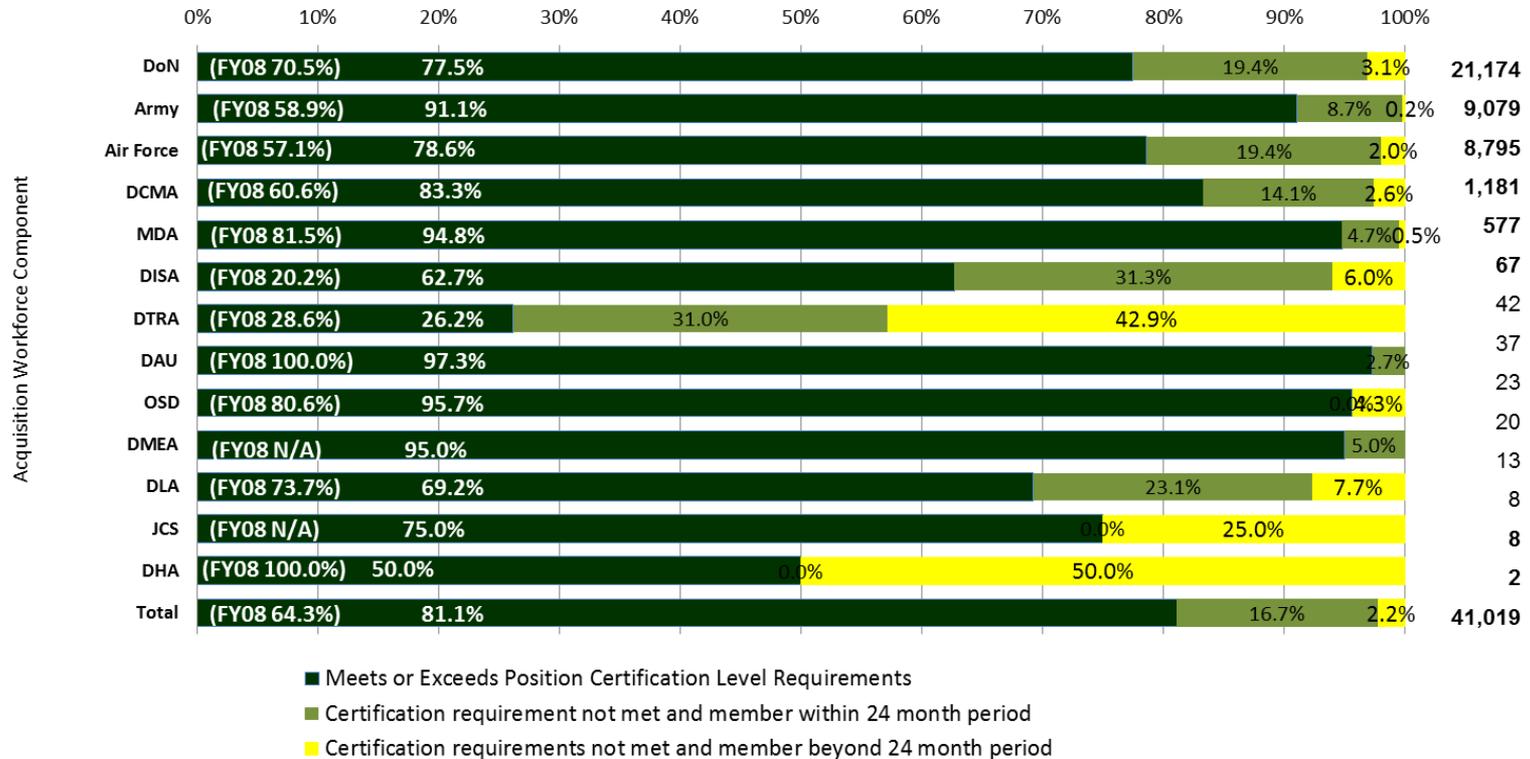
AWF Size FY08-FY15 and President's FY17 Budget PB23 Projection (Civ + Mil)





Engineering DAWIA Certification by Component

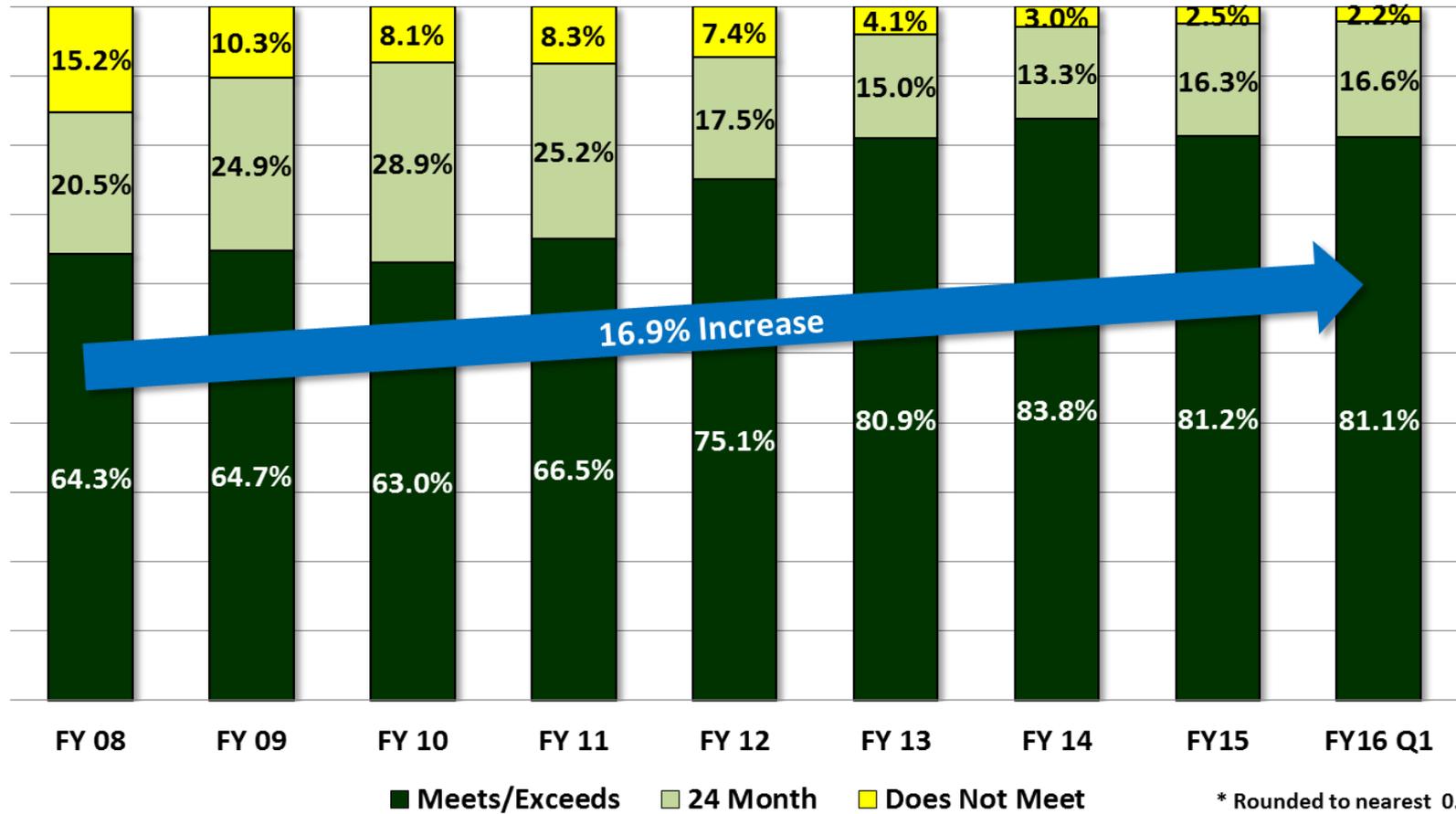
Certification Level "Meet/Exceed" Rates by Component Engineering (FY16Q1)





Engineering Historical DAWIA Certification FY08 – FY16Q1

Engineering





Engineering DAWIA Certification Matrix + Bench Strength

Engineering		Achieved Certification Level				FY16Q1 TOTAL	% Meets Certification Requirement
Required Certification Level	No Level Achieved	Level I	Level II	Level III			
Level I	2,152	2,380	652	246	5,430	60.4%	
Level II	2,015	1,725	6,823	5,912	16,475	77.3%	
Level III	670	362	821	17,254	19,107	90.3%	
Unspecified	4	-	1	2	7		
FY16Q1 TOTAL	4,841	4,467	8,297	23,414	41,019	81.1%	
	11.8%	10.9%	20.2%	57.1%			

No Level Achieved includes those within the 24 month grace period

Bench Strength			
Service	# Exceeds	% Exceeds**	Career Field Rank
DAW	20,103	12.9%	
Army	5,117	13.9%	
DoN	6,852	11.8%	
Air Force	6,411	18.2%	
4th Estate	1,723	6.6%	
Engineering	6,810	16.6%	2 of 13

** Based on population total without unspecified positions

Certification Requirement	Meets	Within 24 Months	Does Not Meet	DAW TOTAL	
Level I	3,278	2,121	31	5,430	13.2%
Level II	12,735	3,298	442	16,475	40.2%
Level III	17,254	1,410	443	19,107	46.6%
Unspecified	2	3	2	7	0.0%
Engineering TOTAL	33,269	6,832	918	41,019	
	81.1%	16.7%	2.2%		

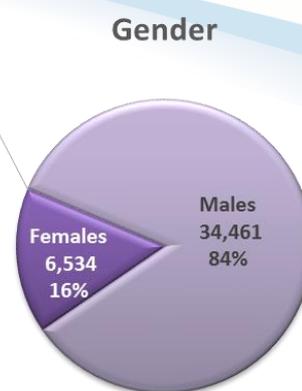
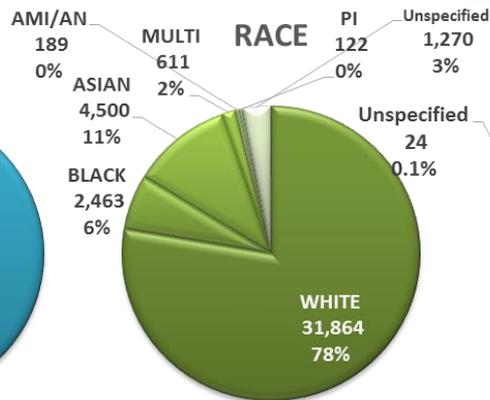
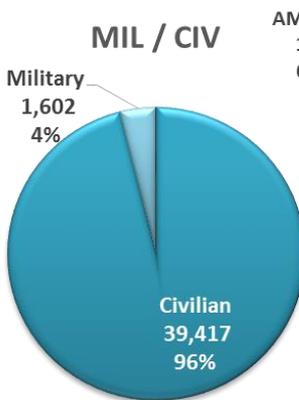
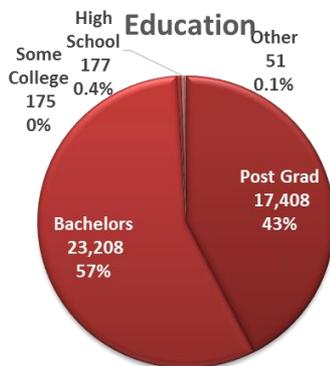
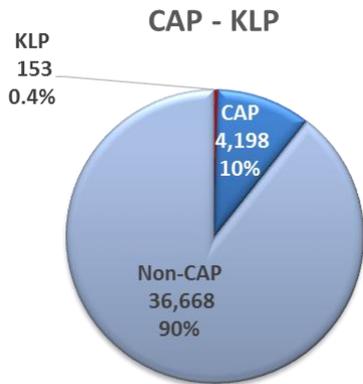
= Compliance

= Exceeds Requirements

* NOTE: Rounded to nearest 0.1%



Demographics



Occupied Position Type	Engineering TOTAL	Entire DAW
Key Leadership Positions (KLPs)	153 0.4%	1,045 0.7%
Critical Acquisition Positions (CAPs) *	4,198 10.2%	15,648 10.0%
Non-CAP Positions	36,668 89.4%	139,764 89.3%
TOTAL	41,019	156,457

* = Number of CAPs, excluding KLPs (no double counts)

Highest Level of Education	Engineering TOTAL	Entire DAW
Post Grad	17,408 42.4%	61,677 39.4%
Bachelors	23,208 56.6%	69,639 44.5%
Some College	175 0.4%	11,962 7.6%
High School	177 0.4%	12,560 8.0%
Other	51 0.1%	619 0.4%
TOTAL	41,019	156,457

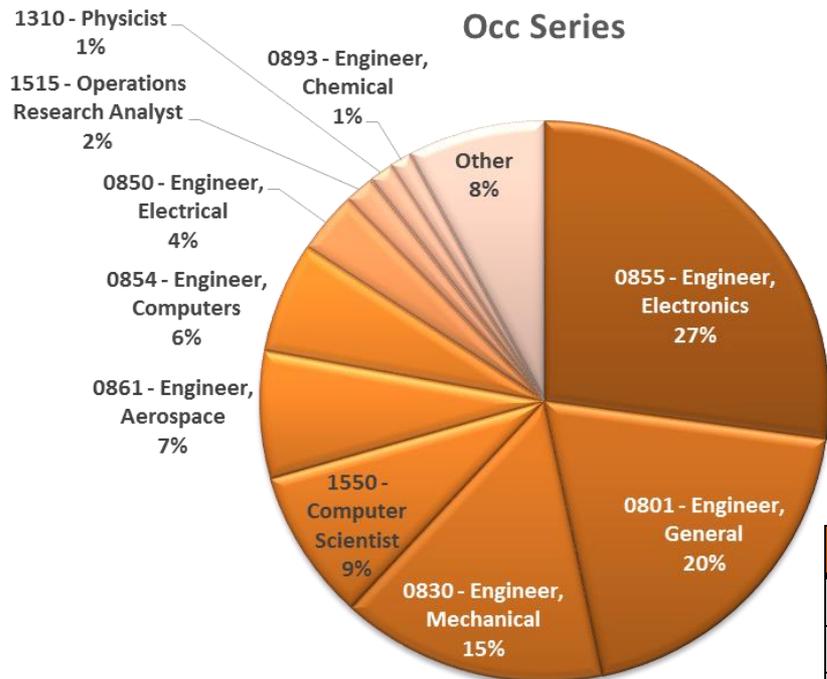
Military / Civilian	Engineering TOTAL	Entire DAW
Civilian	39,417 96.1%	141,089 90.2%
Military	1,602 3.9%	15,368 9.8%
TOTAL	41,019	156,457

Race	Engineering TOTAL	Entire DAW
WHITE	31,864 77.7%	117,200 74.9%
BLACK	2,463 6.0%	18,728 12.0%
ASIAN	4,500 11.0%	10,191 6.5%
MULTI	611 1.5%	3,378 2.2%
AMI/AN	189 0.5%	858 0.5%
PI	122 0.3%	744 0.5%
Unspecified	1,270 3.1%	5,358 3.4%
TOTAL	41,019	156,457

Gender	Engineering TOTAL	Entire DAW
Males	34,461 84.0%	110,589 70.7%
Females	6,534 15.9%	45,715 29.2%
Unspecified	24 0.1%	153 0.1%
TOTAL	41,019	156,457



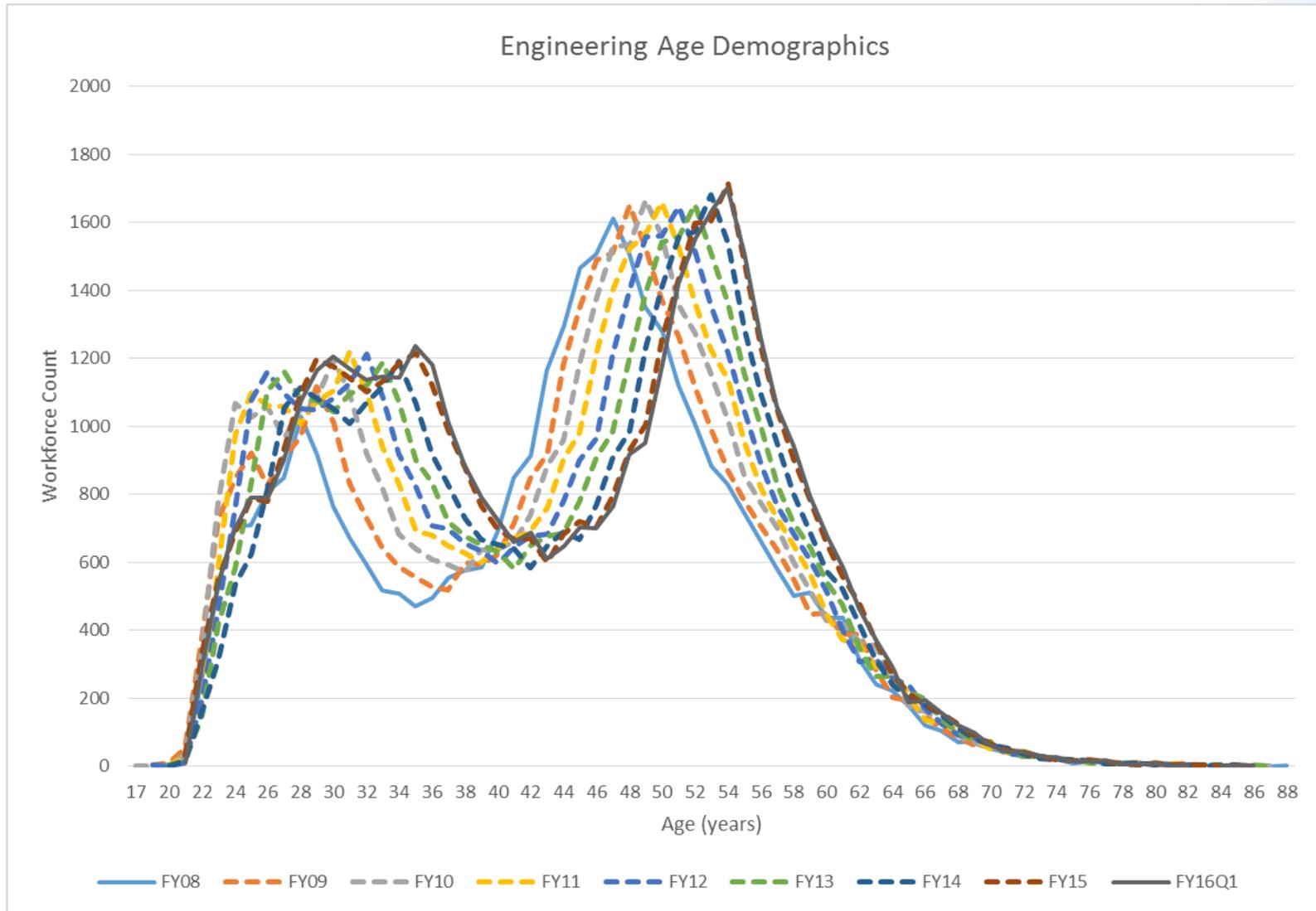
Engineering Size by Occupational Series



Civilian Occupational Series	Engineering TOTAL	
0855 - Engineer, Electronics	10,713	27.2%
0801 - Engineer, General	7,692	19.5%
0830 - Engineer, Mechanical	5,966	15.1%
1550 - Computer Scientist	3,432	8.71%
0861 - Engineer, Aerospace	2,906	7.37%
0854 - Engineer, Computers	2,521	6.40%
0850 - Engineer, Electrical	1,403	3.56%
1515 - Operations Research Analyst	667	1.69%
1310 - Physicist	550	1.40%
0893 - Engineer, Chemical	497	1.26%
Other	3,070	7.79%
TOTAL CIVILIAN	39,417	Civilians



Age Demographics

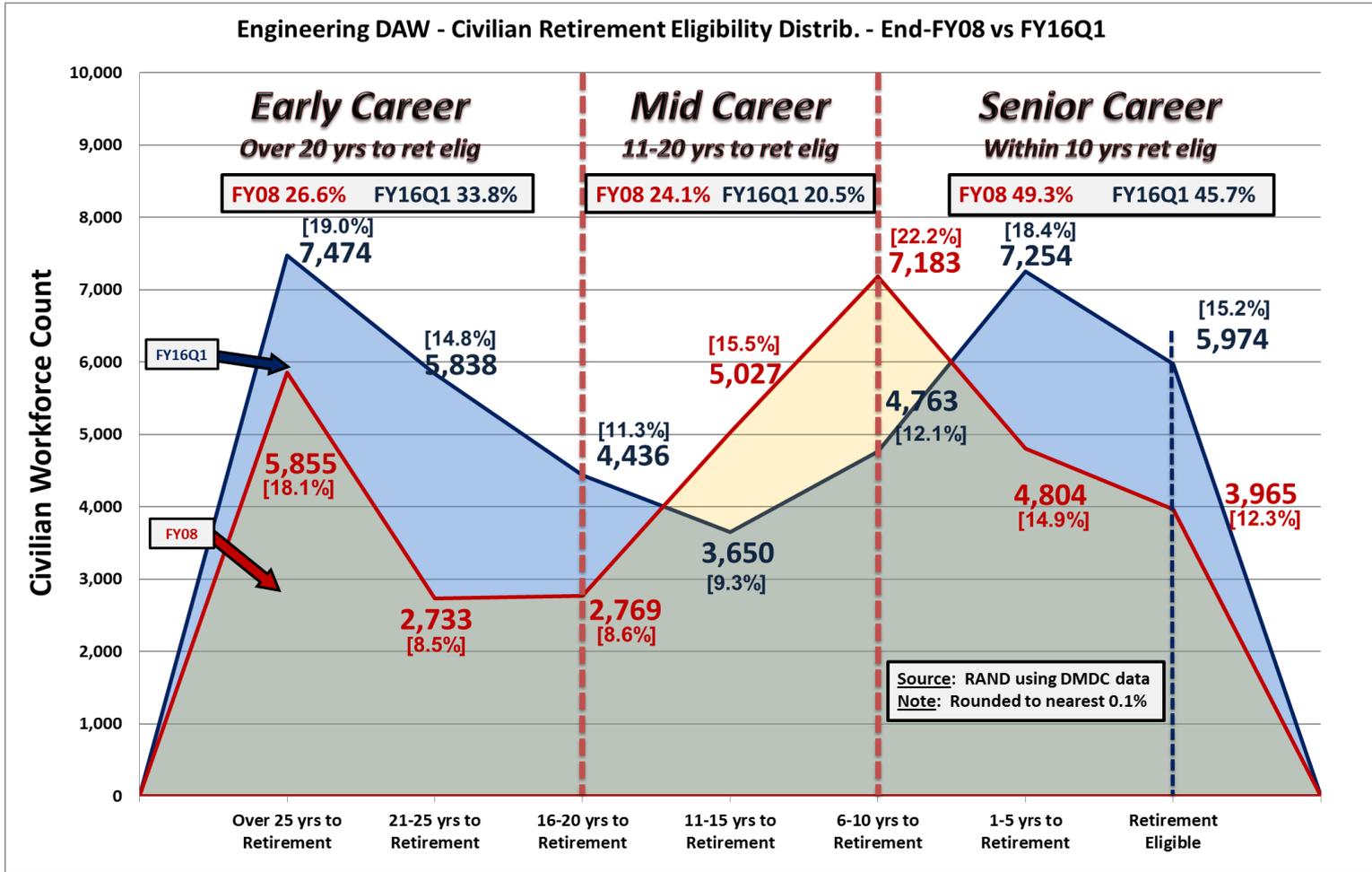




RAND NDRI Forces and Resources Policy Center Data Retirement / Loss Slides



Engineering Civilian Retirement Eligibility Distribution – FY08 / FY16Q1

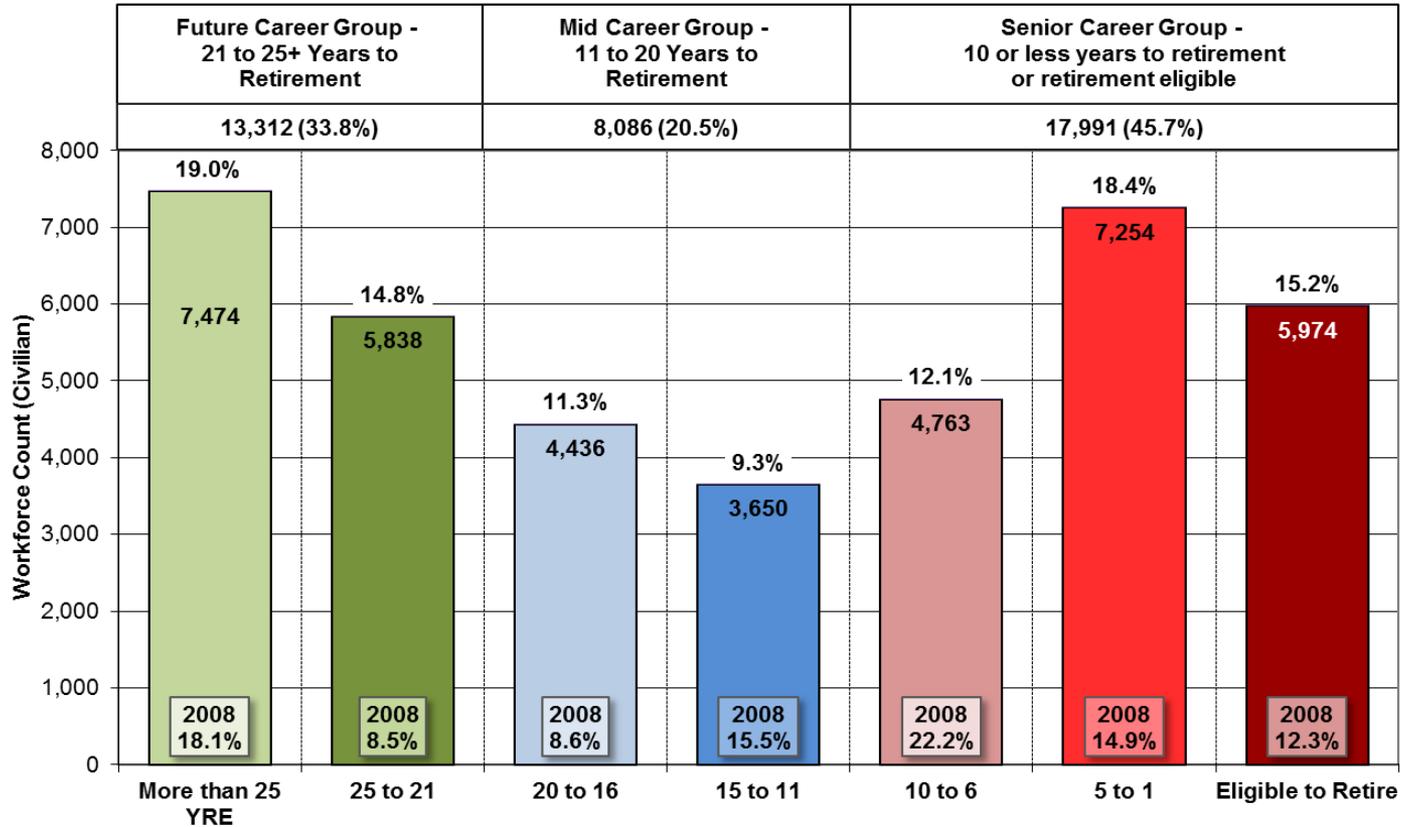


As of the end of FY16Q1 (31 Dec 2014)



Engineering Workforce Lifecycle Model by YRE

Defense Acquisition Workforce Lifecycle Model (WLM)
by Years to Retirement Eligibility (YRE) - Civilian (FY2016Q1) - Engineering



Source: Chart was generated by OUSD(AT&L)/Human Capital Initiatives using FY2008 and FY2016 (Q1) DMDC data provided by RAND.

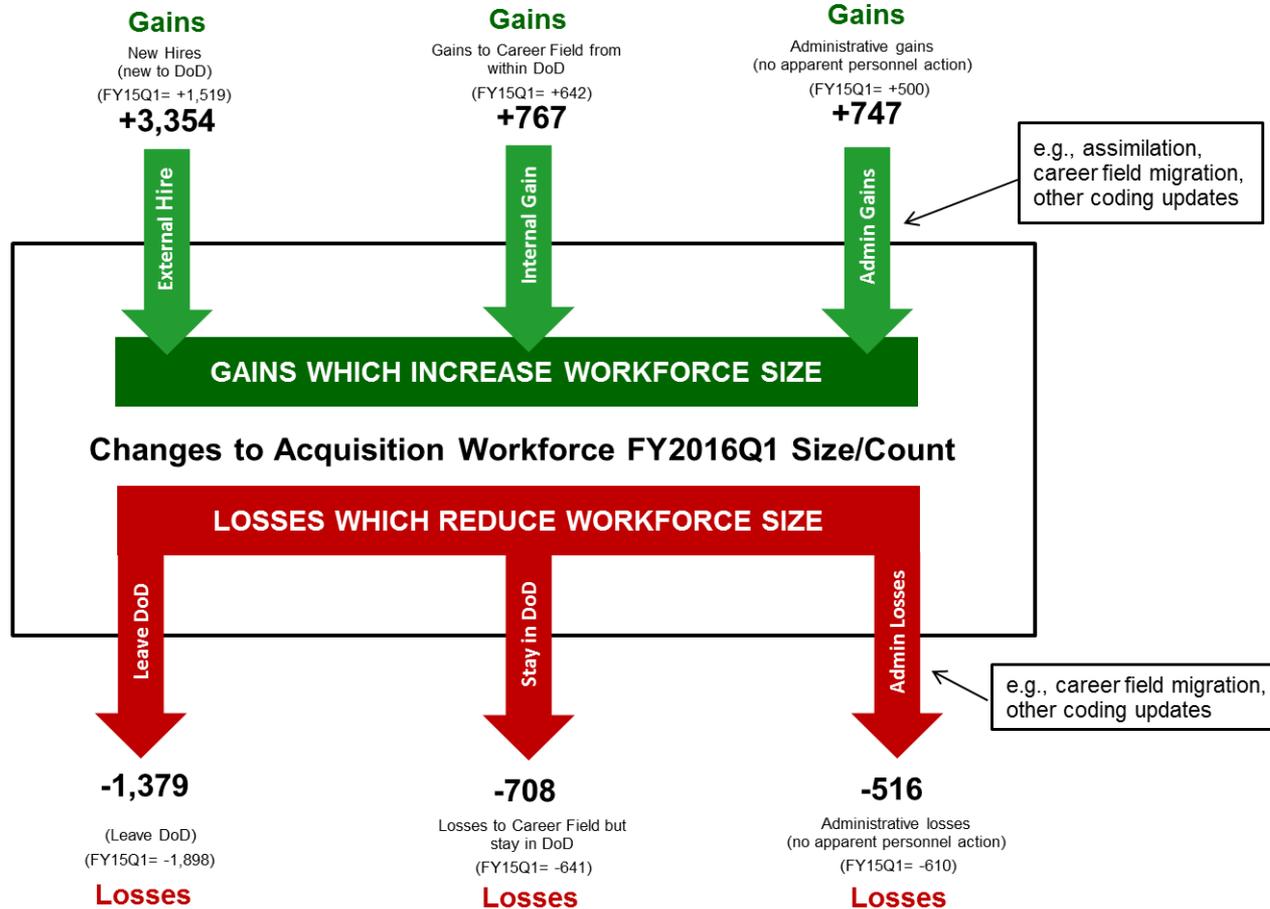
As of the end of FY16Q1 (31 Dec 2015)



Engineering Gains/Losses – New Hires Internal/External, Administrative

Defense Acquisition Workforce (Civilian) (FY2016Q1) - Engineering

Gains and Losses by External to DoD, Internal to DoD, and Administrative Categories



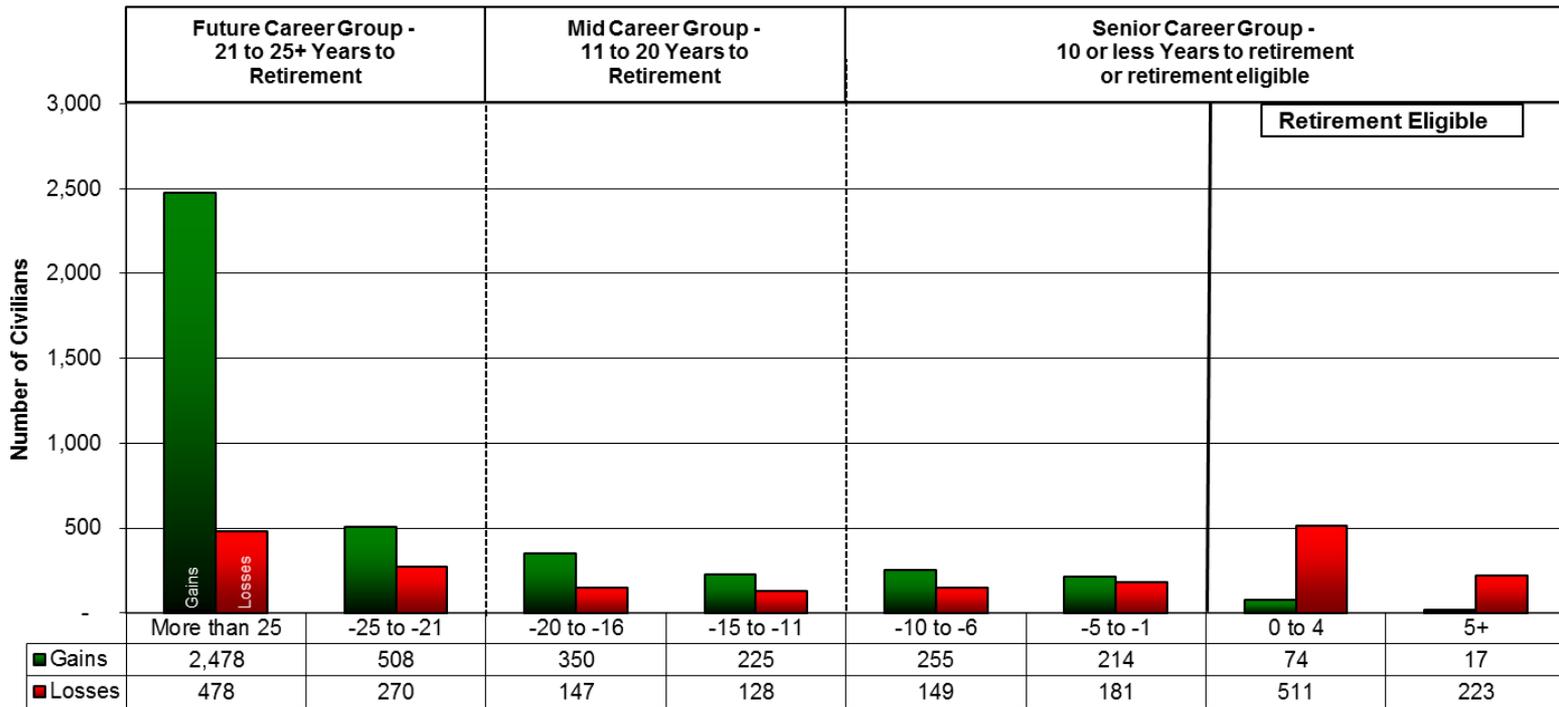
As of the end of FY16Q1 (31 Dec 2015)



Engineering Gains and Losses by YRE Groups

Defense Acquisition Workforce (Civilian) - Engineering

Workforce Lifecycle FY2016Q1 Gains & Losses*



Career Lifecycle by Years to Retirement Eligibility

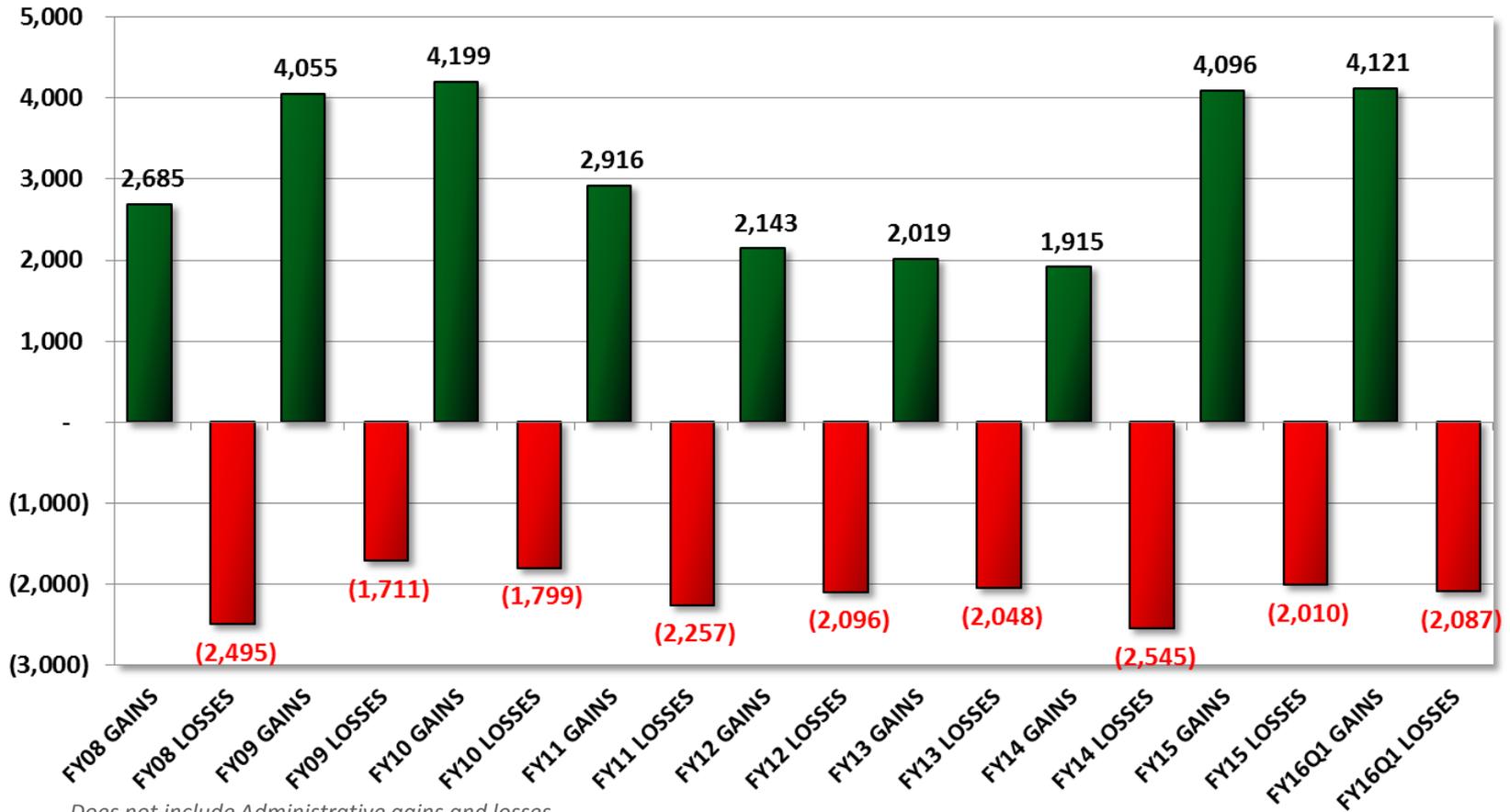
Source: RAND NDRI Forces and Resources Policy Center analysis using DMDC data (FY2016Q1 and Previous FY Data)

*Does not include administrative gains and losses

As of the end of FY16Q1 (31 Dec 2015)



Engineering Historical Gains and Losses FY08 – FY156Q1



As of the end of FY16Q1 (31 Dec 2015)

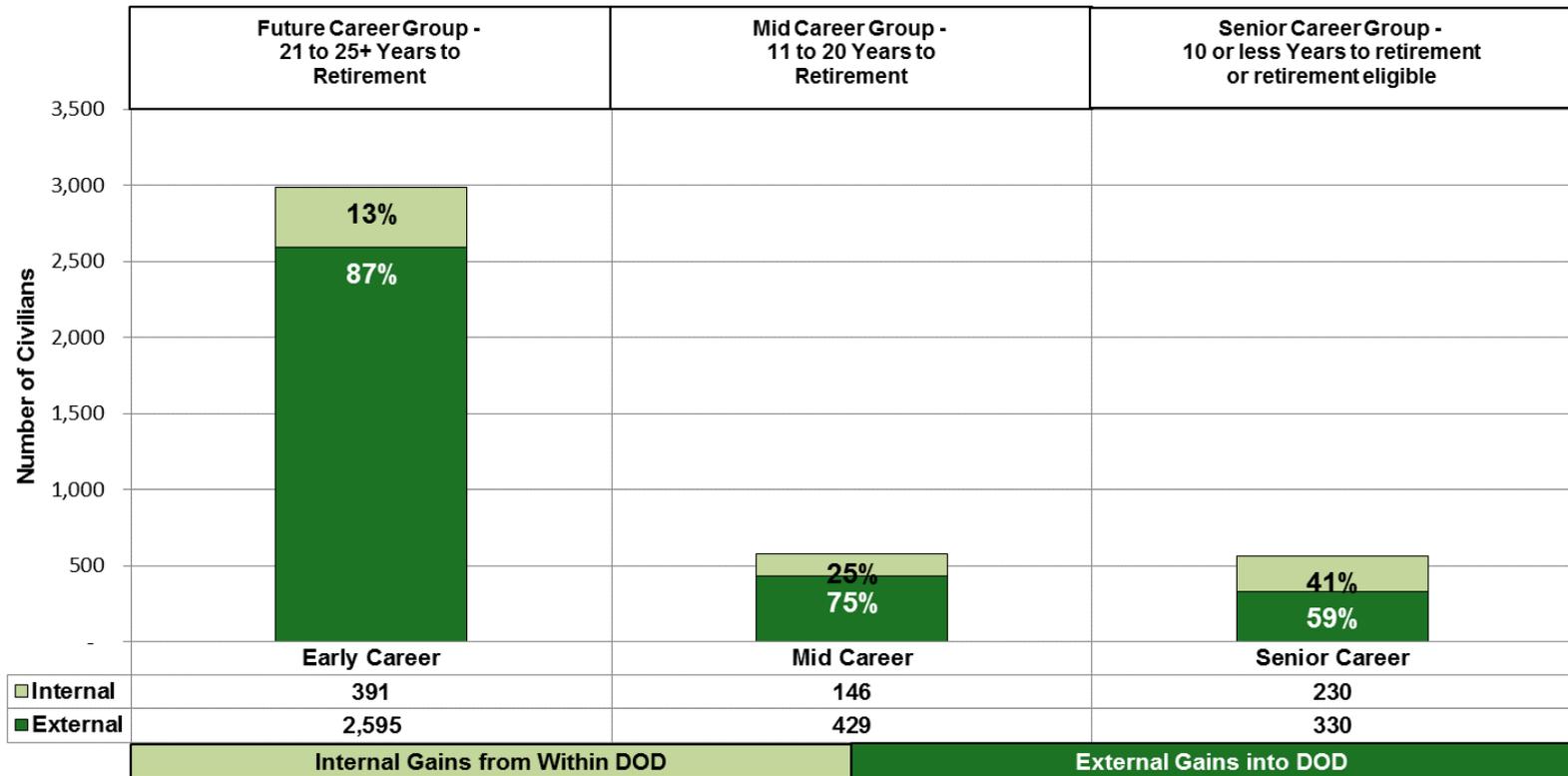


Engineering Internal/External Gains % by Career Group



Defense Acquisition Workforce (Civilian) - Engineering

Workforce Lifecycle FY2016Q1 Gains*



Source: RAND NDRI Forces and Resources Policy Center analysis using DMDC data (FY2016Q1 and Previous FY Data)

*Does not include administrative gains

As of the end of FY16Q1 (31 Dec 2015)

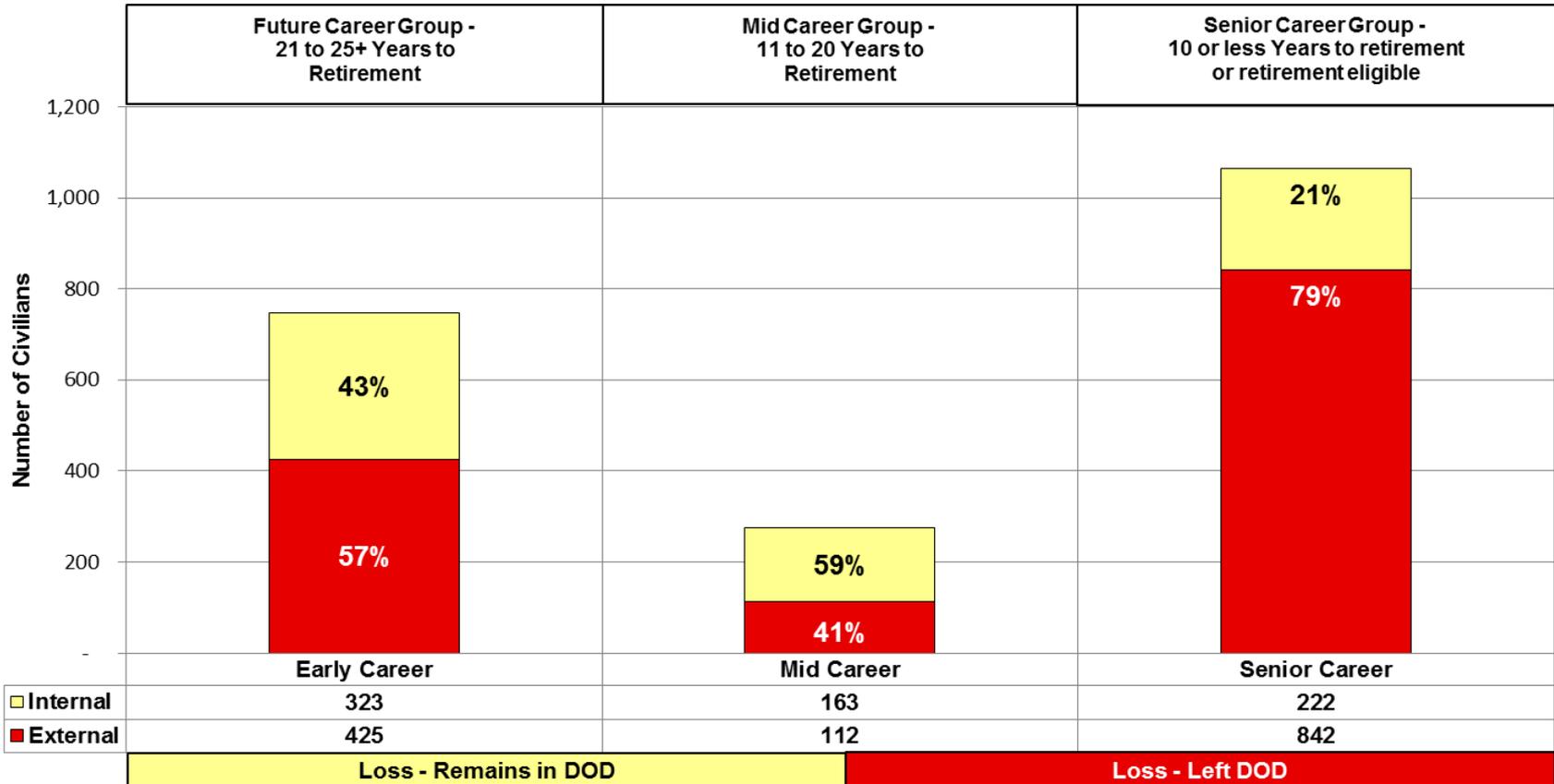


Engineering Internal/External Loss % by Career Group



Defense Acquisition Workforce (Civilian) - Engineering

Workforce Lifecycle FY2016Q1 Losses*



Source: RAND NDRI Forces and Resources Policy Center analysis using DMDC data (FY2016Q1 and Previous FY Data)

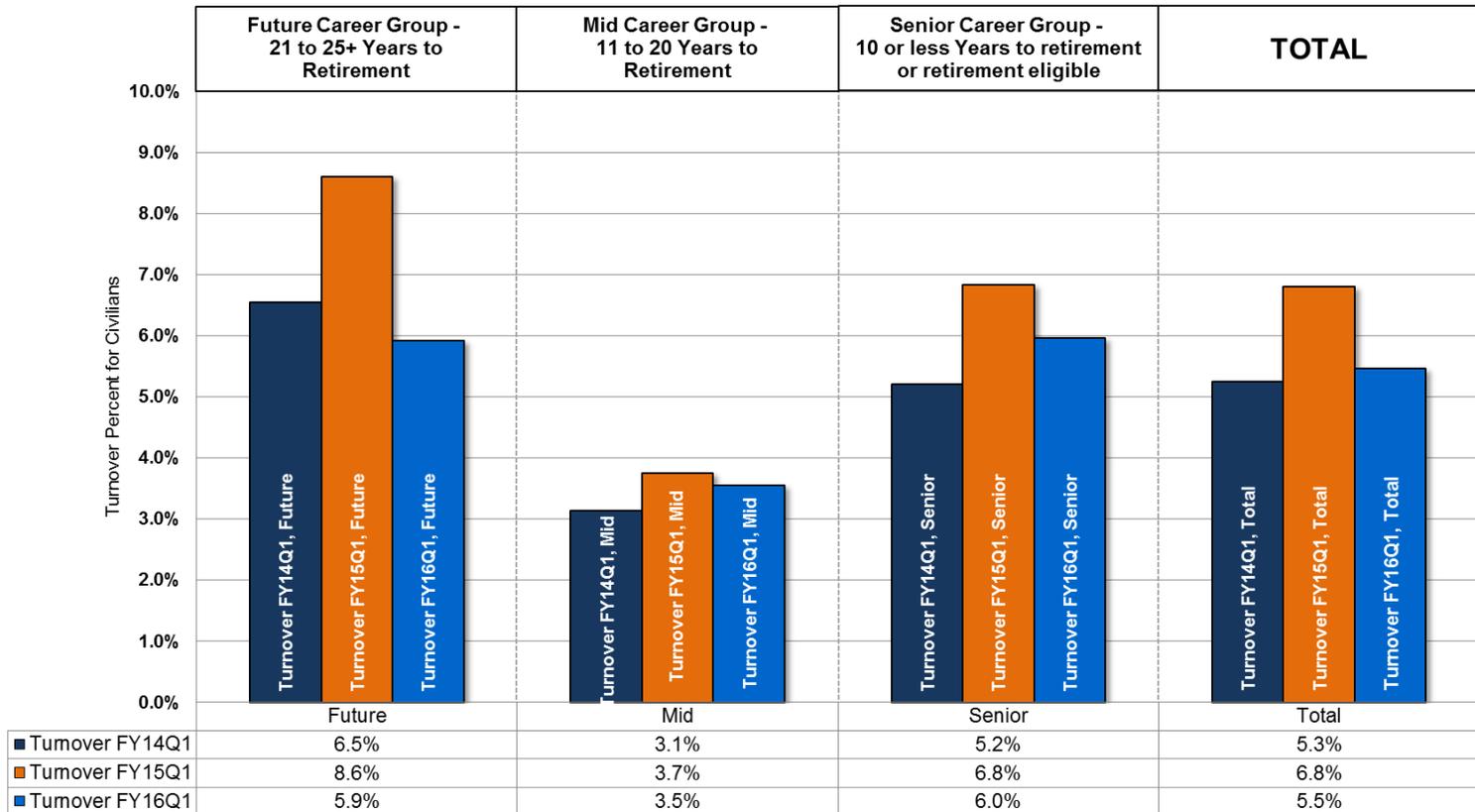
*Does not include administrative losses

As of the end of FY16Q1 (31 Dec 2015)



Engineering Turnover Rates by Career Group

Defense Acquisition Workforce Turnover - Engineering (Civilian) (FY14Q1, FY15Q1, FY16Q1)(by Career Lifecycle Group)



Turnover Percent by Career Lifecycle Groups

As of the end of FY16Q1 (31 Dec 2015)

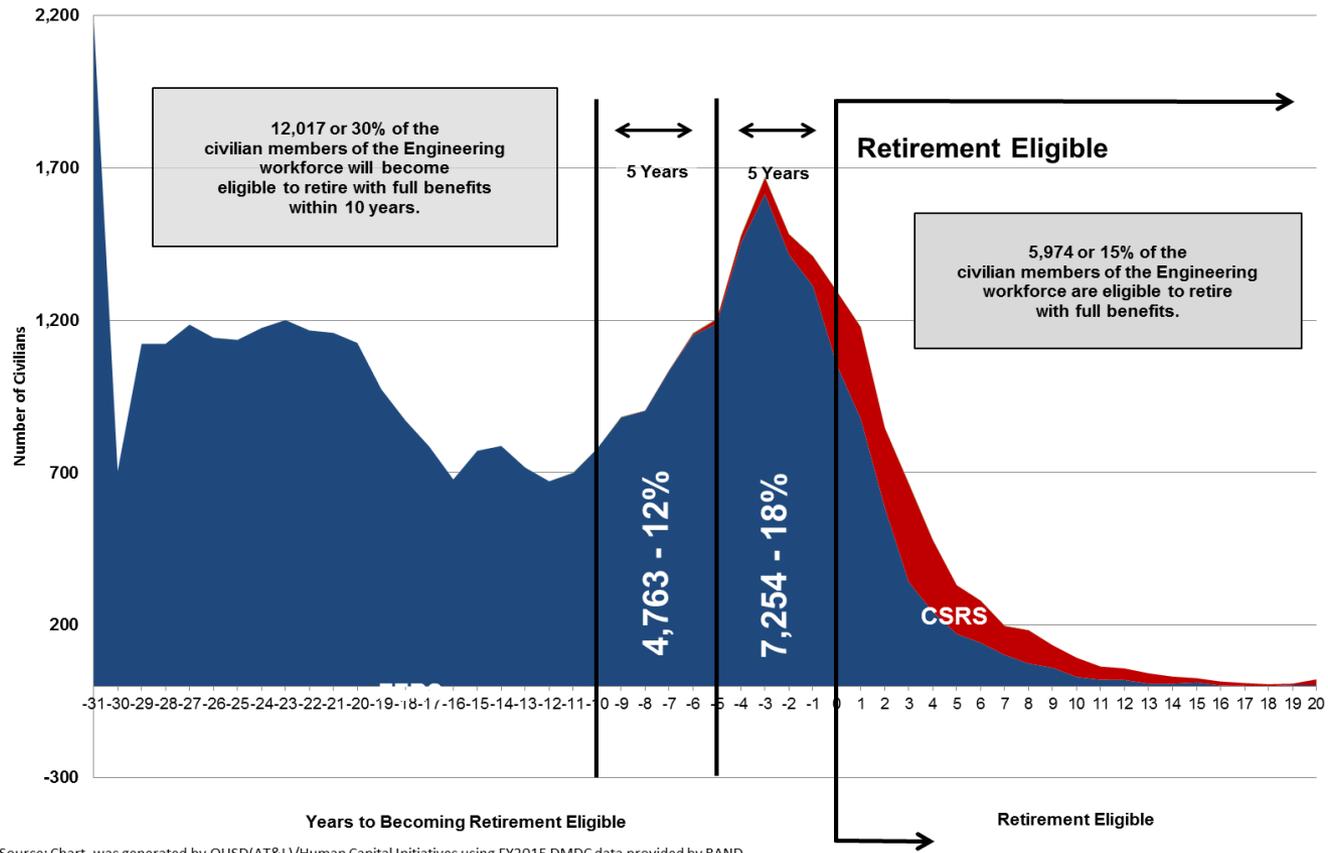


Engineering Civilian Distribution by Years to Retirement Eligibility



Defense Acquisition Workforce - Engineering

Distribution by Years to Retirement Eligibility (Civilians)(FY2016Q1)



As of the end of FY16Q1 (31 Dec 2015)



END