



Defense Acquisition Workforce Key Information

Engineering

As of FY16Q2 (31 March 2016)



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)**



Slide Index



<i>Slide Title</i>	<i>#</i>
Slide Index	3
Fact Sheet	4
Highlights	5
Total Workforce	6-7
AWF Size by Component and Career Field	8
Historical Size by Component FY05 – FY16Q2	9
DAWIA Certification by Component	10
Historical DAWIA Certification	11
DAWIA Certification Matrix + Bench Strength	12
Demographics	13-15
RAND NDRI Forces and Resources Policy Center Gain/Loss and Retirement Information	16-25
End	26



Fact Sheet



Human Capital Fact Sheet

Defense Acquisition Workforce Engineering	FY 2008				FY2016Q2			
	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	39,698	1,627	41,325	158,212
Change in size from 2008	-	-	-	-	23%	-23%	20%	26%
Civilian/Military Composition	94%	6%	-	88% / 12%	96%	4%	-	90% / 10%
Educational Attainment								
Bachelor's Degree or Higher	98%	95%	98%	77%	98%	96%	98%	82%
Graduate Degree	36%	45%	36%	29%	41%	59%	42%	39%
Certification								
Level I or Higher Achieved	78%	57%	77%	72%	89%	80%	88%	85%
Level II or Higher Achieved	70%	25%	68%	61%	78%	54%	77%	74%
Level III Achieved	58%	8%	55%	36%	58%	22%	57%	43%
Position Certification Requirement Met or Exceeded	67%	31%	64%	58%	82%	62%	81%	75%
Within 24 Months of Certification Requirement	18%	52%	20%	27%	16%	33%	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%	38%	1%	37%	39%
Average Age	44.6	32.5	43.8	45.7	43.5	31.6	43.0	44.4
Workforce Life-Cycle Model (YRE)*								
% Future/Mid-Career/Senior	27/24/49(%)	-	-	20/23/57 (%)(Civ)	32/22/47(%)	-	-	28/29/43(%)
Average Years of Service	16.7	8.9	16.2	17.3	15.5	9.3	15.3	15.0
Retirement Eligible*	3,965(12%)	-	-	19,051(17%) (Civ)	6,976(18%)	-	-	26,669(19%)
Retirement Eligible w/in 5 Years*	4,804(15%)	-	-	21,315(19%) (Civ)	7,098(18%)	-	-	25,977(18%)
Total Gains/Losses*	4,050/4,197	-	-	14,245/15,030 (Civ)	4,254/2,616	-	-	15,983/10,440

Source: The Human Capital Fact Sheet is based on end of FY2008 and FY2016Q2 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 FY2016Q2 DMDC data.



Highlights



Defense Acquisition Workforce Size Highlights

- The current Engineering Defense Acquisition Workforce count is 41,325, up from 34,537 in FY08, a total increase of 6,788
- The Engineering Defense Acquisition Workforce count was at its highest point 41,325 in FY16Q2, 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 4,667 (28%), 2,520 (39%), and 924 (328%), respectively
- The Agencies with the largest decreases, since FY08, are ARMY, DISA, and OSD, with decreases of 1,706 (-16%), 22 (-25%), and 8 (-26%), respectively

Defense Acquisition Workforce DAWIA Certification Highlights

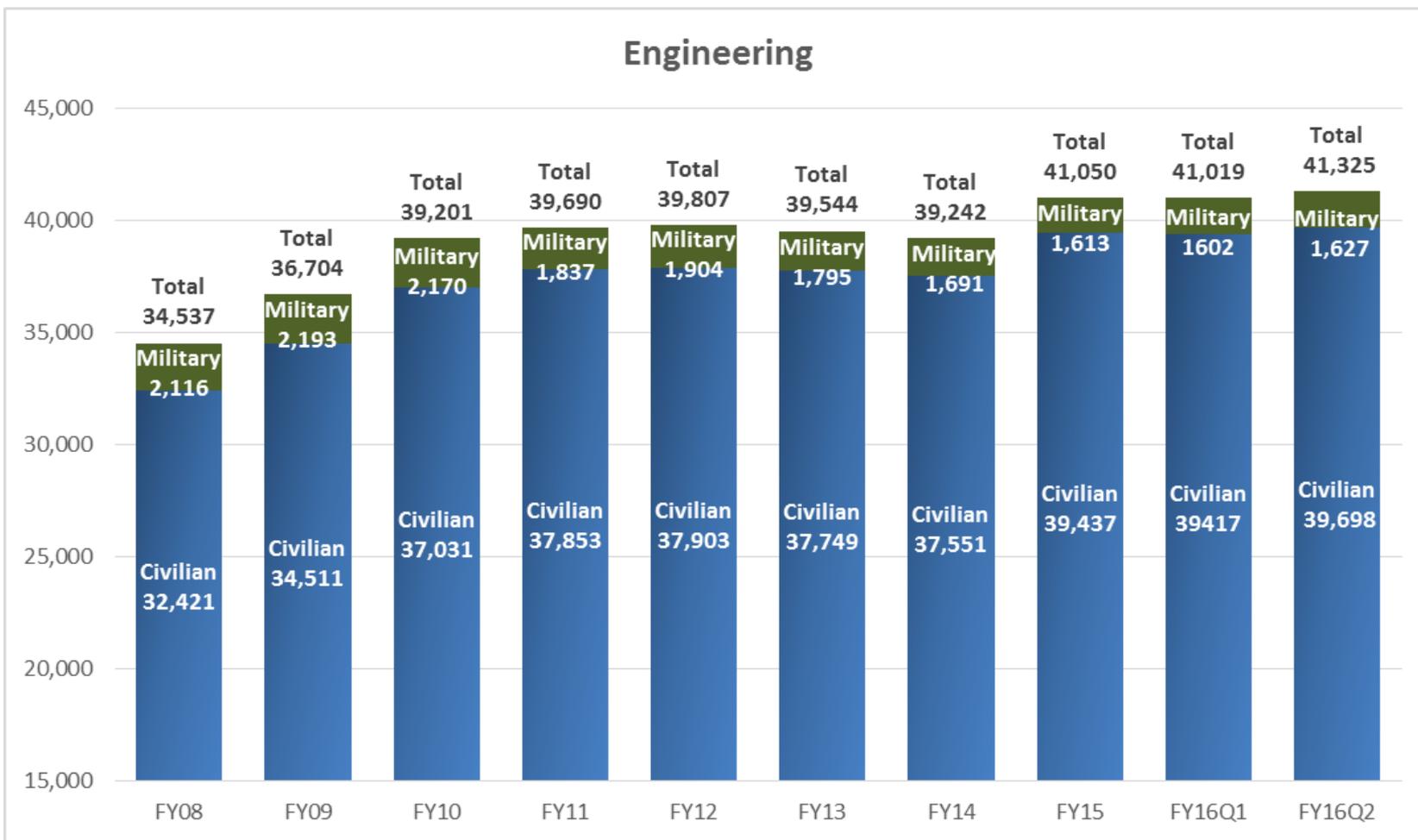
- The current Engineering Defense Acquisition Workforce DAWIA Meets/Exceeds certification rate is 80.9%; up from 64.3% in FY08
- The current Engineering Meets/Exceeds certification rate is up 16.6% from FY08
- The current Engineering Defense Acquisition Workforce DAWIA 24 month grace period rate is 16.9%; 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 46.6% (18,457) (10 years or less to retirement eligibility or retirement eligible)
- 17.6% (6,976) are currently eligible to retire, ↑ from 12.3% in FY08
- Mid Career Group 21.7% (8,605) (11 to 20 years to retirement), 24.1% in FY08
- Future Career Group 31.7% (12,559) (21 to 25+ years to retirement), ↑ from 26.6% in FY08



Engineering Total Workforce

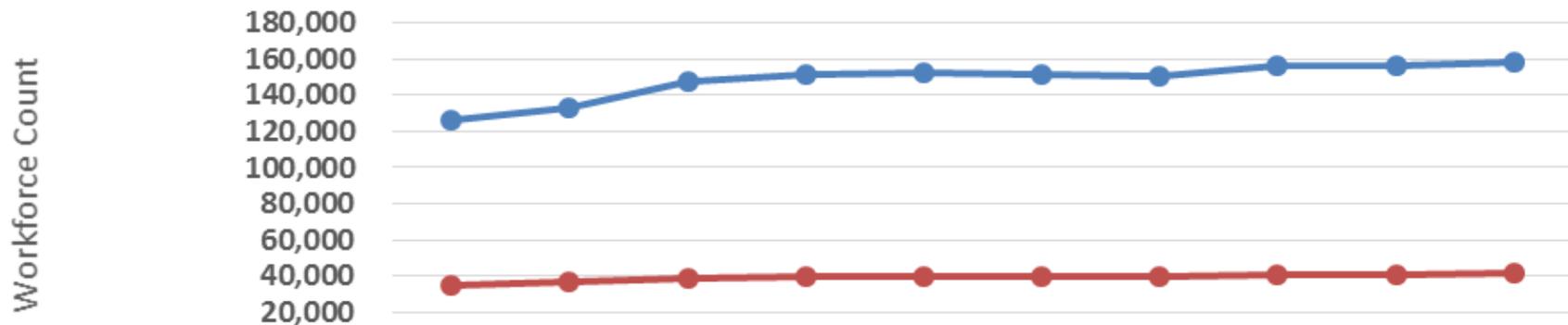




Engineering Total Workforce



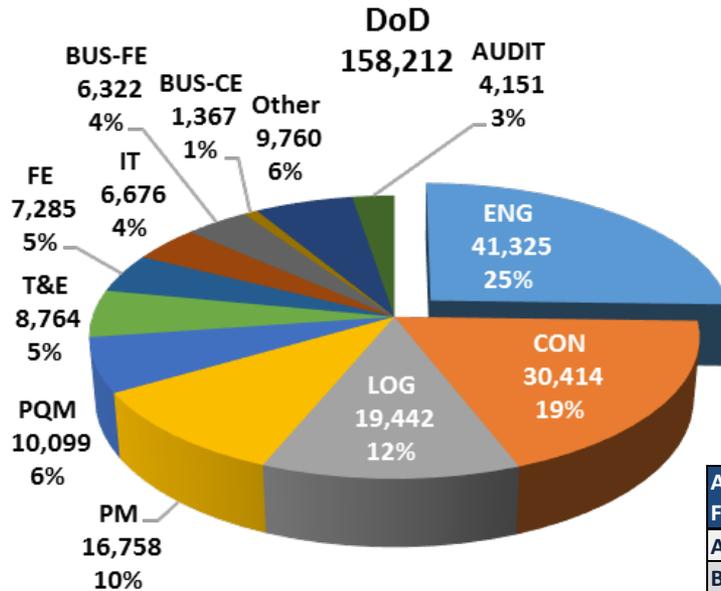
AWF - Historical Workforce Size FY08 -FY16Q2



	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16Q 1	FY16Q 2
Total AWF	125,879	133,103	147,705	151,891	152,326	151,355	150,465	156,313	156,457	158,212
ENG % of Total AWF	22%	23%	25%	25%	25%	25%	25%	26%	26%	26%
ENG Workforce	34,537	36,704	39,201	39,690	39,807	39,544	39,242	41,050	41,019	41,325



AWF by Component and Career Field



AWF Count by Career Category FY16Q2	Army	DoN	Air Force	4th Estate	Totals	% Total
Auditing	-	-	-	4,151	4,151	2.6%
Business - CE	245	572	467	83	1,367	0.9%
Business - FM	1,705	2,053	1,965	599	6,322	4.0%
Contracting	7,955	6,250	8,407	7,802	30,414	19.2%
Engineering	9,063	21,243	8,949	2,070	41,325	26.1%
Facilities Engineering	1,498	5,440	270	77	7,285	4.6%
Information Technology	1,666	2,940	1,204	866	6,676	4.2%
Life Cycle Logistics	7,149	6,296	3,087	2,910	19,442	12.3%
Production, Quality and Man	1,376	2,931	391	5,401	10,099	6.4%
Program Management	3,215	6,381	5,492	1,670	16,758	10.6%
Property	48	65	14	266	393	0.2%
Purchasing	293	484	73	571	1,421	0.9%
S&T Manager	435	510	2,681	128	3,754	2.4%
Test and Evaluation	1,905	3,409	3,071	379	8,764	5.5%
Unknown/Other	9	1	5	26	41	0.03%
FY16Q2 Totals (as of 3-31-2016)	36,562	58,575	36,076	26,999	158,212	
Component %	23.1%	37.0%	22.8%	17.1%		



Engineering Workforce Historical Size by Agency FY05 – FY16Q2



Engineering	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16Q2	% 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	9,063	-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	21,243	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	8,949	39%	1%
DCMA	30	59	393	282	660	813	917	974	1,134	1,157	1,181	1,206	328%	2%
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	583	107%	0%
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	4	100%	100%
DTRA	11	1	1	7	11	27	17	35	45	44	43	43	514%	0%
DAU	26	30	-	33	41	46	48	49	45	40	38	42	27%	11%
National Reconnaissance Office														
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	23		15%
DoD HRA	-	-	1	-	-	-	-	-	-	-	-	-		
TRMC	-	-	-	-	-	-	-	1	1	1	1	1		0%
DSCA	-	-	-	1	-	-	-	-	-	-	-	-	-100%	
DMA	-	-	-	-	-	-	-	-	-	-	-	-		
DSS	-	-	-	-	-	-	-	-	-	-	-	-		
DTIC	-	-	-	1	-	-	-	-	-	-	-	-	-100%	
DARPA	-	-	1	-	-	-	-	-	-	-	-	-		
NDU	-	-	-	-	-	-	-	-	-	-	-	-		
Uniformed Services														
University of The Health Sciences	-	-	-	-	-	-	-	-	-	-	-	-		
IG	-	-	-	1	-	-	-	-	-	-	-	-	-100%	
Defense POW/MIA Accounting Agency														
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	41,325	19.7%	0.7%



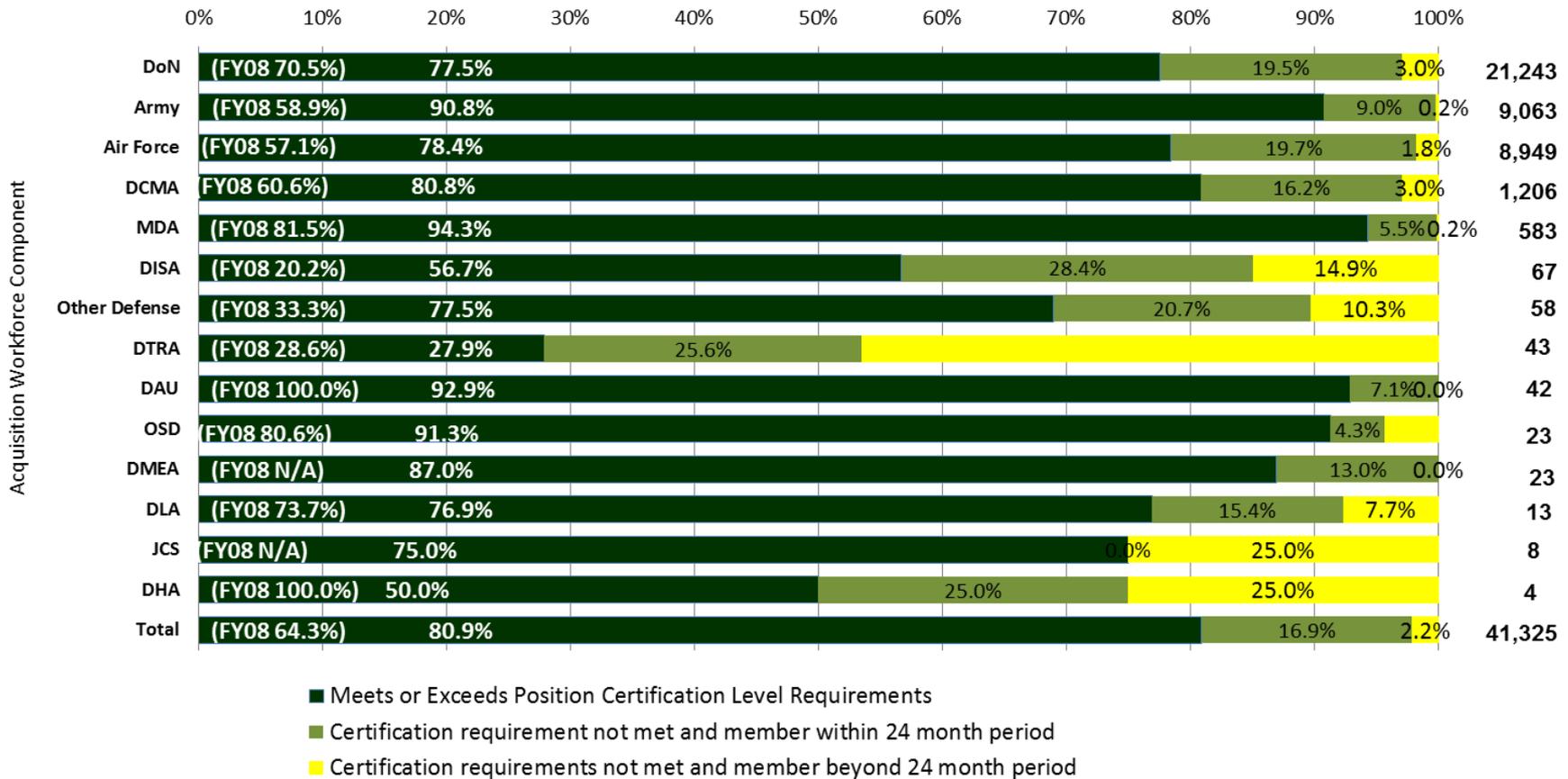
↑ ↑



Engineering DAWIA Certification by Component



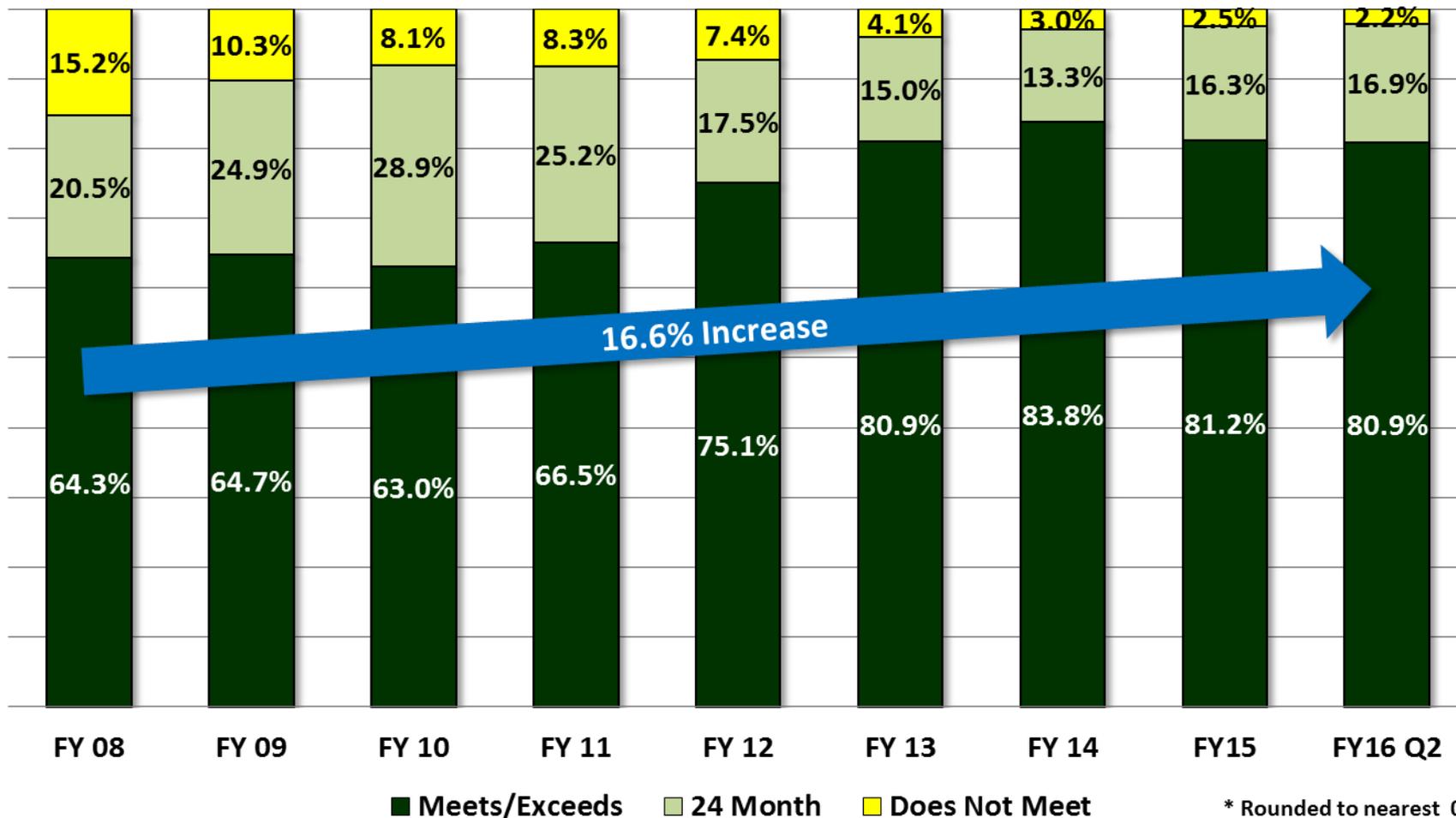
Certification Level "Meet/Exceed" Rates by Component Engineering (FY16Q2)





Engineering Historical DAWIA Certification FY08 – FY16Q2

Engineering





Engineering DAWIA Certification Matrix + Bench Strength

Engineering Required Certification Level	Achieved Certification Level				FY16Q2 TOTAL	% Meets Certification Requirement
	No Level Achieved	Level I	Level II	Level III		
Level I	2,204	2,506	703	271	5,684	61.2%
Level II	1,921	1,833	6,811	5,908	16,473	77.2%
Level III	684	367	879	17,231	19,161	89.9%
<i>Unspecified</i>	4	-	1	2	7	
FY16Q2 TOTAL	4,813	4,706	8,394	23,412	41,325	80.9%
	11.6%	11.4%	20.3%	56.7%		

No Level Achieved includes those within the 24 month grace period

Bench Strength			
Service	# Exceeds	% Exceeds**	Career Field Rank
DAW	20,288	12.8%	
Army	5,130	14.0%	
DoN	6,881	11.8%	
Air Force	6,577	18.3%	
4th Estate	1,700	6.3%	
Engineering	6,882	16.7%	2 of 13

** Based on population total without unspecified positions

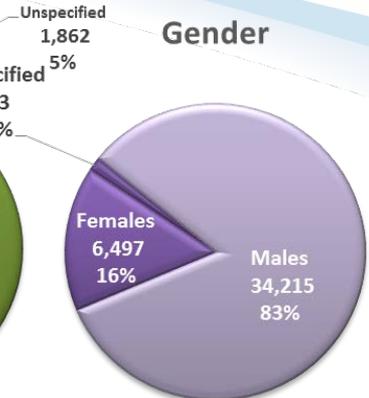
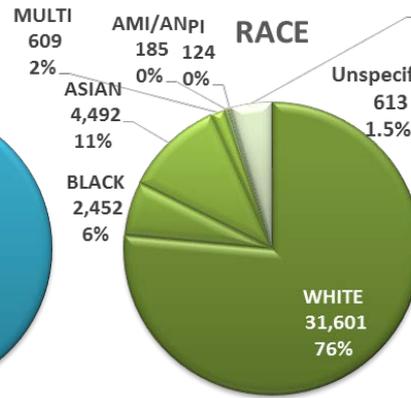
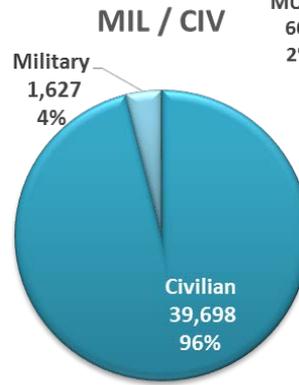
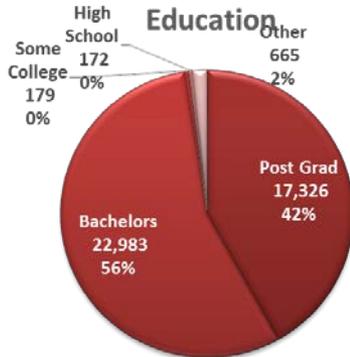
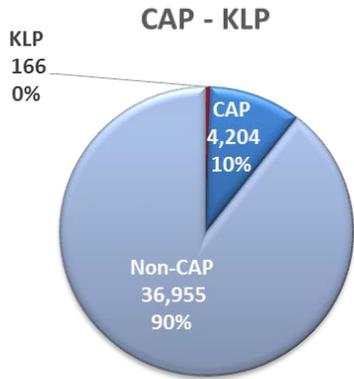
Certification Requirement	Meets	Within 24 Months	Does Not Meet	DAW TOTAL	
Level I	3,480	2,180	24	5,684	13.8%
Level II	12,719	3,335	419	16,473	39.9%
Level III	17,231	1,486	444	19,161	46.4%
<i>Unspecified</i>	2	3	2	7	0.0%
Engineering TOTAL	33,432	7,004	889	41,325	
	80.9%	16.9%	2.2%		

 = Compliance
 = Exceeds Requirements

* NOTE: Rounded to nearest 0.1%



Demographics



Occupied Position Type	Engineering TOTAL	Entire DAW
Key Leadership Positions (KLPs)	166	1,128
Critical Acquisition Positions (CAPs) *	4,204	15,701
Non-CAP Positions	36,955	141,383
TOTAL	41,325	158,212

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

Highest Level of Education	Engineering TOTAL	Entire DAW
Post Grad	17,326	61,428
Bachelors	22,983	69,007
Some College	179	11,791
High School	172	12,464
Other	665	3,522
TOTAL	41,325	158,212

Military / Civilian	Engineering TOTAL	Entire DAW
Civilian	39,698	142,728
Military	1,627	15,484
TOTAL	41,325	158,212

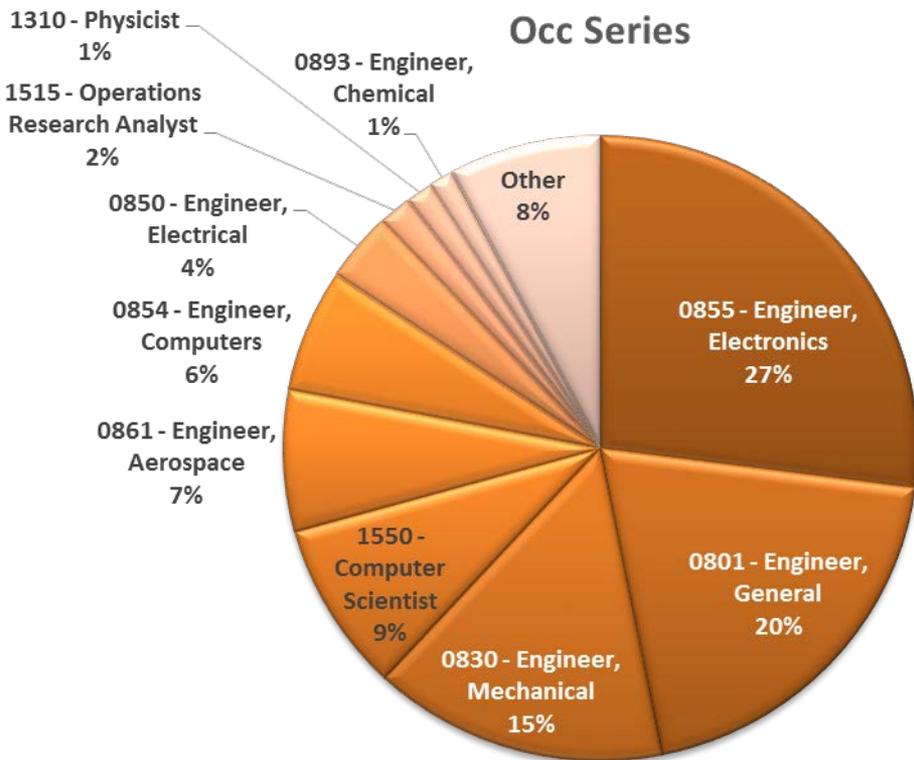
Race	Engineering TOTAL	Entire DAW
WHITE	31,601	116,320
BLACK	2,452	18,633
ASIAN	4,492	10,154
MULTI	609	3,381
AMI/AN	185	844
PI	124	748
Unspecified	1,862	8,132
TOTAL	41,325	158,212

Gender	Engineering TOTAL	Entire DAW
Males	34,215	110,062
Females	6,497	45,274
Unspecified	613	2,876
TOTAL	41,325	158,212



Engineering Size by Occupational Series

Occ Series



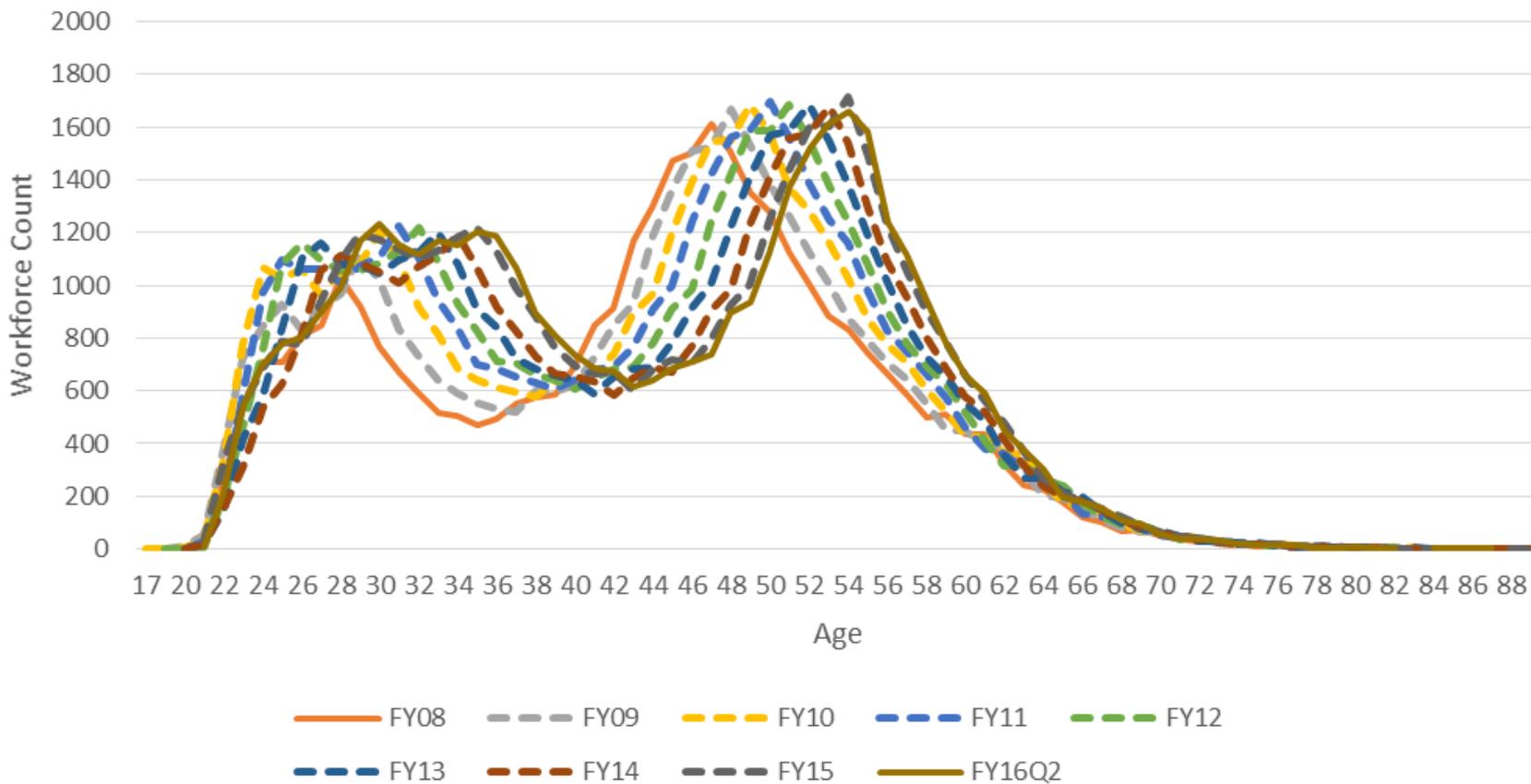
Civilian Occupational Series	Engineering TOTAL	
0855 - Engineer, Electronics	10,730	27.0%
0801 - Engineer, General	7,869	19.8%
0830 - Engineer, Mechanical	5,976	15.1%
1550 - Computer Scientist	3,496	8.81%
0861 - Engineer, Aerospace	2,907	7.32%
0854 - Engineer, Computers	2,523	6.36%
0850 - Engineer, Electrical	1,423	3.58%
1515 - Operations Research Analyst	659	1.66%
1310 - Physicist	553	1.39%
0893 - Engineer, Chemical	499	1.26%
Other	3,063	7.72%
TOTAL CIVILIAN	39,698	Civilians



Age Demographics



Engineering Age Demographics

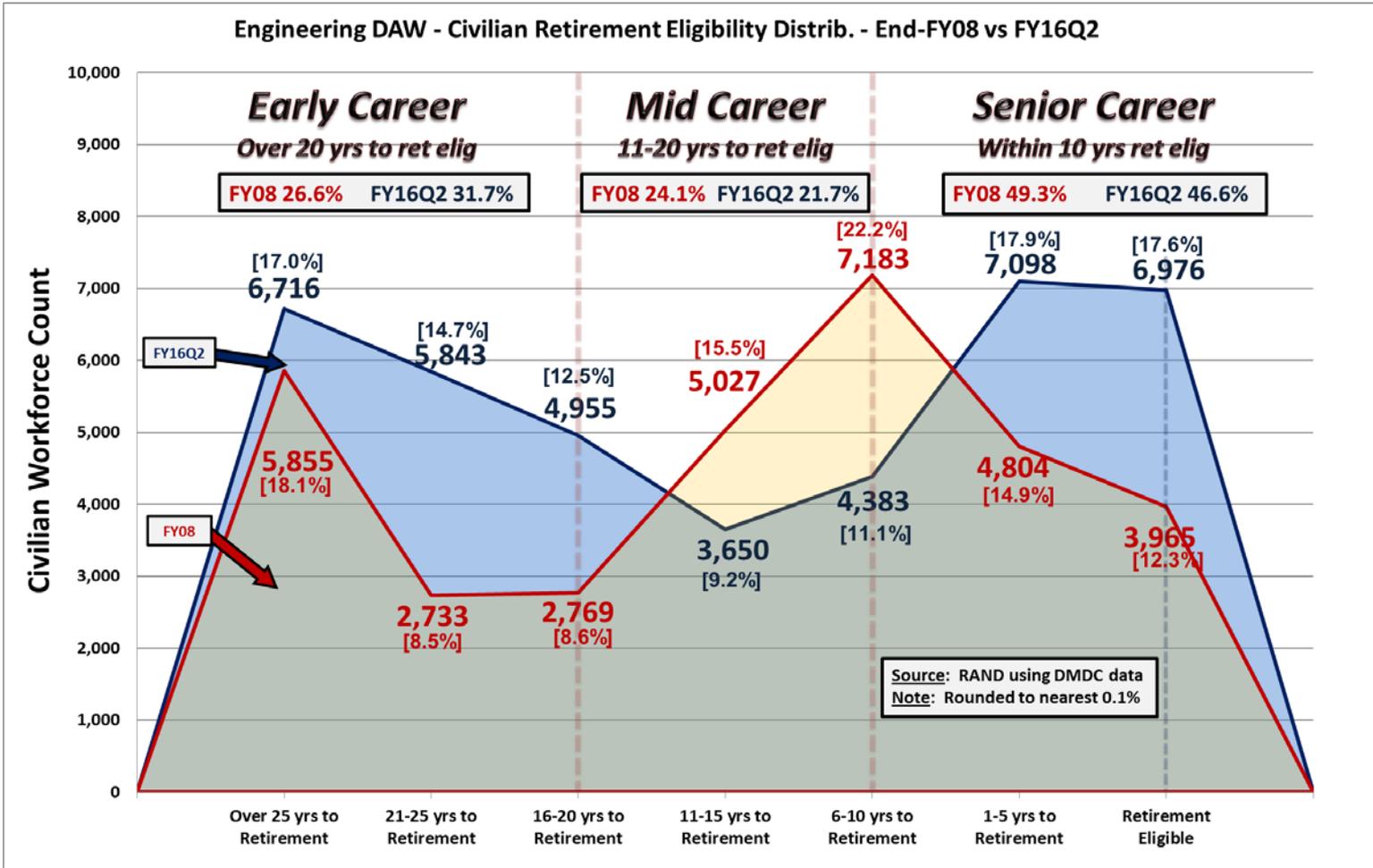




RAND NDRI Forces and Resources Policy Center Data Retirement / Loss Slides



Engineering Civilian Retirement Eligibility Distribution – FY08 / FY16Q2

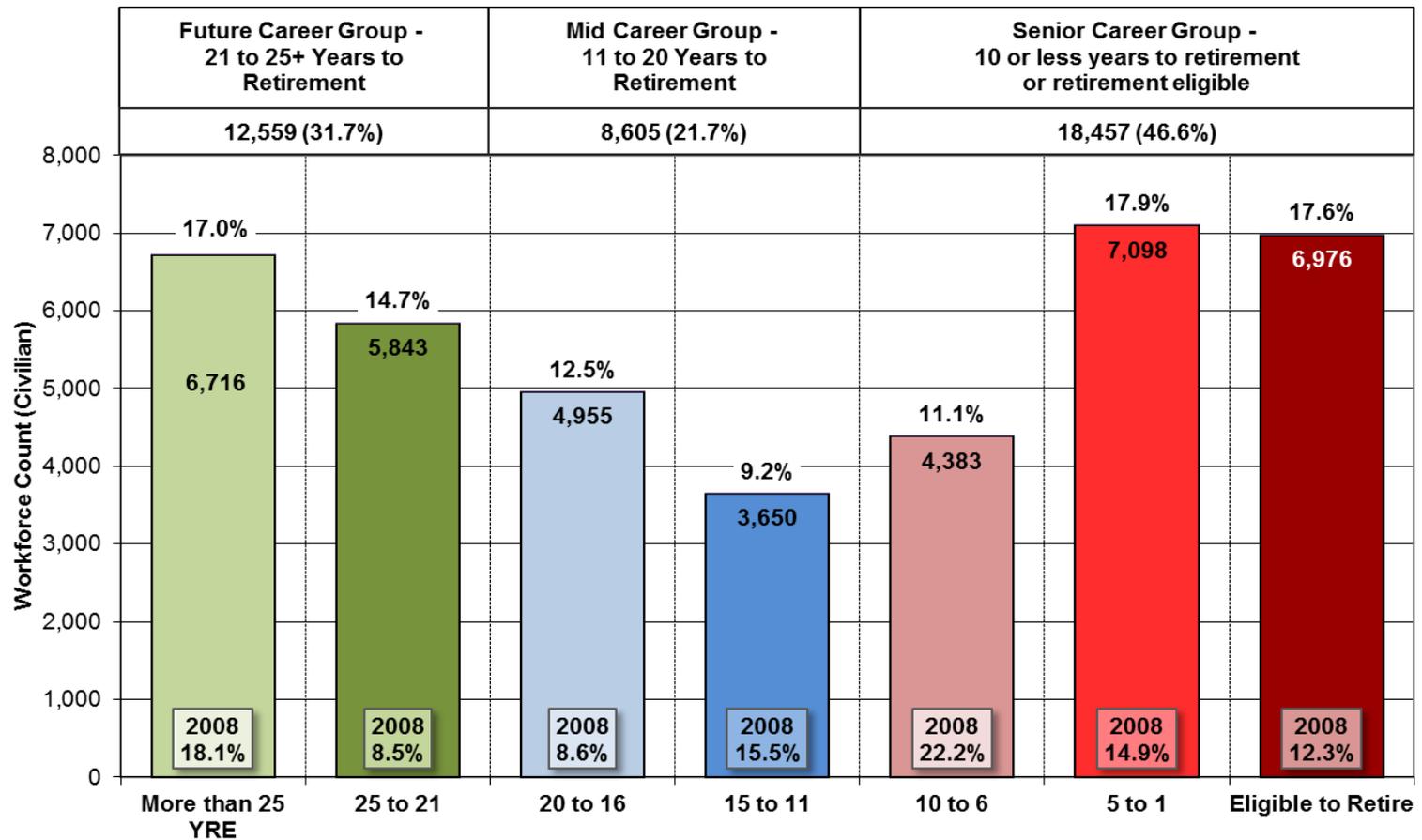


As of the end of FY16Q2 (31 Mar 2016)



Engineering Workforce Lifecycle Model by YRE

Defense Acquisition Workforce Lifecycle Model (WLM) by Years to Retirement Eligibility (YRE) - Civilian (FY2016Q2) - Engineering



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

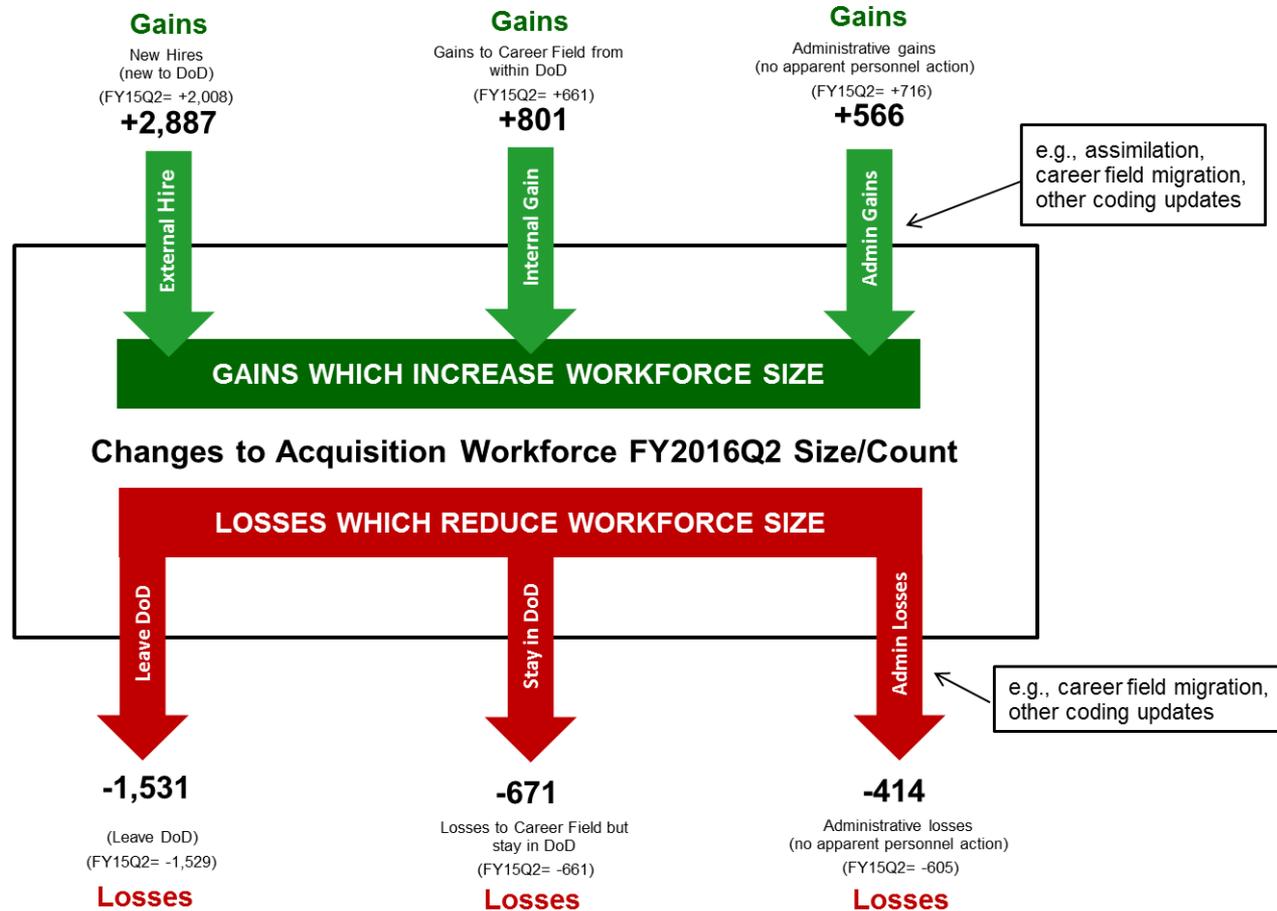
As of the end of FY16Q2 (31 Mar 2016)



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

Defense Acquisition Workforce (Civilian) (FY2016Q2) - Engineering

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



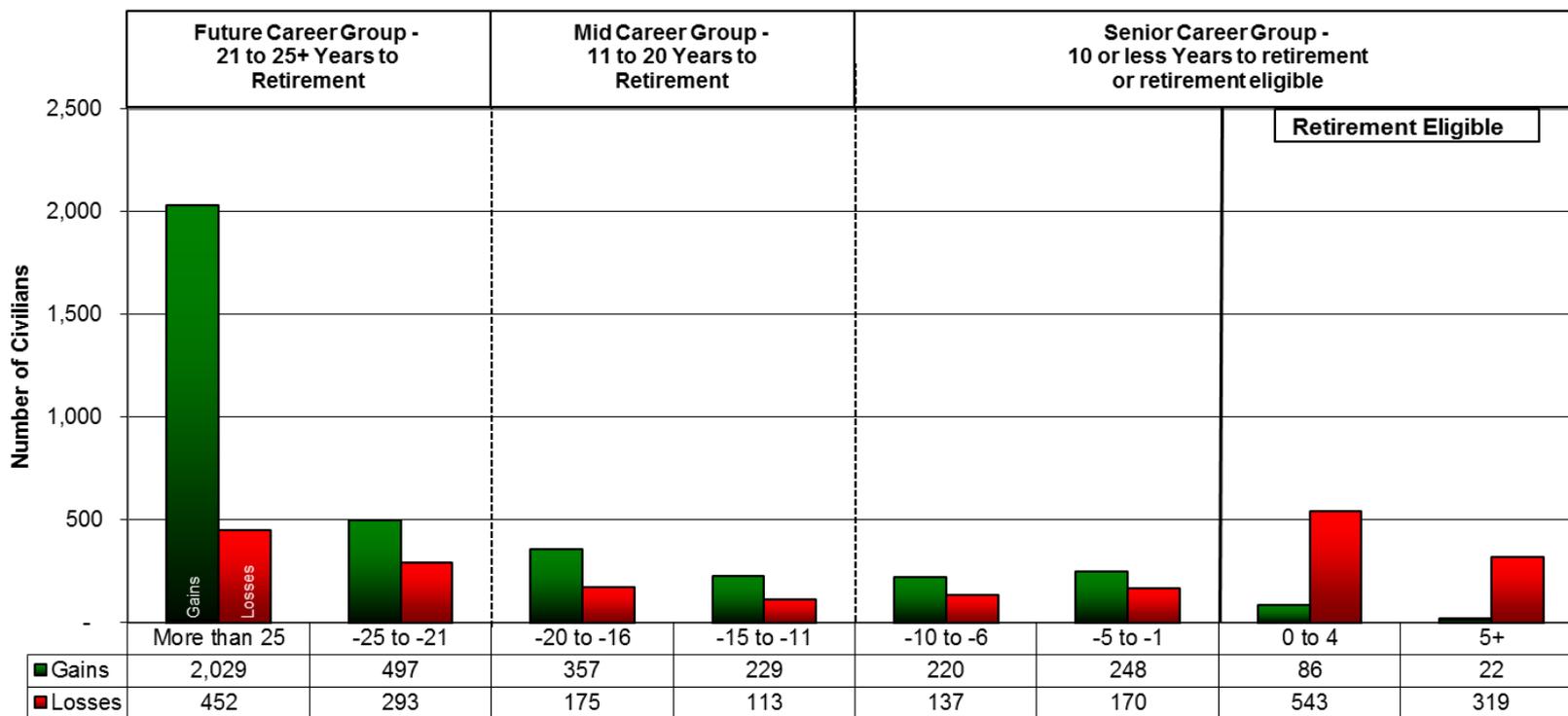
As of the end of FY16Q2 (31 Mar 2016)



Engineering Gains and Losses by YRE Groups

Defense Acquisition Workforce (Civilian) - Engineering

Workforce Lifecycle FY2016Q2 Gains & Losses*



Career Lifecycle by Years to Retirement Eligibility

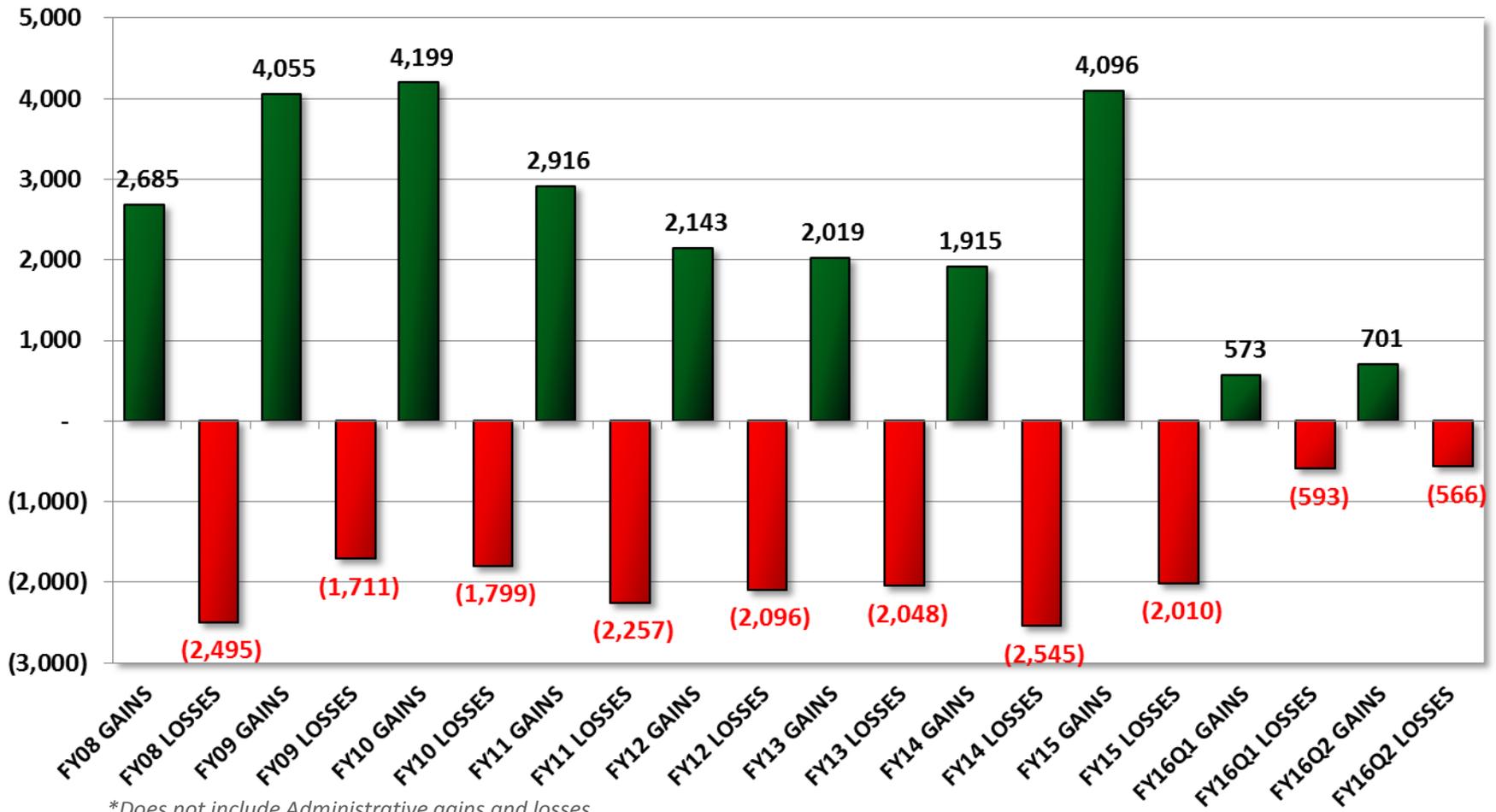
Source: RAND NDRI Forces and Resources Policy Center analysis using DMDC data (FY2016Q2 and Previous FY Data)

*Does not include administrative gains and losses

As of the end of FY16Q2 (31 Mar 2016)



Engineering Historical Gains and Losses FY08 – FY156Q2



*Does not include Administrative gains and losses

As of the end of FY16Q2 (31 Mar 2016)

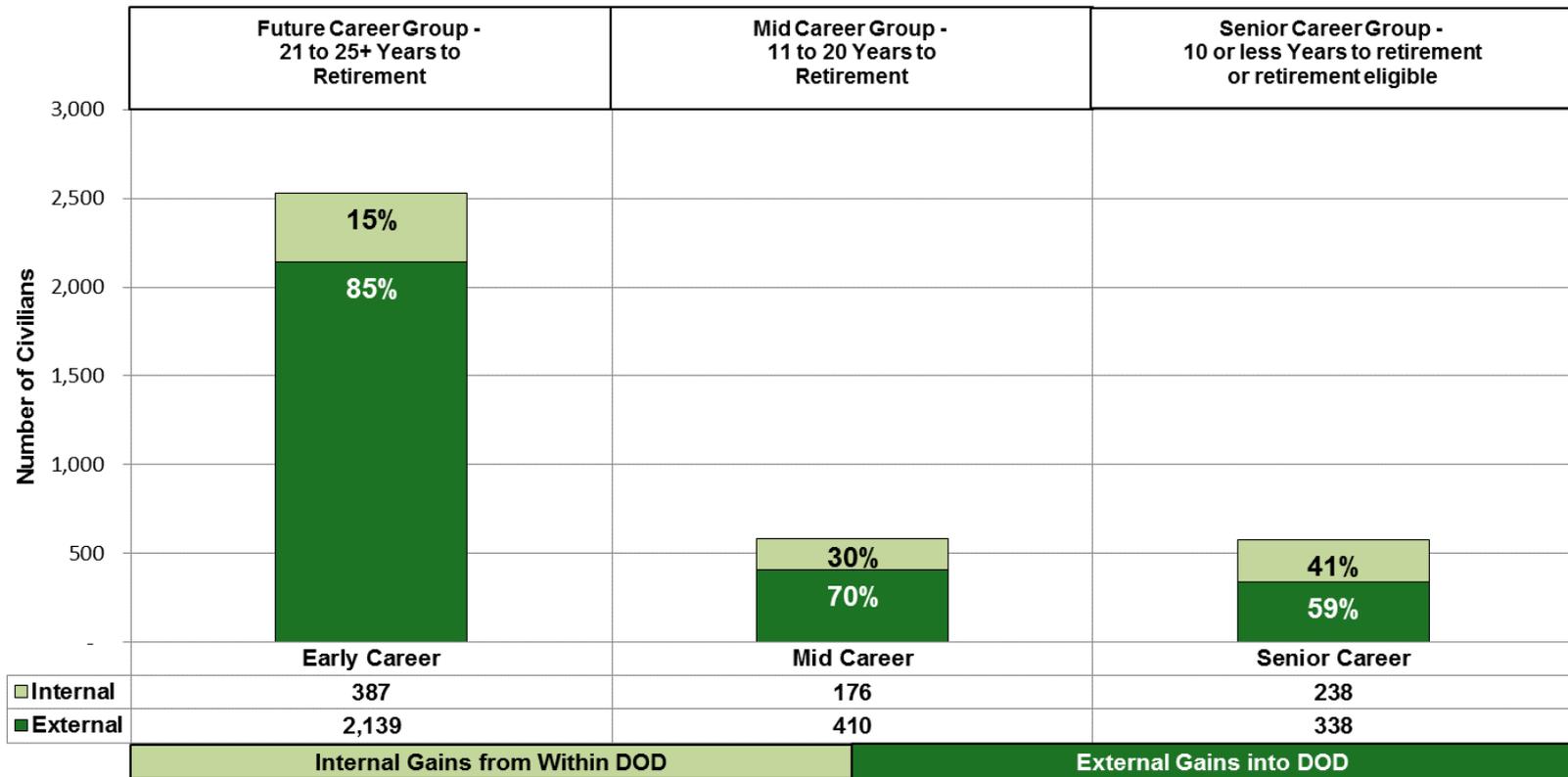


Engineering Internal/External Gains % by Career Group



Defense Acquisition Workforce (Civilian) - Engineering

Workforce Lifecycle FY2016Q2 Gains*



Source: RAND NDRI Forces and Resources Policy Center analysis using DMDC data (FY2016Q2 and Previous FY Data)

*Does not include administrative gains

As of the end of FY16Q2 (31 Mar 2016)

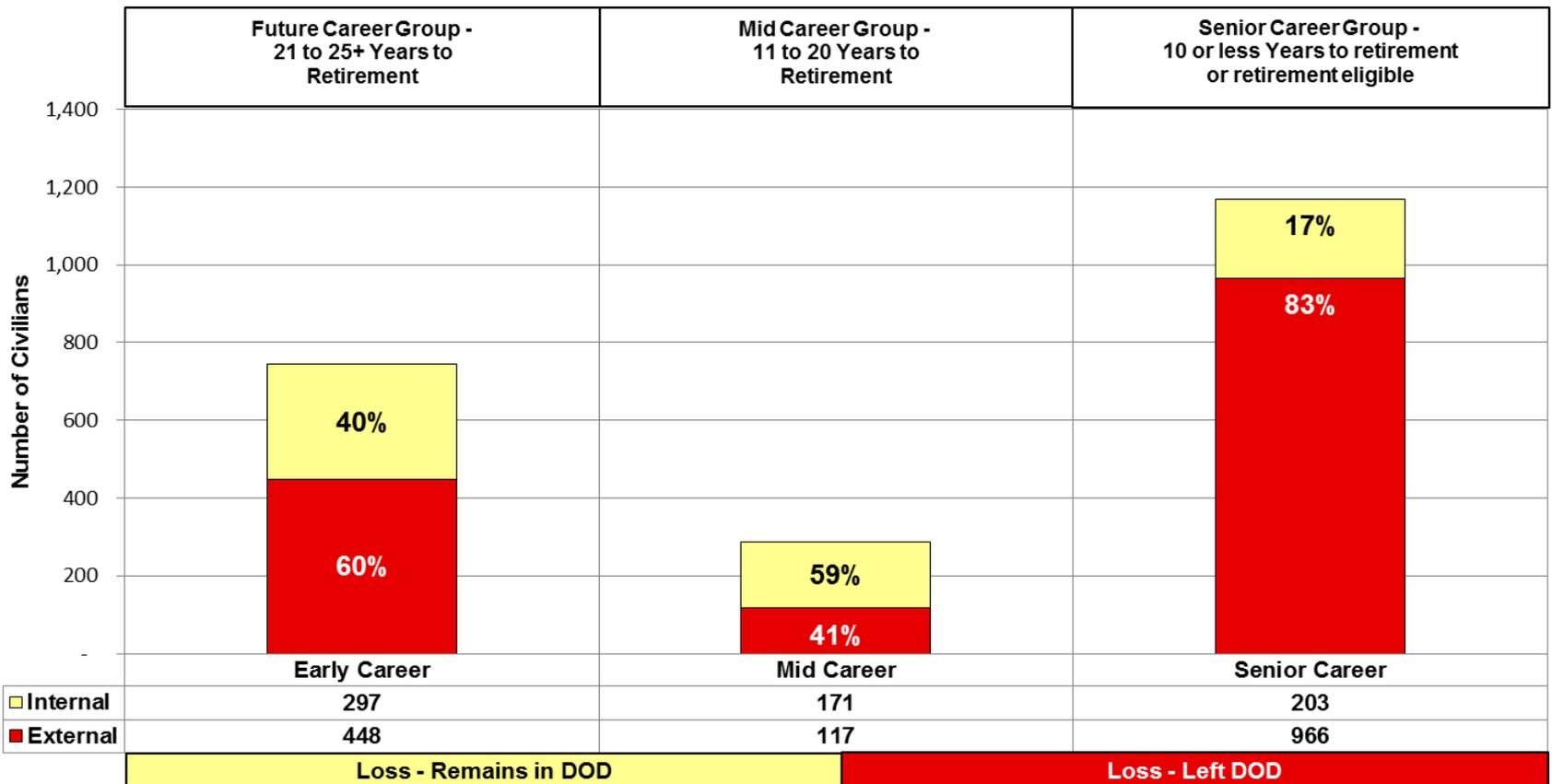


Engineering Internal/External Loss % by Career Group



Defense Acquisition Workforce (Civilian) - Engineering

Workforce Lifecycle FY2016Q2 Losses*



Source: RAND NDRI Forces and Resources Policy Center analysis using DMDC data (FY2016Q2 and Previous FY Data)

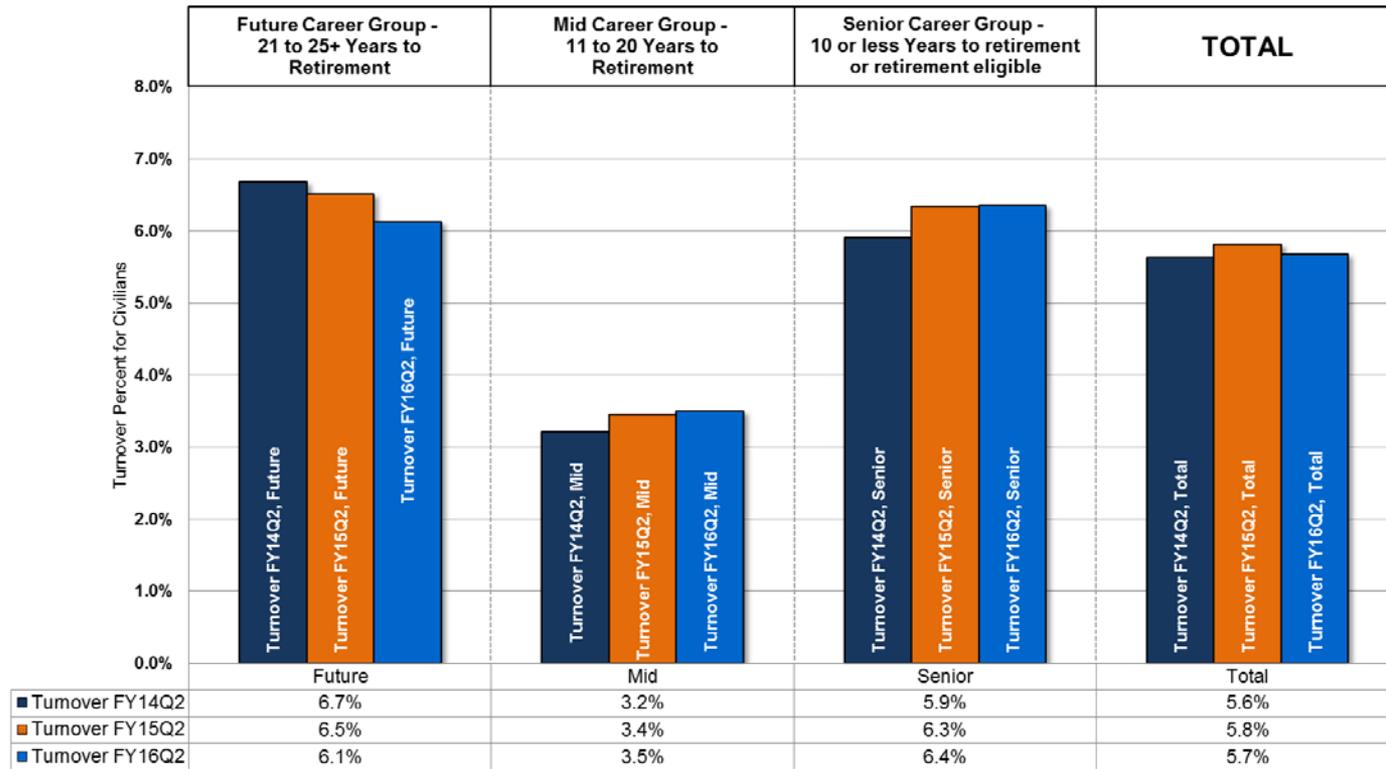
*Does not include administrative losses

As of the end of FY16Q2 (31 Mar 2016)



Engineering Turnover Rates by Career Group

Defense Acquisition Workforce Turnover - Engineering (Civilian) (FY14Q2, FY15Q2, FY16Q2)(by Career Lifecycle Group)



Turnover Percent by Career Lifecycle Groups

As of the end of FY16Q2 (31 Mar 2016)

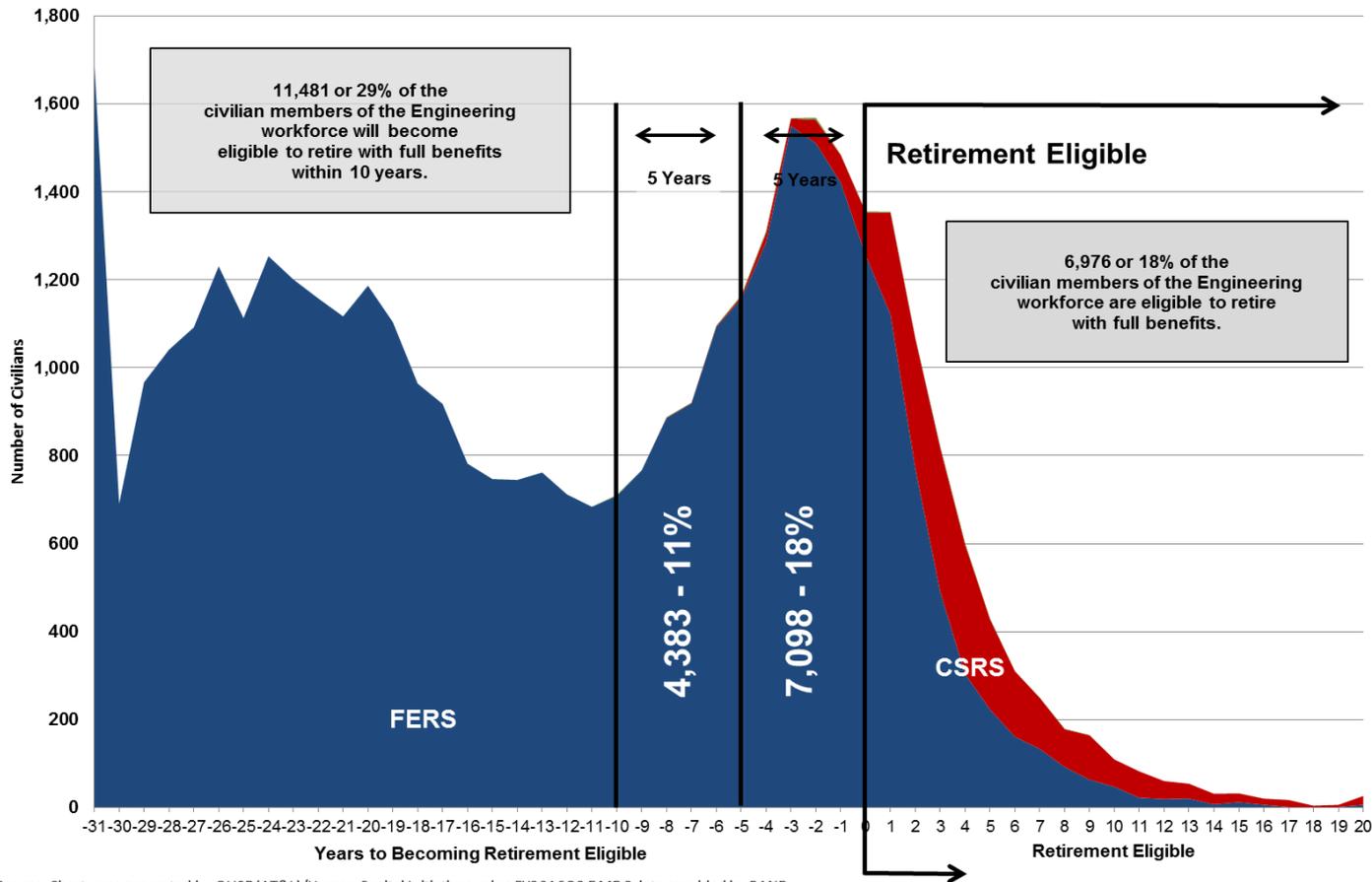


Engineering Civilian Distribution by Years to Retirement Eligibility



Defense Acquisition Workforce - Engineering

Distribution by Years to Retirement Eligibility (Civilians)(FY2016Q2)



Source: Chart was generated by OUSD(AT&L)/Human Capital Initiatives using FY2016Q2 DMDC data provided by RAND.

As of the end of FY16Q2 (31 Mar 2016)



END