



Is the AAW Surfing the Federal Retirement Wave to a Soft Landing?

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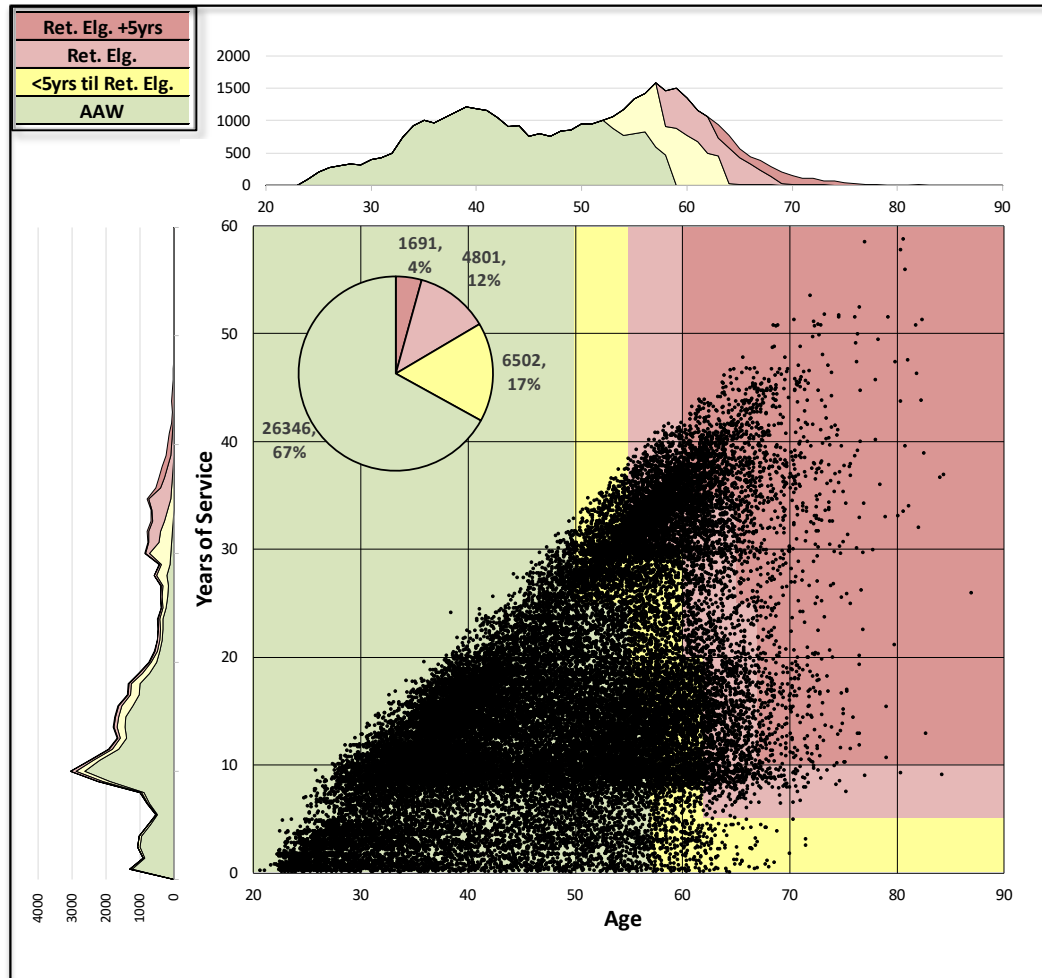
- Data
 - CAPP MIS AAW historical Scorecard data sets
 - September 30 snapshots for 2013 thru 2018
 - Civilian AAW only
- AAW Year-over-Year Joins and Losses
 - Determined by comparing annual data snapshots
 - “Losses” are counted when individual’s are not found in the following FY
 - “Joins” are counted when they newly appear in the following FY
 - Does not count movements between Acquisition Career Fields (ACFs) or commands
 - Counted annual retirement eligible joins and losses by year
 - Counts encompass full year, not the same as snapshot count reported elsewhere
 - Did not use Nature of Action Codes
 - Retirement eligibility measured according to FERS
 - Acronyms
 - YAE = years of acquisition experience
 - YoS = years of service
 - YRE = years until retirement eligible



Visualizing the AAW

Workforce Demographic Distributions

AAW Career Status



- Visualizing AAW Age and Years of Service (YoS) distributions reveals demographic gaps and concentrations across the workforce
- Top: age distribution is bimodal with peaks at ages 39 and 58
 - Retirement eligible (RE) peak is clearly the highest, raising attrition concerns
- Left: YoS mode is at 9 years with 2nd peak at 30 YoS
 - Not retirement eligible spread across YoS
- Shows future retirement patterns will likely not be uniform
- No Command is average
 - Workforce distributions vary by command and career field



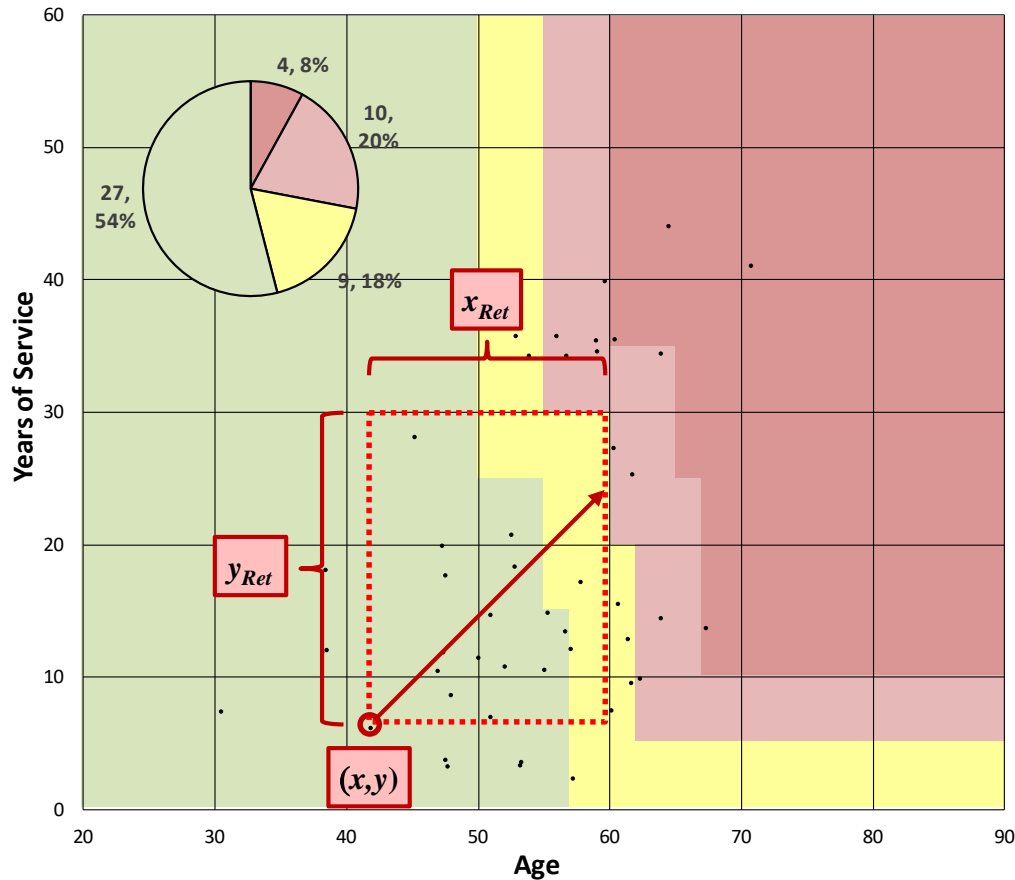
Understanding the AAW Retirement Picture

Concern: Is excessive retirement attrition likely in the AAW?

- Retirement Brain Drain Defined: Generational retirement with the potential to develop into a “talent vacuum”

Calculating Years Until Retirement Eligible

INDUST/CONTRACT PROP MGT



Age vs. YoS Plot

- All individuals move up/right at 45° as they age and gain YoS

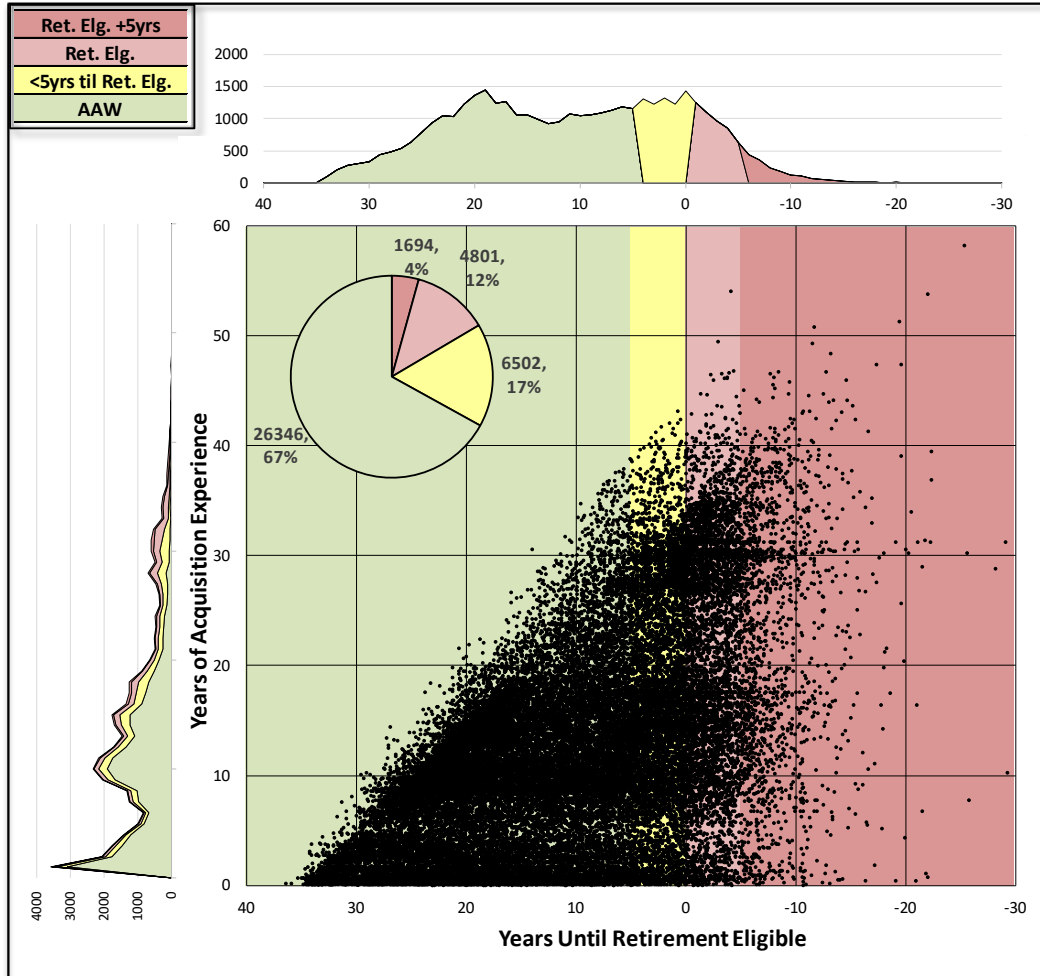
Years until Retirement Eligible

- $YRE = \min(x_{Ret}, y_{Ret})$

Retirement Eligibility

YoS	Age
≥ 5	≥ 62
≥ 20	≥ 60 And < 62
≥ 30	≥ 55 And < 60

AAW Retirement Brain Drain Potential

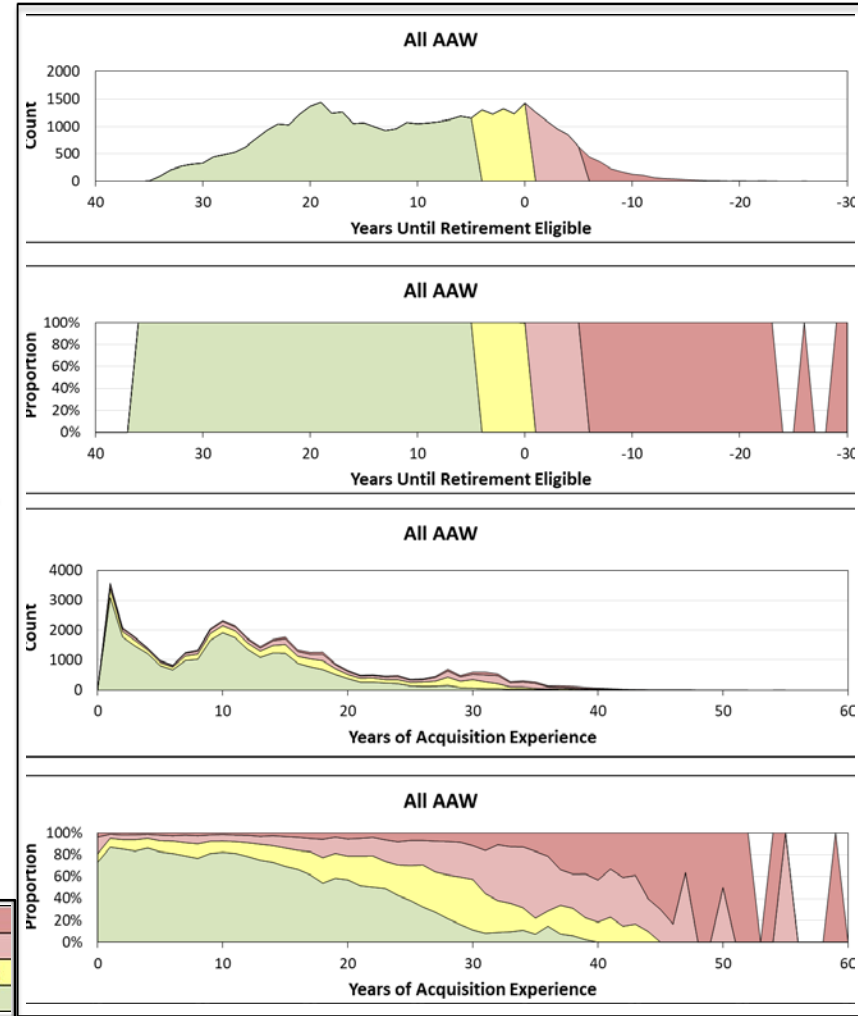
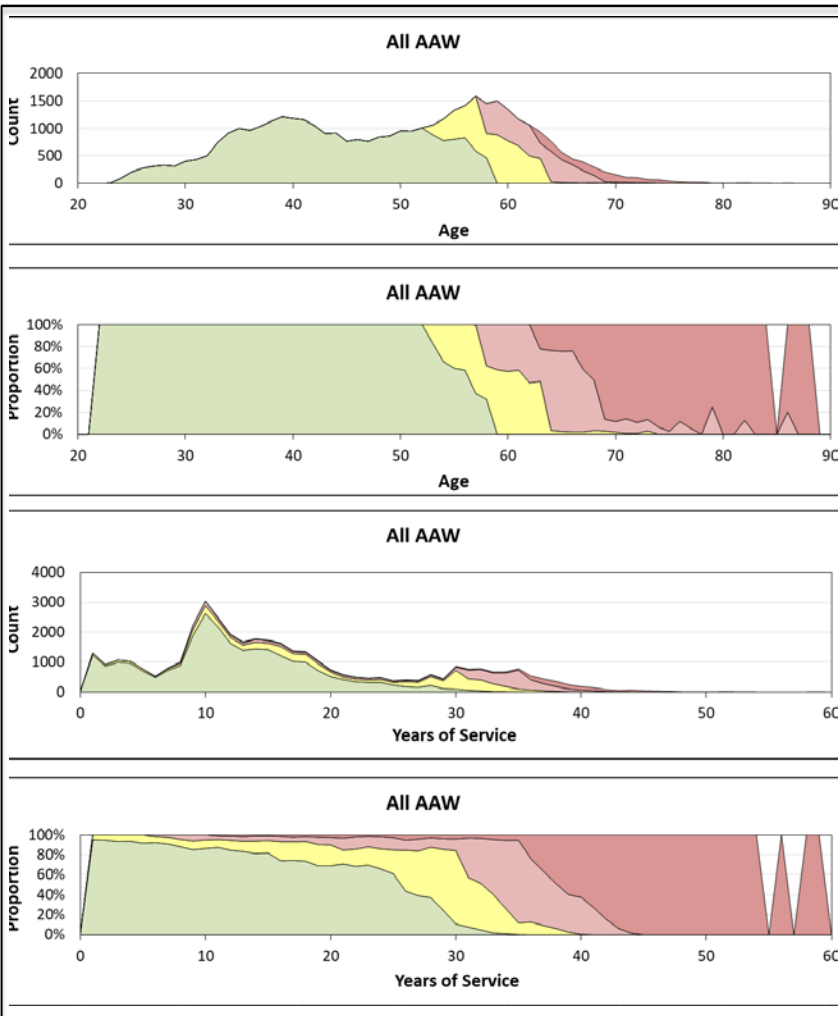


- Pie Chart: Retirement eligibility (RE) and near RE are about equal
 - 33% = RE + w/in 5 years of RE
- Top: AAW retirement wave intensity is less than Age distribution suggests
 - RE distribution has a less dramatic “bathtub”
 - Peaks of bi-modal distribution are about equal
- Left: RE population is more distributed across the experience distribution (YAE) than the YoS distribution suggested
 - Experienced personnel (at 30 YAE) retirement peak is significantly decreased
- But, no command or career field is average

* Data as of 31Mar 2019



Reframing the AAW Retirement Question

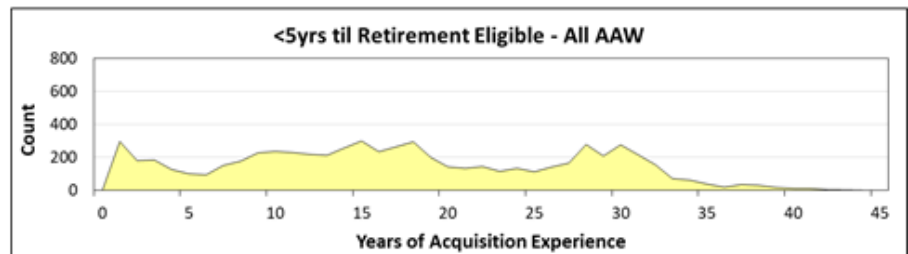
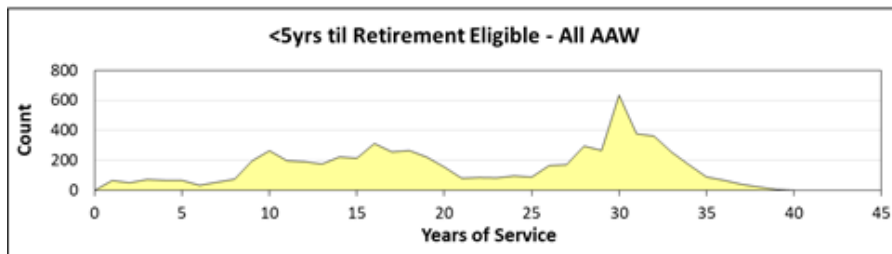
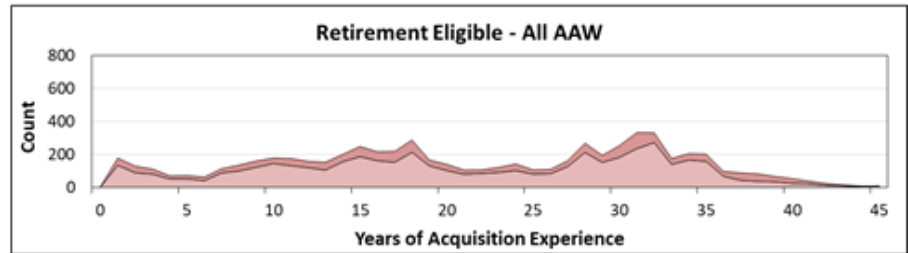
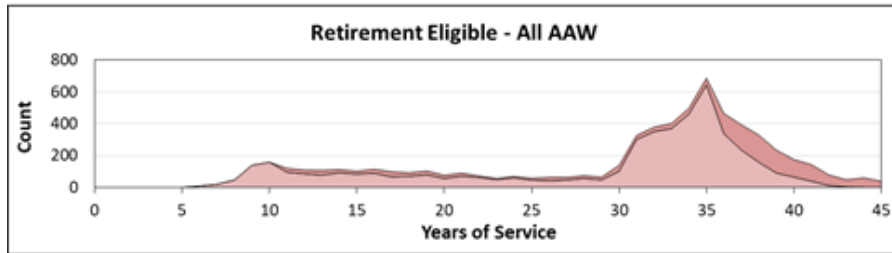
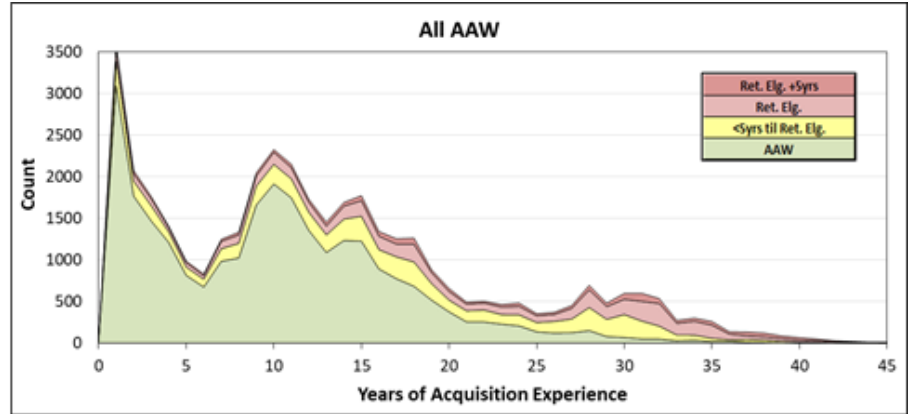
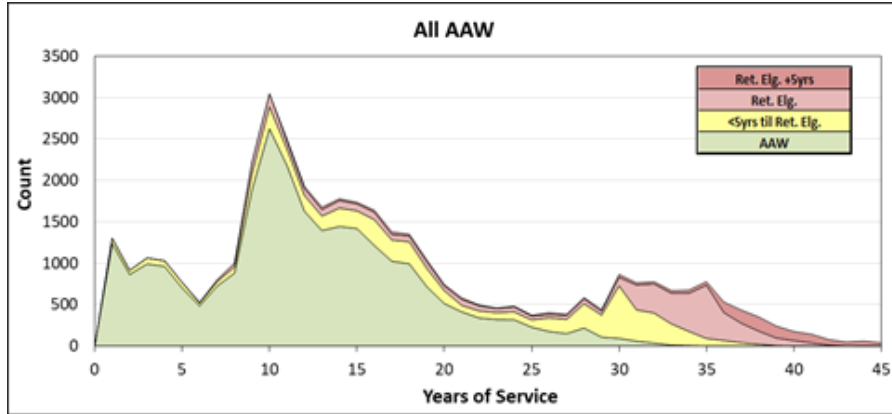


Ret. Elg. +5yrs
Ret. Elg.
<5yrs til Ret. Elg.
AAW



* Data as of 31Mar 2019

Retirement Eligibility Distribution



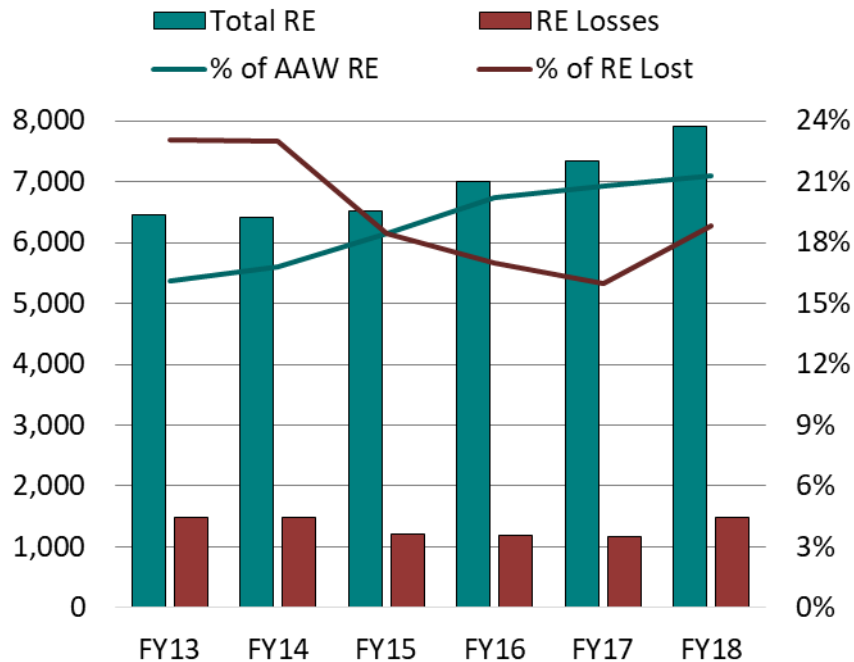
* Data as of 31Mar 2019



AAW Demographic Dynamics

Macro Retirement Eligibility Trends

Annual Retirement - AAW



AAW Annual Retirement Eligible (RE) Population

- **Blue:** The annual RE population increased from 16.1% in FY13 to 21.3% in FY18
 - About 1% per year average increase

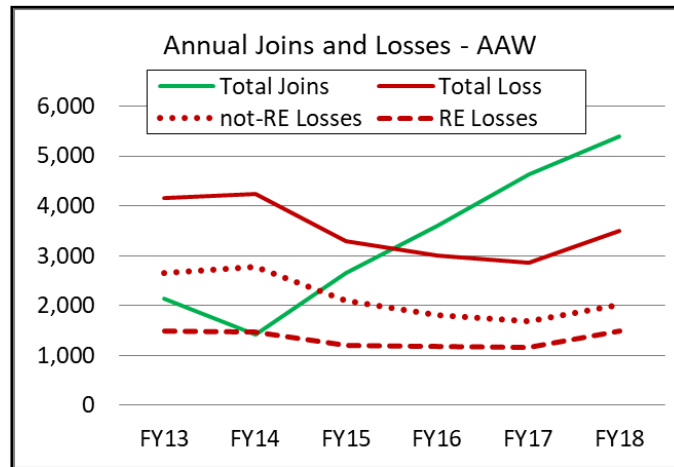
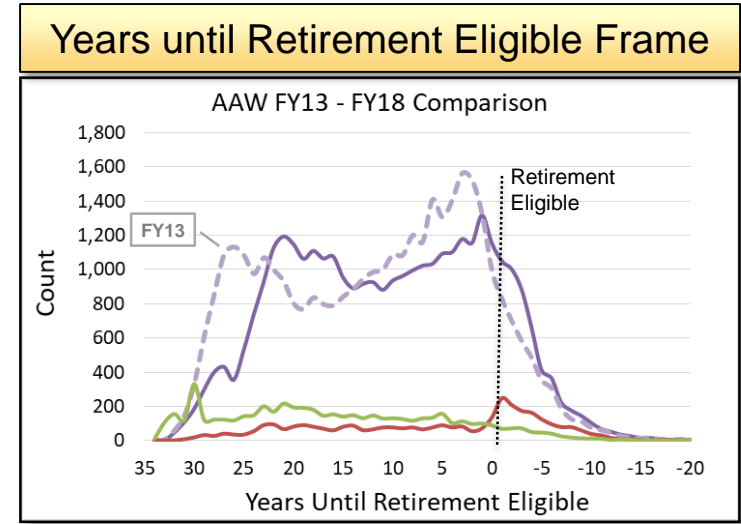
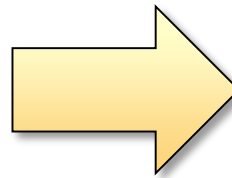
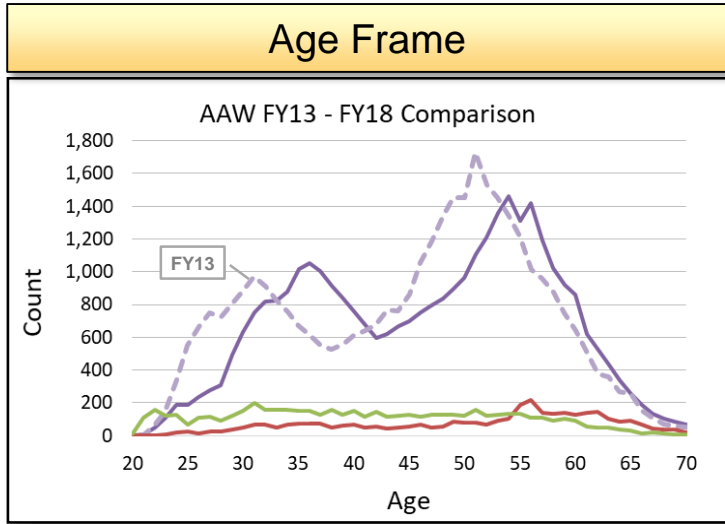
Annual Retirement Eligible Losses

- **Red:** The percentage of those RE during the year leaving the AAW decreased from 23.1% in FY13 to 18.8% in FY18
 - In FY18 annual RE losses increased by 3% returning to the FY13 level

Note: These charts display counts of all persons becoming RE during the given FY, they are not one-time snapshots

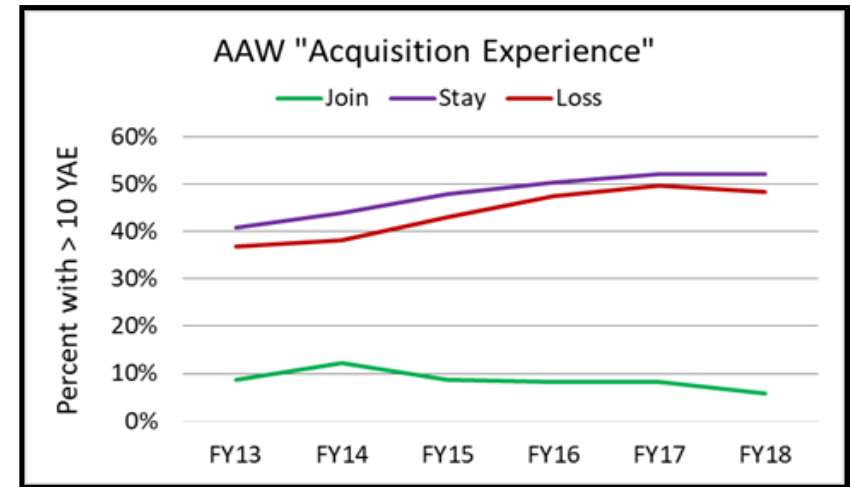
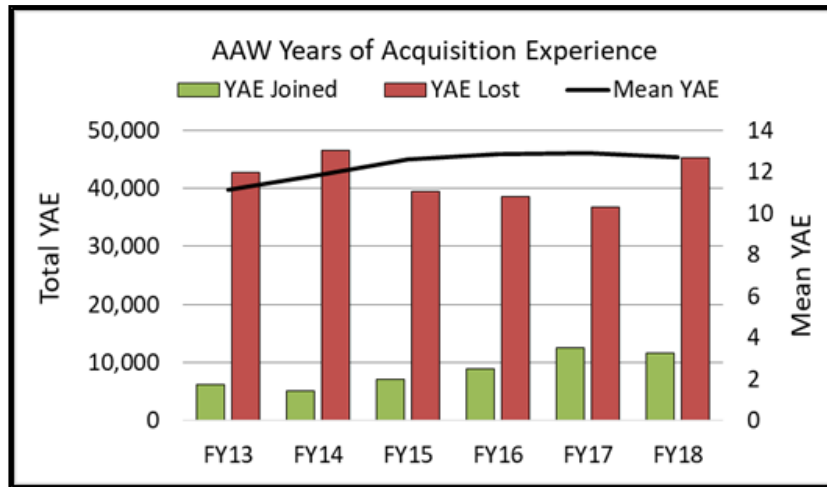
- Retirement “pressure” is building as the RE population grows
- RE loss rate trend changed direction in FY18, but remained consistent

Filling the "Bathtub"



* Data as of 31Mar 2019

Acquisition “Expertise”



Civilian employee YAE:

- FY13: 443,800 YAE among 40,100 employees
- FY18, 471,600 YAE among 37,100 employees

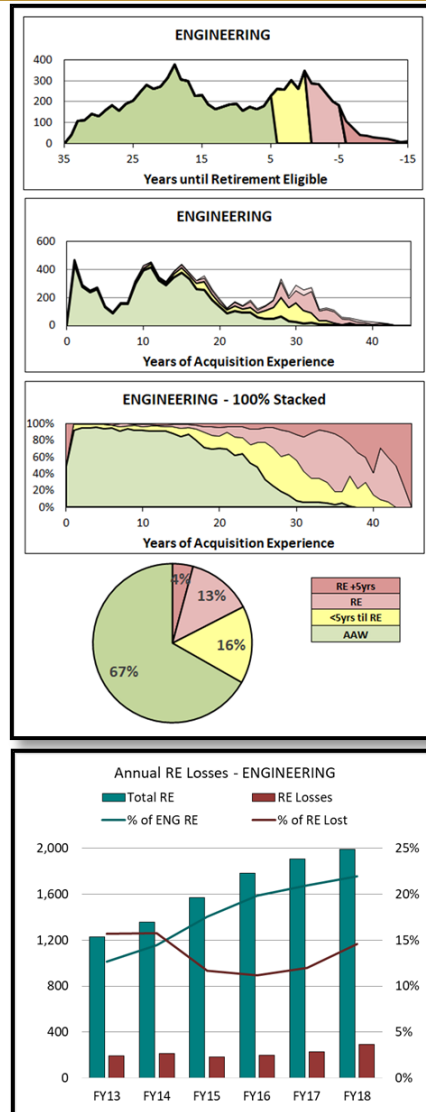
AAW “Experts”

- Percentage of “experts” staying in the AAW has increased sharply
 - FY13: 41%
 - FY18: 52%

Career Field Comparison Example

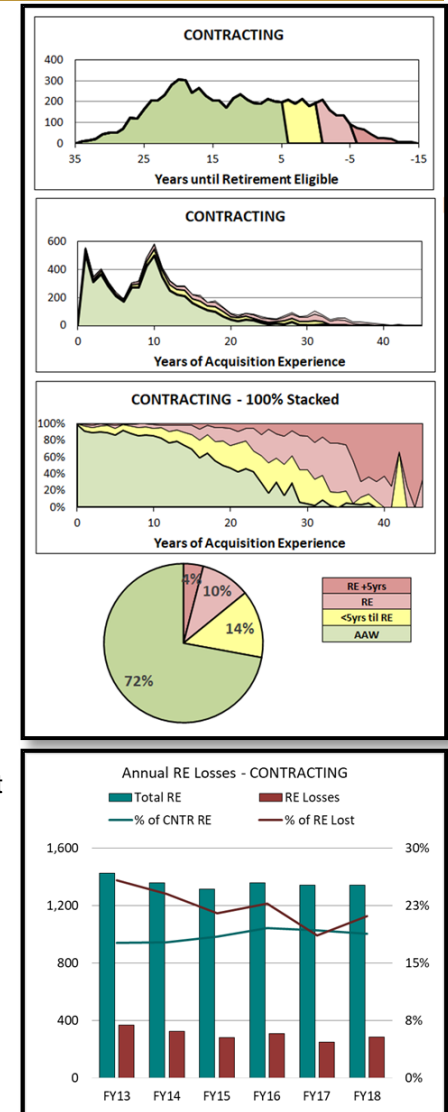
Engineering: High brain drain potential

- Expected higher than average near-term retirement rate because:
 - 34 percent of AAW engineers are RE or near-RE (pie chart)
 - The RE Engineering population increased rapidly since FY13 (green line)
 - The RE loss rate increased in FY17 and FY18 (red line)
- Expected higher than average near-term RE experience loss because:
 - The RE and near-RE population is heavily concentrated at YAE > 25 (second chart from top)
 - Underrepresentation of personnel with 5 and 20-25 YAE (second chart from top)
- Engineering is the largest AAW career field (>9000 members) and 97 percent hold STEM degrees



Contracting: Low brain drain potential

- Expected moderate near-term retirement rate because:
 - Favorable, unimodal YRE distribution with mode at 20 YRE (top chart)
 - 29 percent of AAW contractors are RE or near-RE (pie chart)
 - RE population has been stable since FY13 (green line)
 - The declining RE loss rate reversed in FY18, but remains down (red line)
- Expected moderate near-term RE experience loss because the RE and near-RE population is spread across YAE (second chart from top)
- Contracting is the second largest AAW career field (≈7000 members)



Retirement Brain Drain Assessment Summary



Priority	Career Field	Retirement Brain Drain Potential	Population (Civ Only)
1	ENGINEERING	High	9095
2	TEST AND EVALUATION	High	1907
3	LIFE CYCLE LOGISTICS	High	6944
4	PROGRAM MANAGEMENT	Moderate	2498
5	BUSINESS - FINANCIAL MANAGEMENT	Moderate	1775
6	PRODUCTION, QUALITY & MANUFACTURING	Moderate	1371
7	FACILITY ENGINEERING	Moderate	5955
8	CONTRACTING	Low	7227
9	INFORMATION TECHNOLOGY	Low	1862
10	PURCHASING	Low	273
11	SCIENCE & TECHNOLOGY MANAGER	Low	489
12	BUSINESS - COST ESTIMATING	Low	254
13	INDUSTRIAL/CONTRACT PROPERTY MANAGEMENT	N/A	50
14	ACQUISITION ATTORNEY	N/A	7

Retirement Brain Drain:
 Generational retirement with the potential to develop into a "talent vacuum"



* Data as of 31Mar 2019

Conclusion



- Viewing RE by age and YoS overstates retirement brain drain potential
- RE population is growing (From 16.1% of the AAW during FY13 to 21.3% during FY18)
- RE losses increased in FY18, but remained consistent with recent rates
- The “bathtub is filling because not-RE joins have been exceeding losses across the career distribution for last three years
- AAW acquisition “experience” has been consistently increasing since FY13
- Aggregated statistics across the AAW miss important features of specific career fields and commands because no career field or command is “average”





Questions

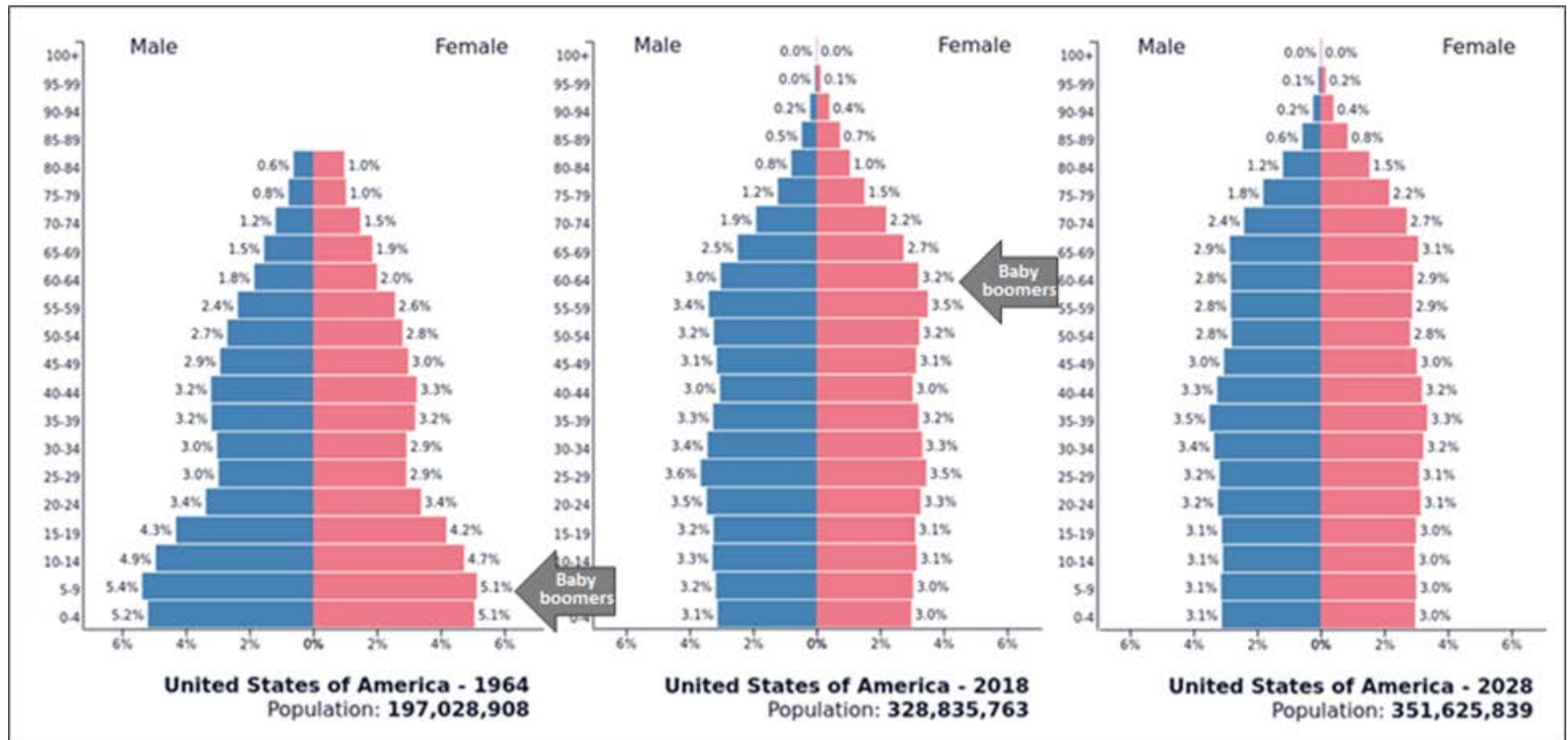
Caution, bimodal distribution ahead:





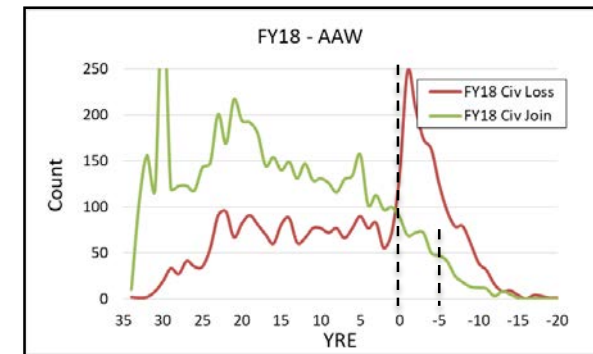
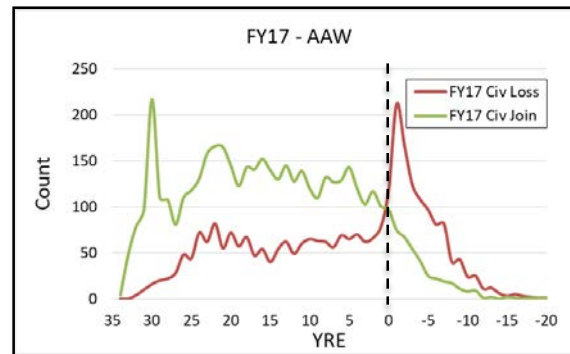
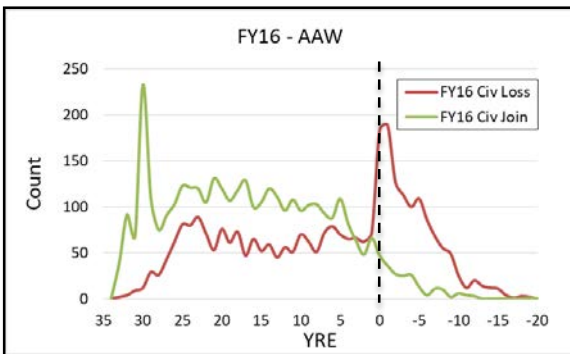
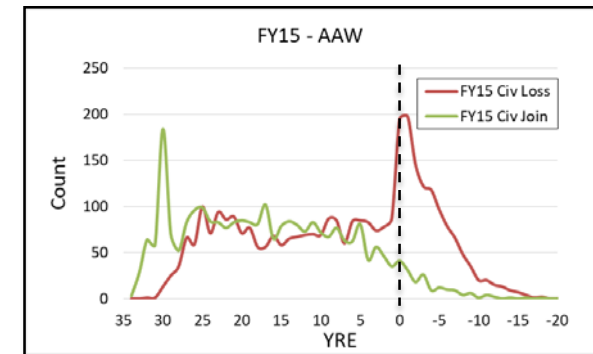
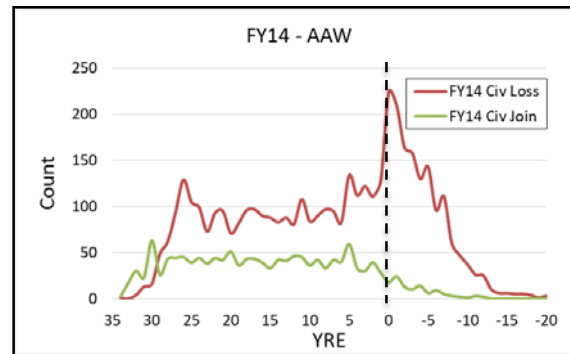
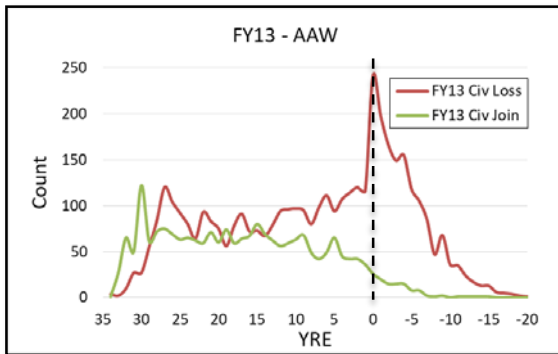
Back Up

U.S. Population Pyramids



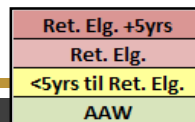
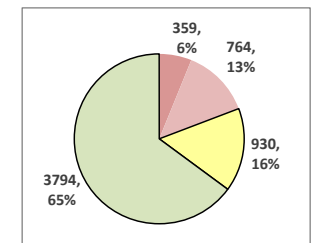
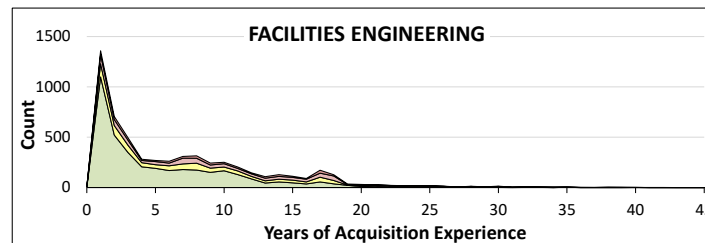
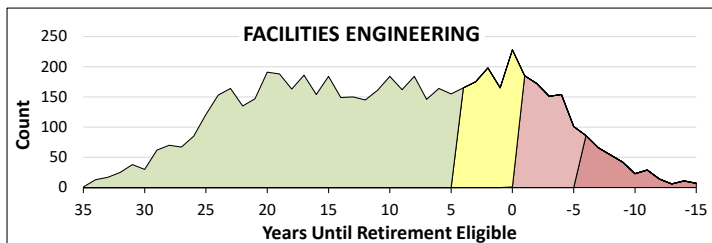
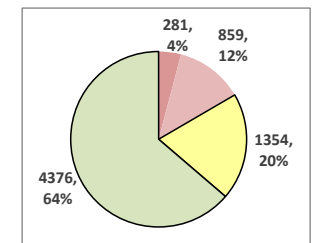
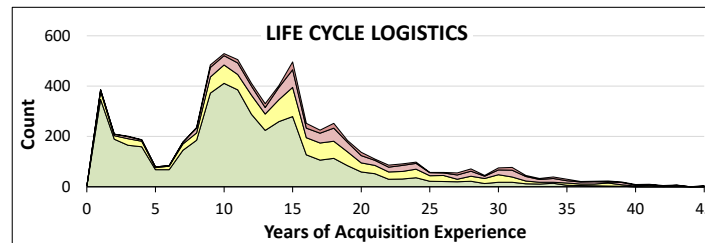
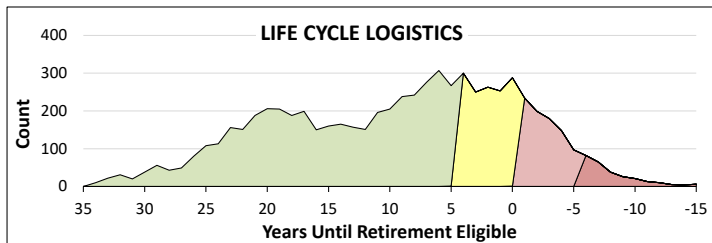
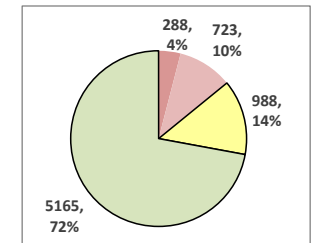
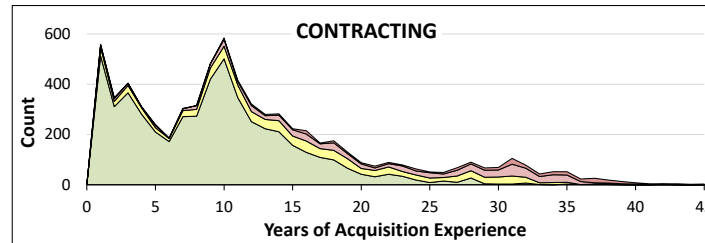
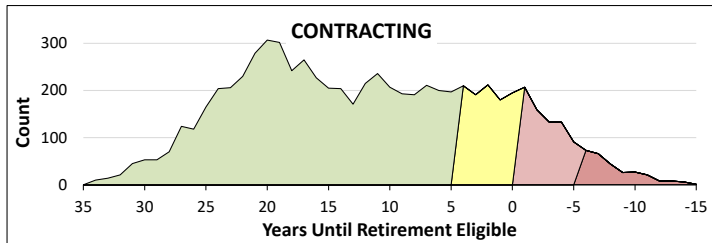
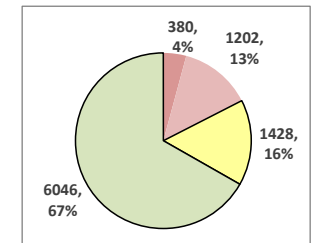
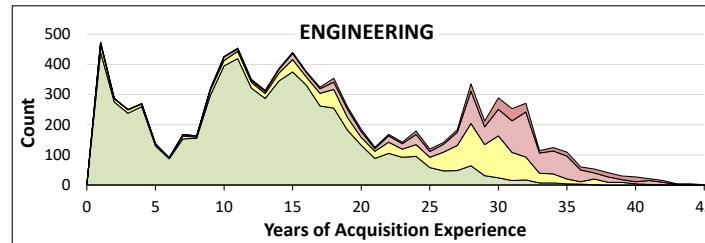
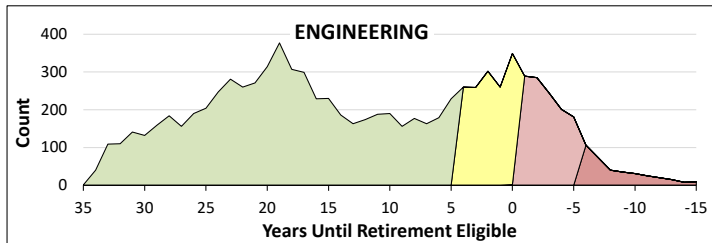
- Baby boomers, born 1946 - 1964; are now between ages 54 and 74
- Current or projected U.S. population is balanced
- U.S. age distribution cannot be blamed for AAW imbalances

Historical Joins and Losses by YRE



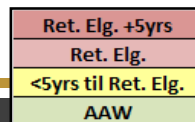
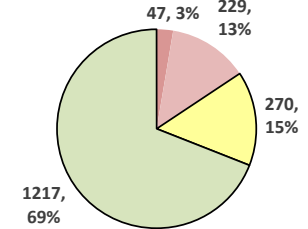
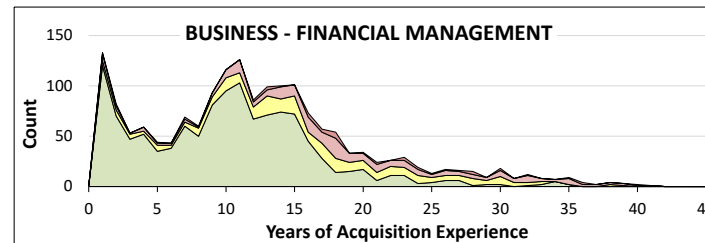
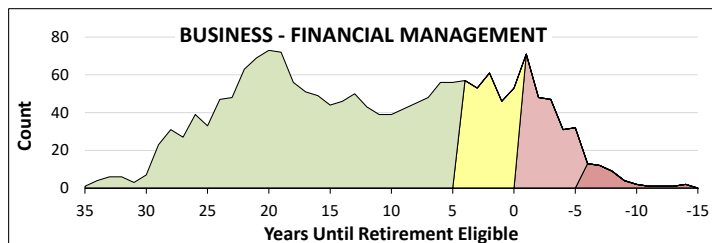
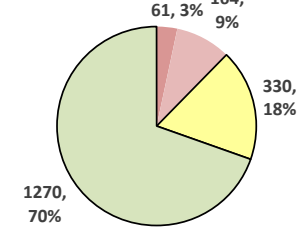
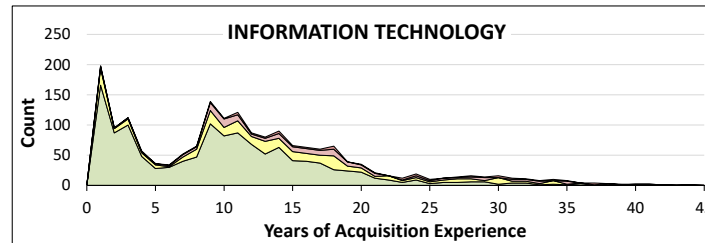
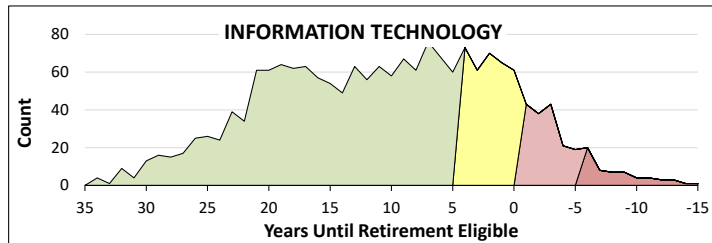
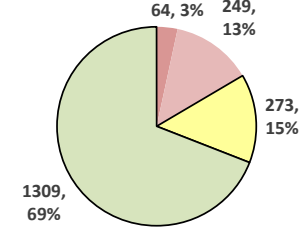
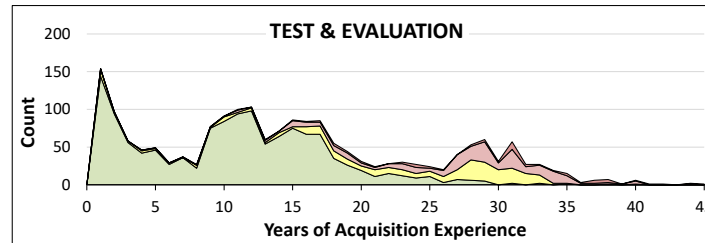
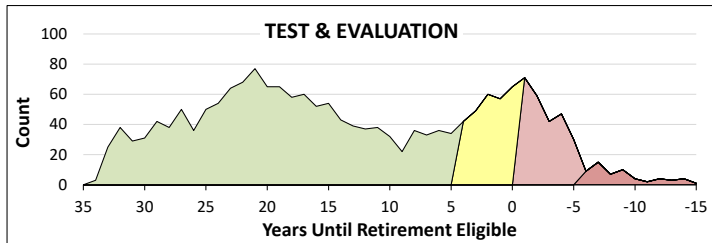
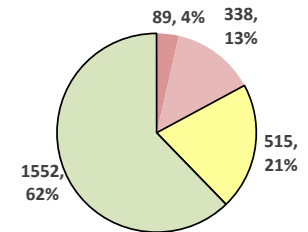
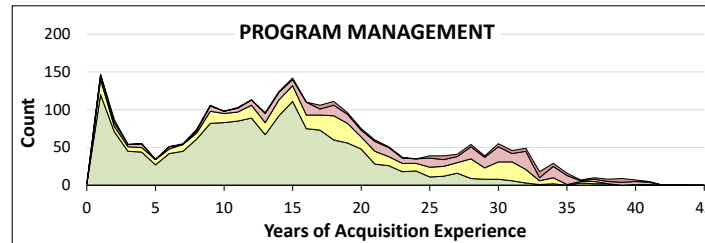
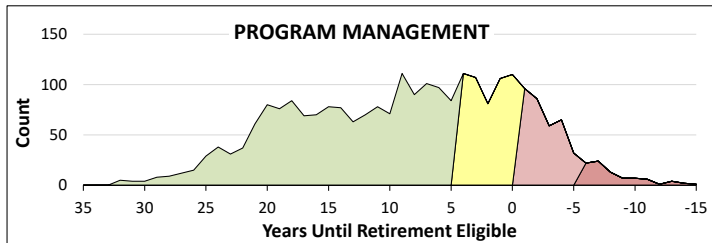
- For the last four years, annual not-retirement eligible (RE) joins (green line left of 0) have increased significantly relative to not-RE losses (red line)
 - Same pattern holds in the age frame
- In FY18, later RE losses (YRE \leq -2) increased by 264 (31%)
 - +16% for YRE = [0, -1]

ACF Distributions



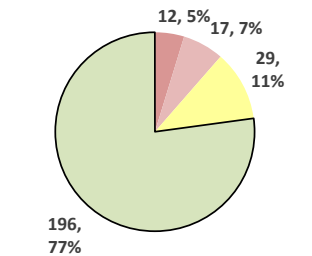
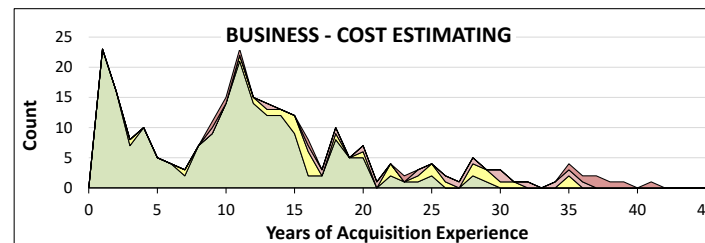
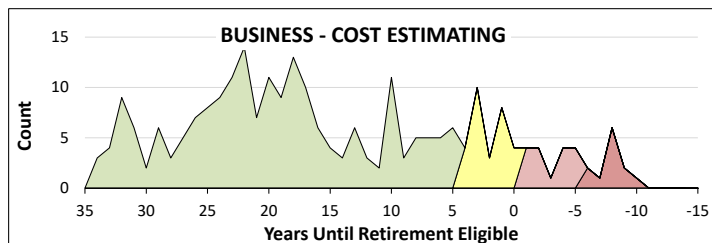
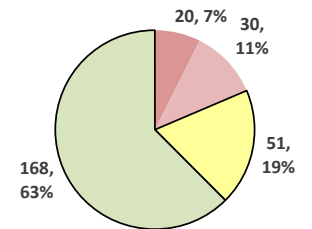
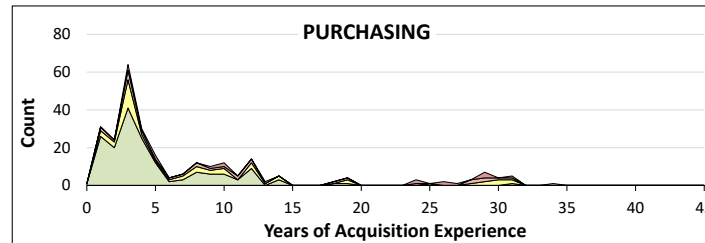
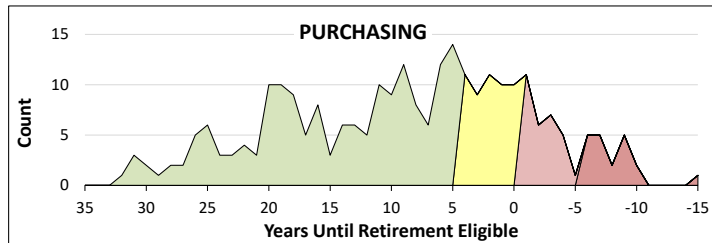
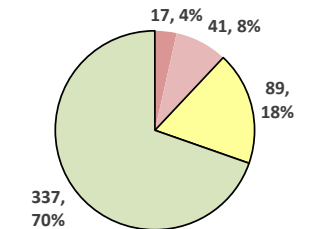
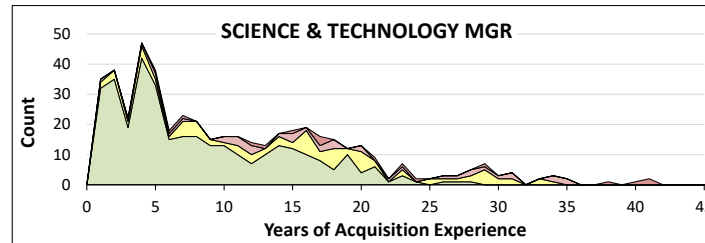
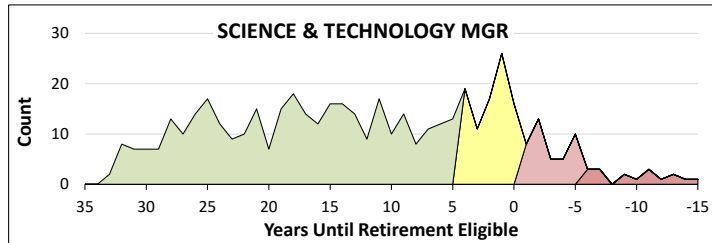
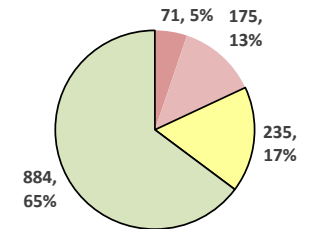
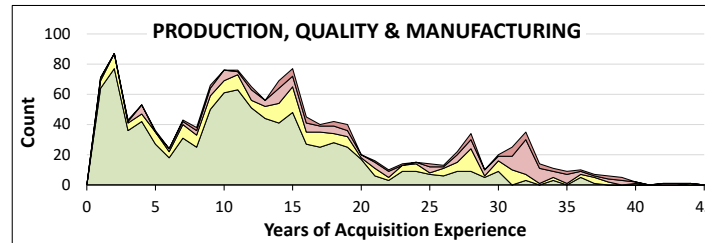
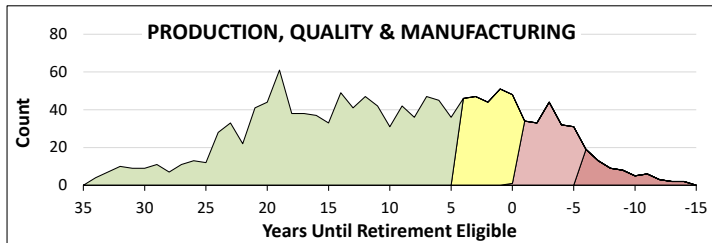
Note difference in vertical scales
* Data as of 31Mar2019

ACF Distributions



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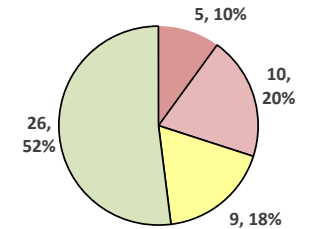
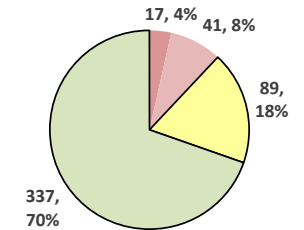
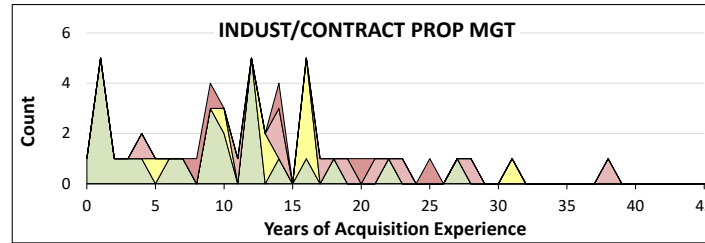
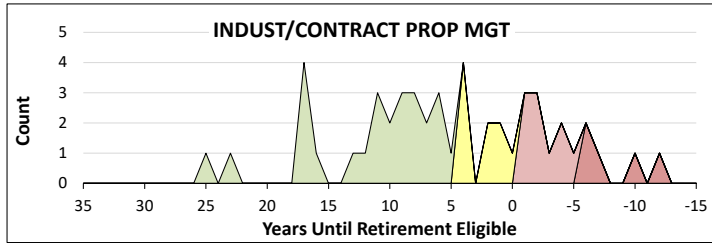
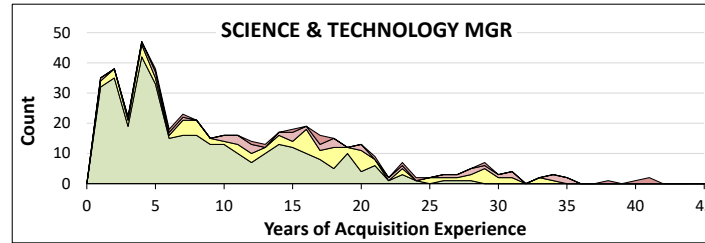
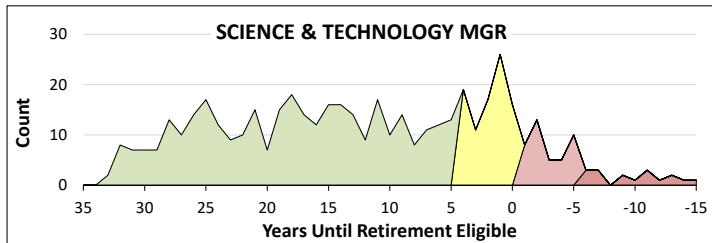
ACF Distributions



Ret. Elg. +5yrs
Ret. Elg.
<5yrs til Ret. Elg.
AAW

Note difference in vertical scales
* Data as of 31Mar2019

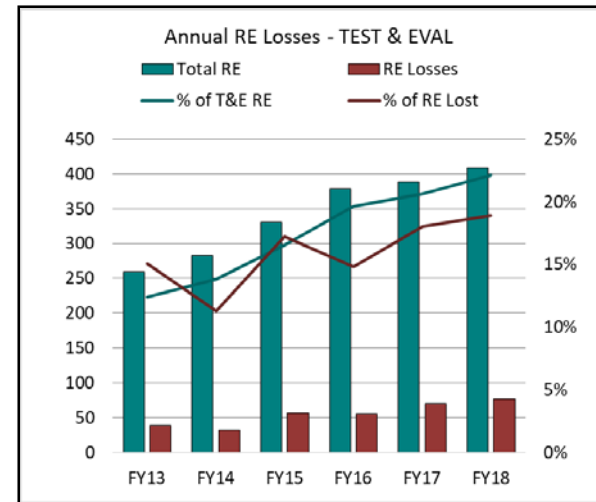
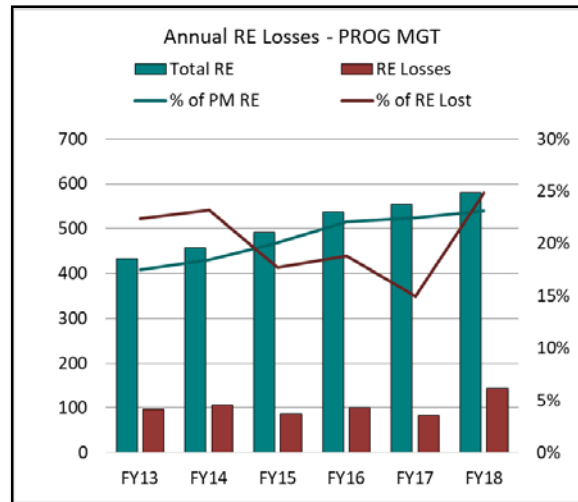
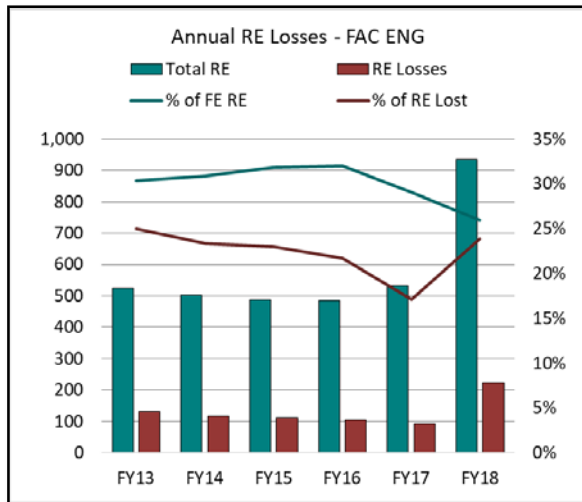
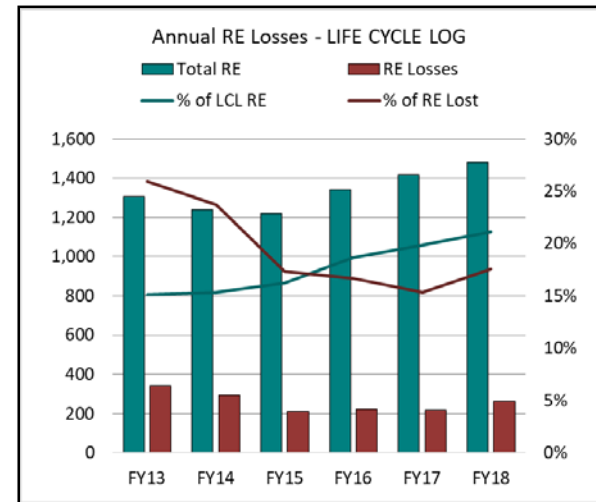
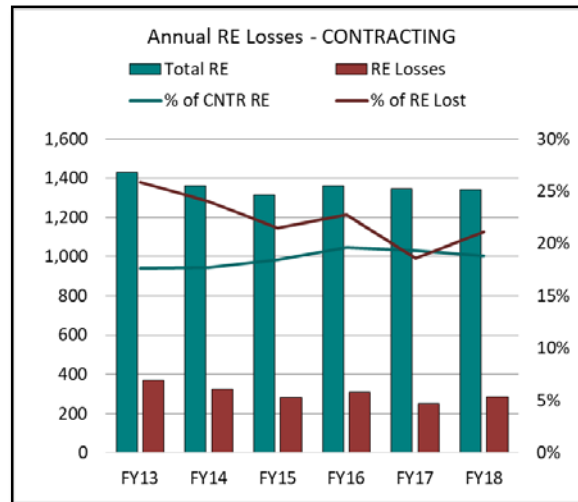
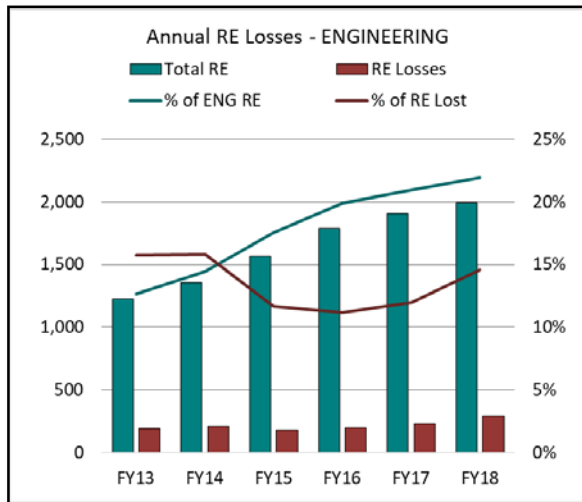
ACF Distributions



Ret. Elg. +5yrs
Ret. Elg.
<5yrs til Ret. Elg.
AAW

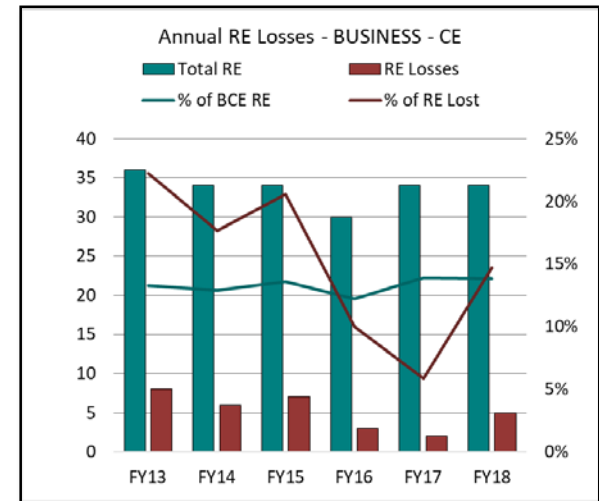
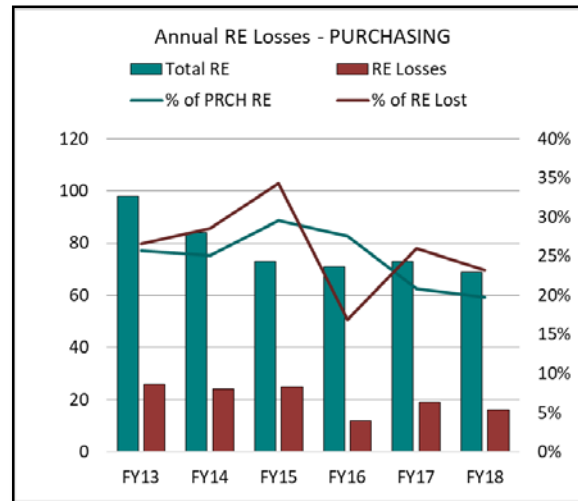
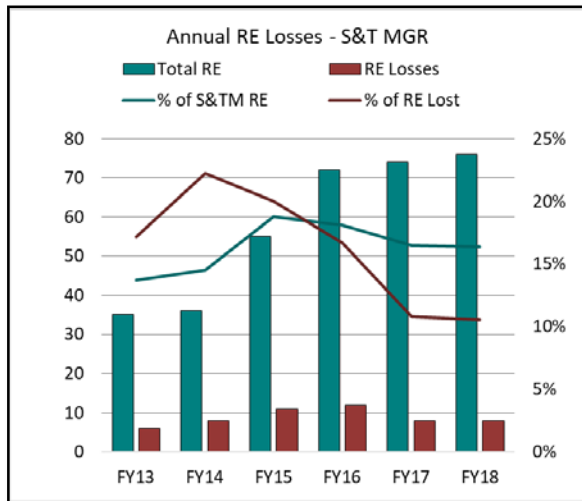
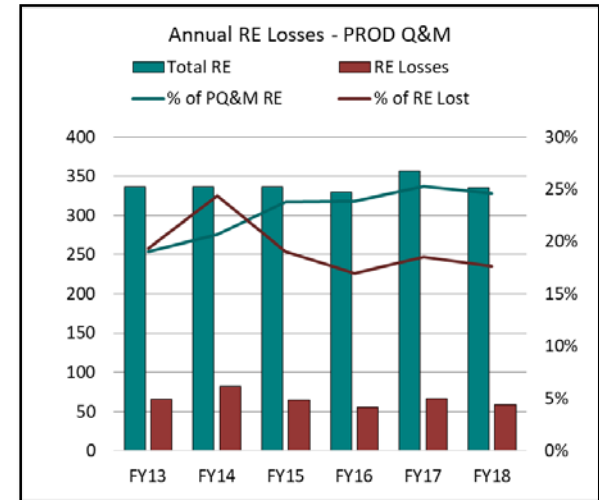
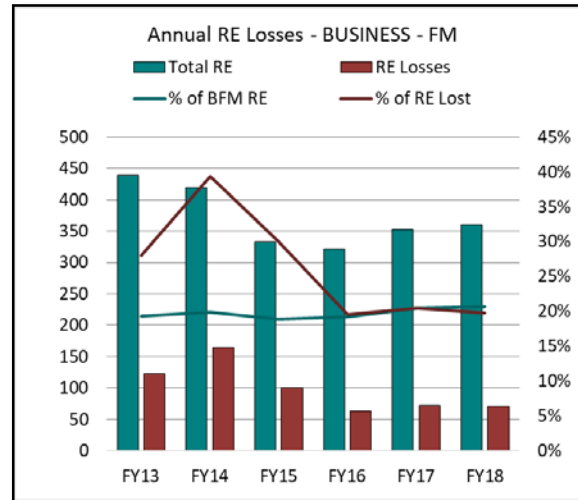
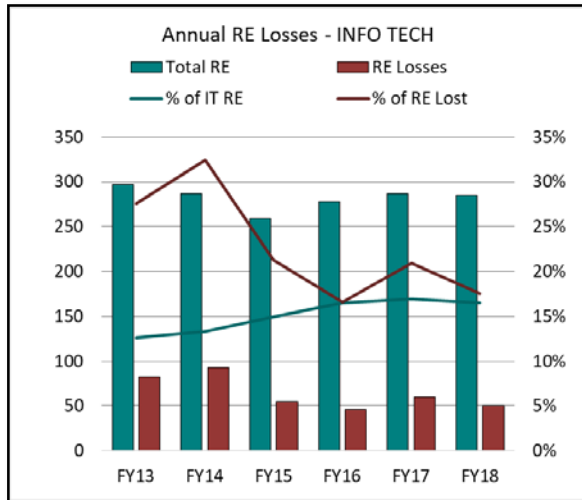
Note difference in vertical scales
* Data as of 31Mar2019

ACFs RE Trend Comparisons



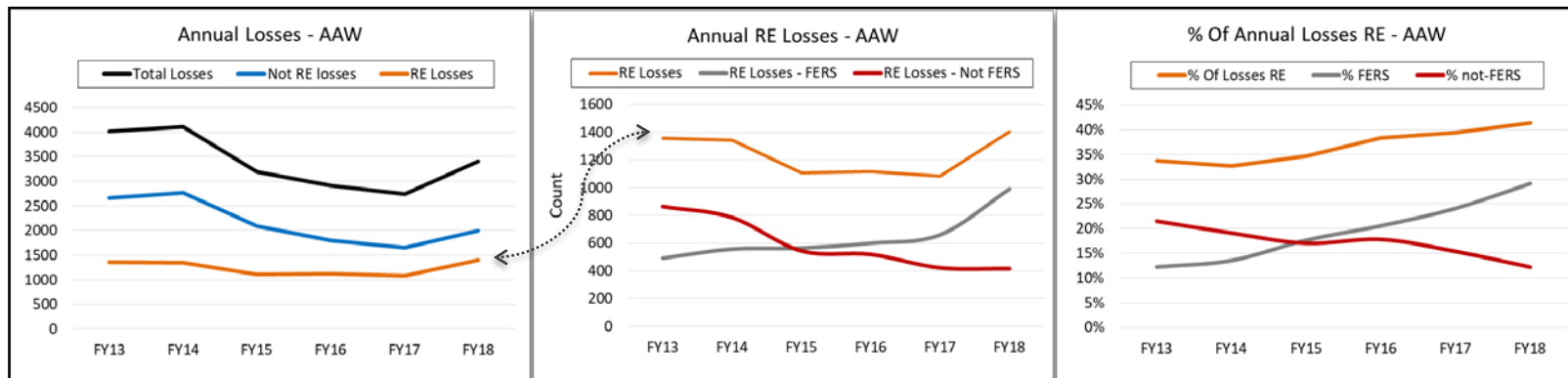
* Data as of 31Mar 2019

ACFs Annual RE Trend Comparisons



* Data as of 31Mar 2019

AAW Attrition Rates



Left chart: After decreasing FY13 to FY17, total annual AAW losses increased in FY18 (black line)

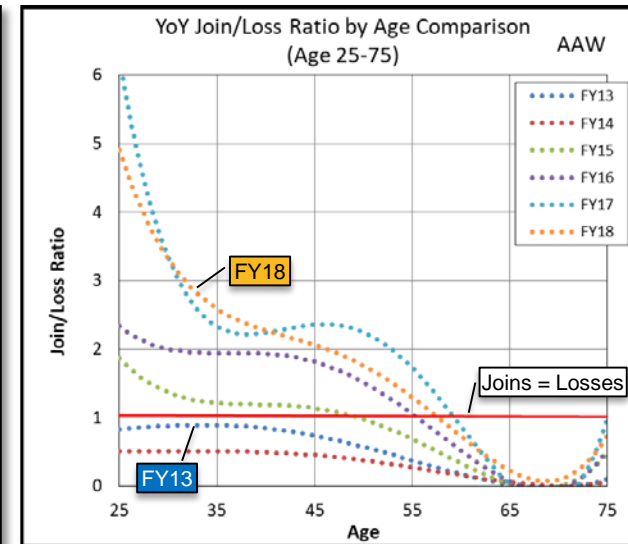
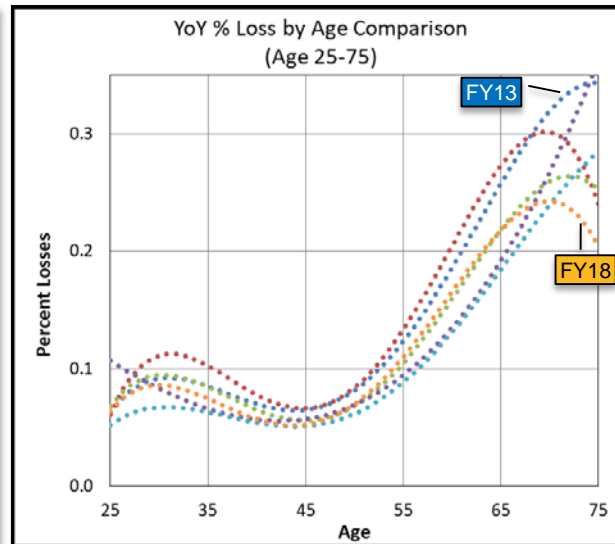
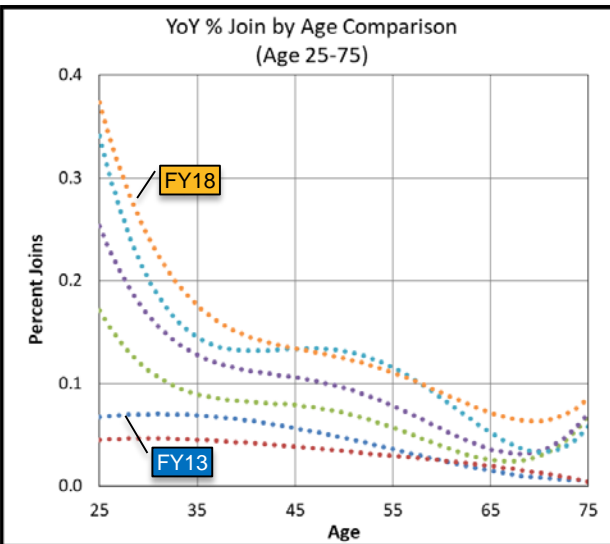
- Total annual AAW losses in FY18 were less than FY13
 - Not-RE losses (blue line) have decreased while RE losses have remained consistent (orange line)
 - Both retirement eligible (RE) and not-RE losses increased in FY18

Focusing on annual RE losses (middle and right charts):

- Orange lines: Since FY13 total RE losses have varied, but as percentage of total AAW losses they have consistently trended higher
- The crossing red and grey lines show the continuously shifting proportion of FERS and not-FERS RE losses

- Overall losses have decreased since FY13 because not-RE losses are down
- AAW losses should be monitored: FY18 increases may signal a trend reversal

AAW Age Dynamics



Trends since FY13:

As a percent of the AAW, joins have increased across the age distribution

As a percent of the AAW, losses have remained generally consistent across the age distribution

In FY17 and 18, age 55 and younger joins were more than twice losses

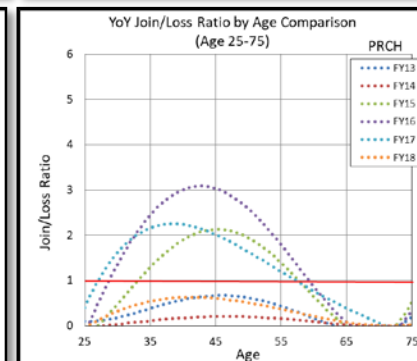
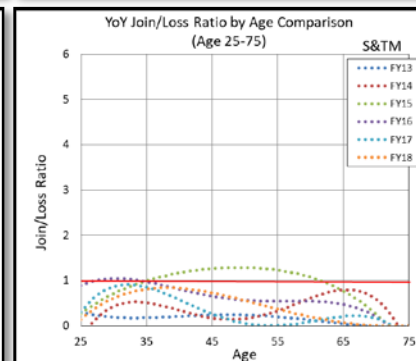
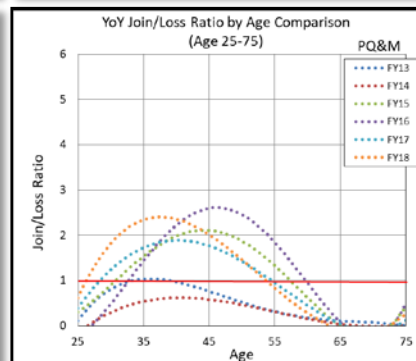
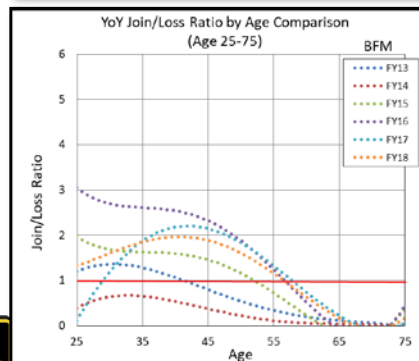
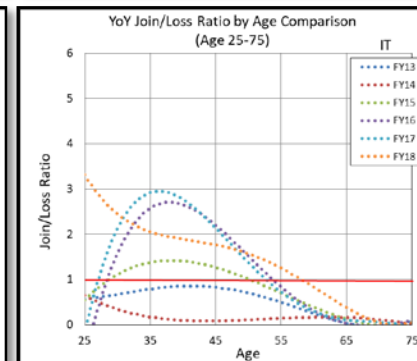
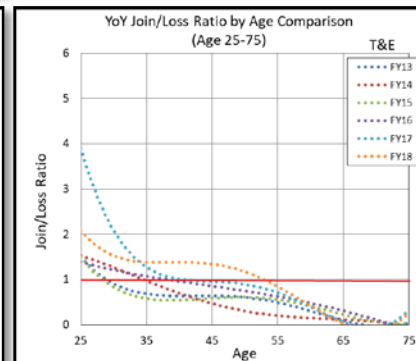
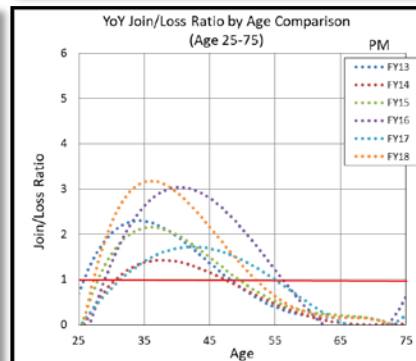
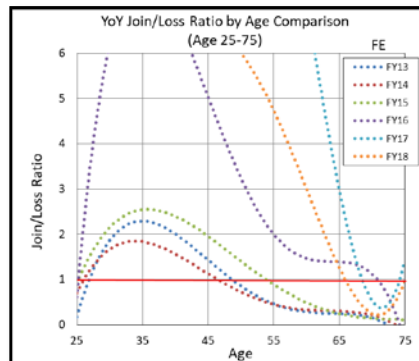
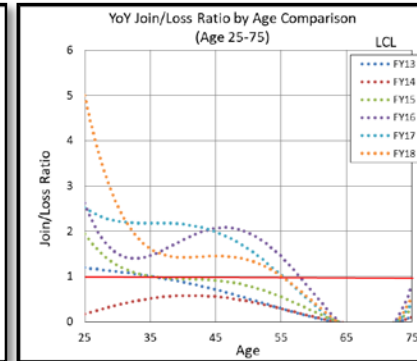
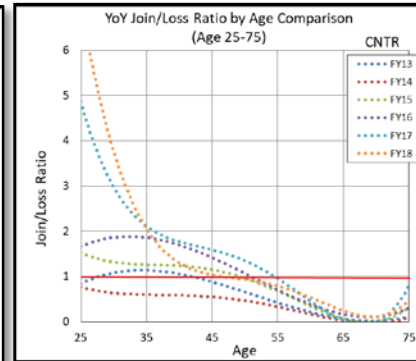
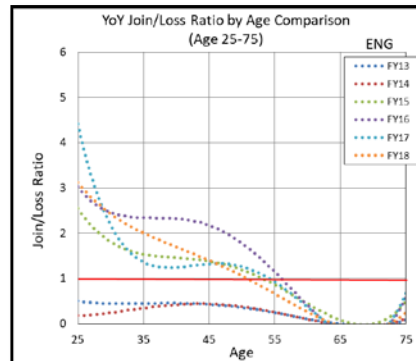
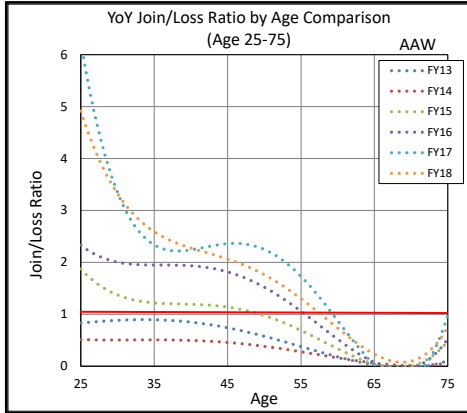
- Join/Loss Ratio > 2.0

AAW is currently bringing in young workers and keeping more of them

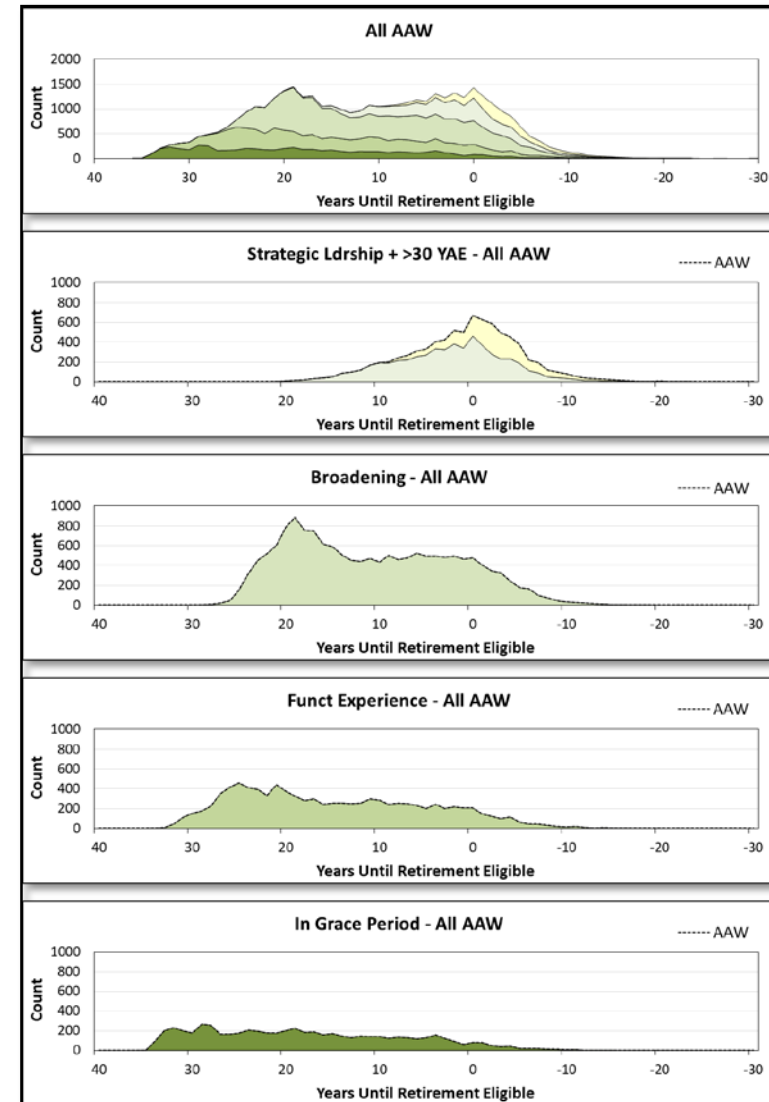
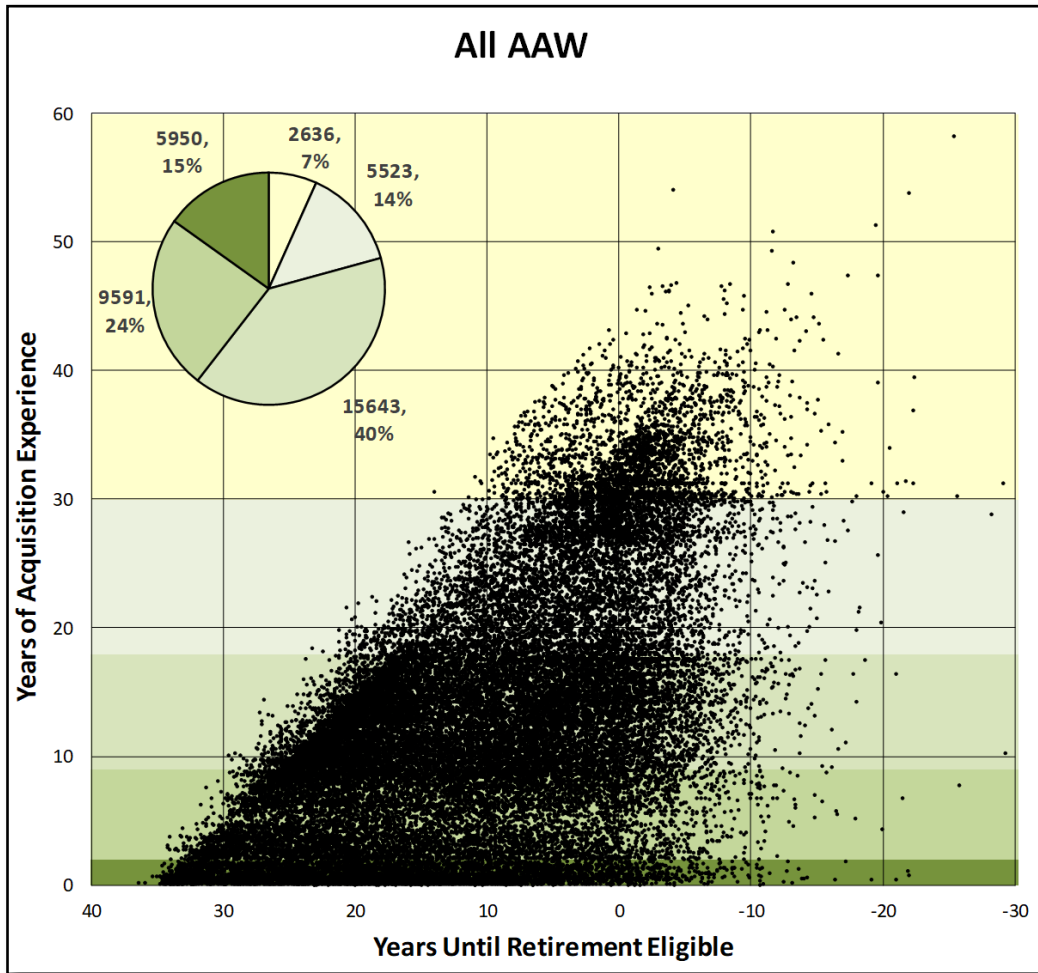


* Data as of 30Sep2018

AAW Join/Loss Age Dynamics



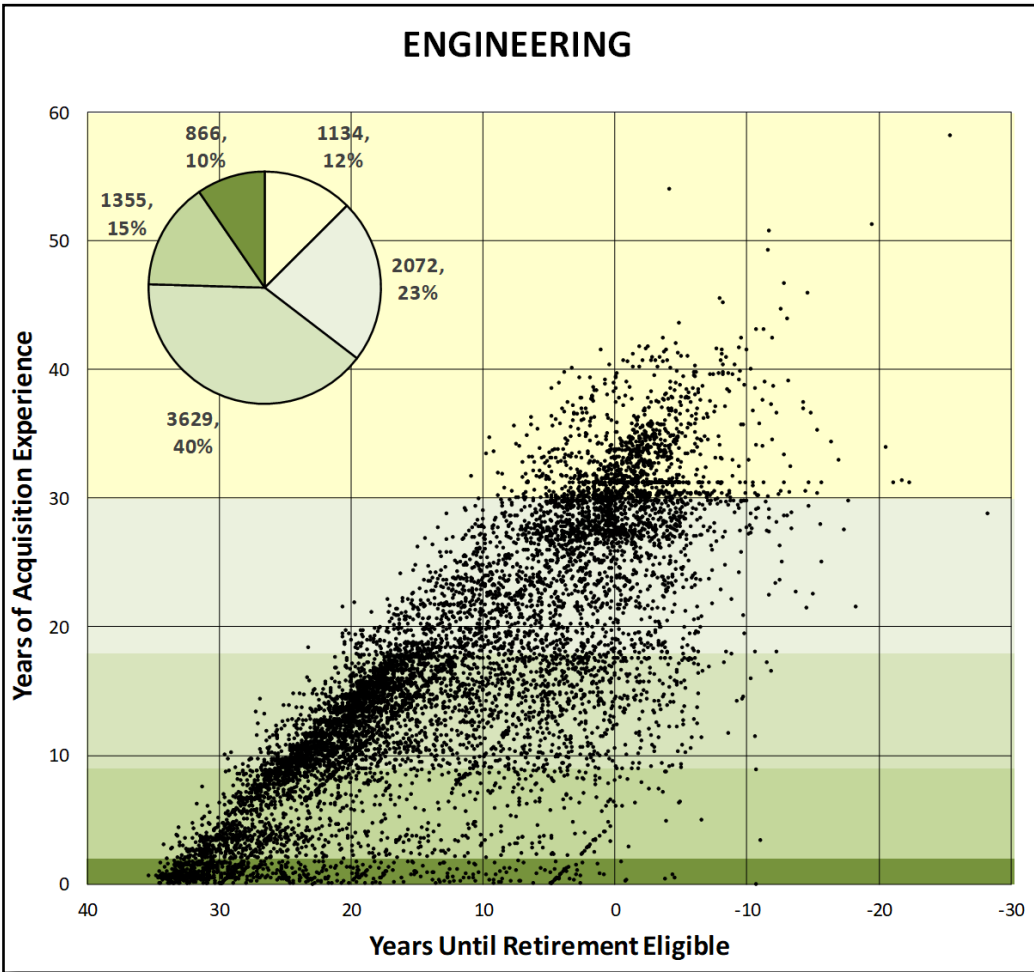
AAW Career Status Distribution



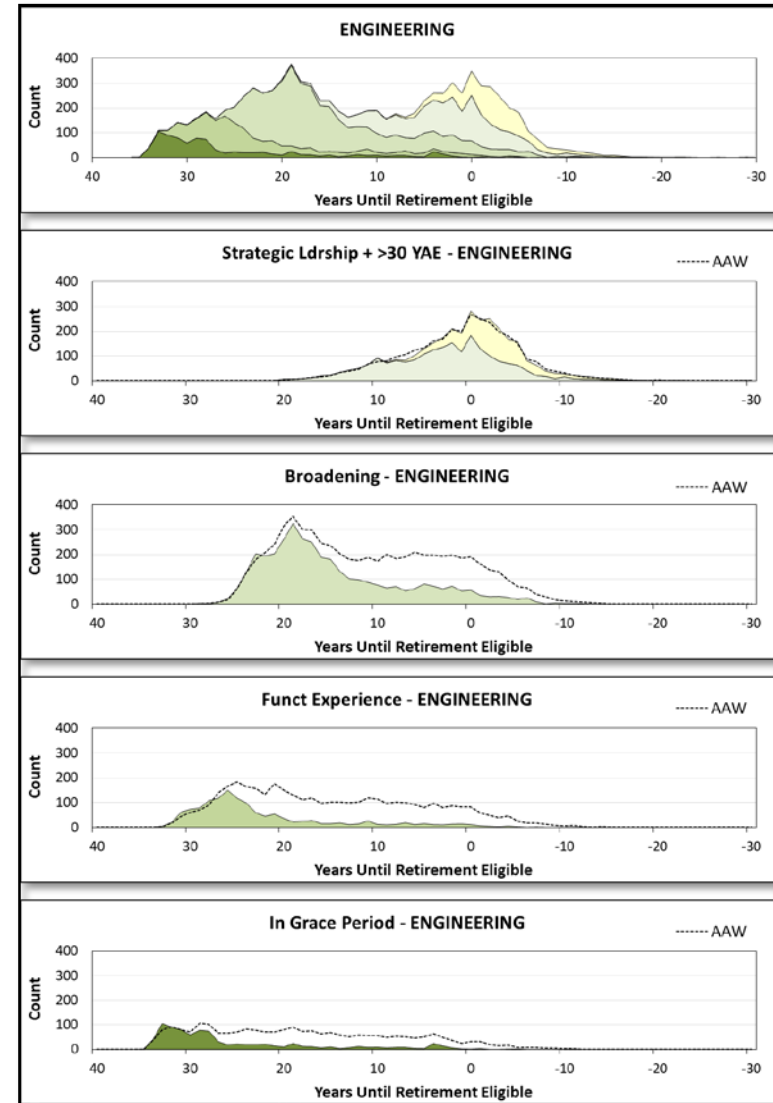
- > 30 Yrs Acq Experience
- Strategic Ldrship
- Broadening
- Funct Experience
- In Grace Period



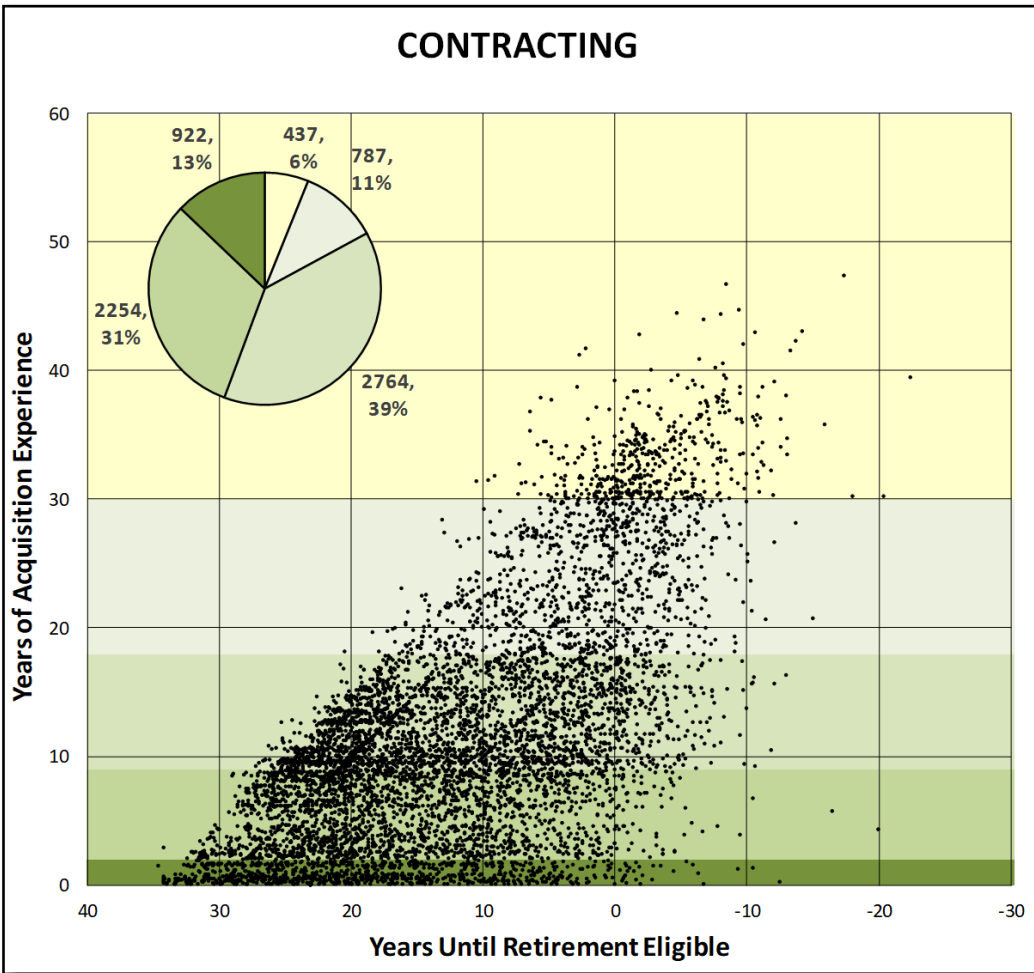
Engineering Career Status Distribution



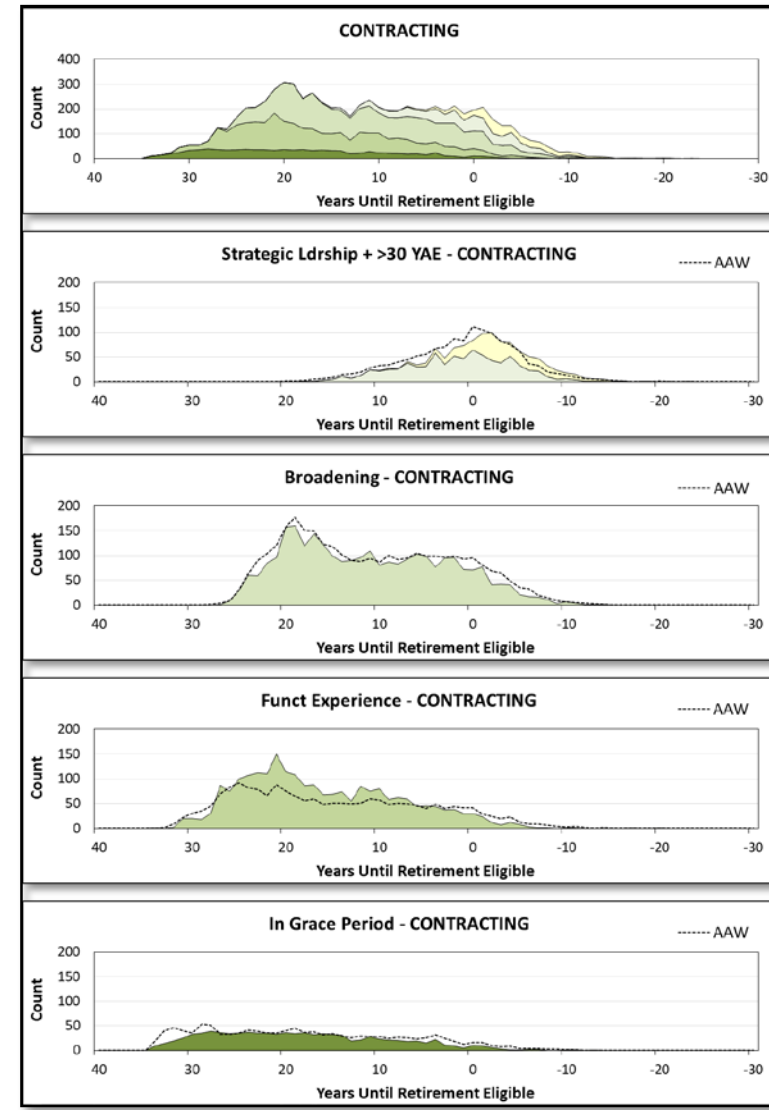
- > 30 Yrs Acq Experience
- Strategic Ldrship
- Broadening
- Funct Experience
- In Grace Period



Contracting Career Status Distribution



- > 30 Yrs Acq Experience
- Strategic Ldrship
- Broadening
- Funct Experience
- In Grace Period



1. CAPPMMIS Scorecards

- September 2013 – September 2018

2. Have categorized 461K individual records

- Civilians only
- Join / Stay / Loss for six Fiscal Years
- Have not incorporated Nature of Action Codes

3. Normalized records to the beginning of each FY

Population	FY17 ScoreCard	FY18 ScoreCard	YoS, Age, YAE, YRE transform
FY Loss	X	--	no change
FY Gain	--	X	-1 yr
FY Stay	X	X (data source)	-1 yr

- YoS = Years of Service
- YAE = Years of Acq. Experience
- YRE = Years until Retirement Eligible



UNITED STATES ARMY

DACOM

DIRECTOR, ACQUISITION CAREER MANAGEMENT OFFICE

