

Annual Report of the Thrift Savings Plan Required by §105 of the TSP Enhancement Act of 2009

June 30, 2019

Introduction

In compliance with §105 of the TSP Enhancement Act of 2009, Public Law 111-31, the Federal Retirement Thrift Investment Board (FRTIB) has prepared this annual report which outlines the status of the development and implementation of the mutual fund window in the Thrift Savings Plan (TSP) as well as provide participant statistics and diversity demographics of the investment manager of the assets in the Thrift Savings Fund.

Mutual Fund Window

In 2013, to examine the benefits of and concerns with a MFW, the FRTIB assembled a cross-functional team with representation from its operations, legal, investment, finance, communications, research, and technology offices. The team presented its findings on industry offerings, participant interest, costs, and operational considerations to the Board and ETAC in May 2014. However, there were two additional areas where the TSP wanted to do additional research – doing a withdrawal survey and researching the feasibility of screening the funds offered via the MFW.

In 2014, FRTIB conducted a survey of participants who made post-separation or age-based withdrawals, in order to better understand the reasons funds are withdrawn from the Plan. The findings of this survey supported our thesis that one of the reasons participants withdraw funds from the Plan when eligible is to achieve greater investment diversification. This finding supports the Agency's proposal to add a mutual fund window to the Plan. We also learned that financial need and/or desire for withdrawal flexibility were the other significant contributors to age-based and post-separation withdrawals.

The FRTIB also conducted additional research on the impact and implications of screening the number and type of funds that might be made available in the MFW. Screens might be based on the cost or type of funds. We determined that filters may be added to the platforms, but would likely cause a significant reduction in the number of funds available (i.e. limiting access to SRI, emerging managers and sector funds). The Board requested that further research be performed on the costs of a mutual fund window, both for implementation and maintenance.

Additional research determined that implementation costs would be roughly \$6-10 million and on-going costs would be roughly \$1 million. In July of 2015, the Executive Director recommended to the Board Members that a mutual fund window be added to the TSP. The Board concurred, with the understanding that if the Agency's understanding of the costs of implementation or maintenance changed significantly that the Agency would provide that information to the Board before proceeding.

The FRTIB is in the procurement process currently that will yield a new TSP record keeper, as well as a MFW provider. In June of 2018, we posted information on the Federal Business Opportunity website regarding the procurement. We currently anticipate a contract award by September of 2020 with full implementation by September 2022.

Investment Manager Diversity Demographics

The attached report (Appendix A) from the TSP investment manager, BlackRock, provides a breakdown of its employee diversity.

TSP Participant Behavior and Demographics Report

The 2018 Participant Behavior and Demographics Report is attached to this report as Appendix B. This report is an analysis of data extracted from the Thrift Savings Plan recordkeeping systems.

APPENDIX A

CT46098 CO=

> CT46098 U=

SECTION B - COMPANY IDENTIFICATION

1. BLACKROCK 55 EAST 52ND STREET

NEW YORK, NY 10022

SECTION D - EMPLOYMENT DATA

^{2.a.} BLACKROCK 55 EAST 52ND STREET

EQUAL EMPLOYMENT OPPORTUNITY

2018 EMPLOYER INFORMATION REPORT

CONSOLIDATED REPORT - TYPE 2

NEW YORK, NY 10022 NEW YORK COUNTY с. ү

SECTION C - TEST FOR FILING REQUIREMENT

1-Y 2-Y 3-Y DUNS NO.:786987052 EIN :320174431

SECTION E - ESTABLISHMENT INFORMATION

NAICS: 523920 Portfolio Management

HISPANIC OR NOT-HISPANIC OR LATINO LATINO *********** MALE ************ * * * * * * * * * * FEMALE * * * * * * * * * * * OVERALL NATIVE AMERICAN TWO TOTALS NATIVE BLACK OR BLACK OR AMERICAN TWO HAWAIIAN INDIAN OR OR HAWAIIAN JOB CATEGORIES OR AFRICAN OR AFRICAN NDIAN OR MALE OR FEMALE WHITE MORE ASIAN ALASKAN WHITE ASIAN PACIFIC MORE ALASKAN AMERICAN PACIFIC AMERICAN NATIVE RACES ISLANDER RACES NATIVE ISLANDER EXECUTIVE/SR OFFICIALS & MGRS FIRST/MID OFFICIALS & MGRS PROFESSIONALS TECHNICIANS SALES WORKERS ADMINISTRATIVE SUPPORT CRAFT WORKERS OPERATIVES LABORERS & HELPERS SERVICE WORKERS TOTAL PREVIOUS REPORT TOTAL

SECTION F - REMARKS

DATES OF PAYROLL PERIOD: 12/16/2018 THRU 12/31/2018 SECTION G - CERTIFICATION

CERTIFYING OFFICIAL: CARMEN MORRIS TWYMAN EEO-1 REPORT CONTACT PERSON: CARMEN MORRIS TWYMAN CARMEN.TWYMAN@BLACKROCK.COM EMAIL:

TITLE: DIRECTOR HR OPERATIONS TITLE: DIRECTOR HR OPERATIONS **TELEPHONE NO: 3027977717**



Participant Behavior and Demographics



Analysis of 2014 – 2018

Introduction

This analysis of Thrift Savings Plan (TSP) participant demographics prepared by the Federal Retirement Thrift Investment Board is based on participant data. The analysis of calendar year 2018 data is similar to analysis of data conducted in the previous year.

As with the 2017 report, the 2018 analysis will focus solely on participants in FERS, the Federal Employee Retirement System. Information from this analysis provides insight on demographics, investment behaviors and how plan design changes may have influenced participation and contribution behaviors. Finally, this analysis helps us identify trends with participant usage of benefit options.

Background

The Federal Retirement Thrift Investment Board is an independent Federal agency that was established to administer the Thrift Savings Plan (TSP) under the Federal Employees' Retirement System Act of 1986 (See 5 U.S.C. §§ 8351; 8401 et seq.). Similar to the type of savings and tax benefits that many private corporations offer their employees under I.R.C. §401(k) plans, the TSP provides Federal civilian employees and members of the uniformed services the opportunity to save for additional retirement security. The Agency's mission is to act solely in the interest of its participants and beneficiaries.

TSP participants can invest their employee and employer contributions in the following core funds:

- Government Securities Investment Fund (G Fund)
- Fixed Income Index Investment Fund (F Fund)
- Common Stock Index Investment Fund (C Fund)
- Small Cap Stock Index Investment Fund (S Fund)
- International Stock Index Investment Fund (I Fund)

In addition to these indexed core funds, participants may also invest in five Lifecycle Funds (*L Funds*). The L Funds are custom target-date funds invested exclusively in the G, F, C, S, and I Funds.

During the period covered by this report, the TSP underwent one major plan design change. In September 2015 the default investment switched from the G Fund to an age-appropriate L Fund. The ongoing impact of this change on participant behavior will be discussed in this analysis.

Data Collection and Methodology

This report is based on data extracted from the TSP recordkeeping system for all TSP participants identified as active civilian Federal employees covered by the FERS retirement system.

In the same manner as the 2017 report, agency 1% automatic contributions were used to estimate salary. This value is then used to calculate salary quintiles and the average deferral rate. This method excludes overtime and performance awards, so does not represent the total employee compensation. However, matching percentages are based solely on basic salary including locality pay, which excludes overtime and awards. The effect is that the average deferral rate (calculated using a smaller denominator) will be higher using this methodology, but will match the participant's elected deferral rate percentage. This effect is expected to be roughly equivalent across salary ranges, so the use of salary quintiles will mitigate the impact.

In this report, salaries are shown in quintiles. The first quintile represents the 20% of all records in the lowest annual salary band; the fifth quintile represents the 20% of records in the highest salary band.

In summary, the analysis provided in this report is subject to the following limitations:

The calculation of salary based on automatic 1% contributions may modestly distort the findings compared to reports prior to 2016, showing a higher rate but one more representative of the participant's actual deferral choice.

The inclusion of TSP accounts for employees of the Legislative and Judicial branches may modestly alter the findings when compared to reports prior to 2016.

The inclusion of TSP accounts for part-time and intermittent workers is likely to have a more meaningful impact on the findings compares to reports prior to 2016. Since this group is likely to participate and contribute at lower rates than full-time employees, this inclusion will also likely result in a negative bias compared to analysis of only full-time employees, particularly in the lowest salary quintile.

Employees' actual deferral rate elections are not included in the TSP databases. Therefore, an approximation of annualized deferral rate is calculated by comparing the actual total employee contributions to the estimated annual salary rate for each calendar year.

Analysis

The following sections of this report examine the behaviors of FERS participants across a fiveyear timeframe ending December 31, 2018 and through the lens of two demographic filters – age and salary. The exhibits and narratives display the relationships between these demographic factors and participant behaviors associated with participation and automatic enrollment, contribution deferral rates, investment allocation, and loan and hardship withdrawal usage.

Plan Participation

FERS participation rate continues to increase, reaching a new all-time high of 93.3% by the end of 2018. Figure 1 illustrates the steady improvement in the participation rate since the implementation of automatic enrollment for new hires in 2010. Automatic enrollment provides that new employees automatically have 3% of their salary deferred into the TSP unless the employee makes an active election not to participate in the Plan. Until September 2015, contributions for automatically enrolled participants were defaulted into the Government Securities Investment (G) Fund. With the passage of the Smart Savings Act, Public Law 113-255, the default investment fund for new participants changed from the G Fund to an age-appropriate Lifecycle (L) Fund.

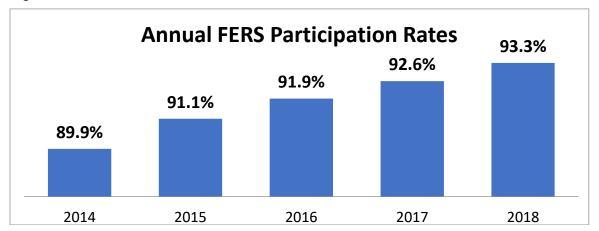


Figure 1

Automatic enrollment has also led to similar improvements in the participation of the youngest and lowest-paid. Reversing historical precedent, the younger the participant, the more likely they are to participate. As these participants are also the most likely to have been hired after the introduction of automatic enrollment in 2010, there is a clear linkage between the trend in these rates and automatic enrollment. Notably, the gap in participation rates between the highest paid and lowest paid continues to shrink dramatically, from a 10% difference in 2014 to 4.4% in 2018. See Table 1 below:

Table 1

Annual FERS Participation Rates by Demographic Cohorts							
	2014	2015	2016	2017	2018		
Age							
<= 29	94.6%	95.6%	96.8%	96.5%	97.1%		
30 – 39	91.3%	93.0%	94.2%	94.6%	95.3%		
40 – 49	88.4%	90.2%	91.3%	92.1%	92.9%		
50 – 59	89.0%	90.2%	90.8%	91.5%	92.2%		
60 – 69	89.1%	89.9%	90.2%	90.8%	91.4%		
70+	87.2%	87.1%	86.9%	87.7%	87.6%		
Salary Quintile							
Q1 Lowest Paid	85.8%	89.8%	89.1%	91.5%	92.5%		
Q2 Lower Paid	84.2%	86.7%	87.7%	89.1%	90.1%		
Q3 Mid-Range	89.1%	89.2%	90.2%	90.8%	91.3%		
Q4 Higher Paid	93.3%	93.8%	94.4%	94.7%	94.9%		
Q5 Highest Paid	95.8%	96.3%	96.6%	96.7%	96.9%		

Auto enrollment has resulted in increased participation rates, with approximately 2.5% of auto enrolled participants opting out of making contributions. In addition, auto enrolled participants have demonstrated a degree of engagement with the TSP as 78% have actively made deferral changes, interfund transfers or other transactions since entering the Plan. However, as shown in figure 2, the 22% who have made no change since being auto-enrolled are mostly in the lowest salary quintiles.

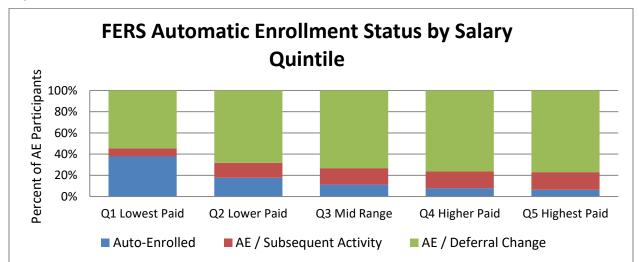


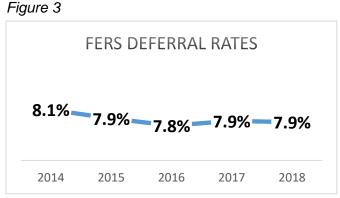
Figure 2

Contribution Deferral Rates

The FERS deferral rate (includes employee Roth, traditional and catch-up contributions) dropped slightly during the five years since the implementation of automatic enrollment, from 8.4% to 7.9% in 2018 as shown in figure 3. The FERS deferral rate exceeds the 6.0% average

deferral rate (ADP) of other defined contribution plans according to Deloitte¹ and the 6.7% ADP for automatic plans according to Vanguard². However, it is significantly lower than the 9.5% FERS deferral rates of the mid-2000s.

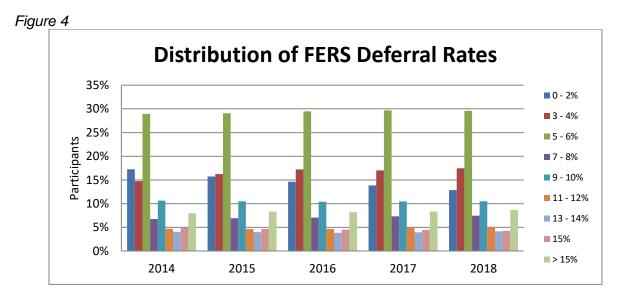
This drop is a side effect of automatic enrollment. While increasing the participation rate by including many new participants who would not otherwise have been participating, many of these auto-



6

enrolled participants have continued to contribute at the 3% default level. This increase in new participants at the default level has caused the average deferral rate to slowly decline.

Figure 4 below illustrates the power of plan design on participant behavior. FERS participants receive dollar-for-dollar matching contributions on the first 3% of pay and 50 cents on the dollar on the next 2%. The full match is achieved with a 5% contribution. Consequently, deferral rates aggregate in the 5-6% range, with 29.6% of TSP contributors being in this range in 2018. The impact of automatic enrollment can clearly be seen as the percent of participants contributing 2% or less shows a steady decline while the percent at the default contribution rate of 3% has grown over the last 5 years. Still of significant note, however, 30.3% of participants are not receiving the full matching contribution as they are contributing less than 5%.



¹ "For [Non-highly compensated employees], the median ADP was 6.0% . . ., while the median ADP for [highly compensated employees was 7.2%...." Deloitte, Annual Defined Contribution Benchmarking Survey – Ease of Use Drives Engagement in Saving for Retirement, 2017 Edition.

² "Participants in voluntary plans had a deferral rate of 7.0% compared with participants in automatic plans where the deferral rate was 6.7%." Vanguard, How America Saves 2018.

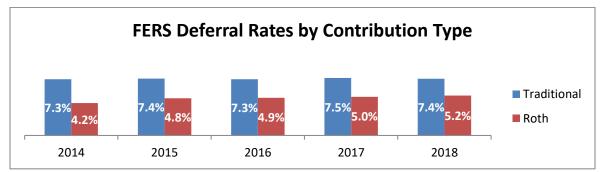
The lowest-paid participants are deferring the least -3.9% less than the highest paid. See table 2. However, with an average deferral rate of 5.9%, many of the lowest paid are still receiving the full match. The youngest participants have the lowest deferral rates with deferrals steadily increasing with age.

Annual FERS Deferral Rates by Demographic Cohorts							
	2014	2015	2016	2017	2018		
Age							
<= 29	4.9%	5.3%	5.3%	5.2%	5.4%		
30 – 39	6.1%	6.4%	6.4%	6.4%	6.6%		
40 - 49	7.2%	7.2%	7.2%	7.2%	7.3%		
50 – 59	9.0%	9.2%	9.1%	9.1%	9.1%		
60 – 69	10.2%	10.5%	10.0%	10.3%	10.0%		
70+	11.4%	11.6%	10.8%	11.1%	10.5%		
Salary Quintile							
Q1 Lowest Paid	5.1%	5.7%	5.5%	5.7%	5.9%		
Q2 Lower Paid	7.4%	7.0%	7.2%	7.0%	6.9%		
Q3 Mid-Range	7.5%	8.0%	8.1%	7.9%	8.1%		
Q4 Higher Paid	8.7%	8.8%	8.9%	8.9%	9.0%		
Q5 Highest Paid	9.8%	9.9%	9.8%	9.8%	9.8%		

Table 2

Roth TSP was introduced in May 2012. With Roth TSP, paticipants make contributions from after-tax dollars, and their earnings on these contributions are tax-free at withdrawal as long as certain IRS requirements are met. While the majority of participants continue to defer only traditional (pre-tax) contributions, deferrals to Roth TSP are increasing. For those contributing to Roth, their average deferrals were 5.2% as opposed to the average traditional deferral of 7.4%. While the traditional deferral seems steady around 7.4%, the Roth deferral has been rising. (Roth and traditional average deferral rates in Figure 5 do not include catch-up contributions which are reflected in the deferral rates shown in Figures 3 and 4.)





Roth deferral rates are highest among older participants, as well as the highest-paid. However, most demographic cohorts experienced an increase in Roth deferrals in 2018.

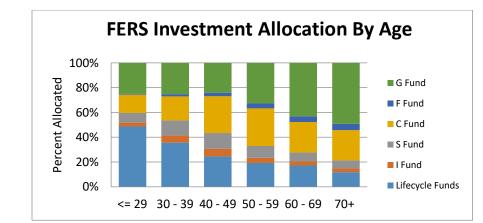
Table 3

FERS Traditional and Roth Deferral Rates								
by Demographic Cohorts								
	2016		2017		2018			
	Traditional	Roth	Traditional	Roth	Traditional	Roth		
Age								
<= 29	4.6%	4.9%	4.5%	4.9%	4.6%	5.1%		
30 – 39	5.9%	4.7%	5.9%	4.8%	5.9%	5.1%		
40 – 49	6.8%	4.5%	6.8%	4.5%	6.8%	4.7%		
50 – 59	8.3%	5.2%	8.7%	5.3%	8.6%	5.4%		
60 – 69	9.1%	6.4%	9.9%	6.7%	9.5%	6.4%		
70+	9.8%	7.6%	10.9%	7.9%	10.2%	7.4%		
Salary Quintile								
Q1 Lowest Paid	5.1%	4.4%	5.3%	4.6%	5.3%	4.8%		
Q2 Lower Paid	6.7%	4.6%	6.6%	4.8%	6.4%	5.0%		
Q3 Mid-Range	7.6%	5.1%	7.5%	5.1%	7.5%	5.3%		
Q4 Higher Paid	8.3%	5.2%	8.4%	5.3%	8.5%	5.6%		
Q5 Highest Paid	9.0%	5.2%	9.4%	5.3%	9.4%	5.4%		

Investment Allocation

In Figure 6, we note that allocations to the G Fund increase as the age of the TSP's population increases. This behavior is consistent with the expectation that participants shift their investment allocation toward the relative safety of guaranteed/income producing assets as they approach retirement age. The noteworthy exception to this observation is in the grouping of participants aged 29 and under. In this age cohort, we note that participants invest 24.8% of their accounts in the G Fund, probably as a result of the default investment option being the G Fund prior to 2015. This is a significant improvement from 2014 when the youngest participants held 41.7% of their assets in the G Fund and it continues to improve.

The youngest participants who have the longest time horizon to reap the benefits of compounding returns have **24.8%** of their assets invested in the G Fund.





The lowest-paid participants have approximately 46.2% allocated to the G fund as compared to the highest paid who allocated only 25.9% to the G Fund. Both are increases over 2017 and possibly due to the poor market performance in 2018. See Table 4.

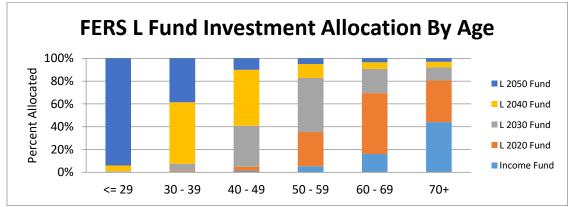
When examining L Fund allocations, the two youngest age cohorts had the highest level of usage at 48.7% and 35.6% while the two oldest age cohorts had L Fund allocations of 17.2% and 11.8%. When compared to 2017, allocations for the core funds decreased with the exception of the G Fund, for all cohorts. This corresponds to an increase in L Fund and G Fund investment. Increase in the L Fund investment is most likely influenced by the default investment changing from the G Fund to an age appropriate L Fund in 2015 and increase in G Fund investment allocation may be attributed to poor market performance in 2018. See Table 4.

2018 Investment Allocations by Demographic Cohorts							
	G Fund	F Fund	C Fund	S Fund	l Fund	L Funds	
Age							
<= 29	24.8%	0.8%	14.7%	7.9%	3.1%	48.7%	
30 – 39	25.3%	1.8%	19.4%	12.2%	5.8%	35.6%	
40 – 49	24.0%	2.9%	29.6%	12.9%	6.0%	24.5%	
50 – 59	32.7%	3.9%	30.3%	9.5%	4.2%	19.3%	
60 - 69	43.0%	4.7%	24.6%	7.2%	3.3%	17.2%	
70+	49.1%	5.2%	24.4%	6.5%	2.9%	11.8%	
Salary Quintile							
Q1 Lowest Paid	46.2%	2.7%	18.7%	7.3%	3.3%	21.7%	
Q2 Lower Paid	42.4%	3.8%	27.0%	8.0%	3.5%	15.3%	
Q3 Mid-Range	34.3%	3.3%	24.7%	10.3%	4.5%	22.9%	
Q4 Higher Paid	29.5%	3.5%	26.9%	11.4%	4.9%	23.8%	
Q5 Highest Paid	25.9%	4.0%	32.1%	10.8%	5.0%	22.2%	

Table 4

Of the participants utilizing the L Funds, the allocation is largely as we would expect. Those in the age 29 and under cohort were taking advantage primarily of the L2050 Fund. Participants who would likely retire between 2027 and 2037 (the 40-49 age group) were in L2030 and L2040 Funds. The age 50-59 cohort was aggregated in the L2020 and L2030 Funds. Participants aged 60-69 were solidly investing in the L2020, while those 70 and over had the highest allocation in the L Income Fund. See Figure 7.





The L Funds' strategy is to invest in an appropriate mix of the G, F, C, S, and I Funds for a particular time horizon. The investment mix of each L Fund becomes more conservative as its target date approaches. Thus, the participant only needs to invest in one L Fund in order to achieve diversification among the core funds. As shown in Figure 8, the use of one L Fund is most common with the two youngest age cohorts – 65.5% for those age 29 and under and 32.8% for those age 30 to 39. While the percent of participants who invest solely in the F, C, S, and I Funds is minor, all age cohorts have a significant percentage of participants investing solely in the G Fund. Since 2014, the most significant change can be seen in the younger age groups where there has been a significant increase in the number solely invested in one L fund. This was influenced by the change to an age-appropriate L fund as the default investment in 2015. See Figure 8.

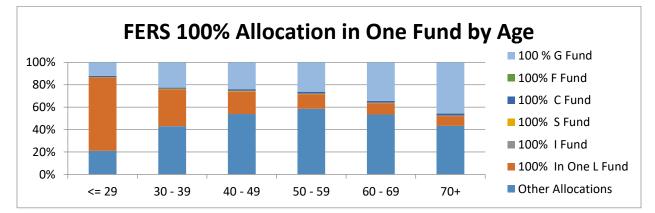
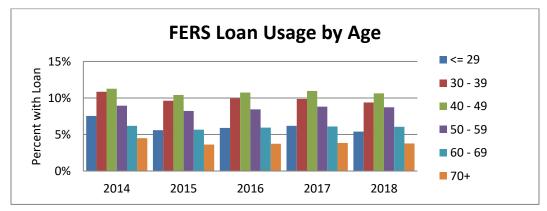


Figure 8

Loan and Hardship Withdrawal Usage

The TSP allows two types of loans – general purpose and residential. A general purpose loan has a repayment term of 1 to 5 years, while a residential loan for the purchase of a primary residence has a repayment term of 1 to 15 years. Participants may have only one of each loan type outstanding at the same time. Participants may only borrow their employee contributions, up to \$50,000, and the minimum loan amount is \$1,000.

Loan usage has consistently been highest among the 30-39 and 40-49 age cohorts, with approximately 10% of the participants in these cohorts having an open loan in 2018. These rates were essentially unchanged from 2017.





Participants may take a hardship withdrawal if they have a financial need as the result of a recurring negative cash flow, medical expenses, a personal casualty loss, or legal expenses associated with a divorce. Participants may only withdraw their employee contributions, and the minimum withdrawal amount is \$1,000. In addition to a 10% early withdrawal penalty if the participant is younger than 59 ½, employee contributions are suspended for six months after a hardship withdrawal. As a result of the employee contribution suspension, FERS participants do not receive any Agency Matching Contributions during this period.

Hardship withdrawal usage is consistently highest among the age 40-49 cohort, with 3.8% to 4.7% of participants in this cohort receiving a hardship withdrawal during the five years covered in this report. All cohorts experienced a slow decrease in hardship withdrawal until 2018. The hardship withdrawals increased slightly in 2018 mirroring 2016 levels.

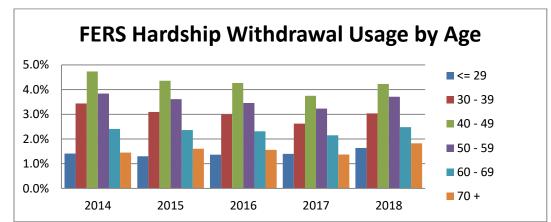
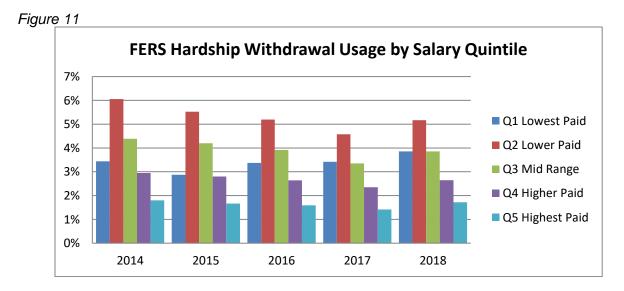


Figure 10

There is a stair-step pattern of hardship withdrawal usage among the salary quintiles, with usage generally declining as salary levels increase. See figure 11. However, the first quintile presents an exception to this pattern, as hardship withdrawals were lower than those of the next highest quintile in each of the years examined. It is important to note that hardship withdrawal usage is lower than loan usage among all salary quintiles. In 2018, the second salary quintile had the highest usage rate at 5.2%, which is a 1.5% drop from 2013, the peak since auto-enrollment began.



Summary

The analysis reveals a continuing improvement in the annual FERS participation rate with a high of 93.3% by the end of 2018. In addition, the average contribution deferral rate in 2018 paused its downward trend, remaining at a flat 7.9%. Automatic enrollment was a contributing factor to both of these observations.

Automatic enrollment continues to improve participation among all except the oldest cohort of participants. Participants under the age of 29 now participate at a rate of 97.1% – the highest rate of participation among all age groups. Slight increases were also present when the participation rate was viewed from a salary quintile perspective with the lowest quintiles experiencing the largest increase over 2017.

The analysis also revealed that the majority of auto-enrolled participants have "engaged" with 66% making deferral changes, a slight increase from 2017. Deferral behavior appears to be relatively unchanged, as deferral rates continue to aggregate in the 5-6% range, with 29.6% of TSP contributors falling in this range, nearly 70% of FERS participants are estimated to be receiving the full match (including non-contributors). Participants are still increasing their contributions to Roth TSP with average Roth deferral rates growing by a full percent since 2014 to 5.2%. When comparing Roth vs Traditional deferral rates, it is important to note that dollar for dollar, the relative value of a Roth contribution is higher than a traditional tax deferred contribution as a traditional contribution will have taxes deducted on withdrawal. An exact comparison, however, is not possible as it is dependent on the participant's future tax bracket.

Participants aged 29 and under continue to have a disproportionate percentage (24.8%) of their account balances in the G Fund although this is an improvement from 2014 when 41.7% of their balances were in the G Fund. However, this group also has the highest utilization of the L Funds (48.7%). Rapid changes in these ratios appear to be driven by the auto-enrollment default fund change. Overall, participants are investing in the L Fund in a manner appropriate for their age cohort. Roughly a quarter of participants under 50 are solely invested in the G Fund, a very low risk fund which may not be the best option for those with longer investment horizons.

When loan usage is examined by age cohort, the 30-39 and 40-49 age cohorts have the highest loan usage rate at approximately 10% each. Loan usage appears to have stabilized year over year since 2014. The age 40-49 cohort also had the highest hardship withdrawal usage, with just over 4% of participants in this cohort receiving a hardship withdrawal in 2018. From a salary perspective, participants in the second quintile have the highest rate of usage of hardship withdrawals. The overall trend is for decreasing demand for hardship withdrawals across all age and salary groups over the last five years. However, 2018 saw a slight increase in hardship withdrawals, comparable to 2016 levels.