Thrift Savings Plan

Participant Behavior and Demographics (FERS)

Analysis of 2015 – 2019

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 2019 data is similar to analysis of data conducted in the previous year.

As with the 2018 report, the 2019 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 two major plan design changes. 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. In January 2018, the Blended Retirement System (BRS) was implemented, but will not be covered in this report due to insufficient information being available for effective analysis at this time.

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 2018 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 largely 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 when OPM data was last available, 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 TSP recordkeeping system does not having information on a participant's work schedule. However, 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.

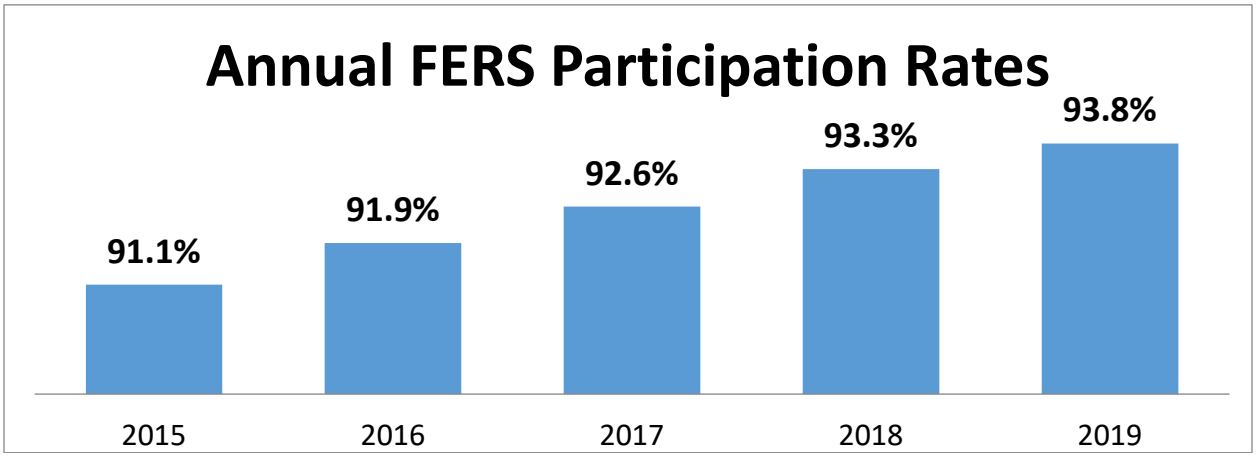
Analysis

The following sections of this report examine the behaviors of FERS participants across a five-year timeframe ending December 31, 2019 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, deferral rates, investment allocation, and loan and hardship withdrawal usage.

Plan Participation

The FERS participation rate continues to increase, reaching a new high of 93.8% at the end of 2019, a 0.5 percent increase over 2018 participation levels. 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.

Figure 1



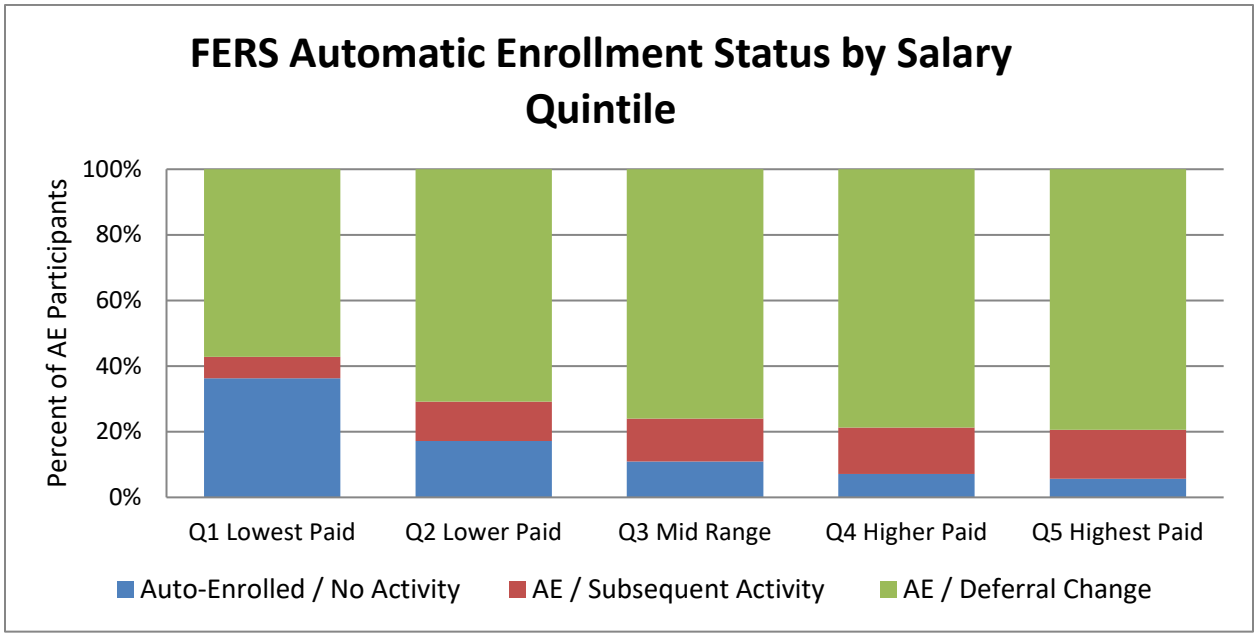
Automatic enrollment has also led to similar improvements in the participation of the youngest and lowest-paid. Reversing historical precedent, the younger the participant, the more likely they are to participate. As these participants are also the most likely to have been hired after the introduction of automatic enrollment in 2010, there is a clear linkage between the trend in these rates and automatic enrollment. Additionally, with auto-enrollment capturing new workers regardless of salary, the gap in participation rates between the highest paid and lowest paid continued to shrink, from a 6.5% difference in 2015 versus 4.1% in 2019. See Table 1 below:

Table 1

Annual FERS Participation Rates by Demographic Cohorts					
	2015	**2016**	**2017**	**2018**	**2019**
Age					
<= 29	95.6%	96.8%	96.5%	97.1%	97.0%
30 – 39	93.0%	94.2%	94.6%	95.3%	95.7%
40 – 49	90.2%	91.3%	92.1%	92.9%	93.6%
50 – 59	90.2%	90.8%	91.5%	92.2%	92.7%
60 – 69	89.9%	90.2%	90.8%	91.4%	91.9%
70+	87.1%	86.9%	87.7%	87.6%	88.2%
Salary Quintile					
Q1 Lowest Paid	89.8%	89.1%	91.5%	92.5%	92.9%
Q2 Lower Paid	86.7%	87.7%	89.1%	90.1%	91.1%
Q3 Mid-Range	89.2%	90.2%	90.8%	91.3%	91.7%
Q4 Higher Paid	93.8%	94.4%	94.7%	94.9%	95.2%
Q5 Highest Paid	96.3%	96.6%	96.7%	96.9%	97.0%

Auto-enrollment has resulted in increased participation rates, with approximately 2.2% of auto-enrolled participants opting out of making contributions. In addition, auto-enrolled participants have demonstrated a relatively high degree of engagement with the TSP as 79% have actively made deferral changes, interfund transfers or other transactions since entering the Plan. However, as shown in figure 2, the 21% who have made no change since being auto-enrolled are mostly in the lowest salary quintiles.

Figure 2



Deferral Rates

The FERS deferral rate (includes employee Roth, traditional and catch-up contributions) has leveled at 7.9% during the last five years as shown in figure 3. The FERS deferral rate exceeds the 7.1% average deferral rate (ADP) of other defined contribution plans according to Deloitte[1] and the 6.7% ADP for automatic plans according to Vanguard[2]. 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-enrolled participants have continued to contribute at the 3% default level. The increase in new participants at the default level caused the average deferral rate to slowly decline and now level off.

Figure 3

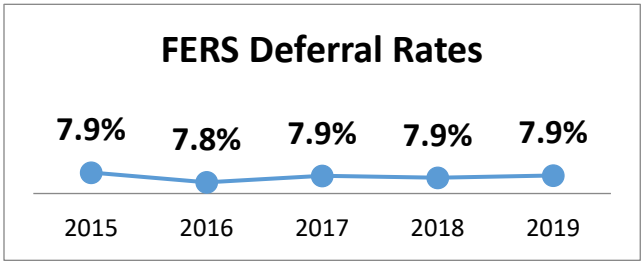
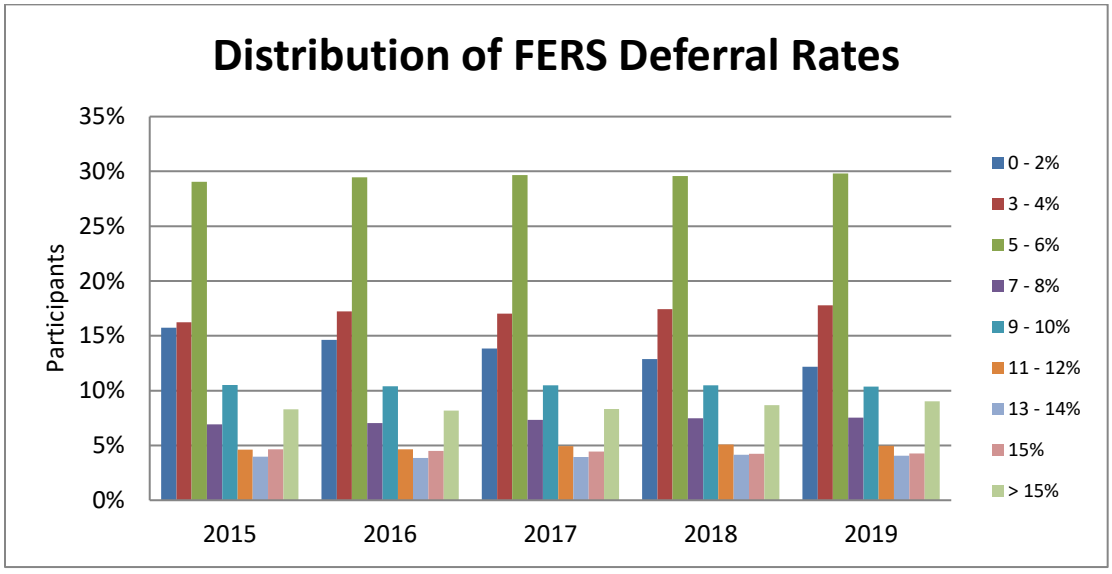


Figure 4 below illustrates the power of plan design on participant behavior. FERS participants receive dollar-for-dollar matching contributions on the first 3% of pay and 50 cents on the dollar on the next 2%. The full match is achieved with a 5% contribution. Consequently, deferral rates aggregate in the 5-6% range, with 29.8% of TSP contributors being in this range in 2019. 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% of participants are not receiving the full matching contribution as they are contributing less than 5%. In October 2020, FRTIB will be increasing the default level to 5% for all new auto-enrolled participants.

Figure 4



[1] "For [Non-highly compensated employees], the median ADP was 6.2% . . ., while the median ADP for [highly compensated employees was 7.8%. . . ." Deloitte, Annual Defined Contribution Benchmarking Survey – Ease of Use Drives Engagement in Saving for Retirement, 2019 Edition.

[2] "Participants in voluntary plans had a deferral rate of 7.1% compared with participants in automatic plans where the deferral rate was 6.7%." Vanguard, How America Saves 2019.

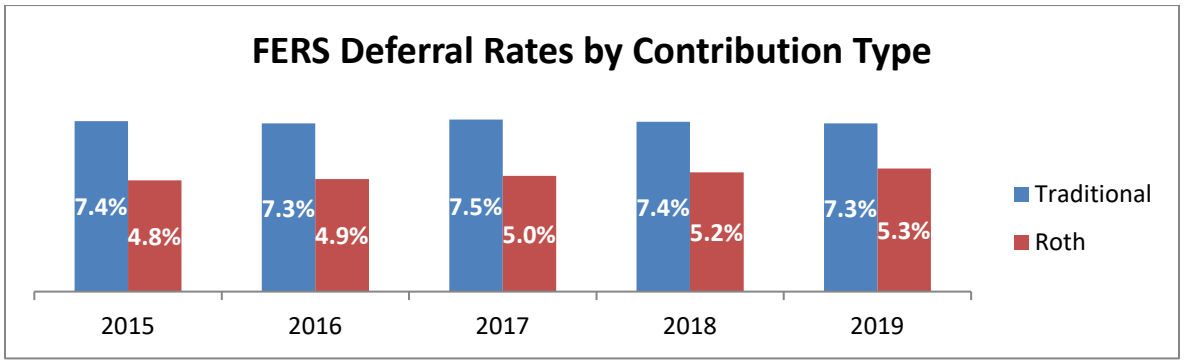
The lowest-paid participants are deferring the least – 3.3% less than the highest paid. See Table 2. However, with an average deferral rate of 6.6%, many of the lowest paid are still receiving the full match. The youngest participants have the lowest average deferral rates with deferrals steadily increasing with age.

Table 2

Annual FERS Deferral Rates by Demographic Cohorts					
	2015	**2016**	**2017**	**2018**	**2019**
Age					
<= 29	5.3%	5.3%	5.2%	5.4%	5.5%
30 – 39	6.4%	6.4%	6.4%	6.6%	6.6%
40 – 49	7.2%	7.2%	7.2%	7.3%	7.3%
50 – 59	9.2%	9.1%	9.1%	9.1%	9.1%
60 – 69	10.5%	10.0%	10.3%	10.0%	10.0%
70+	11.6%	10.8%	11.1%	10.5%	10.4%
Salary Quintile					
Q1 Lowest Paid	5.7%	5.5%	5.7%	5.9%	6.6%
Q2 Lower Paid	7.0%	7.2%	7.0%	6.9%	6.8%
Q3 Mid-Range	8.0%	8.1%	7.9%	8.1%	8.1%
Q4 Higher Paid	8.8%	8.9%	8.9%	9.0%	9.1%
Q5 Highest Paid	9.9%	9.8%	9.8%	9.8%	9.9%

Roth TSP was introduced in May 2012, allowing paticipants to make contributions from after-tax dollars, and their earnings on those contributions to be tax-free at withdrawal (as long as certain IRS requirements are met). While the majority of participants continue to make only traditional (pre-tax) contributions, deferrals to Roth TSP are increasing. For those contributing to Roth, their average deferrals were 5.3% as opposed to the average traditional deferral of 7.3%. While the traditional deferral is hovering 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.)

Figure 5



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 2019.

Table 3

FERS Traditional and Roth Deferral Rates by Demographic Cohorts						
	2017		2018		2019	
	Traditional	Roth	Traditional	Roth	Traditional	Roth
Age						
<= 29	4.5%	4.9%	4.6%	5.1%	4.5%	5.3%
30 – 39	5.9%	4.8%	5.9%	5.1%	5.9%	5.2%
40 – 49	6.8%	4.5%	6.8%	4.7%	6.8%	4.9%
50 – 59	8.7%	5.3%	8.6%	5.4%	8.6%	5.5%
60 – 69	9.9%	6.7%	9.5%	6.4%	9.4%	6.5%
70+	10.9%	7.9%	10.2%	7.4%	10.0%	7.8%
Salary Quintile						
Q1 Lowest Paid	5.3%	4.6%	5.3%	4.8%	6.0%	5.0%
Q2 Lower Paid	6.6%	4.8%	6.4%	5.0%	6.3%	5.0%
Q3 Mid-Range	7.5%	5.1%	7.5%	5.3%	7.5%	5.5%
Q4 Higher Paid	8.4%	5.3%	8.5%	5.6%	8.4%	5.8%
Q5 Highest Paid	9.4%	5.3%	9.4%	5.4%	9.4%	5.7%

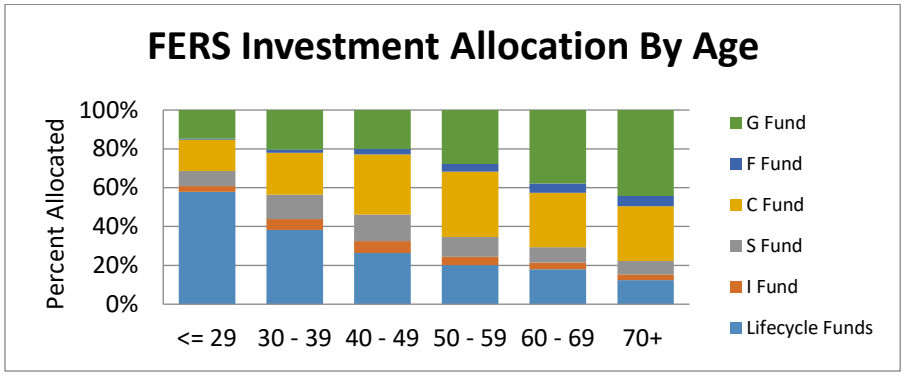
Investment Allocation

*The youngest participants who have the longest time horizon to reap the benefits of compounding returns have **14.7%** of their assets invested in the G Fund. A continual decline from previous years.*

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.

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 tend to shift their investment allocation toward the relative safety of guaranteed/income producing assets as they approach retirement age. This is also a significant improvement from 2014 when the youngest participants held 41.7% of their assets in the G Fund.

Figure 6



As noted in Table 4, the lowest-paid participants have approximately 38.9% allocated to the G fund as compared to the highest paid who allocated only 21.9% to the G Fund. Both are decreases over 2018.

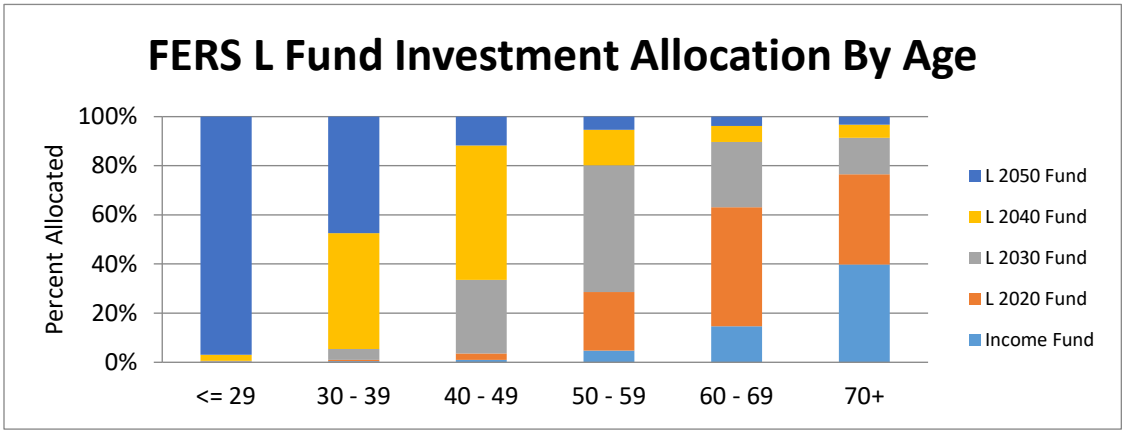
When examining L Fund allocations, the youngest age cohort had the highest level of usage at 57.9%, which continues to increase each year. The oldest cohort has the lowest level of L Fund usage at 12.4%, however, this has also increasing slightly each year. When compared to 2018, allocations for the C and S funds increased for all cohorts with the exception of the youngest cohort's allocation to the S fund which dropped slightly. This is likely due to better market returns in 2019 compared to 2018 and the corresponding decrease in G Fund allocations. Increases in L Fund utilization is likely influenced by the default investment changing from the G Fund to an age appropriate L Fund in 2015 and the impact of ongoing communications regarding the benefits of utilizing the L Funds.

Table 4

2019 Investment Allocations by Demographic Cohorts						
	G Fund	**F Fund**	**C Fund**	**S Fund**	**I Fund**	**L Funds**
Age						
<= 29	14.7%	0.6%	16.1%	7.8%	2.9%	57.9%
30 – 39	20.4%	1.7%	21.6%	12.5%	5.7%	38.2%
40 – 49	20.1%	2.8%	31.0%	13.6%	6.2%	26.4%
50 – 59	27.8%	4.0%	33.5%	10.2%	4.3%	20.1%
60 – 69	37.9%	4.8%	27.9%	7.9%	3.4%	18.0%
70+	44.2%	5.3%	28.2%	6.9%	3.0%	12.4%
Salary Quintile						
Q1 Lowest Paid	38.9%	2.5%	20.5%	8.0%	3.5%	26.6%
Q2 Lower Paid	37.5%	3.6%	30.1%	8.7%	3.6%	16.5%
Q3 Mid-Range	29.1%	3.2%	27.5%	11.0%	4.7%	24.5%
Q4 Higher Paid	25.1%	3.5%	29.6%	12.0%	5.1%	24.8%
Q5 Highest Paid	21.9%	4.1%	34.6%	11.3%	5.1%	23.0%

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 2033 and 2043 (the 40-49 age group) were in the L2040 Fund. The age 50-59 cohort was aggregated in the L2030 Fund. Participants aged 60-69 were investing in the L2020, while those 70 and over were split between the L 2020 and the L Income Fund. In July 2020, FRTIB will retire the L2020 fund moving all investments to the L Income fund and will launch funds in 5-year increments up to L2065. In response, FRTIB expects significant movement among the L Fund allocations among all age cohorts, especially the youngest cohort when the L2060 and L2065 funds become available. See Figure 7.

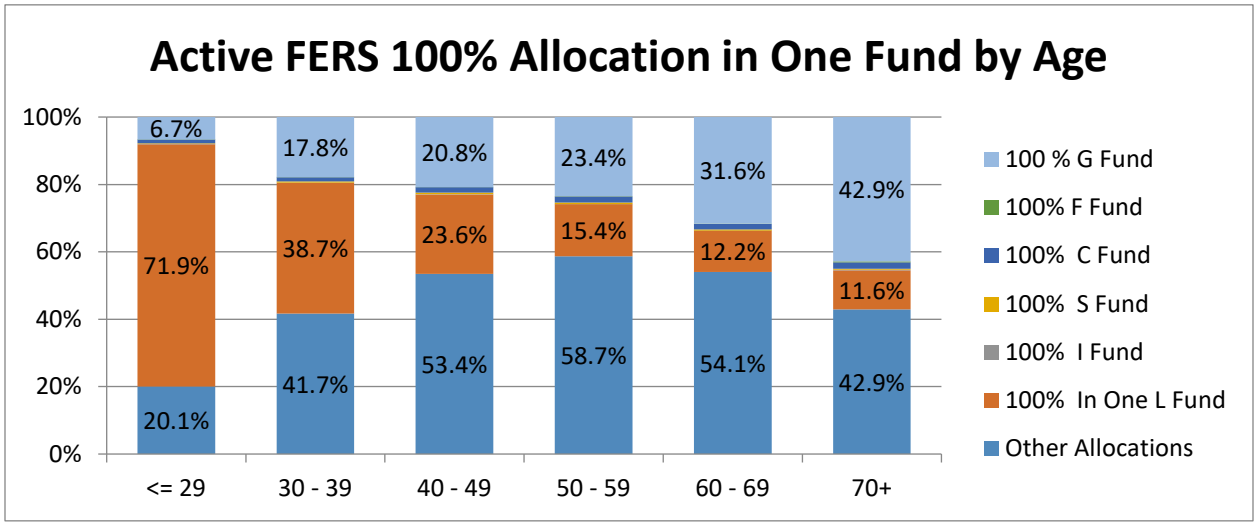
Figure 7



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 – 71.9% for those age 29 and under and

38.7% for those age 30 to 39. While the percent of participants who invest solely in the F, S, I and G Funds is minor, all age cohorts have a significant percentage of participants investing solely in the C Fund. Since 2014, the most significant change has been seen in the younger age groups where there was a meaningful increase in the number solely invested in one L fund and also a decrease in the percentage solely invested in the G fund. This was influenced by the change to an age-appropriate L fund as the default investment in 2015. See Figure 8.

Figure 8

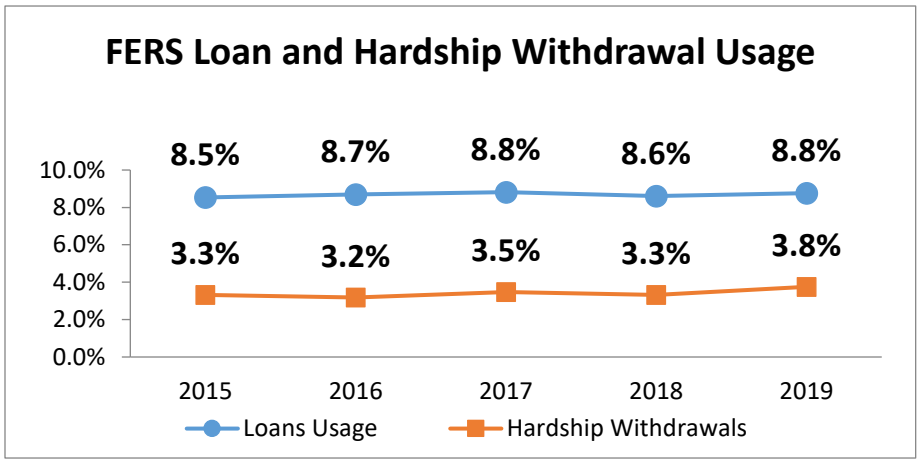


Loan and Hardship Withdrawal Usage

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.

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 and includes a 10% early withdrawal penalty if the participant is younger than 59 ½.

Figure 9

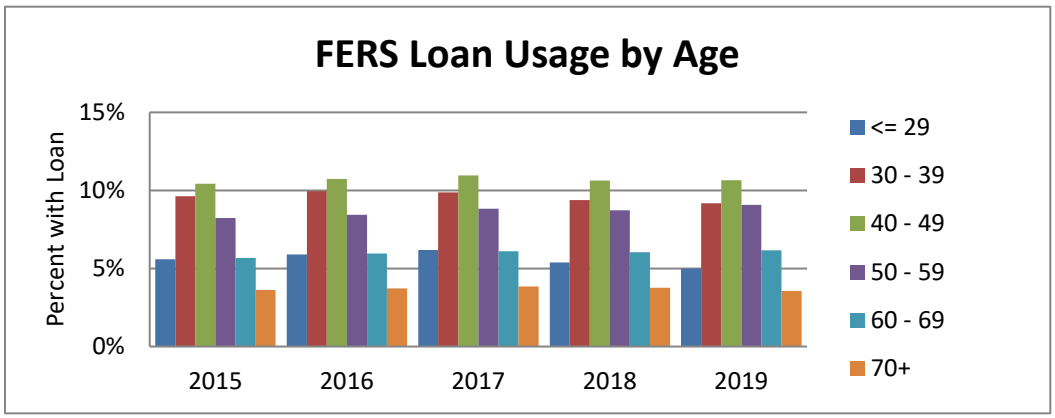


Loan usage overall remained somewhat steady for the past five years. There was a slight increase in loan usage between 2018 and 2019 with 8.8% of participants taking out loans in 2019 versus 8.6% in 2018.

Hardship withdrawals increased in 2019 when compared to the previous four years. This increase is partly due to the lapse in appropriations that extended from December 24, 2018 to January 25, 2019. Though the lapse began in 2019, most individuals did not take loans or hardships withdrawals until January.

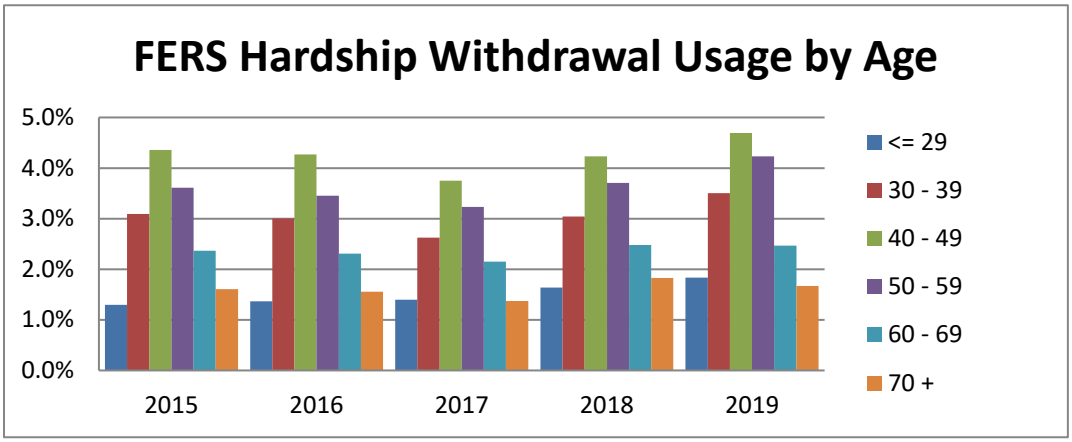
As seen in Figure 10, loan usage has consistently been highest among the 40-49 age cohort, with 10.6% of the participants in this cohort receiving a loan in 2019. However, loan usage in the 40-49 and 50-59 cohorts has followed at 9.2% and 9.1% respectively in 2019. Loan utilization among the oldest and youngest cohorts decreased slightly from 2017 levels.

Figure 10



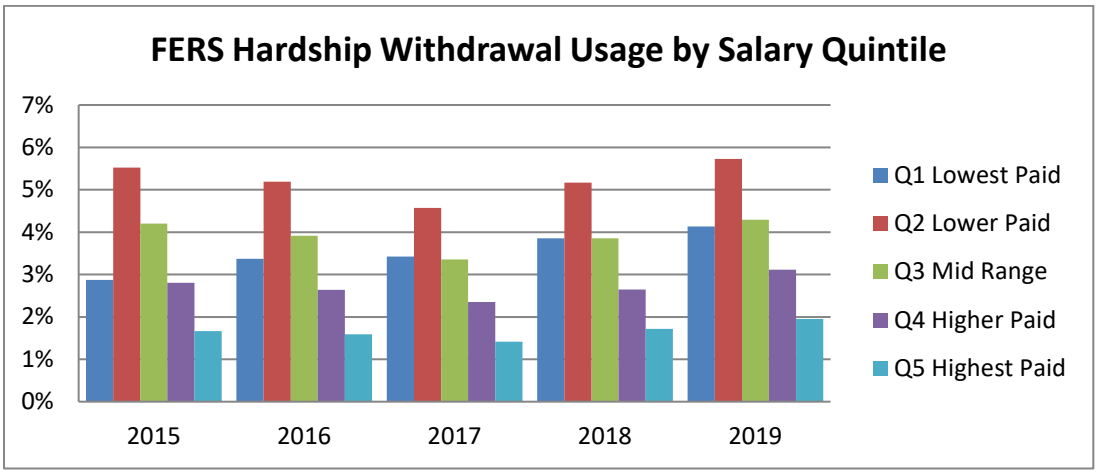
Hardship withdrawal usage is also consistently highest among the age 40-49 cohort, with 3.8% to 4.7% of participants in this cohort receiving a hardship withdrawal during the five years covered in this report. The youngest two cohorts also saw an increase in hardship in hardship withdrawals, while the oldest experienced a slight drop.

Figure 11



There is a stair-step pattern of hardship withdrawal usage among the salary quintiles, with usage generally declining as salary levels increase. See Figure 12. 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 2019, the second salary quintile had the highest usage rate at 5.7%, which is 1% percent drop from the peak in 2013.

Figure 12



Summary

The analysis reveals that the TSP, through year-end 2019, did not experience any unusual shifts in participant activity. Participation continues to slowly increase, largely benefiting from the impact of automatic enrollment. Higher percentages of the participant population are taking advantage of the Lifecycle Funds, whether because of auto-enrollment or individual choice and while loans and hardship withdrawals experienced an increase over 2018 levels, we attribute a portion of this increase to the impact of the lapse in appropriations from December 2018 through most of January 2019. Deferral rates have leveled off and about 30% of auto-enrolled participants are making no change from their default enrollment, consequently remaining at a 3% deferral rate and leaving matching employer contributions on the table. As a result, the TSP will implement a change to the default deferral rate from the current 3% to 5% on October 1, 2020, with the expectation that this change will improve the long-term retirement outcomes for a significant segment of the TSP population.