

AN EXAMINATION OF THE VARIABLES THAT DRIVE SUPPLEMENTAL RETIREMENT SAVINGS

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ABSTRACT

The money saved by an employee in an employer sponsored retirement plan will most likely be the largest single retirement saving of an individual. However, retirement planning can be challenging. While it has been shown that an increase in financial awareness enables employees to make better investment choices, there has been limited or no research so far, to our knowledge, that has examined the impact of several variables, such as gender, salary, age, ethnicity, education level, salary, and the choice of the retirement plan (defined benefit versus defined contribution) on the amount of supplemental contributions made by employees.

Our results show that being on the defined contribution plan and age increase both likelihood and the amount of supplemental contribution. Having a higher salary and having a doctorate degree increases the amount but not the likelihood of supplemental contribution, while being black only increases the likelihood but not the amount of supplemental contribution. Our findings also suggest that males are less likely to make any contribution and also contribute less, if they do, than comparable females.

BACKGROUND AND LITERATURE REVIEW

Retirement planning is likely the most critical financial decision an individual will make during their working career (Park & Martin, 2022). Yet research consistently shows that many workers are inadequately prepared for retirement. According to the National Institute on Retirement Security (NIRS), 62 percent of working households with a head of household in the 55-64 age group have retirement savings less than one times their annual income (Rhee & Boivie, 2015). This is far below the estimated amount most financial planners recommend. More recent results from the 2023 Survey of Household Economics and Decision Making reveal that even though 72% of those in the 45-59 age category have a tax-deferred retirement account and 32% have a defined benefit plan, only 38% of them say that their savings are on track for retirement. For younger cohorts, these numbers are even lower. While there are no stark differences between males and females in whether they think they are on track for retirement (36% of males vs 32% of females), differences by race/ethnicity are more pronounced – 46% of Asians, 40% of Whites, 25% of Blacks, 21% of Hispanics say that they are on track for retirement. (Board of Governors of the Federal Reserve System, 2024).

Our study investigates how various factors—such as gender, salary, age, ethnicity, education level, and the choice between defined benefit and defined contribution retirement plans—affect the amount of supplemental contributions made by employees at a regional university within the University System of Georgia (USG). It is important to point out that the employees of USG are in a unique position since some of them (mostly faculty, but some

administrators as well) can choose from two plans, a defined benefit and a defined contribution plan. Additionally, as employees of public schools and the state government, all benefit-eligible employees have the option to contribute to two supplemental retirement plans (a 403(b) and a 457(b) plan).

Prior research has demonstrated that there are significant differences in faculty perception regarding retirement planning, with more than a third of late-career faculty not sure about the age at which they plan to retire (Berberet, J. et al., 2005). More recently, however, there has been a steady decline in the use of defined benefit plans and a corresponding increase in the use of defined contribution plans which places the burden of making appropriate investment choices on the employee (Munnell et al., 2001/2002).

There have been several studies that have examined the impact of gender, salary, age, ethnicity and education level not only on the faculty choice between a defined benefit (DB) and a defined contribution (DC) plan but also on the propensity to save for retirement.

The impact of gender on retirement plan choice presents mixed results in existing research. Some studies indicate that women are more likely to select defined benefit (DB) plans (Brown & Weisbenner, 2014; Clark, Ghent, & McDermed, 2006), while others suggest that men have a preference for DB plans (Chingos & West, 2015). In contrast, a more consistent finding is that higher-salaried faculty are more inclined to choose defined contribution (DC) plans (Clark, Hanson, & Mitchell, 2016; Yang, 2005). Additionally, research shows that DB plans are generally more appealing to younger workers. This preference may be linked to their higher mobility early in their careers, whereas older faculty, who have fewer years remaining until retirement, may find DB plans less attractive (Sawchuk, 2009).

At the same time, prior literature tends to focus on retirement savings in general rather than supplemental retirement contributions specifically. Generally, these papers find that individuals with higher salaries are able to accumulate greater retirement savings due to increased disposable income (Lusardi & Mitchell, 2014), while those with lower salaries often experience the opposite (Kopczuk et al., 2010). This aligns with the observation that women tend to have lower retirement savings compared to men, which can be attributed to lower earnings and more frequent career interruptions (Lundberg, 2017; Alesina et al., 2013). Education levels have also consistently been shown to have an impact on the level of retirement savings. Individuals with higher levels of education are generally more likely to save higher amounts for retirement than those with lower levels of education (Behrman, et al., 2012). This is most likely due to those with higher education levels having higher financial literacy levels, higher earnings and more stable employment.

Aside from investigating the choice between DB & DC plans, our paper adds to the existing literature by analyzing supplemental retirement contributions and we find that being on the DC plan, age, having a doctorate degree and higher salary are associated with a higher amount of supplemental contribution while males tend to contribute less than females (holding other factors constant). We also find that being black increases the likelihood of an employee making supplemental contributions. Overall, our results show that most employees are not using this tax deferred opportunity to their fullest advantage.

DATA

We collected data on 1200 employees for a regional university in the Southeast USA for a period of 3-years (2018-2020). All data was unidentifiable and could not be linked to an

individual employee to protect employee privacy. Monthly information was collected¹ on salary, retirement plan chosen, amount of contribution, supplemental contribution for each plan, gender, academic status, highest degree, marital status, age, and the time of hire. Due to the university's operations some of the employees in the data are present in all three years, while others only appear for a fraction of the year. Below, we only include full time, benefit-eligible employees who were present for any of the three full calendar years (2018, 2019, and/or 2020). Thus, we have a sample of 953 employees in 2018, 916 in 2019, and 768 in 2020. The reason for excluding individuals who joined or left the institution mid-year is that they could have contributed to their supplemental plans before joining or after leaving, and therefore, no information is available on their total annual contribution to their supplemental plans.

The university offers two retirement plans, a defined benefit plan and a defined contribution plan. A full-time faculty employed on either a 10-month or a 12-month contract is eligible to select either the defined benefit or the defined contribution plan at the time of employment as long as they are receiving monthly paychecks. A staff member can only pick the defined benefit plan (unless they are paid on a monthly basis, in which case they, too, can pick either of the 2 plans). For both faculty and staff, the selection of the retirement plan is an irrevocable decision.

RESULTS

Table 1 shows the sample statistics for the three years for full-time benefit-eligible employees who are present for the entire year. Each year about 60% of these employees were able to choose between a defined benefit or a defined contribution plan at the beginning of their employment. About 33-40% of the sample are on the defined contribution plan and between 14-18% made supplemental contributions. The average annual salary is around \$61,000 and the average annual supplemental contribution is between \$1,315 and \$1,665. Slightly less than half of the sample is male and about 70% is white. The average age is around 48 years. About 32-39% of the sample have a doctorate degree and about 5% have a business background.

¹ We first obtained IRB (Institutional Review Board) approval since human subjects were involved

Table 1. Summary statistics			
	2018	2019	2020
Eligible for defined contribution	0.605 (0.489)	0.631 (0.483)	0.591 (0.492)
On defined contribution	0.343 (0.475)	0.332 (0.471)	0.404 (0.491)
Total supplemental contribution	1315.815 (5806.271)	1373.941 (5798.315)	1665.502 (6659.146)
Any supplemental contribution	0.143 (0.350)	0.178 (0.383)	0.177 (0.382)
Age	47.950 (11.825)	47.965 (11.763)	48.353 (12.013)
Male	0.484 (0.500)	0.457 (0.498)	0.453 (0.498)
	2018	2019	2020
White	0.712 (0.453)	0.698 (0.460)	0.691 (0.462)
Black	0.186 (0.389)	0.198 (0.398)	0.189 (0.392)
Married	0.530 (0.499)	0.532 (0.499)	0.529 (0.500)
Doctorate	0.320 (0.467)	0.332 (0.471)	0.392 (0.488)
Master	0.129 (0.335)	0.135 (0.342)	0.141 (0.348)
Academic	0.438 (0.496)	0.453 (0.498)	0.539 (0.499)
Business	0.056 (0.229)	0.047 (0.212)	0.052 (0.222)
N	953	916	768

As shown in Figure 1, most employees do not make any supplemental contributions even though all are eligible to contribute to both a 403(b) and a 457(b) plan. The horizontal axis shows total contribution amounts to all supplemental plans.

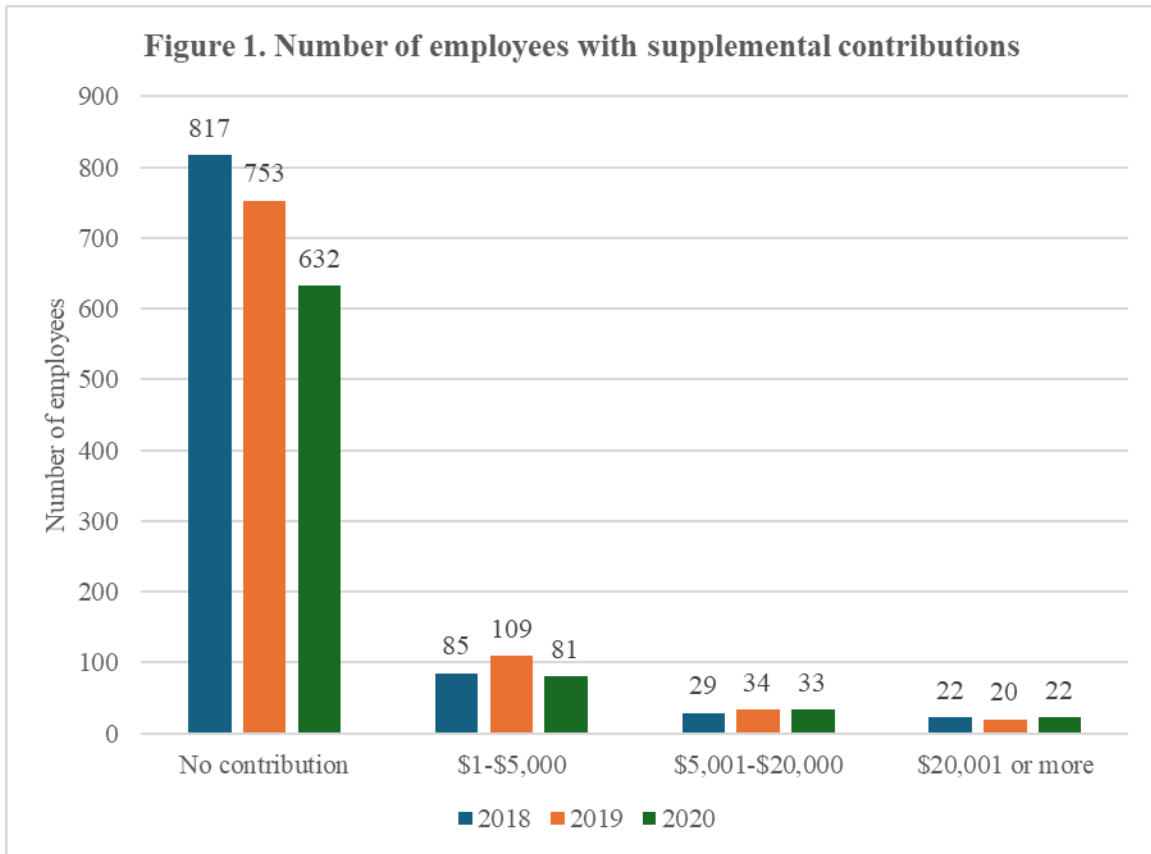


Figure 2 shows that on average people closer to retirement increase their supplemental contributions. But even among those closest to retirement (greater than age 60), the mean contribution for the 3-year period is only \$3,675 (less than 10% of the maximum supplemental contributions allowed in the 403(b) and 457(b) plans combined, including the catch up). The contribution limits for each of the 403(b) and 457(b) for 2018 was \$18,000, for 2019 was \$19,000 and for 2020 was \$19,500. The catch-up contribution limits for employees over 50 years of age was \$6,000 for 2018 and 2019 and \$19,500 for 2020.

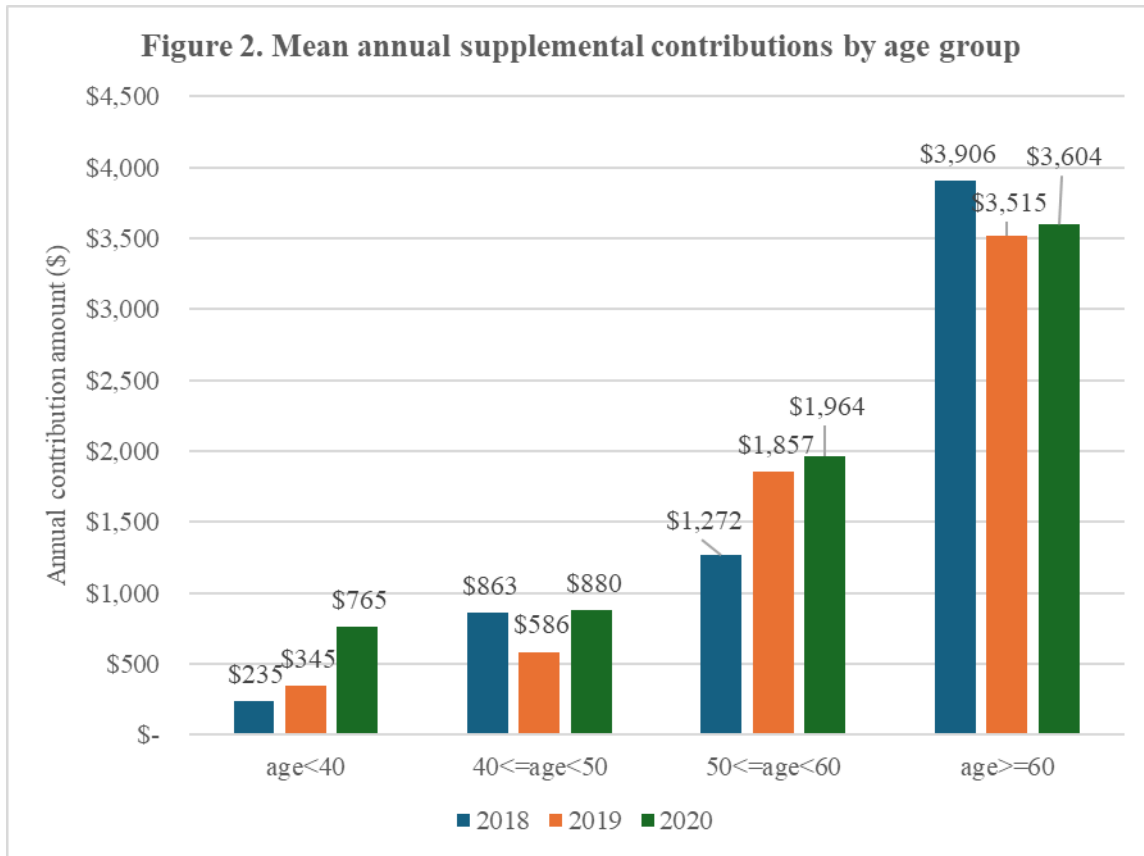
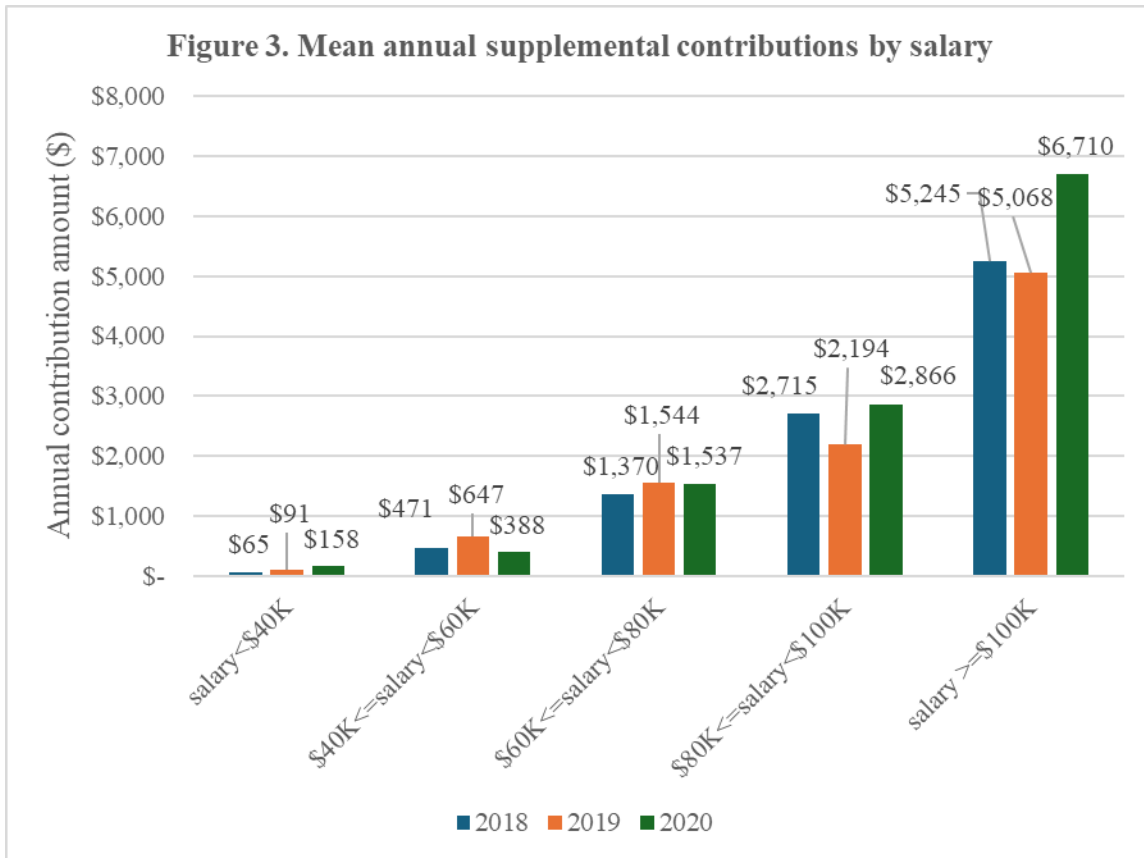


Figure 3 shows that the average supplemental contribution increases with salary. This is not surprising as people with lower earnings may not have enough disposable income to be able to contribute to a supplemental retirement plan.



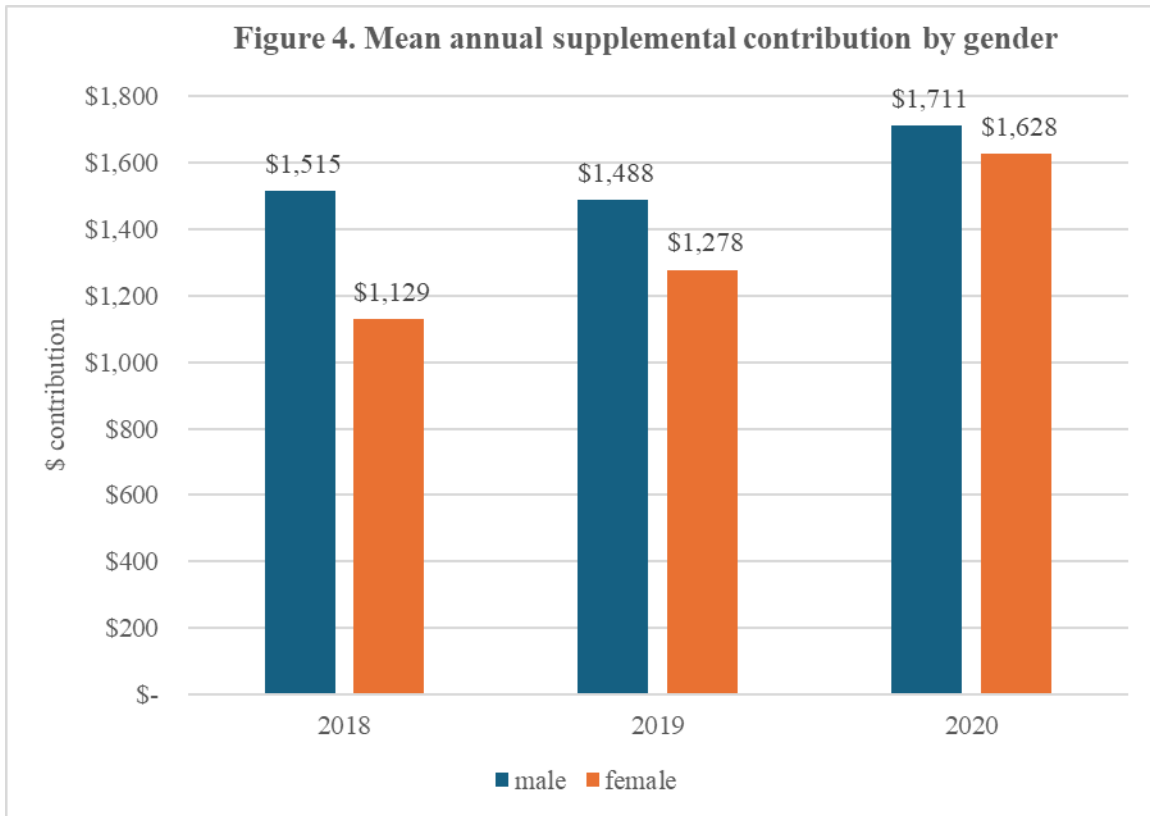


Figure 4 shows that the average amount contributed by males is slightly higher in all three years, however, the difference is not significantly different from zero ($p=0.308$ in 2018, $p=0.591$ in 2019, and $p=0.865$ in 2020). This finding is consistent with prior research (Lulle, 2021)

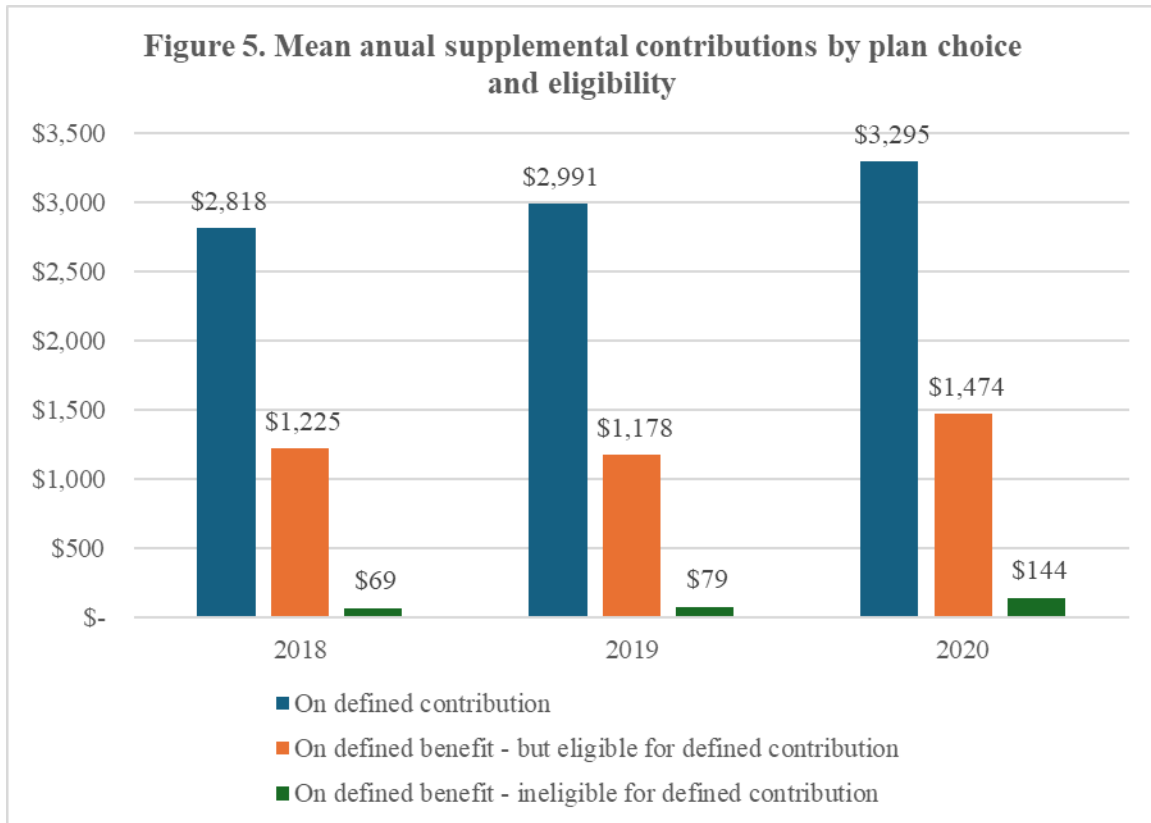


Figure 5 suggests that those who selected the defined contribution plan have significantly higher average supplemental contributions than those who were eligible to select the defined contribution plan but selected the defined benefit plan.

However, these graphs only control one category at a time. It is more likely that multiple factors impact the amount an individual contributes to their supplemental plan (if any). For instance, it is not possible to determine from Figure 5 whether those on the defined contribution plan have higher average supplemental amounts because they have higher salaries and can afford to make those contributions or if it is due to self-selection (maybe people with a higher propensity to save tend to select the defined contribution plan or are more concerned about having sufficient retirement savings). To try to answer these questions better, we use regression models that allow us to control multiple factors simultaneously.

First, we run a logistic regression to estimate the choice of the defined contribution plan. The sample includes one observation for each employee eligible for both the defined benefit and defined contributions plans. The logistic regression model is the following:

$$\frac{P(DC=1)}{1-P(DC=1)} = e^{X\beta} \quad (1)$$

where $X\beta = \beta_1 \text{Age at hire} + \beta_2 \text{Male} + \beta_3 \text{White} + \beta_4 \text{Black} + \beta_5 \text{natural logarithm of salary} + \beta_6 \text{Married} + \beta_7 \text{Doctorate} + \beta_8 \text{Master} + \beta_9 \text{Academic} + \beta_{10} \text{Business} + \beta_{11} \text{Year2019} + \beta_{12} \text{Year2020}$.

Since employees are locked into their choice, the dependent variable, DC, is whether they are enrolled in a defined contribution plan in the year of observation (2018, 2019, or 2020). We consider each individual only once, in the first year they are fully present in the data. Since some people are not present in the first year, and their observation comes from either 2019 or 2020, we also include year dummies (Year 2019 and Year 2020). Married is a dummy variable with a value of 1 if the person files taxes as a married person (from the W-4 form). Doctorate is a dummy variable taking on the value of 1 if the individual has a Doctorate degree. Academic is a dummy variable indicating whether the person is in an academic position. Business is a dummy variable indicating whether the individual is in the Business College. The rationale for the inclusion of this last variable is to investigate whether being familiar with business concepts increases the likelihood of an individual choosing the defined contribution plan, a plan that requires more involved financial decisions.

Table 2. Marginal coefficient estimates from the logistic regression (dependent variable: Defined benefit choice)	
Age at hire	0.004* (0.002)
Male	0.102*** (0.036)
White	-0.029 (0.054)
Black	-0.010 (0.079)
Natural logarithm of salary	-0.067 (0.061)
Married	-0.062* (0.037)
Doctorate	0.083 (0.076)
Masters	-0.060 (0.074)
Academic	0.242*** (0.070)
Business	-0.034 (0.075)
Year19	-0.199*** (0.063)
Year20	-0.086 (0.075)
N	683
Notes: Dependent variable is a dummy indicating choice of the defined benefit plan. The sample includes individuals who are eligible to choose between the two plans. *, **, and *** indicate significance at the 10%, 5%, and 1% level of significance.	

Results in Table 2 reveal that being male and being in an academic position are associated with an increased likelihood of choosing the defined contribution plan. Those who appear in the data in 2019 are less likely to choose the defined contribution plan. This may indicate that more recent employees are less likely to choose the defined contribution plan. At the same time, race, salary, education level, and business background do not seem to influence an individual's choice.

Table 3. Coefficient estimates		
Dependent var	Logistic regression	Linear regression
	Any supplemental contribution	Inverse hyperbolic sine of supplemental contribution
	(1)	(2)
Define contribution eligible	0.057 (0.046)	-0.034 (0.357)
On Defined contribution	0.096*** (0.026)	1.089*** (0.248)
Age	0.006*** (0.001)	0.045*** (0.008)
Male	-0.096*** (0.022)	-0.742*** (0.184)
White	-0.030 (0.036)	-0.224 (0.311)
Black	0.102** (0.042)	0.517 (0.368)
Married	0.007 (0.021)	-0.041 (0.186)
Natural logarithm of annual salary	0.054 (0.038)	0.855** (0.334)
Academic	-0.047 (0.046)	-0.638 (0.448)
Doctorate	0.062 (0.048)	0.912* (0.471)
Masters	0.049 (0.047)	0.641 (0.443)
Business	0.046 (0.044)	0.589 (0.476)
N	1168	1168
Notes: In column (1), the dependent variable is the average annual supplemental contribution over the years the individual is present in the entire year. In column (2), the dependent variable is the inverse hyperbolic sine transformation of the mean annual supplemental contribution amount. In column (3), the dependent variable is a dummy to indicate any supplemental contribution during the full year presence. *, **, and *** indicate significance at the 10%, 5%, and 1% level of significance.		

We also run regressions to estimate the impact of different factors on the likelihood of whether an employee makes any supplemental contribution, and the amount of supplemental contribution itself. The coefficients from column 1 of Table 3 are from the following model:

$$\frac{P(\text{any supplemental contribution} = 1)}{1 - P(\text{any supplemental contribution} = 1)} = e^{x\beta}.$$

The results suggest that people on the defined contribution plan are more likely to make supplemental contributions. Age and being black also positively impact the probability of making any contribution. At the same time, males are less likely to make supplemental contributions.

The dependent variable in column 2 is the inverse hyperbolic sine of the annual mean supplemental contribution amount.² It takes the following form:

$$\ln \left(\text{amount} + \sqrt{\text{amount}^2 + 1} \right)$$

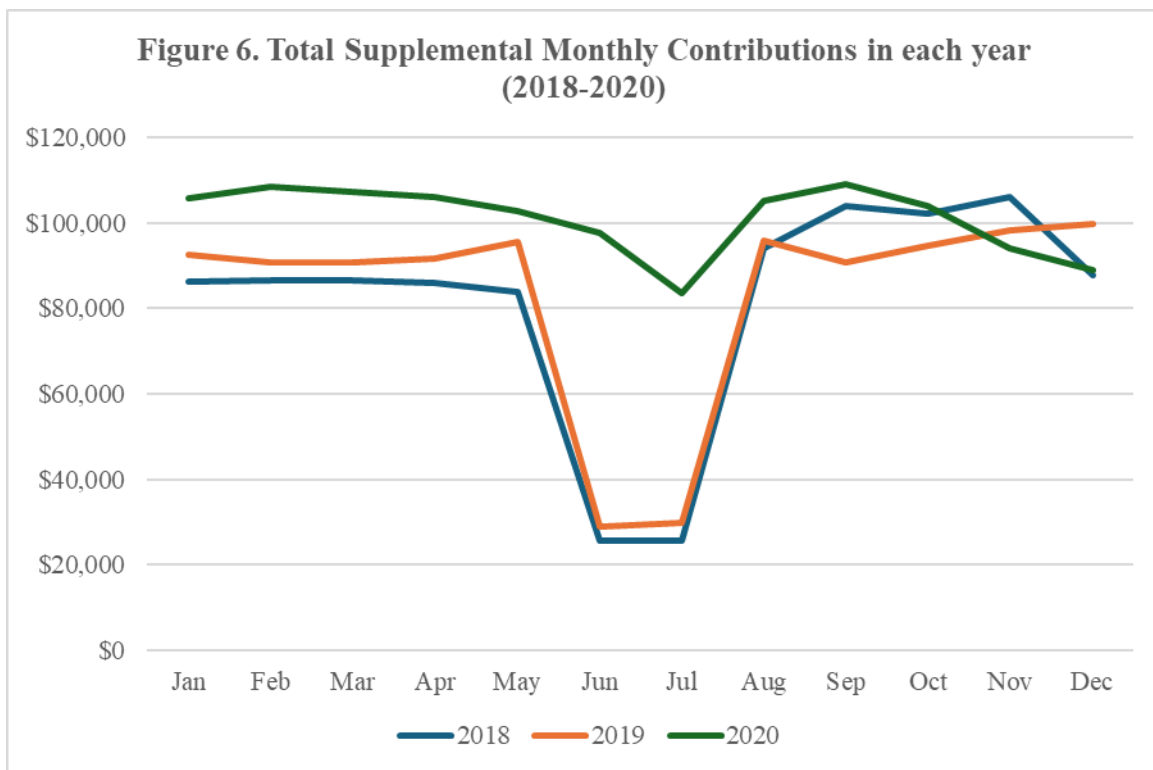
The reason for this transformation is to avoid losing observations due to missing values when we take the natural logarithm of zeros. The results in column 2 are similar and suggest that employees on the defined contribution plan contribute more. The positive coefficient is not surprising given that those selecting the defined contribution plan may have a higher level of comfort coupled with the willingness to manage their own investments. Again, age positively impacts the supplemental contribution amount, but there are no racial differences now. The positive coefficient of age also makes sense since as employees age, having enough resources for retirement becomes a priority. It also seems that the amount of salary significantly increases the supplemental contribution amount, which makes sense since a higher income provides more disposable income. Holding other variables constant, males contribute less to their supplemental plans. This seemingly contradicts what Figure 4 shows. However, Figure 4 only controls one covariate. It is entirely possible that once other factors are included in a regression model, the signs on individual variables change relative to what the graphs suggest due to the graphs' inability to take covariance among the various factors into account. The reason why males' overall contribution amount is greater than that of females but then the male coefficient is negative in a regression model is that males are more likely to be on the DC plan whose members tend to contribute more on average. However, once we compare males to females on the same plan, females contribute more. Therefore, when the impact of being male is estimated in isolation of all the other factors, it is negative. This negative coefficient of male is more of a puzzle, but it could also be an indication of their anticipation that the resources do not have to

² So, if a person is fully present in all three years of 2018-2020, the dependent variable is that individual's 3-year average annual supplemental contribution. If another individual is fully present in 2019 but then leaves in the middle of 2020, then we will only consider this individual's annual contribution in 2019 and consider that individual fully present in 1 year only. We do this because people who are only present part of the year could contribute to their supplemental contributions before or after they are observed in the data.

last as long due to their shorter life expectancy. Alternatively, it could also mean that males feel more comfortable about their earning potential during retirement.

There was a noteworthy change in the logistics of the contribution during the period analyzed. Until 2019, employees made supplemental contributions by filling out a paper form each time they wanted to change the amount. In addition, faculty members on a 10-month contract did not have the option to make supplemental contributions during the summer months of June and July by default. They could keep the contributions going if they wanted to, but this required extra paperwork. The system changed starting in 2020, when all employees could change their supplemental contribution amounts online. Also, the amount that individuals indicated at the beginning of the year was deducted from their salary until a change was made or until the individual's cumulative contribution reached the maximum amount allowed by IRS. This meant that employees who wanted to stop the contributions during the summer months now had to make such arrangements online (so, the default was to keep going with the contributions).

To see whether this changed anything, we present Figure 6 below, which shows the total amount of monthly contributions from all employees. To not conflate the results, we only included contribution amounts for employees who were present during all three years of the analyzed period (2018-2020). We see that during the summer months of 2018 and 2019, the contributions dropped drastically, however, no such stark difference can be seen in 2020.



This shows the importance of the default policy. Having to fill out paperwork to continue with the supplemental contributions during summer is costly and as a result, many people contribute a lower cumulative amount into their supplemental accounts. Removing this barrier

and changing the default to make the continuation easier helps people reach their retirement goals faster.

CONCLUSIONS

Employees on the DC plan are more likely to make supplemental contributions. The fraction of employees on the DC plan who contributed to their supplemental plans ranges from 24.8% to 29.6% in the analyzed period. The same fraction for those employees who are on the defined benefit plan is substantially lower (8.8%-11.9%). Employees on the DC plan also contribute more on average than those on the defined benefit plan: The average annual contribution to supplemental plans of those on the DC plan (who contributed any) ranges from \$10,103 to \$11,478 annually, while the average supplemental contribution of the employees on the defined benefit plans (with any contribution) ranges from \$4,784 to \$6,044 annually.

Results suggest that being male and having an academic position significantly increase the likelihood of an employee selecting the defined contribution plan. At the same time, being married lowers the probability of an employee selecting the defined contribution plan. Also, our results indicate that being on the DC plan, age, and being black increase the likelihood of an employee making a supplemental contribution whereas being male decreases the likelihood. Being on the DC plan is also associated with a higher amount of supplemental contribution, so is age, a higher salary and having a doctorate degree. At the same time, holding the other factors constant, males tend to contribute less than females.

Results indicate that a majority of employees are not using this tax deferred retirement plan to their fullest advantage. While the high mandatory contribution may be a contributing factor, it is important for employees to understand the tax deferred advantages these supplemental plans present in addition to adequately saving for retirement.

We believe that greater awareness of the benefits of retirement planning and educating employees of the variables involved (starting early, making consistent contributions, picking sound investment choices consistent with retirement goals, understanding the long term benefits of tax deferred investment vehicles and being educated about the various investment choices offered by the financial institution(s) selected by the institution, etc.) should be made available to employees periodically during their employment (Tomar et al., 2021). An increase in financial literacy is likely to encourage faculty and staff to make supplemental contributions to their retirement plan (Godbout, 2020).

From a policy perspective, we recommend institutions consider changing the format of a typical new faculty orientation. At most institutions, new faculty go through several days of orientation where the university disseminates information to new faculty about their office, teaching schedule, setting up their new computer, log in ids and passwords, campus tours, e-learning resources, platform using for online teaching, promotion and tenure guidelines, and presentations from financial institutions (e.g. Fidelity, Vanguard etc.) about retirement plan options. This orientation typically results in information overload for a new faculty. New faculty are required to make their retirement plan selection at the end of the retirement plan presentation.

Our recommendation is that the university mail retirement plan information to new faculty a few weeks prior to this orientation, to give them an opportunity to read and understand their options. Also, our recommendation is that the retirement plan presentation be held at the beginning of the new faculty orientation and faculty be allowed to make their retirement plan selection at the end of the orientation, giving them a few days to make a well-informed decision.

LIMITATIONS

Since the data for this research was limited to employees at a single regional comprehensive institution in the USA, results of this research may not be generalizable across a wider and more diverse population and should be interpreted with caution.

Also, the results may be somewhat skewed for 2020 due to a major worldwide pandemic which may have had a significant impact on employee propensity to save for their retirement.

An additional limitation of this study is that it did not examine whether the spouse was employed, participated in a retirement plan or made any supplemental contributions. This variable has the potential to impact the results of our study.

Finally, it is possible that a reason for the low percentage of employees making supplemental contributions in this study was because of the high (9.24%) contributions made by the employer in addition to the mandatory 6% contribution deducted from the employee's paycheck. In other words, 15.24% of an employee's salary goes into the employee's retirement savings by default. It is possible that an employee may have made higher supplemental contributions if this default contribution had been a lower percentage. This research did not examine this, but it presents an avenue for future research where faculty contributions to supplemental retirement plans could be examined between states that differ in the amount of combined mandatory contributions made by the employer and employee. It also could be that people on the defined benefit plan are more likely to believe that they are well prepared for retirement. However, prior research has shown that this may not always be true. In a study of faculty at Utah's higher education system, the state made some retirement plan changes resulting in a lowering of the employer contribution rates to the defined contribution plan. Contrary to expectation, the less generous retirement contribution made by the employer did not encourage faculty to increase their supplemental contributions. (Clark, Hanson, & Mitchell, 2016).

REFERENCES

- Alesina, A., Giuliano, P., & Nunn, R. (2013). On the Origins of Gender Roles: Women and the Plough. *Quarterly Journal of Economics*, 128(2), 469-530.
- Behrman, J. R., Mitchell, O. S., Soo, C., & Bravo, D. (2012). How Financial Literacy Affects Household Wealth Accumulation. *American Economic Review: Papers & Proceedings*, 102(3), 300-304.
- Berberet, J., Bland, C., Brown, B., & Risbey, K. (2005). Late career faculty perceptions: Implications for retirement planning and policymaking. *Research Dialogue*, 84, 1-12.
- Board of Governors of the Federal Reserve System. (2024). *Economic Well-Being of U.S. Households in 2023*. <https://www.federalreserve.gov/publications/files/2023-report-economic-well-being-us-households-202405.pdf>
- Brown, J., & Weisbenner, S. (2014). Why do individuals choose defined contribution plans? Evidence from participants in a large public plan. *Journal of Public Economics*, 116, 35- 46.
- Chingos, M., & West, M. (2015). Which teachers choose a defined contribution plan? Evidence from the Florida retirement system. *Education Finance and Policy*, 10, 193-222.
- Clark, R., Ghent, L., & McDermed, A. (2006). Pension plan choice among university faculty. *Southern Economic Journal*, 72, 560-577.
- Clark, R., Hanson, E., & Mitchell, O. (2016). Lessons for public pensions from Utah's move to pension choice. *Journal of Pension Economics & Finance*, 15, 285-310.
- Godbout, T. (2020, November 17). *Lack of financial literacy may deter retirement plan participation*. <https://www.napa-net.org/news-info/daily-news/lack-financial-literacy-may-deter-retirement-plan-participation>

- Kopczuk, W., Saez, E., & Song, J. (2010). Earnings Inequality and Mobility in the United States: Evidence from Social Security Data. *Quarterly Journal of Economics*, 125(1), 91-128.
- Lundberg, S. J. (2017). The Impact of Employment and Wages on Retirement Savings. *Journal of Labor Economics*, 35(1), 79-106.
- Lulle, A. (2021). Temporal fix, hierarchies of work and post-socialist hopes for a better way of life. *Journal of Rural Studies*, 84, 221-229. <https://doi.org/10.1016/j.jrurstud.2021.04.018>
- Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature*, 52(1), 5-44.
- Munnell, A.H., Sunden, A., & Taylor, C., (2001/2002). What determines 401(k) participation and contributions? *Social Security Bulletin*, Vol. 64(3), 2001/2002
- Park, H., & Martin, W. (2022). Effects of risk tolerance, financial literacy, and financial status on retirement planning. *Journal of Financial Services Marketing*, 27(3), 167-176. <https://doi.org/10.1057/s41264-021-00123-y>
- Rhee, N., & Boivie, I. (2015). *The continuing retirement savings crisis*. National Institute on Retirement Security. <https://www.nirsonline.org/reports/the-continuing-retirement-savings-crisis/>
- Sawchuk, S. (2009, April 21). Pensions blamed for costing schools new talent. *Education Week*.
- Tomar, S., Baker, H. K., Kumar, S., & Hoffmann, A. O. (2021). Psychological determinants of retirement financial planning behavior. *Journal of Business Research*, 133, 432-449. <https://doi.org/10.1016/j.jbusres.2021.05.007>
- Yang, T. (2005). Understanding the defined benefits versus defined contribution choice. Pension Research Council Working Paper no. 2005-04. Philadelphia, PA: The Wharton School, University of Pennsylvania.