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Automatic enrollment and participation in South Dakota's Supplemental Retirement Saving Plan

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Introduction

Over the past two decades, a series of papers have shown the power of defaults to alter saving decisions in employer-provided retirement saving plans. Studies have shown that automatic enrollment policies result in a substantial increase in the proportion of employees participating in retirement saving plans. While the magnitude of the increase in the participation ranges from study to study, research generally indicates participation rises from about 60% of the workforce in traditional plans without automatic enrollment to over 90% once automatic enrollment is adopted. Virtually all of these studies have been conducted using administrative data for a single firm or a small set of private sector firms in which the retirement saving plan is the only employer-provided pension plan. The analysis typically focuses on the introduction of automatic enrollment to an existing 401(k) and compares participation and contribution rates shortly before and after the adoption of the policy.

The present study adds to this literature by examining the impact of the adoption of automatic enrollment provisions by a state government, specifically the adoption of automatic enrollment by the state of South Dakota for its supplemental retirement saving plan (SRP). In South Dakota, state and local government employees, including teachers, are also covered by a defined benefit pension plan and by Social Security. Thus, career public employees in South Dakota can expect a lifetime annuity from these two programs of around 75% of their final salary. Prior to the introduction of automatic enrollment, the proportion of newly hired employees who were contributing to the SRP

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was less than 3% in their first year of employment. After the introduction of automatic enrollment, over 90% of newly hired workers who were auto enrolled were participating in the plan.

I. Adoption of automatic enrollment in South Dakota

Virtually all state and local government employees, including teachers, in South Dakota are covered by the South Dakota Retirement System (SDRS), and they are also covered by Social Security. SDRS is a defined benefit pension plan with a benefit formula:

Benefit = 1.55% times (final average salary) times (years for service after 2008)

Plus

Benefit = 1.7% times (final average salary) times (years for service before 2008)

Individuals can retire with unreduced benefits at age 65 or if they meet the Rule of 85 requirements, if the sum of the retiree's age plus years of service equals 85.[1]

Prior to the introduction of automatic enrollment, very few newly hired employees enrolled in the SRP in their first years of employment. For example, between 2005 and 2009, fewer than 3% of newly hired workers enrolled in the SRP during their first year of employment. This level of participation is much lower than that found in earlier studies of private sector firms who do not offer a defined benefit.[2] Another potential reason for limited participation in the plan is that the South Dakota SRP does not have an employer matching contribution. In 2009, the state legislature enacted legislation that allowed, but did not require, each government agency that participated in the South Dakota Retirement System and the SRP to institute automatic enrollment for all newly hired employees.[3]

While virtually all primary defined benefit and defined contribution public sector plans automatically cover all full-time employees, the SDRS was one of the first major public sector retirement systems, along with the Employees Retirement System of Texas, to implement automatic enrollment for their supplemental savings plan. The adoption of the automatic enrollment policy by an agency requires that this policy be applied to all of the agency's newly hired employees. Once the automatic enrollment policy is adopted, all permanent full-time employees hired on or after a determined date are automatically enrolled in the SRP at a default contribution of $25 per month (about 1% of the mean salary of South Dakota public employees). This default contribution rate is much lower than is typically associated with automatic enrollment policies in the private sector.

The initial contributions to the SRP are placed in a money market account for first 90 days, after which time funds are transferred to an age-appropriate target-date fund. The participant can allocate these contributions to other investment options anytime during this 90-day window, as well. Once automatically enrolled in the SRP, the participant has the option to increase contributions up to IRS maximum limits, move current and future contributions to other investment options, and within the first 90 days of being automatically enrolled, opt-out of the SRP and receive a refund of all contributions. Once this 90-day window has passed, future contributions can be stopped, i.e., the employee can opt-out of the SRP; however, the participant cannot receive a refund of initial contributions unless they are eligible for a one-time in-service distribution under IRS rules, are separated from service, or retire.

1 Details of the SDRS pension are described in the member handbook of the system which can be accessed at http://www.sdrs.sd.gov/docs/ClassAFoundationMemberHandbook.pdf.

2 The proportion of South Dakota public employees who participate in the retirement saving plan is also considerably lower than participation rates for North Carolina teachers who are also covered by a state managed defined benefit plan (Clark, et al., 2016 and Clark, Pathak, and Pelletier, 2018)

3 Clark, Franzel, and Pelletier (2018) provide a detailed description of the automatic enrollment provisions and the process by which this policy was adopted and introduced.

The introduction of automatic enrollment by South Dakota provides the opportunity to estimate the impact of automatic enrollment provisions in an environment that is much different from previous studies. There are three major differences between the South Dakota case and that of earlier studies. First, public employees in South Dakota are also covered by a defined benefit plan that provides employees with 20 to 30 years of service with a life annuity of 30 to 50% of final earnings. Since the workers are also covered by Social Security, most career public employees in South Dakota will have retirement income of about 75% of their final salary in the form of life annuities from SDRS and Social Security without contributing to the SRP. Second, the SRP does not provide any employer matching contributions, so there is a more limited enticement to contribute to this tax-deferred saving plan compared to private sector 401(k) plans that have been the focus of previous studies. Third, the default contribution is considerably lower than that used by most employers in other studies so that the monetary need to opt-out is much less for South Dakota employees. The main research question we examine is whether automatic enrollment will have the same powerful impact on participation rates for public sector workers covered by a defined benefit pension plan and a retirement saving plan that provides no employer matching contributions.

II. Changes in participation in response to the adoption of automatic enrollment

To determine how public employees who are also covered by a defined benefit plan respond to automatic enrollment in a supplemental retirement plan, we obtained administrative records from SDRS on all public employees in South Dakota who were hired between 2005 and 2016. Using these data, we are able to determine enrollment and contribution rates for all new hires in the first year of employment and the subsequent participation rates between the hire date and 2016. A unique aspect of this analysis is that we are able to observe contributions for a number of years after employment for both those hired before and after the introduction of automatic enrollment. Since not all public agencies adopted automatic enrollment, we also observe participation and contributions for individuals hired in the same year for those automatically enrolled and those employed in agencies that did not adopt auto enrollment. The data on annual contributions, account balances, and annual salary is reported over fiscal years. Our analysis covers new hires in SDRS who have access to the SRP. Between 2005 and 2016, 50,333 new employees were hired by government agencies in South Dakota.

Participation rate soars with adoption of automatic enrollment

From the administrative data, we observe the year each employee was hired and whether they contributed to the SRP in that first year as measured by contributions at the end of the fiscal year; these trends are shown in Table 1. The number of new hires ranges between 3,000 and 6,000 every year. Columns 2 and 3, Table 1, sort new hires into individuals whose employer had adopted auto enrollment and those employed by agencies where auto enrollment was not adopted. Of course, prior to 2010, no agency auto enrolled any new employees. Column 4 reports the percent of all new employees enrolled in the SRP by year of employment. The participation rate in the SRP for individuals hired between 2005 and 2009 was less than 3% in each year. It is important to note that this low participation rate is much lower than what was found in other studies prior to the adoption of automatic enrollment. Thus, it would appear that given the expectation of lifetime annuities from both the SDRS and Social Security, most public employees decided that it was not in their self-interest to make contributions to a retirement saving plan.

Table 1. Proportion of employees contributing to SRP in first year of employment

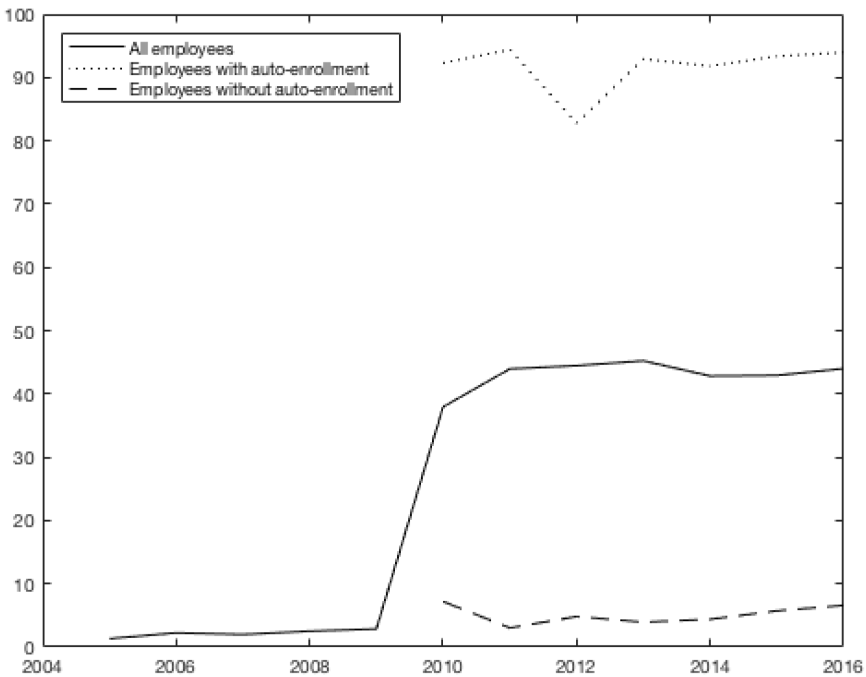
Fiscal year of hire	Number of new hires by year (1)	Number of hires who were automatically enrolled (2)	Number of hires who were not automatically enrolled (3)	Percent of hires enrolled in SRP (4)	Percent of hires who were automatically enrolled who are in the SRP (5)	Percent of hires not automatically enrolled who are in the SRP (6)
2005	3,150	N/A	3,150	1.33	N/A	1.33
2006	3,483	N/A	3,483	2.24	N/A	2.24
2007	3,770	N/A	3,770	1.99	N/A	1.99
2008	4,020	N/A	4,020	2.51	N/A	2.51
2009	3,950	N/A	3,950	2.86	N/A	2.86
2010	3,335	1,206	2,129	37.96	92.29	7.19
2011	3,349	1,500	1,849	43.95	94.40	3.03
2012	4,183	2,128	2,055	44.47	82.75	4.82
2013	4,692	2,177	2,515	45.23	92.93	3.94
2014	4,959	2,181	2,778	42.83	91.79	4.39
2015	5,493	2,332	3,161	42.93	93.35	5.73
2016	5,949	2,547	3,402	43.99	93.95	6.58

This table reports the participation rate in the SRP in the first year of employment for different year of hire cohorts. The participation rate is computed as the number of individuals hired in a given fiscal year, with positive earnings in the designated year, and who made positive contributions divided by the number of individuals who were hired in this fiscal year and who had positive annual earnings in their first year.

The introduction of automatic enrollment into the SRP produced a dramatic change in savings outcomes. After the new law went into effect, participation rates in the SRP for all new hires jumped from less than 3% to over 40%. This dramatic increase actually understates the impact of the adoption of automatic enrollment. Column 5, Table 1, indicates that the percent of individuals hired after 2009 who were automatically enrolled in the SRP and who remained in the plan during their first year of employment rose to over 90% (except for individuals hired in 2012) following the introduction of the new policy. In comparison, Column 6 shows the percent of individuals who enrolled in the SRP and were not subject to automatic enroll remained less than 8% in every year. The ability to compare same-year contribution rates for South Dakota employees with and without automatic enrollment allows us to control for time variant market conditions in a manner that has not been available to other studies.

Chart 1 further illustrates the impact of adopting an automatic enrollment policy. The solid line indicates the participation rate for all newly hired public employees in each year. The hashed line shows the participation rate of individuals hired after 2009 by agencies that did not adopt automatic enrollment, and the dotted line indicates the proportion of new employees contributing to the SRP in agencies who were automatically enrolled.

Chart 1. Participation rate in supplemental retirement saving plan in their first year



It is interesting to note that the participation rate of 90% with automatic enrollment observed in South Dakota is very similar to the participation rate found in studies of private sector firms that do not provide their employees with a defined benefit plan and whose 401(k) plans offer employer matches. The low rate of opting out of the SRP supports the finding of earlier studies that inertia plays a substantial role in the effect of automatic enrollment. In addition, the low opt-out rate in South Dakota may also be influenced by the relatively low default contribution rate of only $25 per month, or about 1%; did the new employees even notice the modest reduction in their take-home pay due to the default contribution? The change in participation rates in South Dakota indicate that even when employees have relatively high replacement rates from a defined benefit pension plan and Social Security, automatic enrollment in a retirement saving plan produces participation rates of 90%.

Many school districts and universities also offer employees the ability to contribute to 403(b) plans. Although we don't have information about individual contributions to 403(b) plans, we can investigate if the participation in the SRP of K-12 and university employees differ from other state employees. Tables 2 and 3 replicate the analysis presented in Table 1 for public school and university employees, respectively. We see similar results: Participation in the SRP in their first year of employment for new hires is below 3% when not auto enrolled but is above 90% when auto enrolled. Note that public institutions of higher education in South Dakota are governed by the South Dakota Board of Regents. The Board determines compensation policies of all these institutions. Accordingly, when the Board adopted the auto enrollment policy in the early part of fiscal year 2010, all new university hires were auto enrolled from that point on.

Table 2. Proportion of public school employees contributing to SRP in first year of employment

Fiscal year of hire	Number of new hires by year (1)	Number of hires who were automatically enrolled (2)	Number of hires who were not automatically enrolled (3)	Percent of hires enrolled in SRP (4)	Percent of hires who were automatically enrolled who are in the SRP (5)	Percent of hires not automatically enrolled who are in the SRP (6)
2005	1,284	N/A	1,284	0.86	N/A	0.86
2006	1,398	N/A	1,398	1.36	N/A	1.36
2007	1,684	N/A	1,684	0.71	N/A	0.71
2008	1,926	N/A	1,926	1.09	N/A	1.09
2009	1,849	N/A	1,849	1.57	N/A	1.57
2010	1,520	167	1,353	12.37	95.21	2.14
2011	1,503	217	1,286	15.70	99.08	1.63
2012	1,525	171	1,354	12.59	95.32	2.14
2013	2,107	334	1,773	17.80	97.90	2.71
2014	2,300	319	1,981	15.65	95.93	2.73
2015	2,621	381	2,240	17.47	96.33	4.06
2016	2,833	419	2,414	18.29	96.18	4.76

This table reports the participation rate in the SRP in the first year of employment for different year of hire cohorts, considering only public school employees. The participation rate is computed as the number of individuals hired in a given fiscal year, with positive earnings in the designated year, and who made positive contributions divided by the number of individuals who were hired in this fiscal year and who had positive annual earnings in their first year.

Table 3. Proportion of university employees contributing to SRP in first year of employment

Fiscal year of hire	Number of new hires by year (1)	Number of hires who were automatically enrolled (2)	Number of hires who were not automatically enrolled (3)	Percent of hires enrolled in SRP (4)	Percent of hires who were automatically enrolled who are in the SRP (5)	Percent of hires not automatically enrolled who are in the SRP (6)
2005	507	N/A	507	0.79	N/A	0.79
2006	488	N/A	488	1.43	N/A	1.43
2007	536	N/A	536	1.49	N/A	1.49
2008	547	N/A	547	2.19	N/A	2.19
2009	532	N/A	532	2.07	N/A	2.07
2010	475	290	185	79.79	95.17	55.68
2011	497	497	0	97.99	97.99	N/A
2012	653	653	0	94.18	94.18	N/A
2013	647	647	0	97.68	97.68	N/A
2014	644	644	0	98.14	98.14	N/A
2015	654	654	0	94.65	94.75	N/A
2016	711	711	0	96.84	96.84	N/A

This table reports the participation rate in the SRP in the first year of employment for different year of hire cohorts, considering only university employees. The participation rate is computed as the number of individuals hired in a given fiscal year, with positive earnings in the designated year, and who made positive contributions divided by the number of individuals who were hired in this fiscal year and who had positive annual earnings in their first year.

III. Conclusions

There is considerable literature indicating the effectiveness of automatic enrollment policies in increasing participation in retirement saving plans. Virtually all of these studies examine private sector firms where a 401(k) plan is the only retirement plan offered by the employer. In contrast, there are no studies of the introduction of automatic enrollment by state and local governments.

In general, all public full-time employees are covered by a mandatory pension, usually a defined benefit plan. As a result, career public employees that are also covered by Social Security are likely to have a life annuity equal to 70-80% of their final salary. While government employers offer their employees the opportunity to contribute to a retirement saving plan, employees may believe that they have less of a need for additional retirement saving. In addition, the plans offered by government employers rarely have matching employer contributions, so there is less of an incentive for employees to contribute to these plans.

As a result, participation rates in retirement saving plans in the public sector tend to be much lower than they are for private sector firms. In our example, only about 3% of newly hired workers in South Dakota enrolled in the 457 plan offered to state and local employees prior to 2010. The objective of this study is to determine whether employees in South Dakota responded to the introduction of an automatic enrollment policy at the same level as private sector employees.

The key finding of this analysis is that participant rates in the retirement saving plan go from less than 3% to 90% after the introduction of automatic enrollment. The richness of the data provided by the SDRS allows us to explore several interesting issues. A unique component of the data is that South Dakota allowed each government agency to adopt automatic enrollment in 2010, but the agencies were not required to adopt this policy. As a result, we can compare the change in participation over time for the same agencies before and after the introduction of auto enroll and also to compare employees hired in agencies with and without auto enrollment in the same year. All of the comparisons indicate that the introduction of automatic enrollment yields increases in participation rates of newly hired employees of over 80 percentage points. Similar to earlier studies, our regression analysis illustrates that the adoption of automatic enrollment tends to equalize participation rates across age, gender, and level of income.

Another difference in the automatic enrollment policy in South Dakota is the relatively low default contribution rate of $25 per month, or approximately 1% of the average salary of a new employee. This low default contribution may partially explain the large response to the auto enroll policy. The typical South Dakota employee follows the usual pattern of remaining at the default contribution.

This study shows that public employees who are covered by a defined benefit plan and Social Security tend not to contribute to a traditional opt-in retirement saving plan; however, the adoption of automatic enrollment for new employees results in a dramatic increase in the proportion of employees who participate in the plan. Across the country, state and local governments are reducing the generosity of their retirement plans. As a result, the findings from this study have important policy implications and indicate that state and local governments should consider the adoption of defaults to encourage participation in the supplemental saving plans to enhance the retirement security of public employees.

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