Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees

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Executive Summary
State-run retirement plans for non-covered private sector employees are a rapidly growing area of state policy. Since 2010, the majority of states in the U.S. have moved to either examine, enact, or implement these plans. This policy intends to increase private savings in an effort to reduce future reliance on public assistance and Social Security. Despite the current public policy interest, there is a lack of research evaluating the impact of plans or common state characteristics that are associated movement in this policy area. This capstone focuses on answering the latter question. Using state-level demographic, pension, welfare, and policy data, this paper statistically analyzes which factors may influence states’ movement to examine state-run retirement plans and which factors may play a role in states enacting these plans.

Key findings include:

- States with higher percentages of their populations living at 100-149% of the poverty level have a higher probability of seeing a state-run retirement plan proposed, studied, or enacted.
- States with Democratic governors have a higher probability of seeing a state-run retirement plan proposed or studied.
- States with higher poverty rates and higher percentages of their populations living below 100% of the poverty level have a decreased probability of seeing a state-run retirement plan proposed, studied, or enacted.
Problem Statement

The United States’ aging population presents a conundrum for public policy, government bodies, families, and the retirees themselves. Although not the first generation to retire, the baby boomer generation is the largest American generation to retire thus far. As they depart from the workforce, baby boomers leave behind smaller generations to continue to pay much-needed payroll and income taxes to fund government expenditures. Additionally, many baby boomers can expect an unprecedented length of time in retirement. The average lifespan in the U.S. has increased dramatically since the beginning of the 20th century; however, the average American does not have enough saved for an elongated retirement and long-term care (Fottrell, 2018). The difference between an American’s average savings and the estimated cost of retirement and care causes great concern about the future of retirement for baby boomers and following generations.

Moreover, in 2019 the U.S. Government Accountability Office (GAO) testified before the Senate Special Committee on Aging regarding the retirement system in the U.S. The concern about the state of retirement is well-documented (Gallop, 2018; GAO, 2019; Health and Retirement Study: Aging in the 21st Century, 2017; The New School, 2017). The GAO’s testimony builds upon this concern with a clear overview of the three “pillars” that represent the primary sources of retirement income: Social Security, employer retirement plans, and private savings. Balancing these income sources is necessary; overreliance on any one source can threaten its financial solvency, whether that source is a government program, private businesses, or an individual. Decreasing the financial solvency of any one of these sources has ripple effects for the entire retirement system. Consequently, it was troubling that the GAO’s testimony noted that many future retirees face financial stress due to a lack of personal savings and the likelihood that Social Security may not be sufficient to meet their needs. Their research also indicated that many lower-income workers do not have access to a retirement plan. State-level research has
found similarly troubling statistics. For instance, an analysis conducted by the Kentucky Center for Economic Policy (KCEP) showed that Social Security was the only source of income for 35% of Kentuckians 65 or older (Spalding, 2016). Additionally, Social Security represented half or more of the total income for most Kentuckians 65 or older (Spalding, 2016). While income levels and types vary by state, the research conducted in Kentucky echoes the concerns listed in the GAO’s report to Congress.

Consequently, states are searching for ways to ensure their citizens are more prepared for retirement. One identified group at risk for low retirement savings is private sector employees whose employers offer no retirement plans. According to the Pew Charitable Trust, “thirty-five percent of private sector workers 22 and older do not work for an employer that offers a defined contribution plan or a traditional defined benefit plan.” Thus, several states are exploring state run retirement plans where the state sets up a retirement plan in which non-covered private sector employees can enroll (Tergesen, 2019). While most states have examined this course of action, only ten states have enacted programs (Georgetown University Center for Retirement Initiatives, 2019). This capstone analyzes demographic characteristics of these ten states to discern the most prominent characteristics that predict enactment of state-run retirement plans. Additionally, this capstone analyzes the same characteristics for all states that have considered legislation and proposals for state-run retirement plans. Understanding the characteristics at work may be crucial for other states considering these retirement plans or for advocacy groups who want to develop initiatives regarding this policy.
Background

Timeline

State-run retirement plans started developing in 2012. For the first few years, only a few states, such as Massachusetts, California, and Oregon, enacted or even considered this policy area. However, significant policy movement started in 2015: three other states enacted programs and the number of states examining legislation more than doubled. Since then, the majority of states have considered this policy area, and ten states have enacted programs through legislation or implemented working programs (Center for Retirement Initiatives, 2019). The progression of state-run retirement plans from 2010-2017 is shown in a series of maps found in Appendix A.

State-Run Retirement Plans

A state-run retirement plan is a state-level plan for private sector employees who are not covered by an employer retirement plan. This is a completely new category of plans that are separate from public pensions for government employees and private-sector provided plans. For state-run plans, states select the plan type, the infrastructure, and administrative authority (Center for Retirement Initiatives, 2018). More specific details are up to the states and depend on a combination of state and federal policy. The desired outcomes of such retirement plans are to increase private savings for lower-income workers and to decrease future government program spending (The Pew Charitable Trusts, 2018). While both goals appeal to states, they must also consider their administrative capacity to oversee such programs.

So far, states have enacted or considered four plan types: auto-IRAs, voluntary IRAs, Multiple Employer Plans (MEPs), and voluntary marketplaces (Center for Retirement Initiatives, 2018). Auto-IRA plans require eligible employers to enroll in the state plan if the employers do not already offer a plan. However, employees can opt out of enrollment. Voluntary IRAs make
employer enrollment optional. Both utilize tax deductible payroll deductions from employees; employers cannot contribute to IRAs (Center for Retirement Initiatives, 2018). MEPs are 401(k)s or other pension plans where all assets in the employer plan are congregated to pay for benefits and costs (Morse & Antonelli, 2017). Employers can contribute to these retirement plans and must play a more involved role than in the IRA plans (Center for Retirement Initiatives, 2018). Marketplace plans operate similarly to the Affordable Care Act health insurance marketplace. The state establishes the retirement plan marketplace, enabling employers to connect with private sector retirement providers (Center for Retirement Initiatives, 2018). The state evaluates providers before allowing marketplace access, but the employer must then determine the actual selection (Center for Retirement Initiatives, 2018).

**ERISA**

Additionally, states must consider the Employer Retirement Income Security Act (ERISA). Congress established the ERISA in 1974 in order to protect employees participating in private sector employee benefit plans (Morse, 2014). Although government benefit plans are exempt from ERISA regulation, state-run retirement plans are not necessarily exempt since they enroll private sector employees. States with exempt plans institute original plan details whereas non-exempt plans must comply wholly to ERISA regulation that preempts state law (Morse, 2014). The determination of exemption versus non-exemption ties into the plan design, the extent of employer involvement, and employee control. Given the limited employer role and the employee’s ability to opt out, IRA plans are exempt from ERISA regulation. MEPs, however, are not exempt due to the employer role in contributions and plan details. Marketplaces are exempt because states do not play an active role in enrolling or administering plans. Rather, they are only
responsible for setting up and maintaining the marketplace. Private sector plans operating within the marketplace, however, would comply with ERISA (Center for Retirement Initiatives, 2018).

Thus, the state’s level of participation can vary. For IRA plans, states are heavily involved in administration, implementation, and communication of programs. MEPs require states to name a plan sponsor and fiduciary. In marketplace plans, states set standards for private sector plans and establish the marketplace itself (Center for Retirement Initiatives, 2018). So far, the auto-IRA model has proven to be the most common choice for states; five out of ten of the enacted plans are auto-IRAs (Center for Retirement Initiatives, 2018). Given the exemption from ERISA regulation and the simplicity of the IRA structure, this is not a surprise. Furthermore, auto-IRAs lead to increased participation, even with the option to opt out (Morse & Antonelli, 2017)(AARP, 2016). Thus auto-IRAs appear to be a promising policy solution.

Concerns

At the same time, different concerns have been expressed about the nature of state-run retirement plans. Some researchers argue that these plans could hurt low-income workers since funds would be diverted from paying current debt (Evermore, 2019). Other organizations and researchers voice concerns about the compulsory nature of these programs, the employer burden, and the structure of these programs (John & Antonelli, 2017). While this paper’s purpose is not to address such criticism, it is important to note this commentary because there are divided opinions regarding the selection of state-run retirement plans. Although they are an important and current policy issue, there are differing perspectives on their viability as a retirement solution.
**Current Response**

Nevertheless, some states have implemented state-run retirement plans and have already seen promising results. In Oregon, 82% of the public supports OregonSaves, the state’s auto-IRA plan. More than 44,000 employees have enrolled, and the average savings rate is around 5.2% (Read, 2018). In California, researchers at UC-Berkley have examined the separate and combined effect of the state’s auto-IRA plan and the recent state minimum wage increase. Researchers found that the auto-IRA plan has the potential to increase retirement incomes for both low-income workers and middle-income workers (Rhee, 2017).

**Policy Diffusion**

It is difficult to find literature explaining the policy diffusion behind state-run retirement plans. Additionally, identifying focusing events leading to the creation of state-run retirement plans is also difficult. The best candidate for a focusing event is President Obama’s myRA program that ran from 2015 to 2017. President Obama announced the myRA program in his 2014 State of the Union address, and rolled out the federal program in 2015 (Bennett & Prinzinger, 2014) (Vinnik, 2018). The myRA program provided a way for workers with no access to a retirement plan to save for retirement by creating voluntary Roth IRAs that employers could enroll in order to allow their workers to contribute through their paychecks (Powell, 2017).

However, the federal program failed to reach its desired impact; only 20,000 individuals enrolled even though the program cost $70 million to run (Leonhardt, 2017) (Powell, 2017). President Trump’s administration closed the program in 2017 due to the analysis of the program’s high cost and low enrollment numbers (Vinnik, 2018). Yet, President Obama’s announcement and rollout of this program may have served as a focusing event for states. 2015 was also a year of significant movement in the state-run retirement plan policy area; the presence
of the myRA program probably brought the issue to states’ attention and motivated some to examine the program concept more seriously. Further, despite the closure of the myRA program, states have continued with their efforts to offer similar retirement plans at the state level to help the same private sector population save for retirement.

**Literature Review**

Since activity in this policy area began only seven years ago, and since only ten states have enacted plans so far, state-run retirement plans are still very new (State Initiatives 2019: New Programs Begin Implementation While Others Consider Action, 2019). Of these ten states, only California, Illinois, Massachusetts, Oregon, and Washington have fully functioning programs with enrolled employees. Connecticut, Maryland, New Jersey, New York, and Vermont are still developing programs. Most existing literature, therefore, discusses the legislation leading to these plans, explores the potential challenges or benefits of these plans, or tracks the progress of such plans.

Due to the lack of literature, some states have conducted their own studies regarding the need for state action and the financial feasibility of state-run retirement plans. In 2014, Utah commissioned a study to examine the financial preparedness of retirees and the effect of increased savings rates on the general public (Goodliffe, et al, 2015). While the purpose of the study was not to endorse state-run retirement plans, the study did illuminate the need to increase retirement savings opportunities. The KCEP released a report in 2016 that specifically called for a state-run retirement plan in response to state data on the lack of employer-sponsored retirement plans and on seniors’ reliance on Social Security (Spalding, 2016). Additionally, states such as California and Connecticut have conducted feasibility studies indicating that the programs can
break even after initial significant program investment (California Secure Choice Retirement

A few organizations, such as the Pension Rights Center, AARP, National Conference of
State Legislatures (NCSL), and the Pew Research Center, devote several briefs and posts to
outlining the timelines and status for state legislation. The Pension Rights Center provides a
detailed timeline for each state tracking any legislation that has been proposed, passed, or
implemented. Although the specificity is useful, the timelines are out of date by almost three
years (State-based Retirement Plans for the Private Sector, 2012). NCSL possesses a more up to
date account of state movements in this policy area, although with less explanatory detail than
the Pension Rights Center. The AARP possesses a state retirement savings resources center that
contains up to date information on state-run retirement plans, albeit with fewer details about the
evolution of the policy than NCSL or the Pensions Right Center (State Retirement Savings
Plans). Pew’s research focuses both on the prospective retirement savings produced by these
plans as well as general employer-based retirement access across the U.S. and the continued need
for retirement planning by states (Auto-IRAs Could Help Retirees Boost Social Security
Payments, 2018; Employer-based Retirement Plan Access and Participation across the 50 States,
2016).

Georgetown University’s Center for Retirement Initiatives devotes significant resources
to tracking the progress of state-run retirement plans and to presenting different strategic
approaches to implementing these plans. Although the center does not allow public access to all
of its data and reports, the accessible portion provides excellent resources regarding the elements
of these retirement plans. The Center provides an up to date color-coded map of the U.S.
indicating states that have enacted plans, proposed or studied plans, recently looked at plans, or
have done nothing related to such plans (State Initiatives 2019: New Programs Begin Implementation While Others Consider Action, 2019). The Center has also published a series of policy briefs regarding implementation strategies based on other state run programs, pertinent federal laws, retirement plan design features, and financial feasibility (Feirstein, 2016; Morse, 2014; Rhee, 2016; State-Facilitated Retirement Savings Programs: A Snapshot of Plan Design Features, 2018). Details of the retirement plans vary by state. As previously mentioned, each state utilizes one of four different retirement plan models and the enrollment methodology and regulations vary per model (Miller, 2018). Additionally, each state debuts its retirement plan differently and can require companies to enroll at different times. For instance, Oregon is rolling out its retirement plan in stages, requiring progressively smaller employers to enroll until all employers are enrolled in the state auto-IRA plan by 2020 (Oregon Saves, 2018).

This area of public policy is both exhilarating and troubling to watch. The movement on the state level to bridge the retirement savings gap is encouraging. However, there is a dearth of analysis regarding the success and impact of these programs. Furthermore, there is little analysis about the reason so many states have researched state-run retirement plans while only ten of those states have enacted such plans. Clearly these public policy questions require further analysis. My capstone starts with the current research summarized above and analyzes the characteristics of the states that have started or considered these retirement plans. This will highlight factors that prompt a state to pursue this public policy solution.
The Current Project

Data Sources

For this capstone, I wanted to analyze how state demographic variables affected the states’ decisions to take action regarding state-run retirement plans. I hypothesized that income factors, public pension solvency, state politicians’ political affiliation, and demographics of the senior citizen population would be significant results. Due to a lack of research demonstrating any significant factors in this policy movement, I selected these types of variables as a starting point to gauge areas of influence. Further, I wanted to examine if the significance of these variables differed between a proposal or study of this policy and an enactment of this policy. The difference between the number of states considering state-run retirement plans and the number of states enacting plans indicates a factor or factors that dissuade further action.

In order to address this hypothesis, I incorporated four types of data into my model. First, I used American Community Survey (ACS) 5-year estimate tables for the “POPULATION 60 YEARS AND OVER IN THE UNITED STATES.” These tables record population characteristic estimates for the 60 years and over population of the U.S. compared to the total population of the U.S. I chose the 5-year estimates since these estimates were available for all eight of the years I analyzed and since these estimates are the most comprehensive of the ACS estimates. I categorized the data by state and downloaded a table for each year from 2010-2017. I then combined all eight tables into one ACS panel data set. The second data source I used was welfare data from the University of Kentucky Center on Poverty Research (UKCPR). UKCPR is a research center in the Gatton College of Business and Economics that annually updates a national panel data set. The data includes state-level data on public assistance programs, poverty, governor political affiliation, and political composition of state house and senate. Third, I utilized
Pew’s state public pension data. For this source, I only incorporated the funding ratios of public employee pensions in each state. I used this variable to discern if there was a significant trend in policy movement that corresponded with changing levels in the funding of the public pensions systems. See Appendix B for a complete list of variables from all three data sources along with their definitions.

Lastly, I created a panel data set of state actions toward state-run retirement plans for 2010-2017. This data required multiple resources to find records of any state activity in this area. The Georgetown Center for Retirement Initiatives tracks state policy movement and publishes annual maps of the action statuses. However, Georgetown also limits public access to their reports, so updates regarding state activity are largely inaccessible. Consequently, I went through any past research articles and memos from Georgetown to find the action statuses for previous years. I also utilized the legislative data that the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center have tracked in order to complete my panel data. For categorization, I used most of the same categories that Georgetown defined; however, for the purpose of my model, I added categories of my own: “Failed Legislation” and “No Further Action” replaced the “Recent Action” category that Georgetown uses. I wanted the categorization to be more specific in this project. I have listed the categories and their definitions below in Figure 1. The maps in Appendix A also use these action categories to show the spread of state-run retirement plans. Creating a panel data set of the action statuses then allowed for the merging of this data set with the ACS, pension, and UKCPR data in order to analyze what factors may have had a role in the movement of this policy.
Figure 1. Action Definitions.

<table>
<thead>
<tr>
<th>Action</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Action</td>
<td>No legislative activity in this policy area</td>
</tr>
<tr>
<td>Proposal / Study</td>
<td>Legislative member proposed a study or legislation</td>
</tr>
<tr>
<td>No Further Action</td>
<td>Legislation did not proceed out of committee or to a vote</td>
</tr>
<tr>
<td>Failed Legislation</td>
<td>Legislation did proceed to a vote but the vote failed</td>
</tr>
<tr>
<td>Enacted</td>
<td>Legislation passed; a retirement plan was approved</td>
</tr>
<tr>
<td>Implemented</td>
<td>Retirement plan is ready to use and enrollment has begun</td>
</tr>
</tbody>
</table>

Method of Analysis

I merged all panel data from these four sources into one data set. Then, I estimated hazard models to analyze the effect of different independent variables on the time to an action. A hazard model estimates relationships between various factors and the time it takes for a specific event to happen (Albarqouni, 2018). The resulting hazard ratios of each variable indicates their effects on the probability of the event of interest, known as “failure,” a technical term in hazard models for whatever action, good or bad, is observed (Albarqouni, 2018; UCLA Institute for Digital Research and Education). I ran four hazard models. For all four, the dependent variable was an action; the unit of time was year; and the observations were states. The first and second models used the time to proposal or study as the dependent variable. The first model used demographic variables for total state populations. The second used demographic variables for the state population 60 years or older. The third and fourth models used the time to enactment as the dependent variable. The third model used demographic variables for total state populations. The
fourth used demographic variables for the state population 60 years or older. All four hazard models used the same public pension, poverty, and political variables. See Appendix B for the complete list of variables included in the hazard models.

**Results**

Significant results of the hazard models run are displayed below. See Appendix C for the complete list of results. The designation of failure refers to which action was being observed in the hazard model. Hazard ratios have multiplicative effects on the probability; values less than 1.0 indicate a decrease and values greater than 1.0 indicate an increase. Consequently, the statistical tests are based on a null hypothesis of 1.0, instead of 0.0, as in usual regressions.

**Figure 2. Statistically Significant Results with Hazard Model with Proposal / Study as Failure**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hazard Ratio</th>
<th>Standard Error</th>
<th>Z</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty_100_149percent_Total</td>
<td>2.374</td>
<td>0.826</td>
<td>2.48</td>
<td>0.013**</td>
</tr>
<tr>
<td>povertyrate</td>
<td>0.812</td>
<td>0.097</td>
<td>-1.75</td>
<td>0.080*</td>
</tr>
<tr>
<td>governorisdemocrat1yes</td>
<td>2.487</td>
<td>1.112</td>
<td>2.04</td>
<td>0.042**</td>
</tr>
</tbody>
</table>

*Indicates significance at the 90% confidence level  
**Indicates significance at the 95% confidence level

The majority of variables included in this analysis were not statistically significant predictors of legislative action. However, three results were significant for the Proposal / Study Model: the governor’s political affiliation, the poverty rate, and the percentage of the population living at an income level between 100-149% of the poverty level. The hazard ratio for the governor’s political affiliation indicates that having a democratic governor is associated with a 2.5 factor increase in probability of a state-run retirement plan being proposed or studied. Thus, states with democratic governor are much more likely to see legislation proposed in this policy area. The hazard ratio for the percentage of the population between 100-149% of the poverty level
indicates that for a 1% increase in this population there is a 2.4 factor increase in probability of a state-run retirement plan being proposed or studied. This indicates that states with higher portions of their populations living at this income level would more likely see this sort of legislation proposed. The hazard ratio for the poverty rate indicates that a 1% increase decreased the probability of this policy action occurring by a factor of 0.8. This indicates that states with overall poorer populations were less likely to see legislation proposed in this area.

**Figure 3. Statistically Significant Results with Hazard Model with Enacted as Failure**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hazard Ratio</th>
<th>Standard Error</th>
<th>Z</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty_100_149percent_Total</td>
<td>8.686</td>
<td>9.460</td>
<td>1.98</td>
<td>0.047**</td>
</tr>
<tr>
<td>Poverty_100percent_Total</td>
<td>0.171</td>
<td>0.143</td>
<td>-2.12</td>
<td>0.034**</td>
</tr>
</tbody>
</table>

**Indicates significance at the 95% confidence level**

For the hazard model estimated with the Enacted status, only the population living below 150% of the poverty level was significant. A 1% increase in the population living between 100% and 149% increased the probability of enactment by a factor of 8.7. Conversely, a 1% increase in the population living below 100% decreased the probability of enactment by a factor of 0.2. These results suggest that states with larger populations between 100-149% of the poverty level are eight times more likely than other states to enact state-run retirement plans. Given the low hazard ratio, states with larger populations below 100% of the poverty level are only slightly less likely to enact these plans compared to other states.

These models were also estimated using the same category of variables listed in Appendix B for the 60 years and over population. These models tested the hypothesis that the aging population characteristics would have a significant effect on action in this policy area. However, little statistical significance was found by this data analysis method. Only one factor
was statistically significant when the model was run with the Proposal / Study action, and no factors were statistically significant when the model was run with the Enacted action.

**Figure 4. Hazard Model with Proposal / Study as Failure for 60 Years and Older**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hazard Ratio</th>
<th>Standard Error</th>
<th>Z</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education_HSorGED_60yrs</td>
<td>0.862</td>
<td>0.0568</td>
<td>-2.25</td>
<td>0.025**</td>
</tr>
</tbody>
</table>

**Indicates significance at the 95% confidence level**

This one significant variable indicated that a 1% increase in the 60 or older population with some high school education decreased the probability of this policy action by a factor of 0.862. There may be other variables for this population that are significant, but if so, they are outside of the scope of the data used in this capstone.

**Analysis and Implications**

These models indicated that, in general, education levels, types of household income, number of senior citizens, and public assistance program participation do not have a significant effect on the interest or legislative initiation of state-run retirement plans. Instead, the presence of a Democratic governor and levels of poverty affect the initial movement of this policy. In terms of enacting state-run retirement plans, political affiliation appears to play an even smaller role, since only poverty levels appeared to be statistically significant. This could speak to the good intentions of the policy, since it is designed to incentivize retirement savings for private sector employees who need to save for retirement but do not have the means to do so financially or through their employer. This could mean that social need is genuinely driving the policy process for these plans rather than partisanship.

The significance of these two variables is important to note: both poverty level variables are significant, but they have opposite effects on the probability of policy movement. This could
indicate that the population living below 100% of the poverty level lives in such extreme poverty that policymakers prioritize other programs, such as social service programs, instead of retirement programs. The decrease in probability affected by the poverty rate indicates this as well; higher poverty rates could force state governments to focus on ways to provide shelter, food, and jobs rather than retirement savings. At the same time, the effect of the population living at 100 to 149% of the poverty level indicates that this population is the target population for this policy. GAO’s testimony, referenced in the literature review, emphasized the lack of access to lower-income workers (see Figure 5).

**Figure 5. Workers’ Access to Employer-Sponsored Retirement Plans by Income Level, 2012**

This lack of access is especially prominent for earners of $31,176 or less who are earning close to the Federal poverty level. Figure 6 (see below) indicates the poverty levels for the years analyzed in the capstone and the 100% and 149% levels of those guidelines.

**Figure 6. 100% and 149% of the Federal Poverty Guidelines for 2010-2017.**

<table>
<thead>
<tr>
<th>Year</th>
<th>First Person-100%</th>
<th>Four-Person Family-100%</th>
<th>First Person--149%</th>
<th>Four-Person Family--149%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>$12,060.00</td>
<td>$24,600.00</td>
<td>$ 17,969.40</td>
<td>$ 36,654.00</td>
</tr>
<tr>
<td>2016</td>
<td>$11,880.00</td>
<td>$24,300.00</td>
<td>$ 17,701.20</td>
<td>$ 36,207.00</td>
</tr>
</tbody>
</table>
All of the 100% and 149% of the poverty level figures exist in the bottom three quartiles of the worker income levels in Figure 4. That means that the majority of individuals in the 149% of the poverty level have much lower access to employer-provided retirement plans and would benefit the most from state-run retirement plans. The statistical significance of this variable in the hazard models therefore indicates the role of this population in the policy making process.

Not many demographic variables regarding seniors were found to be statistically significant. Only one education attainment factor was significant in the Proposal / Study phase of this policy movement, and none were significant in the movement toward enacting these plans. The presence of this factor in the first action, and its effective decrease on the probability of action, could indicate that state governments prioritize other programming over retirement plans in the presence of this population. Since these workers or retirees are 60 and older, they may rely significantly on Social Security and other forms of assistance. State-run retirement plans would not help this population; medical programs, community interaction, and income assistance would benefit this population more. So, the decrease in probability related to this section of the population makes sense. The low potential impact of state-run retirement plans on the 60 and older population could also explain the lack of significance of other variables. A significant shift in available retirement plans would have minimal impact on persons close to that age because
there is very limited investment income they could acquire from participating in such plans. This would in turn indicate that this is a long-term retirement solution policy rather than a short-term fix. This is a positive aspect of the policy design.

In terms of political influences, the political affiliations of a state’s government appeared to have minimal impact. The governor’s political affiliation did have an impact in initiating any legislative activity regarding this policy. However, the impact does not seem to have an effect on enacting a policy. This could indicate that while a governor can marshal initial support and interest for state-run retirement plans, their political influence is not enough to support this measure. Rather, other factors must be in place for the plan to be enacted in the state.

Interestingly, the composition of the state legislature did not have a significant effect in any of these models. Variables for members of both parties in the state legislature were included, but the results were not statistically significant. This could imply that this policy is bipartisan in nature. Since this policy’s goal is to encourage private savings, rather than generate government funds or further government programs, there is credence to this analysis.

**Limitations**

Though this study has important strengths, its limitations should also be considered. First, the sample size for this project is fairly small; if more states enact state-run retirement plans in the future, it will be easier to study characterizations and motivations at work. Also, there are several additional statistical methods that could be used to analyze this data, as well as other data and factors that could be considered. This is a project that could be monitored and studied for years, and continual data analysis would yield better eventual results. Due to limited literature available on state-run retirement plans, it is difficult to determine the influence of political factors such as prominent political actors, issue framing, and national organizations.
Furthermore, the time frame of the capstone limits the amount of research on political factors. Research that focuses on the influence of political factors would provide better estimations of their roles. Additionally, this project is not predictive of a plan’s success. That is neither the purpose of this project nor a byproduct. There is not enough data available on the implementation of these programs to perform a program evaluation, and this capstone cannot serve as a substitute. Future research should evaluate these programs in order to properly address current concern regarding these programs. At this point in the state policy process, one can only analyze what may have motivated states to move forward with these retirement policies.

**Conclusion**

Further research on state-run retirement plans is needed. This is a burgeoning area of state policy, and much analysis should be done in order to assist state governments in determining the need and applicability of these plans. The findings in this paper demonstrate this policy process is not solely driven by any political body or single portion of the population. Rather, it is driven by the presence of residents who face a scarcity of resources and who could be positively affected by this retirement planning. Further research should analyze whether this continues as more states enact state-run retirement plans. Additionally, the effects of these retirement plans should be evaluated once more data is available.
Sources


UCLA Institute for Digital Research and Education. Survival Analysis with Stata. Retrieved from https://stats.idre.ucla.edu/stata/seminars/stata-survival/

Appendix A - Maps of State-Run Retirement Plan Statuses by Year

2010 State-Run Retirement Plan Statuses

Map by J. A. Cooper
University of Tennessee, Knoxville
April 2019
for Ruthann Freberg
University of Kentucky
"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.

2011 State-Run Retirement Plan Statuses

Map by J. A. Cooper
University of Tennessee, Knoxville
April 2019
for Ruthann Freberg
University of Kentucky
"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
2012 State-Run Retirement Plan Statuses

Map by J. A. Cooper
University of Tennessee, Knoxville
April 2019

for Ruthann Froberg
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"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
2013 State-Run Retirement Plan Statuses

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April 2019

for Ruthann Froberg
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Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
2014 State-Run Retirement Plan Statuses

Map by J. A. Cooper
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April 2019

for Ruthann Froberg
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"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
2015 State-Run Retirement Plan Statuses

Map by J. A. Cooper
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April 2019

for Ruthann Froberg
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"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
2016 State-Run Retirement Plan Statuses

Map by J. A. Cooper
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April 2019

for Ruthann Froberg
University of Kentucky
"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
2017 State-Run Retirement Plan Statuses

Map by J. A. Cooper
University of Tennessee, Knoxville
April 2019

for Ruthann Froberg
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"Analyzing the Presence of State-Run Retirement Plans for Private Sector Employees"

Data sourced from The Georgetown Center for Retirement Initiatives, the Pew Charitable Trusts, National Conference of State Legislatures (NCSL), and Pension Rights Center. All data presented here were obtained through open-source measures and are not held solely by the author.
### Appendix B - Variables Used in Hazard Models

<table>
<thead>
<tr>
<th>Variable</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>ActFundedRatio_GASB</td>
<td>Funding Ratio for State Public Pension Fund</td>
</tr>
<tr>
<td>Education_BAorhigher_Total</td>
<td>Population Percentage with a Bachelor’s or Higher</td>
</tr>
<tr>
<td>Education_HSorGED_Total</td>
<td>Population Percentage that Completed all or Part of High School</td>
</tr>
<tr>
<td>Income_householdsSNAP_Total</td>
<td>Population Percentage Receiving SNAP Benefits</td>
</tr>
<tr>
<td>Income_householdsSSI_Total</td>
<td>Population Percentage Receiving SSI Benefits</td>
</tr>
<tr>
<td>Income_householdsearnings_Total</td>
<td>Population Percentage Receiving Wage Earnings</td>
</tr>
<tr>
<td>Poverty_100_149percent_Total</td>
<td>Population Percentage Between 100-149% of the Federal Poverty Level</td>
</tr>
<tr>
<td>Poverty_100percent_Total</td>
<td>Population Percentage Below 100% of the Federal Poverty Level</td>
</tr>
<tr>
<td>Unemploymentrate</td>
<td>State Unemployment Rate</td>
</tr>
<tr>
<td>gsp_60s</td>
<td>Gross State Product in $1,000,000 units</td>
</tr>
<tr>
<td>povertyrate</td>
<td>State Poverty Rate</td>
</tr>
<tr>
<td>governorisdemocrat1yes</td>
<td>Governor’s Political Party Affiliation</td>
</tr>
<tr>
<td>ssirec_60s</td>
<td>Number of SSI Recipients per State in 1,000,000 units</td>
</tr>
<tr>
<td>numberinlowerhousedemocrat</td>
<td>Number of Democrats in the Lower House in the State Legislature</td>
</tr>
<tr>
<td>numberinlowerhouserepublican</td>
<td>Number of Republicans in the Lower House in the State Legislature</td>
</tr>
<tr>
<td>numberinupperhousedemocrat</td>
<td>Number of Democrats in the Upper House in the State Legislature</td>
</tr>
<tr>
<td>numberinupperhouserepublican</td>
<td>Number of Republicans in the Upper House in the State Legislature</td>
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Appendix C - Results of Hazard Models

Hazard Model 1 - Proposal / Study as “Failure” for State Population Totals

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hazard Ratio</th>
<th>Standard Error</th>
<th>Z</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ActFundedRatio_GASB</td>
<td>0.490</td>
<td>0.849</td>
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<td>0.680</td>
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<tr>
<td>Education_BAorhigher_Total</td>
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<td>0.36</td>
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<td>Education_HSorGED_Total</td>
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<td>0.114</td>
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<tr>
<td>Income_householdsSNAP_Total</td>
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<td>0.098</td>
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<td>Income_householdsSSI_Total</td>
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<tr>
<td>Poverty_100_149percent_Total</td>
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Hazard Model 2 - Proposal / Study as “Failure” for State Population 60 or Older

<table>
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<tr>
<th>Variable</th>
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<th>Standard Error</th>
<th>Z</th>
<th>P-Value</th>
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<tr>
<td>Variable</td>
<td>Hazard Ratio</td>
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<td>----------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>-------</td>
<td>---------</td>
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<tr>
<td>ActFundedRatio_GASB</td>
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<td>0.354</td>
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</tr>
<tr>
<td>Education_BAorhigher_Total</td>
<td>1.074</td>
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<td>Education_HSorGED_Total</td>
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<td>0.221</td>
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<tr>
<td>Income_householdsSNAP_Total</td>
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Hazard Model 3 - Enacted as “Failure” for State Population Totals
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<tr>
<th>Variable</th>
<th>Hazard Ratio</th>
<th>Standard Error</th>
<th>Z</th>
<th>P-Value</th>
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<tbody>
<tr>
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<td>Income_householdsSSI_60years</td>
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<td>Income_householdsearnings_60years</td>
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<td>Poverty_100_149percent_60years</td>
<td>1.605</td>
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<td>0.902</td>
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Hazard Model 4 - Enacted as “Failure” for State Population 60 or Older
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<th>Variable</th>
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<th>Value 3</th>
<th>Value 4</th>
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