



## Correctional Agencies and Elderly Prisoners: What Determines Quality of Care?

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K. Juree Capers and Jennifer Bashford

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**Determinants of Elderly Prisoner Care**

**Dr. K. Juree Capers**  
**Jennifer Bashford**  
**Georgia State University**  
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### Abstract

The older prison population is rapidly increasing, with major consequences for state correctional agencies. Older inmates suffer age-related illnesses at an earlier age and cost significantly more to house than younger inmates, yet the majority of prison facilities are not equipped to handle the special needs of this demographic (Sharick, 2011). While some states have built designated facilities, others have instituted less costly programs such as prisoner-led care or hospice. In this paper, we investigate why some state departments of correction are better than others at providing care for elderly prisoners, using four subsets of determinants: economic, political, social, and institutional. Using an original data set encompassing state political leadership, demographics, financial health, organizational structure, and other relevant variables, this paper analyzes the factors that affect a state department of corrections' policies and behavior towards elderly prisoners. Public management scholars note organizational performance and outcomes are affected by various elements; understanding how exogenous components interact with organizational behavior will allow states to better serve this population. Our research contributes to the literature by examining the impact of these factors on a population subgroup.

*Keywords: Incarceration, elderly, organization, politics, economics*

## Introduction

Policymakers frequently hear about the issues dealing with incarceration in this country, including overpopulated prisons, insufficient funding, and inadequate programs for reentry. Yet the specific issues of geriatric inmates are often overlooked, despite their growing contribution to the prison population. Inmates aged 50 and older are increasing at a rate three times that of the general prison population (Reimer, 2008). At the end of 2016, there were an estimated 1.51 million prisoners held in state and federal facilities, 20% of whom were aged 50 and over (U.S. Department of Justice, 2018). By 2030, one-third of all inmates will be over 55, which means that the elderly prison population is expected to increase by 4,400% from 1981 to 2030 (ACLU, 2012; Cohen, 2015).

An aging prison population means that correctional facilities across the U.S. must contend with the financial and health challenges that often accompany an aging populous. Older inmates have a significantly worse quality of life than the general prison population due to chronic and acute health concerns, mobility issues, mental illness, and elder abuse. A 2006 study showed that 61% of inmates over 45 years old reported at least one current medical problem, while 44% said they were impaired (Reimer, 2008). Older prisoners also have increased prescription medicine costs, as chronic illnesses require more medication, and approximately 85% of older inmates have comorbid conditions (Loeb, Steffensmeier, & Lawrence, 2008). Consequently, states estimate that they spend significantly more per older inmate than younger inmate. For example, North Carolina spends four times the amount on prisoners over 50 than on those under 50 (ACLU, 2012). Similarly, the Federal Bureau of Prisons spent over 19% of its total budget on aging prisoners in 2013, with each older inmate costing on average approximately 8% more to incarcerate than younger inmates.

Most prisons are not equipped to provide the necessary care for this inmate demographic, with general facilities unable to cope with inmates with mobility issues (limited access to elevators, small doorways, limited number of lower level bunks, etc.) or cognitive concerns (Ewing, 2015). Responses to the aging prisoner population varies across the country. Some states and facilities have taken measures to address the needs of older prisoners, choosing to create specialized elderly or medical facilities (Sharick, 2011). Others rely on non-profits, volunteers, or other prisoners to assist older inmates, while the remainder make limited, poorly regulated ad-hoc modifications to facilities and policies to serve older inmates. We seek to understand the determinants of elderly prisoner care. Specifically, we ask, *why are some states better than others at providing care for elderly prisoners?*

Broadly, policy adoption and diffusion literature suggest that political factors, social factors, and geographic proximity to early policy adopters best explain states' criminal justice policies (Berry & Berry, 2007; Walker, 1969). Additionally, research on criminal justice reforms suggests that functional and economic factors best predict criminal justice policy and program adoption (Nicholson-Crotty & Meier, 2003; Williams, 2003). However, researchers have not offered much insight on how states handle policymaking for subpopulations, and the current research on the predictors of criminal justice reforms remains unclear. We seek to add to this body of research as our study considers the factors that drive states to address the shifting demographics of their correctional facilities. Our work also adds to scholars' understanding of state responsiveness and spending priorities when marginalized groups within negatively constructed populations are considered.

The research begins with an overview of criminal justice policies that have contributed to the rising elderly prison population and current criminal justice reforms. A discussion and test of

the determinants of more accommodating elderly-care in prisons follows. The findings suggest that Republican led states with more female legislators and a greater spending capacity are less likely to have specialized programs for elderly inmates, while states with more correctional personnel are more likely to have programs. Our research concludes with a discussion of the implications of the findings and recommendations for policymakers.

### **Literature Review**

An increase in white collar crime, sex crime awareness and prosecution, minimum mandatory sentencing, average sentence length increase, and ‘three strikes’ laws all contribute to this rise in older prisoners (ACLU, 2012; Cohen, 2015). Between 1992 and 2003, there was an 83% increase in prisoners serving life sentences alone (Ruggiano, Lukic, Blowers, & Doerner, 2016). Much of this is due to the long-term implications of the ‘tough on crime’ culture and increasingly punitive criminal justice policies. Incarceration rates in the United states have increased exponentially since the 1970s, with policies affecting minorities at a disproportionate rate. Currently, there are over 2.3 million people incarcerated, a greater than 500% increase since the early 1970s (Mauer & King, 2007; National Institute of Corrections, n.d.; Roberts, 2004). This massive increase is not due to an associated increase in crime rates, but to drug war. In fact, homicide accounts for less than a half percent of the inmate population growth between 1990 and 2000, while drug offenders account for over 60 percent (Alexander, 2010). The 1986 Anti-Drug Act established minimum sentences for specific drugs; crack carried a penalty 100 times greater than that of cocaine (Vagins & McCrudy, 2006). Those incarcerated at that time are aging within the system now. The 1994 Violent Crime Control and Law Enforcement Act compounded the increase by implementing policies such as ‘three strikes’, where a third conviction led to an

automatic life sentence, and incentivizing states to enact stricter penalties (Travis, Western, & Redburn, 2014). Finally, in the past three decades, the U.S. has moved from a prison system focused on rehabilitation to one focused on punishment (Haney, 2002). The No-Frills Prison Act of 1996 was passed in order to eliminate ‘luxurious’ conditions in prison; by passing ‘tough on crime’ bills, politicians are reinforcing the social construction of the inmate population as undeserving and deviant (Enns, 2014; Johnson, 2011; Unnever & Cullen, 2010; Wozniak, 2014). These collective “tough on crime” decisions significantly contributed to the aging population that many prisons house today, with limited capacity and resources to appropriately and humanely serve.

Given the rising population and financial burden mass incarceration has placed on state governments, many states have begun to seek reform measures. States have decriminalized non-violent drug crimes, established and expanded drug courts, reduced sentencing laws, and relaxed probation standards among a host of other reforms to curb the flow of inmates in correctional facilities (Brown, 2013; Lawrence, 2015). States have taken fewer targeted steps to address the needs of current inmates who do not benefit from the new wave of reforms, namely elderly prisoners. However, two reform strategies stand out for their effect on elderly inmates: medical parole and geriatric parole, collectively known as compassionate release. These programs are appealing to states, as transforming older prisoners into older parolees shifts the burden into the community as a whole. Forty-five states permit inmates with serious medical conditions to seek parole eligibility, termed medical parole. Under geriatric parole laws, inmates are considered for release when they reach a specific age; 17 states currently have geriatric parole laws (National Conference of State Legislatures, 2018). However, these programs are not as simple as general population parole; for a program to work, it needs advance planning, and social workers, housing

arrangements, medication management, and social service registration must be a part of the implementation (Mara, 2002). Consequently, states rarely use compassionate release laws, despite most having some form of compassionate release legislation in place (National Conference of State Legislatures, 2018).

Several challenges and restrictions also limited the statutes' effectiveness. Statutory exclusions make many older prisoners ineligible for release. Inmates sentenced to death or serving a life sentence are typically ineligible for compassionate release (National Conference of State Legislatures, 2018). Sex offenders make up a disproportionate amount of the older prison population due to sentencing laws and new policing efforts, but they are less likely to be paroled because most states exclude sex crimes from parole eligibility (Kakoullis, Le Mesurier, & Kingston, 2010). Parole-eligible prisoners cannot hold convictions for capital murder, armed offenses, or violent crimes as well in most states (Silber, Shames, & Reid, 2017). They must also have a specific prognosis for a specific time period before gaining medical release eligibility. Victims and law enforcement officials often object to compassionate releases, so parole boards and decision makers sometimes choose to deny release in response (Silber et al., 2017). Overall, compassionate release policies have not had a significant effect on the elderly prison population, so states have also adopted in-house programs to address the aging prison population.

### **Determinants of Elderly Prisoner Care**

Policy innovation refers to government adoption of new policies to address societal ills, typically through rational mechanisms in response to public demands for action (Williams, 2003). Policy innovation research suggests that political, economic and social indicators best predict state and federal policy adoptions (Berry & Berry, 2007). Criminal justice research adds that



functional predictors also explain criminal justice related policy adoptions. We combine the two schools of thought with four sets of predictors to understand state variation in elderly prisoner care.

### **Political Predictors**

Policy adoption and innovation scholars contend that political factors are perhaps the strongest and most consistent predictors of policy adoption or reform. Generally, more liberal policy environments are viewed as more open to adopting new, innovative policies to address social issues, whereas more conservative environments tend to rely on market-based principles or the free-market to address social problems (Sliva, 2018). For example, ideologically conservative states tend to adopt corrections privatization statutes (Nicholson-Crotty, Peterson, & Ramirez, 2009). Consequently, Jacobs, Carmichael, Kaufman, & Zilliak (2001) note that states with a more conservative citizenry have harsher criminal justice policies and higher incarceration rates, whereas more liberal-leaning states are less supportive of punitive criminal justice policies, especially those aimed at juvenile offenders (Williams, 2003). We expect these findings to also apply to policies aimed at elderly offenders:

***Hypothesis 1a:** Ideologically conservative states are less likely to have programs for elderly prisoners.*

Because elected officials strategically choose to support and promote issues that increase their support and minimize the risk of future electoral defeat, those who represent ideologically conservative citizenries tend to also support more punitive criminal justice policies that yield longer sentences and fewer rehabilitative opportunities. Researchers and the public at large tend to associate conservative elected officials with “law and order,” and in response, Republican

elected officials tend to spend more on crime-control measures compared to Democrats, and they are less oriented toward rehabilitative correctional spending (K. B. Smith, 2004). As such, we predict that:

***Hypothesis 1b:** States with Republican-dominated legislatures and executive offices are less likely to have programs for elderly prisoners.*

Beyond the partisan composition of state legislatures, the demographic composition of the legislature can also influence policy adoption (Giles-Sims, Green, & Lockhart, 2012; Sliva, 2018). Previous research contends that gender influences legislators' policy interests and opinions, leading women legislators to hold more liberal policy opinions than their male colleagues and support policies that benefit women and families (Berkman & O'connor, 1993; Poggione, 2004). As such, when women comprise a larger proportion of the legislature, states more frequently adopt liberal-leaning policies, including rehabilitative solutions, restorative justice policies, and domestic violence interventions (Kathlene, 1995; Murphy, 1997; Sliva, 2018). States that have greater female legislative representation also support policies that benefit senior citizens (Giles-Sims et al., 2012). The collective research on female legislators suggests that women may be more supportive of policies that seek to assist elderly inmates. We propose that:

***Hypothesis 1c:** States with more female legislators are more likely to have programs for elderly prisoners.*

## **Economic Determinants**

Economic theories suggest that states and localities form policies with their fiscal capacity in mind, offering a second explanation of the variation in policy adoption. Policies that consume many resources or require greater taxation are generally less supported, while those that seek to conserve revenue and resources tend to be more preferred. This is particularly true for states as they often operate in a limited resource environment with budgetary constraints that differ somewhat from the federal government. Many researchers find that states' criminal justice policies are directly related to their economic health or capacity (Brown, 2013; Nicholson-Crotty & Meier, 2003). States more frequently adopt cost-reduction criminal justice policies or revenue generating reforms when they lack fiscal capacity (Brown, 2013). Likewise, they are less likely to adopt policies deemed as "costly" when their fiscal health is in question or poor (Williams, 2003).

As previously noted, elderly inmates pose a more extreme financial burden for correctional systems, as the typical elderly inmate costs 8% more to house than a younger inmate (ACLU, 2012). The same ACLU (2012) study found that early release programs for older prisoners would save states on average between \$66,294 and \$28,362 per released prisoner compared to continuing to care for them in prison, even after accounting for increased social services on the outside. This significant amount of savings gives an idea of how expensive this inmate demographic can be. Specialized programs for elderly inmates range in cost, but specialized programs such as New York's cognitive care unit spend an average of \$93,000 per inmate, compared to \$43,000 for a general population inmate (DiNapoli, 2017; Ewing, 2015). Because states consider their overall economic health in the decision-making process and have begun to look for ways to minimize correctional spending, we expect the cost of elderly programs to have a significant effect on state adoption.

*Hypothesis 2: States with good financial health will be more likely to have programs for elderly prisoners.*

### **Social Predictors**

Underclass theory suggests that policymakers choose to enact policies that burden marginalized populations for social control. That is, they use policies to ensure that the dominant group maintains superiority, power, and control over vulnerable, less dominant groups (K. B. Smith, 2004). The theory also suggests that elites propose and support more punitive correctional policies when the “threat” increases; as the underclass grows, the use of policies, namely criminal justice policies, also grows to protect the order of the social hierarchy. Because race and class are perhaps the most pronounced social fault lines, researchers consistently find a positive relationship between the size of the racial minority population and incarceration rates, punitive sentencing reforms, correctional spending, and felon disenfranchisement as support for the theory (Breunig & Ernst, 2011; Makse & Volden, 2011; Neill, Yusuf, & Morris, 2015; Preuhs, 2001; K. B. Smith, 2004).

The findings on the relationship between the size of a state’s racial underclass and crime policies suggest that states may be less supportive of programs for elderly inmates if they have a larger minority population. Such states may view the programs as a threat to the social order, undermining their interest in harsher punishments for a racial underclass susceptible to committing violent crimes. What’s more, Blacks and Latinxs make up a combined 56 percent of the sentenced prison population, so more racially resentful states are less likely to support programs for inmates of racial minority groups (Gramlich, 2019).

***Hypothesis 3a:** States with a larger racial underclass are less likely to have programs for elderly prisoners.*

Similarly, perceptions of the economic underclass's potentially violent response to economic inequality lead theorists to contend that privileged individuals may support punitive policies that quell violent redistributive efforts and maintain their economic position. Scholars find a positive relationship between poverty rates and criminal justice policies, as incarceration is seen a mechanism to control the economic underclass (Beckett & Western, 2001; Neill et al., 2015; Yates & Fording, 2005). Additionally, elected officials have an electoral incentive to reinforce racialized perceptions of crime and perceptions of undeserving "tax burdens." Political rhetoric of "law and order" helps more conservative elected officials win over less affluent White voters who do not benefit from their regressive tax policies, but are more likely to be victims of crime or live closer to high violent-crime areas (Jacobs et al., 2001). Neill et al. (2015) find that states that have a less generous welfare system have more punitive criminal justice policies, suggesting that they choose to use the criminal justice system to address poverty and maintain social control over financially marginalized populations.

If the economic underclass theory is true, states with higher poverty rates or higher levels of economic inequality may be less supportive of specialized programs for elderly prisoners. Residents may view the programs as costly threat to the social order for an undeserving population.

***Hypothesis 3b:** States with a larger economic underclass are less likely to have programs for elderly prisoners.*

Last, we might expect states' friendliness toward elderly residents to influence their support of programs for elderly inmates. Lockhart and Giles-Sims (2005) propose that states vary in "elderly friendliness" based on a host of factors such as political efficacy among elderly residents, cost of living, medical care cost and quality, and nursing facility expenditures. Though not tested directly in their research, it stands to reason that states in which elderly residents make up a larger proportion of the state population are more friendly and sensitive to the needs of elderly residents. These states may also be more equipped to handle the medical and elder-care needs of elderly residents, including prisoners.

*Hypothesis 3c: States with a larger elderly population are more likely to have programs for elderly prisoners.*

### **Institutional Determinants**

Beyond the main three determinant areas that policy innovation scholars contend explain state policy adoption, criminal justice scholars also consider the internal or operational characteristics of correctional institutions or states to understand reform and innovation. Institutional capacity is also an important determinant of criminal justice reform that may explain state variation in policy adoption. During the 1980s and 1990s, most states expanded correctional spending and hired more personnel to address crime issues (Breunig & Ernst, 2011). Many states have maintained such budget allocations and only marginally reduced personnel, but variation in capital, both human and financial, should have a significant effect on a state's capacity to establish and manage specialized support for elderly prisoners.

*Hypothesis 4a: States with more correctional personnel are more likely to have programs for elderly prisoners.*

Organizational capacity can also be examined through the lens of structural burden. Organizations use rules and shared values to constrain individual behavior and limit decision alternatives (Simon, 1947; Meier & Bohte, 2000). States with a larger prison population per capita, or with more prisoners serving life sentences are more likely to experience overcrowding within their system. This sort of overcrowding places a burden on the organization just to function within the bare minimum, restricting their decision alternatives and making them less likely to pursue innovation.

***Hypothesis 4b:** States with less organizational capacity will be less likely to have programs for elderly prisoners.*

Finally, organizational theory research suggests that scholars may look to the organizational structure and design to understand policy innovations or lack thereof. Research suggests that the more levels of hierarchical supervision an organization has, the more decentralized it is (J. C. Smith, 2016). Tall organizations also have limited spans of control, which have been linked with positive outcomes (Christensen & Knudsen, 2009; Dalton, Todor, Spendolini, Fielding, & Porter, 1980). Decentralization also has a positive psychological impact for employees, which has been linked to an improvement in public services and an ability to adapt to change (Andrews, Boyne, Law, & Walker, 2007; Dobrajska, Billinger, & Karim, 2015). In school-based management policies, authority is decentralized from a central jurisdiction to local schools; these policies have been demonstrated to empower local managers and employees, while increasing the speed and relevance of their decision-making (Barrera-Osorio, Fasih, & Patrinos, 2009). It is our belief that we may see a similar effect with some state departments of corrections and their state prisons.

*Hypothesis 4c: States with more decentralized departments of correction are more likely to have programs for elderly prisoners.*

## **Data and Methods**

### **Data**

We created an original dataset from multiple sources, including 2016 census data, most recent state departments of correction annual reports, and 2016 election information. As this is an exploratory effort, this data captures a snapshot of existing conditions in the states rather than panel data. We provide data on all 50 states whenever possible, and missing observations are noted.

### **Dependent Variable**

Our dependent variable is whether a state has any sort of existing program(s) for its elderly prisoners. This variable is coded as a dummy, with 1 as “yes” and 0 as “no”.<sup>1</sup> This information was collected from each state’s Department of Correction (DOC) website, specifically annual reports, press releases, and health service information.

### **Independent Variables**

We categorized our independent variables into four sets: political, economic, social, and institutional.

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<sup>1</sup> We also coded the type of program. State with separate and/or special facilities were coded as 1, states with hospice care programs were coded as 2, states with multiple programs were coded as 3, and states with other types of programs were coded as 4. However, there were no significant results from this variable; we will pursue this strategy in future research. For the purpose of this this paper, all states with any type of program are coded as 1.



*Political*

We coded states with Republican governors in 2016 as 1 and those with independent or Democratic governors as 0. Similarly, states with 2016 Republican-led (as determined by a greater percentage of state legislators) legislatures in 2016 were coded as 1 and Democratic-led states as 0. The third variable measures the percentage of women in the state legislature. This is coded as quintiles, with 1 being the lowest percentage (<22.9%) and 5 being the greatest (>37.2%). State government data comes from publicly available state electoral records. We used the Squire Index as the fourth variable, which measures state legislature professionalism based on salary, staffing, and capacity expectation (Peverill, 2014). The index ranks states from 1 to 50, with 1 being the most professional. Last, we used Gallup public opinion polling data to measure strength of political ideology. Gallup ranks states based on the gap between conservatism and liberalism in the public, with states with the largest discrepancy considered the most 'secure' in their conservative ideology (Gallup, 2017). The index ranks states from 1 to 50, with 1 being the most conservative.

*Economic*

There are five variables in the economic dataset, all sourced from the National Association of Budget Officers. All are coded by quintile for standardization sake. To test our economic hypothesis, we included several measures of state financial health – debt, spending, federal aid, and tax revenues per capita. This allowed us to gain a better understanding of states' liquidity and ability to fund public policy initiatives. Debt per capita is coded with 1 as the lowest (<\$1960) and 5 as the greatest (>\$11,100). 1 is the lowest for spending per capita, at less than \$4680, and 5 as the greatest, at less than \$14,290. Federal aid per capita has 1 as the lowest (<\$1468) and 5 as the greatest (\$3805), and tax revenues collected per capita has 1 as the lowest

(<\$2117) and 5 as the greatest (\$4941). Finally, we measured the department of corrections budget as a percentage of each total state budget, with 1 as less than 2.02% and 5 as less than 6.12%.

### *Social*

The data for the four variables in this subset comes from the Census Bureau's 2016 American Community Survey. As with the above variables, all are coded in quintiles for standardization purposes. We include several measurements of 'underclass' types – minorities, elderly, and economic (Raphael, Winter-Ebmer, & Org, 1998). The percentage of black residents in each state is ranked from 1 to 5, with 1 as less than 2.1% and 5 as less than 38%. The percentage of residents over the age of 55 is ranked with 1 as 27.8% and 5 as less than 35.7%. The poverty rate in each state is measured by 1 as less than 11.1% and 5 as less than 21.5%. We also control for the unemployment rate per state. The unemployment rate is positively correlated with an increase in crime rates and incarceration rates, indicating that unemployed individuals pose a risk to the dominant class (Raphael, Winter-Ebmer, & Org, 1998). The unemployment rate is coded as 1 as less than 4.1% and 5 as less than 7.6%.

### *Institutional*

To test the effect of institutional factors on states' policy innovation, we consider a host of facility-based predictors. The first variable in this subset is the annual average number of departments of correction employees, according to 2016 Bureau of Labor statistics by state and county. It is coded by quintiles, with 1 as less than 1767 and 5 as less than 47,794. Delaware, Missouri, and Rhode Island are missing values. Next, we used Bureau of Justice Statistics to measure prison population per capita, parole/probation supervision per capita, percentage of

prisoners serving life sentences, and the percentage of Black inmates. Prison population, parole population, and the percentage of life sentences are all factors in the amount of capacity within a department of correction, as larger amounts of prisoners serving longer sentences require more oversight. Minority population rates serve as a control. Georgia and Michigan are missing values for parole per capita. All were coded by quintiles. Prison population per capita has 1 coded as less than 256 and 5 as less than 760, parole per capita has 1 coded as less than 760 and 5 as less than 2280, percentage of life sentences is coded as 1 as less than 5.0% and 5 as less than 31.3%, and percentage of black prisoners is coded as 1 as less than 1052 and 5 as less than 2625.

Last, we assessed the organizational structure of each state's department of correction, using their published organizational charts. South Dakota and Tennessee are missing values. We counted the layers of hierarchical reporting and analyzed the 'flat' versus 'tall' composition of each chart based on the existing literature. We also examined how the organization was divided (e.g., by program or by function). Organizations were coded 1 if they were deemed decentralized – if their structure was 'tall', organized by function, or had a greater than average number of hierarchical layers. Organizations were coded 0 if they were centralized – if they had a 'flat' structure, were organized by program, or had a lower than average number of hierarchical layers.

## **Methods**

We used logistic regression, all using Stata 15.0, and primarily discuss findings that are significant at the .05 level. We ran models for all four factor subsets, as well as a general explanatory model to identify important determinants.

## **Results**

Table 1 reports the results of our test of the political predictors of states' likelihood of adopting elderly-care prisoner policies. We find that states with Republican governors in 2016 are 32.9 percentage points less likely to have programs for elderly prisoners than those with Democratic or Independent governors, supporting our first hypothesis. Conservative-led state legislatures were more likely to have programs than liberal state legislatures, but that finding is only significant at the .90 level. States with a greater percentage of female legislators are less likely to have a program for elderly prisoners; as the percentage of women in the state legislature increases by quintile, the probability of having a program decreases by 13.8 percentage points. Political ideology and the professionalism of the legislature were not significant in this model.

**Table 1: Political Determinants (margins)**

VARIABLES	(1) Program
Republican Governor	-32.9** (0.13)
State Legislature	35.2* (0.21)
Professional Legislature	-0.20 (0.01)
% Women Legislators	-13.8*** (0.05)
Political Ideology	0.81 (0.01)
Observations	50
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

When we test the economic predictors of policy adoption, we find that states that spend more per capita are more likely to adopt policies for elderly prisoners (see Table 2). As overall state spending increases by quintile, the likelihood of a state having a program for older inmates

decreases by 16.7 percentage points. The remaining predictors do not significantly influence a state's likelihood of adopting programs for elderly prisoners.

**Table 2: Economic Determinants (margins)**

VARIABLES	(1) Program
Debt per Capita	-4.37 (0.05)
Spending per Capita	-16.7** (0.07)
Tax Revenues per Capita	6.07 (0.06)
Federal Aid per Capita	2.68 (0.07)
DOC Budget as %	-6.17 (0.05)
Observations	50
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

Third, we test the social determinants of policy innovation and adoption. Despite literature support, our social model (Table 3) did not show any significant results in terms of predicting the likelihood of programs for elderly prisoners.

**Table 3: Social Determinants (margins)**

	(1)
VARIABLES	Program
% Black Residents	7.4 (0.05)
% Residents 55+	4.51 (0.04)
Poverty Rate	3.48 (0.05)
Unemployment Rate	-2.67 (0.07)
Observations	50
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

Finally, we assess the institutional determinants of policy adoption. Model 4 shows that only the number of department of corrections employees positively predicts a state's likelihood of adopting elderly-care policies for prisoners. As the number of employees in state departments of corrections increased by quintile, the likelihood of a state having a program for older inmates increased by 11.2 percentage points. This supports our fifth hypothesis.

***Table 4: Prison Determinants (margins)***

	(1)
VARIABLES	Program
Population per Capita	0.46 (0.04)
% Life Sentences	3.10 (0.05)
Parole per Capita	-6.29 (0.04)
% Black Prisoners	3.64 (0.04)
Decentralized	-13.40 (0.12)
# DOC Employees	11.2*** (0.04)
Observations	48
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

### Discussion and Conclusion

The broad research on policy innovation and criminal justice reform suggests that a series of political, economic, social, and institutional or functional predictors best explain why states choose to adopt policies. States with Republican governors are significantly less likely to have programs for elderly prisoners, but the professionalism or the partisan breakdown of the legislature, nor the public political ideology were significant. While the literature indicated that women legislators would be more likely to support these types of social programs, their lack of support in a criminal justice context suggests that elderly prisoners are socially constructed more as ‘prisoners’ rather than as ‘elderly’. Even though their aging demographic places them in a more vulnerable and needy position, their status as inmates appears to override any potential benefit they may gain.

We saw a similar contradiction in the economic findings. The only significant predictor was state spending per capita, with state who spend more being less likely to spend said money on inmates. States with greater spending capacity would appear to be in better financial health, which would suggest that they would be in a better position to enact innovative or reform policies; however, we found the opposite in the criminal justice context. Our findings suggest that states with more spending capacity choose to spend it elsewhere, not on prison policies. Next, none of our social factors were significant, suggesting that older prisoner programs are not designed and implemented based on external pressure. Our structural findings support this to a degree. The size of the prisoner population has no impact, nor does the size of the department of corrections budget, but the number of employees actually working in the prison system is a consistently strong predictor of elderly programs. This suggests that it is the manpower capacity that allows for programs more so than budget or external factors. While the decentralization variable was not significant, size (including number of employees) indicates probability of decentralized decision-making and innovation.

Our findings are decidedly mixed; public administration literature would indicate different predictors, both in significance and in coefficient size. However, our findings are consistent with much of criminal justice literature. Sliva (2016) discusses the inconsistency in much of criminal justice research; while scholars tend to find evidence using the same predictors, the size and direction of effect are unpredictable. Decisions about criminal justice policy adoption are not based on need or capacity, but on a complicated web of political, moral, and socially constructed factors (Williams, 2003). Indeed, many criminal justice reforms can be seen as nothing more than symbolic efforts to appease voters rather than solve pressing policy concerns (Sliva, 2016; Williams, 2003). Our research adds to this body of evidence as the first



effort to understand policy adoption for subpopulations (particularly a demographic generally considered to be ‘worthy’ of societal assistance). While past research has focused primarily on criminal justice theory to explain policies for these groups, our work combines public administration and criminal justice policy literature.

Limitations are inherent in this sort of work, as it is by nature exploratory. There is no standardized reporting for subgroup programs, which makes it difficult to assess when programs for elderly prisoners were instituted, who made the adoption decision, and in what locations they were implemented. Instead, we relied on annual reports to provide a snapshot of existing programs. This limited data constrained our analysis to a cross-sectional approach, while panel data would be more informative. More information on these programs, such as details on type, budget, and staffing requirements, would also allow us to further understand the choice behind policy adoption. We aim to collect original data from each state’s department of corrections for future research, allowing us to examine these variables and use time series analysis. Future research will also consider the impact of media and lobbying groups on decision makers. Finally, the decentralization aspect remains important for innovation and decision-making at individual prisons. Since some programs are low- to no-cost, we suggest that some programs may have been implemented by individual wardens at a lower level, explaining why larger external factors play less of a part.

Mass incarceration is a crisis in our country, leading to an increased awareness of reform needs in state politics and criminal justice policymakers. Understanding the complex interplay between predictors is crucial for a better awareness of how and why policy adoption and diffusion is different in the criminal justice space; our research aims to focus this understanding on a particular subgroup.

### Bibliography

- Aghion, P., & Tirole, J. (1997). Formal and Real Authority in Organizations. *Journal of Political Economy*, 105(1). Retrieved from <http://www.journals.uchicago.edu/t-and-c>
- Alt, J. E., & Lowry, R. C. (1994). Divided government, fiscal institutions, and budget deficits: Evidence from the states. *American Political Science Review*, 88(4), 811–828.
- Andrews, R. (2017). Organizational Size and Social Capital in the Public Sector: Does Decentralization Matter? *Review of Public Personnel Administration*, 37(1), 40–58. <https://doi.org/10.1177/0734371X16643575>
- Andrews, R., Boyne, G. A., Law, J., & Walker, R. M. (2007). Centralization, Organizational Strategy, and Public Service Performance. *JPART*, 19, 57–80. <https://doi.org/10.1093/jopart/mum039>
- Barrera-Osorio, F., Fasih, T., & Patrinos, H. A. (2009). *Decentralized Decision-Making in Schools: The Theory and Evidence on School-Based Management*. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/2632/487400PUB0dece101Official0Use0Only1.pdf>
- Beckett, K., & Western, B. (2001). Governing social marginality: Welfare, incarceration, and the transformation of state policy. *Punishment & Society*, 3(1), 43–59.
- Bergin, T. (2011). How and Why Do Criminal Justice Public Policies Spread Throughout U.S. States? A Critical Review of the Diffusion Literature, 22(4), 403–421. <https://doi.org/10.1177/0887403410381443>
- Berkman, M. B., & O'Connor, R. E. (1993). Do women legislators matter? Female legislators and state abortion policy. *American Politics Quarterly*, 21(1), 102–124.
- Berry, F. S., & Berry, W. D. (2007). Innovation and diffusion models in policy research. In P. A. Sabatier (Ed.), *Theories of the Policy Process* (pp. 223–260). Boulder, CO.
- Breunig, C., & Ernst, R. (2011). Race, Inequality, and the Prioritization of Corrections Spending in the American States, 1(3), 233–253. <https://doi.org/10.1177/2153368711398716>
- Brown, E. K. (2013). Foreclosing on Incarceration? State Correctional Policy Enactments and the Great Recession, 24(3), 317–337. <https://doi.org/10.1177/0887403411434547>
- Carter, N. M., & Cuen, J. B. (1984). A Comparison of Centralization and Decentralization of Decision-Making Concepts and Measures. *Journal of Management*, 10(2), 259–268.
- Carzo, R., & Yanouzas, J. N. (1969). Effects of Flat and Tall Organization Structure. *Administrative Science Quarterly*, 14(2), 178–191. Retrieved from <https://www.jstor.org/stable/pdf/2391096.pdf>

- Chapman, R. (1973). Decentralization: Another Perspective. *Comparative Education*, 9(3), 127–134. <https://doi.org/10.1080/0305006730090306>
- Child, J. (1973). Predicting and Understanding Organization Structure. *Administrative Science Quarterly*, 6. Retrieved from <http://content.ebscohost.com/ContentServer.asp?T=P&P=AN&K=3991672&S=R&D=bth&EbscoContent=dGJyMMTo50Sep7A4v%2BbwOLCmr1GeqK5Sr6u4TbSWxWXS&ContentCustomer=dGJyMOXp80m549%2BB7LHjfPEA>
- Christensen, M., & Knudsen, T. (2009). Design of Decision-Making Organizations. *Management Science*, 56(1), 71–89. <https://doi.org/10.1287/mnsc.1090.1096>
- Conveyers, D. (1984). Decentralization and development: a review of the literature. *Public Administration and Development*, 4(2), 187–197.
- Dalton, D. R., Todor, W. D., Spendolini, M. J., Fielding, G. J., & Porter, L. W. (1980). Organization Structure and Performance: A Critical Review. *Academy of Management Review*, 5(1).
- Desmarais, B. A., Harden, J. J., & Boehmke, F. J. (2015). Persistent policy pathways: Inferring diffusion networks in the American states. *American Political Science Review*, 109(2), 392–406.
- Dharmapala, D., Garoupa, N., & Shepherd, J. M. (2010). Legislatures, judges, and parole boards: The allocations of discretion under determinate sentencing. *Fla. L. Rev.*, 62, 1037.
- Dobrajska, M., Billinger, S., & Karim, S. (2015). Delegation Within Hierarchies: How Information Processing and Knowledge Characteristics Influence the Allocation of Formal and Real Decision Authority. *Organization Science*, 26(3).
- Duncan, R. B. (1973). Multiple Decision-making Structures in Adapting to Environmental Uncertainty: The Impact on Organizational Effectiveness. *Human Relations*, 26(3), 273–291. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/001872677302600301>
- Enns, P. K. (2014). The Public's Increasing Punitiveness and Its Influence on Mass Incarceration in the United States, 58(4), 857–872. <https://doi.org/10.1111/ajps.12098>
- Enns, P. K., & Ramirez, M. D. (2018). PRIVATIZING PUNISHMENT: TESTING THEORIES OF PUBLIC SUPPORT FOR PRIVATE PRISON AND IMMIGRATION DETENTION FACILITIES. *Criminology*, 56(3), 546–573. <https://doi.org/10.1111/1745-9125.12178>
- Faguet, J.-P. (2004). Does decentralization increase responsiveness to local needs? Evidence from Bolivia. *Journal of Public Economics*, 88(4), 867–893. Retrieved from <http://www.elsevier.com/locate/jpubehttp://eprints.lse.ac.uk>

- Giles-Sims, J., Green, J. C., & Lockhart, C. (2012). Do women legislators have a positive effect on the supportiveness of states toward older citizens? *Journal of Women, Politics & Policy*, 33(1), 38–64.
- Gunderson, A. (2018). The Politics of Budgetary Institutions and Corrections Spending in the American States, 1983-2011.
- Hall, M. E. K. (2017). Macro implementation: testing the causal paths from US macro policy to federal incarceration. *American Journal of Political Science*, 61(2), 438–455.
- Harris, M., & Raviv, A. (2002). Organization Design. *Management Science*, 48(7), 852–865. Retrieved from <https://www.jstor.org/stable/pdf/822695.pdf?refreqid=excelsior%3A50e95ecd79105d47dc37fc783d92854f>
- Heimann, C. F. L. (1993). Understanding the Challenger Disaster: Organizational Structure and the Design of Reliable. *The American Political Science Review*, 87(2), 421–435.
- Jacobs, D., Carmichael, J. T., Kaufman, B., & Zilliak, J. (2001). The Politics of Punishment across Time and Space: A Pooled Time-Series Analysis of Imprisonment Rates. *Social Forces*, 80(1), 61–91. Retrieved from <http://sf.oxfordjournals.org/>
- Kathlene, L. (1995). Alternative views of crime: Legislative policymaking in gendered terms. *The Journal of Politics*, 57(3), 696–723.
- Kim, Y., & Price, B. E. (2014). Revisiting prison privatization: An examination of the magnitude of prison privatization. *Administration & Society*, 46(3), 255–275.
- Lawrence, A. (2015). *Making Sense of Sentencing: State Systems and Policies*. Retrieved from <http://www.ncsl.org/documents/cj/sentencing.pdf>
- Lee, M. Y., & Edmondson, A. C. (2017). Self-managing organizations: Exploring the limits of less-hierarchical organizing. *Research in Organizational Behavior*, 37, 35–58. <https://doi.org/10.1016/J.RIOB.2017.10.002>
- Lockhart, C., & Giles-Sims, J. (2005). Variation in elderly friendliness across the US states: Operationalization, rankings, and selected consequences. *Publius: The Journal of Federalism*, 35(3), 425–447.
- Makse, T., & Volden, C. (2011). The Role of Policy Attributes in the Diffusion of Innovations. *The Journal of Politics*, 73(1), 108–124. <https://doi.org/10.1017/s0022381610000903>
- Malen, B. (1994). Enacting Site-Based Management: A Political Utilities Analysis. *Educational Evaluation and Policy Analysis*, 16(3), 249–267. Retrieved from <https://www.jstor.org/stable/pdf/1164399.pdf>

- Meier, K. J., & Bohte, J. (2000). ODE TO LUTHER GULICK Span of Control and Organizational Performance. *ADMINISTRATION & SOCIETY*, 32(2), 115–137. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/00953990022019371>
- Meyer, M. W. (1968). *The Two Authority Structures of Bureaucratic Organization*. Source: *Administrative Science Quarterly* (Vol. 13). Retrieved from [https://www.jstor.org/stable/2391452?seq=1&cid=pdf-reference#references\\_tab\\_contents](https://www.jstor.org/stable/2391452?seq=1&cid=pdf-reference#references_tab_contents)
- Murphy, P. (1997). Domestic violence legislation and the police: The role of socio-economic indicators, political factors and women's political activism on state policy adoption. *Women and Politics*, 18(2), 27–53.
- National Conference of State Legislatures. (2018). State Medical and Geriatric Parole Laws. Retrieved June 9, 2019, from <http://www.ncsl.org/research/civil-and-criminal-justice/state-medical-and-geriatric-parole-laws.aspx>
- Neill, K. A., Yusuf, J.-E., & Morris, J. C. (2015). Explaining Dimensions of State-Level Punitiveness in the United States. *Criminal Justice Policy Review*, 26(8), 751–772. <https://doi.org/10.1177/0887403414547042>
- Nicholson-Crotty, S., & Meier, K. J. (2003). Crime and Punishment: The Politics of Federal Criminal Justice Sanctions. *Political Research Quarterly*, 56(2), 119–126. <https://doi.org/10.1177/106591290305600201>
- Nicholson-Crotty, S., Peterson, D. A. M., & Ramirez, M. D. (2009). Dynamic Representation(s): Federal Criminal Justice Policy and an Alternative Dimension of Public Mood, 31(4), 629–655. <https://doi.org/10.1007/s11109-009-9085-1>
- Nicholson-Crotty, S. (2004). The politics and administration of privatization: Contracting out for corrections management in the United States. *Policy Studies Journal*, 32(1), 41–57.
- Ouchi, W. G. (1977). The Relationship Between Organizational Structure and Organizational Control. *Administrative Science Quarterly*, 22(1), 95–113. Retrieved from <https://www.jstor.org/stable/pdf/2391748.pdf>
- Ouchi, W. G. (2006). Power to the Principals: Decentralization in Three Large School Districts. *Organization Science*, 17(2), 298–307. <https://doi.org/10.1287/orsc.1050.0172>
- Perrow, C. (1967). A Framework for the Comparative Analysis of Organizations. Source: *American Sociological Review*, 32(2), 194–208. Retrieved from <https://www.jstor.org/stable/pdf/2091811.pdf>
- Phelps, M. S. (2017). Mass probation: Toward a more robust theory of state variation in punishment. *Punishment & Society*, 19(1), 53–73.

- Poggione, S. (2004). Exploring Gender Differences in State Legislators' Policy Preferences, *57*(2), 305–314. <https://doi.org/10.1177/106591290405700211>
- Preuhs, R. R. (2001). State Felon Disenfranchisement Policy. *Social Science Quarterly*, *82*(4), 733–748. <https://doi.org/10.1111/0038-4941.00056>
- Raphael, S., Winter-Ebmer, R., & Org, E. (1998). Identifying the Effect of Unemployment on Crime. *The Journal of Law and Economics*. Retrieved from <https://escholarship.org/uc/item/5hb4h56g>
- Richardson, H. A., Vandenberg, R. J., Blum, T. C., & Roman, P. M. (2002). Does Decentralization Make a Difference for the Organization? An Examination of the Boundary Conditions Circumscribing Decentralized Decision-Making and Organizational Financial Performance. *Journal of Management*, *28*(2), 217–244. Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/014920630202800205>
- Scaggs, S. J. A., & Bales, W. D. (2015). The Growth in the Elderly Inmate Prison Population: The Role of Determinate Punishment Policies. *Justice Research and Policy*, *16*(1), 99–118.
- Sliva, S. M. (2016). Determinants of state innovations in American sentencing and corrections policy: A systematic review. *Criminal Justice Policy Review*, *27*(7), 702–722.
- Sliva, S. M. (2018). Finally “Changing Lenses”? State-Level Determinants of Restorative Justice Laws. *The Prison Journal*, *98*(5), 519–543. <https://doi.org/10.1177/0032885518793948>
- Smith, B. C. (1965). The Measurement of Decentralisation. *International Review of Administrative Science*, *35*(72). Retrieved from <https://journals.sagepub.com/doi/pdf/10.1177/002085237904500302>
- Smith, K. B. (2004). The Politics of Punishment: Evaluating Political Explanations of Incarceration Rates, *66*(03). <https://doi.org/10.1111/j.1468-2508.2004.00283.x>
- Squire, P. (2007). Measuring State Legislative Professional: The Squire Index Revisited. *State Politics & Policy Quarterly*, *7*(2). Retrieved from <https://about.jstor.org/terms>
- Travis, J., Western, B., & Redburn, S. (2014). *The Growth of Incarceration in the United States: Exploring Causes and Consequences*. Retrieved from <http://www.nap.edu>.
- Trotter, C., & Baidawi, S. (2015). Older prisoners: Challenges for inmates and prison management. *Australian & New Zealand Journal of Criminology*, *48*(2), 200–218. <https://doi.org/10.1177/0004865814530731>
- Visser, B. (2000). Organizational communication structure and performance. *Journal of Economic Behavior & Organization*, *42*, 231–252. Retrieved from <https://pdfs.semanticscholar.org/5cc5/4a79f2e82a743412b0e7d7dcf9d8f16739d7.pdf>

- Walberg, H. J., Paik, S. J., Komukai, A., & Freeman, K. (2000). Development and Forms of Decentralization: An International Perspective. *Educational Horizons, Winter*.
- Walker, J. L. (1969). The diffusion of innovations among the American states. *American Political Science Review, 63*, 880–899.
- Whittle, T. N., & Parker, K. F. (2014). Public Ideology, Minority Threat, and Felony Collateral Sanctions. *Criminal Justice Review, 39*(4), 432–454.  
<https://doi.org/10.1177/0734016814543352>
- Williams, J. (2003). Criminal Justice Policy Innovation in the States. *Criminal Justice Policy Review, 14*(3), 401–422. <https://doi.org/10.1177/0887403403252456>
- Yates, J., & Fording, R. (2005). Politics and state punitiveness in black and white. *The Journal of Politics, 67*(4), 1099–1121.
- Zábojník, J. (2002). Centralized and Decentralized Decision Making in Organizations. *Journal of Labor Economics, 20*(1). Retrieved from <http://www.journals.uchicago.edu/t-and-c>