THE POLITICAL ECONOMY OF THE DISABILITY INSURANCE.
THEORY AND EVIDENCE OF GUBERNATORIAL LEARNING FROM SOCIAL SECURITY ADMINISTRATION MONITORING

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The Political Economy of the Disability Insurance. Theory and Evidence of Gubernatorial Learning from Social Security Administration Monitoring

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Abstract

The dramatic rise in the disability insurance (DI) roles in the last 20 years has been the subject of much controversy in both popular and academic circles. While, the relationship between DI and labor force participation has been the subject of a growing literature, the mechanism of this transition from employment to DI remains unclear. We hypothesize that one mechanism is the state-level administration of the program which creates a classic principal-agent problem. This paper analyzes the impact of continuing conflict of interests for Disability Determination Services agencies—between Social Security Administration standards and state gubernatorial political interests—interacted with the increased demand for disability insurance as an alternative for low-skilled works during the period of 1982 to 2000. We find evidence that multi-term governors allow a greater fraction of applicants than do first term governors. We then develop a model that illustrates how these differences can be due to the type of monitoring conducted by the Social Security Administration. We provide additional evidence supporting this hypothesis in the form of sub-group analysis by economic and political constraints. Overall, we find evidence that the monitoring system is counter-productive and encourages over-use of the disability insurance program to serve political ends.

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1   Introduction

The dramatic rise in disability insurance roles in the last 20 years has been the subject of much controversy in both popular and academic circles. Provided by the Social Security Administration (SSA), Disability Insurance (DI) and Supplemental Security Income (SSI) have become the largest income replacement program to non-elderly adults in the United States, distributing nearly \$78.2 billion in benefits to about 8 million individuals with disabilities in 2005.[1] While the relationship between DI and unemployment has been the subject of a growing literature, the mechanism which allows acceptances into DI to be manipulated remains unclear.

This study suggests a political mechanism which may be part of the answer. By law, disability determinations are made by state agencies under contract with the Social Security Administration. The head of this agency, the director of Disability Determination Services (DDS), is appointed by the the governor and the staff of this agency is comprised of state employees. This naturally generates a conflict of interest for these agencies which depend on the federal government for funding, but remain under the administrative and political direction of state governors[2]. Although administrative reforms in 1980 attempted to standardize procedures and redress this issue, there remains variation in the determination procedures between states.[3] For instance, the monitoring process which offers minimal consequences for overprovision of DI has left room for political interests to affect the determination process, playing a role in the increased acceptance rates of DI applications. Such politicization of the determination process bears directly on the use of disability insurance as an alternative for unemployed, low-skilled workers.

We present evidence that acceptance rates are significantly higher among second and

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[1]From the Annual Statistical Supplement, 2005

[2]Even popular guides such as Nolo's Guide (2004) discuss the possibility that DDS directors may be influenced by political concerns and thus amenable to more lenient allowance policies. In addition, several reports by the Social Security Advisory Boards express concern over this conflict of interest.

[3]Social Security Administration Advisory Board (1998) "How SSA's Disability Program Can be Improved"

third term governors relative to first-term governors. Using a simplified model of delegation we illustrate that this may be due to the SSA's monitoring process. We illustrate that a lax monitoring process can allow governors with a preference for higher allowance rates to learn how much they can safely increase acceptance rates without consequences. This model has predictions for the usage of DI allowance rates given their relative importance as a tool for buying off voters. We provide some supporting evidence for this by shoing that in circumstances where governors face unfavorable economic or fiscal conditions or when governors are restricted in their ability to enhance state social welfare programs the acceptance rates among multiple term governors is even higher. We provide some evidence that the differences we observe are due to a governor's learning rather than a selection mechanism by which governors with low allowance rates do not survive to later terms.

This paper offers an explanation for growing use of DI as a response to unemployment (as evidenced in Autor and Duggan, 2003) that combines two strands of ongoing research.[4] On the one hand evidence that DI is overprovided relies on the assumption that disability determinations can be manipulated to strategically accept more people.[5] One such source manipulation of could be related to state-level politics.[6] On the other hand, the observed linkage between unemployment rates and gubernatorial popularity suggests that governs may have a strategic interest in reducing, or appearing to reduce, the unemployment rate.[7] Recent work by Wolfers (2005) puts a finer point on this, il-

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[4]Autor and Duggan also find that the DI program encouraged exit from the labor force. In particular they measure the unemployment rate among adults aged 24-64 would have been about half a percentage pint (or about 13 percent) higher had it not been for the liberalized changes they identify.

[5]In two studies reviewed by Parsons (1991), reconsideration of initial determinations by either the same review panel one year later or a separate team of medical experts revealed substantial errors. There appears to bee supporting evidence from Benitez-Silva, Buchinsky and Rust (2004).

[6]Persson and Tabellini (2000) are a good survey for the theory. Besley and Case (2003) review most of the theoretical and empirical literature. There is evidence that state-level politics and election consideration affect important policy decisions. For example, Kubik and Moran (2003) find that election-year political considerations play a role in determining the timing of executions.

[7]Cohen and King (2004) find that when the state unemployment is lower than the national average, governors lose political capital and face worse approval ratings. Approval ratings are important not only because they are a key indication of re-election prospects (King 2001) but also because they expand the executive's ability to set their own policy agenda (Canes-Wrone and de Marchi, 2002).

lustrating that voters systematically make attribution errors regarding responsibility for negative economic conditions. Thus governors may face political fallout for economic conditions and may wish to use any mechanisms at their disposal to improve the welfare and economic well-being of their constituents. Consistent with this we find that the increases in DI allowance rates appear to be contemporaneous with some of the more stringent welfare reforms and restrictions on social welfare programs. In this case, the steep rise in the number of individuals on disability insurance is linked to the rising acceptance rates for this program in part due to political concerns in the face of fiscal and economic crises. If disability insurance serves the role of a long-run unemployment insurance or welfare for those with poor re-employment prospects, then governors may use DI as a costless way to reduce unemployment, thus improve their own political outlook.

In the eighties and nineties, disability insurance acceptance rates rose nearly 15 percent. Our results suggest one-tenth of that increase is due to the gubernatorial use of DI as a political tool. This appears to have been facilitated by the poor monitoring system used by the SSA. Seen in this light, the use of the disability program as a political tool to allow politicians to diffuse the potential fallouts from what appears to have been adverse demand shocks was quite predictable and may have been subject to political effects at other levels and by other agents.

The rest of this paper proceeds as follows: Section 2 provides background information on the structure and existing research about federal disability insurance system. Section 3 describes the data used in this study and presents some trends in application and allowance rates. Section 4 shows that allowance rates for multi-term governors are consistently higher than for first-term governors. Section 5 describes a model of gubernatorial learning. Section 6 presents some corroborating evidence on learning and section 7 concludes.

2 Background Information

The Social Security Administration (SSA) provides income and medical benefits to individuals eligible for disability insurance under the Social Securities Act (1935).[8] The provision of these benefits occurs through two programs:

- Social Security Disability Insurance (DI): Established under Title II of the Social Security Act, DI is a social insurance program. It is intended to protect workers who become disabled and therefore cannot (or at least cannot be expected to) work. Thus, DI eligibility requires workers be previously employed.[9] After age 65, DI benefits are converted to Old Age and Survivors Insurance (OASI).

- Supplementary Security Insurance (SSI): Established under Title XVI of the Social Security Act, SSI is means-tested, intended to protect individuals with limited income and assets. SSI beneficiaries can continue to receive benefits past age 65.

Both programs use the same health criteria to determine eligibility. The Social Security definition requires that an "inability to engage in any *substantial gainful activity* by reason of any medically determined physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months."[10] "Substantial gainful activity" is defined as working on a regular and continuing basis and earning over \$830 a month (in 2005). [11] The disability must be "demonstrable by medically acceptable clinical and laboratory diagnostic techniques. "This restriction is not overly strict in part due to the liberalization of the DI program that occurred in 1984. Among other issues, this liberalization relaxed many of the requirements

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[8]For many people, the true value of disability insurance is the entitlement to Medicare (for DI recipients after a 2 year waiting period) and Medicaid (for SSI recipients).

[9]In fact, the program functions on a credit system which takes account of both how long an individual worked and the time period an individual worked. The number of work credits needed for disability benefits depend on the age of disability.

[10]Social Security Administration Disability Insurance "Red Book," emphasis added

[11]It bears mentioning that the substantial gainful activity earnings restrictions only refer to money obtained from working and does not restrict income from investments. Thus a disabled individual may have income independent of his or her DI benefits.

that governed the determination process.[12] Thus the criteria for disability, while well-defined, are not objective and leave room for discretion in the determination process.

A crucial aspect of the Federal DI/SSI system is that it is federally funded but administered by the states. This administration occurs through the Disability Determination Services (DDS) offices in each state. These offices are part of state governments and are typically headed by an individual appointed by the governor. This agency manages the disability insurance claims sent by the SSA field office.

This state-based administrative mechanism was originally established to facilitate coordination with existing state vocational rehabilitation agencies and to encourage physician acceptance and participation in the disability insurance program.[13] However, state management, subjective decisionmaking standards, and lack of federal oversight is believed to be responsible for the great deal of variation in the disability allowance rates. State agencies are required to follow the regulations set for by the SSA, but there are relatively few Federal requirements relating to their administrative practices. The agencies follow state established personnel policies with respect to such matters as salaries, benefits, and educational requirements; do their own hiring; provide most of the training for adjudicators; follow their own quality assurance procedures; and pay state-established reimbursement rates for purchase of medical evidence. This results in different training and administrative practices that affect the determination process.

Variation in training and practices is exacerbated by the increased subjectivity of the determination process. Court decisions as well as changing perceptions about what constitutes disability has resulted in a number of new policies that require individual judgment by the those adjudicating disability applications. For example, all adjudicators are required to assess such subjective factors such as the weight that should be given to the opinion of a treating source and credibility with respect to allegations of pain and

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[12]This liberalization resulted in greater consideration of mental illness, increased weight placed on symptoms such as pain, and acceptance of diagnoses and evidence from personal physicians of applicants, among other changes. For greater discussion on the effects of liberalization, see Autor and Duggan (2003)

[13]A detailed discussion of the original and current structure of the DI program is available in Social Security Advisory Board (2001)

other symptoms.[14]

Variation in health status, occupational composition, and demographics across different states would naturally give rise to differences in allowance rates. Determining the source of such variation, however, is important because the administrative environment leaves DDS agencies vulnerable to the influence of state-level political considerations. Indeed a General Accounting Office (GAO) report worried explicitly about the impact of politics on disability determinations given that all DDS employees were state employees working for an executive agency.[15] Moreover, a state director of DDS stated, for example, that he would "probably be discharged if he followed a strict interpretation of SSA guidelines" (GAO 1978). Similarly another employee of a DDS office said, "We are state employees; therefore, we don't have to pay attention to what the SSA regional office . . . or any other federal agency says" (GAO 1978, 7-8).

The structure of the disability system therefore establishes conflicting incentives for states and the SSA. Unlike the federal government, which has an incentive to cost minimize by reducing caseloads, state governors have an interest in increasing them. This is for two reasons. First, if individuals applying for DI are denied they may apply for other forms of social welfare for which states bear the cost. To the extent that governors seek to cost-minimize with respect to their own social programs, they will attempt to admit more marginally disabled individuals into the federal DI program. Second, the removal of these individuals from the ranks of the unemployed may allow a change in the perception of state level economic performance. This could affect the governor's political capital or re-election prospects.

Previous research suggests there is substantial margin for subjective decisionmaking to influence allowance rates, but the importance of subjectivity appears to have increased over the last two decades.[16] This is largely because of policy changes, mostly mandated by

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[14]Court cases include *Schisler v. Bowen*, 787 F. Supp. 76 (2 Cir.1986), which dealt with treating source opinion, and *Hyatt v. Heckler*, 579 F. Supp. 985 (4 Cir. 1986), which dealt with assessment of pain.

[15]GAO Report to Senator Jim Sasser (September 1985)

[16]According to Lewin (2001), the degree of disagreement between a randomly examined disability cases is about 12 percent

legislation or court decisions, that have introduced more subjectivity into the process. The major shift toward increased subjectivity began with the Disability Reform Act of 1984, and continued through 1996. Two laws passed in 1996 tightened eligibility in ways that likely reduced subjectivity, especially for child SSI cases. In the same year, SSA issued its nine Process Unification rulings, aimed at ensuring uniform treatment of a variety of subjective issues at the DDS and OHA levels. The independence and subjectivity are compounded by the relatively lax oversight and monitoring provided by the SSA. Thus state variation in allowance rates remains a concerning indicator that classification errors abound in state DDS decisionmaking.

Prior to 1972, SSA conducted pre-effectuation review (PER) of all DDS decisions. In 1972, the federal review of DDS decisions was drastically reduced to a national sample of five percent, conducted post-effectuation of the decision. In 1980, Congress established the Pre-Effectuation Review (PER) giving SSA the authority to review a certain percentage of DDS decisions before they were paid. PER required a review of 15 percent of Title II (DI) and concurrent (DI/SSI) allowances in 1980, 35 percent in 1982, and 65 percent in 1983 and beyond. Today, the PER sample is a sample of 50 percent of all Title II (DI) and concurrent Title II/XVI (DI-SSI) initial allowances prior to effectuation of payment. Of the 50 percent of cases selected for review, 45 percent are targeted based on the profile and 5 percent are randomly selected (these are the Title II and concurrent Title II/XVI initial and reconsideration allowances selected for a quality assurance review). PER is mandated by law and has been updated to identify and sample the most error-prone cases for review.

In addition to the PER, the 1980 Social Security Amendments also gave SSA authority to set performance standards for DDSs with the option of taking over DDS workloads, if they failed to meet those standards. The 1980 Amendments also mandated that non-permanent disability cases must be reviewed every three years (continuing disability reviews (CDRs)). As a result of the 1980 Amendments, SSA established a DDS performance accuracy threshold of 90.6 percent combined accuracy rate for initial allowances and de-

nials and began undertaking quality assurance reviews (QARs). The 90.6 percent level was somewhat arbitrarily chosen, based on the fact that it represented one and one-half standard deviations from the mean accuracy rate at that the time. If a state DDS initial allowance or denial accuracy falls to 90 percent or less, sampling of the deficient stratum is increased to 140 cases per quarter (reduced from 196 in May, 2000) and remains at that level until the accuracy rate improves.[17] In addition, the SSA requires DDSs meet standards of timeliness, with the target case processing time of 49.5 calendar days or less for DI applicants and 57.9 days or less for SSI applicants. If a DDS has an accuracy rate of less than 90 percent for two consecutive quarters but meets the timeliness standards, SSA has the discretion to decide to provide technical and management assistance (TMA). If a DDS has an accuracy rate of less than 90 percent and fails to meet one of the timeliness requirements, it is deemed to have "unacceptable performance level" and the SSA must provide TMA. If after 1-2 years performance is still unacceptable, the SSA can take over the administration of DI determinations in that state. Although the SSA already has the statutory authority to assume responsibility for conducting disability determinations for a state, it has never exercised this authority. The apparent reason for this is the possible political ramifications. Lewin (2001) suggests that exercise of this authority was considered under the Reinvention of Government II initiative, in 1996, and rejected for such reasons. However, it may also be the case that no state has ever deviated a sufficient amount for a long enough period of time to warrant a takeover. In this case, the threat of takeover may be sufficient to induce state governors to apply subjective admission criteria only up to an existing threshold level.

In recent years the SSA has sought to establish more effective monitoring processes but there remain broad inconsistencies in the allowance rates across states. One attempt made to disperse the political pressure on the determination process was to decentralize the

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[17]State DDS performance and compliance with federal policy is measured by the findings of the QARs. Only Group I deficiencies (a decisional deficiency with sufficient documentation to support an opposite decision; or a documentation deficiency where the medical documentation is not sufficient to support any disability decision.) are used in the calculation of performance accuracy provided that the DDS also failed to meet processing time standards for either Title II or Title XVI.

DDS offices.[18] Moving DDS offices outside of the gubernatorial office buildings to neutral or even SSA buildings may help reduce the pressure on employees to make allowance decisions based on political considerations. Moreover, having localized DDS offices, rather than a central state DDS may further reduce political pressures while enhancing applicant access to local decision-makers. Unfortunately, only a handful of states have adopted such changes and differences appear to remain linked to political considerations.

3   Data and Trends in Disability Insurance Acceptance Rates

This study links Social Security Administration data from 1982 through 2000 to data on political variables collected by Besley and Case (1995).

The disability application variables, reported in Panel A of Table 1, include applications and allowance rates for individuals who apply for DI or SSI separately as well as individuals who apply for DI and SSI combined. The allowance rate is defined as the number of approved applications at the DDS level divided by the total number of applications. The denominator of this outcome is reported as the number of applications for DI and SSI separately as well as combined DI/SSI applications. Table 1 shows that about 43 percent of DI claims and 40 percent of SSI claims are accepted. Moreover, this number has been increasing over time. In 1982 only about 35 percent of DI applications and 33 percent of SSI applications were accepted. This rose to a peak of 49 percent of DI applicants and 47 percent of SSI applicants in 1992.

State demographic and economic variables are reported in Panel B of Table 1. The unemployment rate averaged about 6 percent during this period though in the post-liberalization period (after 1984) it was on average only about 5.5 percent. States vary a great deal in their unemployment rate, however. For example, during that time period

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[18]GAO Report to the Chairman, Subcommittee on Social Security, Committee on Ways and Means, House of Representatives (July 2004)

both West Virginia (in 1985) and Louisiana (1986) had unemployment rates well over 10 percent. In contrast, in those years New Hampshire and Massachusetts had unemployment rates of well below 5 percent. Similarly, 25 percent of the population lives below 150 percent of poverty. However, this varies widely as some states less than 10 percent of the population lives below 150 percent of poverty (Connecticut) and in some states over 40 percent of the population lives below poverty (Mississippi). These factors are useful in illustrating the reason why, due to various economic factors, states are likely to differ widely in their allowance rates and the political value of a higher allowance rate.

Another source of variation in the demand for disability insurance is the relative value of DI payments. There is considerable variation in the DI replacement rate (i.e. the average DI payment/ the average wage) as well as the unemployment insurance (UI) replacement rate (i.e. the average UI payment/ the average wage). There is also variation in the number of people without health insurance (on average 75 percent, but as low as 55 percent.) This is particularly relevant because individuals are eligible for Medicare 24 months after an individual is deemed disabled. These factors regarding access to public welfare may also influence demand and thus the political value of disability insurance.

The political variables are reported in Table 2. Panel A of Table 2 reports descriptive variables about the governors. About 60 percent of the state-years have governors serving their first term in office. About 30 percent of the state-years have governors serving their second term in office. About 49 percent of the state-years have democratic governors. The average governor is about 54 years old. In addition to the descriptive variables in Panel A, we also report some outcome variables in Panel B. Only about 13 percent of incumbents lose re-election (either in a primary or a general election). About one-quarter of the sample are ineligible for another term. Another 17 percent were eligible to run, but did not do so. Thus governors who did not get re-elected even though they were eligible for re-election represent about 30 percent of the sample. On average, winning governors won about 57 percent of the votes, but some won with as little as 35 percent of the vote. Only about 6 percent of the sample won by a margin of greater than 10 percentage points.

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Panel C of Table 2 reports rules which may limit gubernatorial power. Over 80 percent of the sample has gubernatorial line-item veto, where the governor can eliminate individual items in omnibus legislation. Only 20 percent of the sample has supermajority requirements to approve tax increases. 45 percent of the sample has indexed limits on tax and expenditure changes but only 25 percent of the sample has limits that are restrictive.

Panel D of Table 2 reports other political variables relevant for gubernatorial political power. In 16 percent of the sample, one party received more than 60 percent of the vote indicating strong party ties. On average, 57 percent of state senate members and 56 percent of state house members are democrats and indeed about 56 percent of the sample has a democratic legislature. In general, democrats are believed to be associated with higher government spending and in general fiscal laxness. However, we find evidence of a significantly negative relationship between having a democratic legislature and the fraction of expenditures that are deficit funded. About 20 percent of the state senate members and 14 percent of state assembly members are women and again, there appears to be little correlation with government expenditures. Higher fractions of women in political office are sometimes thought to indicate the political liberalness of an area and would be associated with higher spending levels. We find evidence that a higher fraction of women is associated (in a marginally significant sense) to higher rates of deficit spending. Finally, about 48 percent of the sample has a split government, where the governor and the majority of the legislature are of opposite parties. It is typically thought that split governments are more fiscally conservative. We find no evidence of a significant relationship between split government and deficit spending.

Panel D also reports the relationship between the governor's party and the current president's party. The relationship between the governor and president's party may relate to career concerns of governors. For example, if a governor is too extravagant in allowances for his or her state, then while there is little consequence for within state politics, there may be reputation consequences in national politics. Nearly 40 percent of the sample has governors who are of the same party as the president. Of the 60 percent of the sample

in which the governors and presidents are of opposite parties, about 23 percent have republican governors and democratic presidents. The political party may be important if there are different reputational and electoral consequences for higher welfare spending by political party.

4   Term Differences In Allowance Rates

Before exploring the relationship between disability insurance allowance rates and gubernatorial politics, we first want to establish the importance of acceptance rates relative to application rates in the expansion of the disability program. Figures 1 and 2 illustrate the DI application rates (per 100,000) and allowance rates (respectively) from 1982 until 2000. Similarly, Figures 3 and 4 show SSI application rates (per 100,000) and allowance rates.

In Figures 1 and 2 there appears to be a steady rise in the allowance rate in the early to mid-eighties despite relatively stagnant application rates. This may be due to the liberalization that occurred in 1984. It is also likely related to the 1980 Amendments, in which Congress, through Federal regulations, explicitly described the nature of the DDS role the disability decision making process. Until the 1980 Amendments, SSA had agreements with individual states regarding the nature and scope of the DDS role. Because of inconsistencies in administration and the difficulty different agreements posed for enforcement, the Congress attempted to strengthen the Federal role in the Federal-State system.

The 1980 law required the Secretary to issue performance standards as well as administrative requirements and procedures to be followed "in order to assure effective and uniform administration of the disability insurance program throughout the United States." However, recent reports by the GAO and Social Security Advisory Board suggest that these regulations, as they were issued, may have reduced the Federal management role.[19]

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[19]This description of events borrows heavily from the information collected by Fred Arner in a comment on Federal Disability Regulations posted on the Social Security Administrations Comment site.

Note also that both allowance and application rates rose dramatically in the late eighties (around 1988-9) until the mid-nineties (around 1992-3). They both drop off relatively around 1994. However, application rates especially for multi-term governors continued to decline steadily throughout the nineties. In contrast, after a sharp drop between 1992 and 1995, allowance rates rose quite steeply in the nineties, especially for multi-term governors. The decline from 1992-1996 is likely due to major judicial and legislative factors. In 1992, several states filed class action suits against State DDS's and/or the SSA. Much of this was settled by the *Schisler v. Sullivan* decision (which in 1993 upheld SSAs regulatory use of power in regulating the treatment of opinions of treating physicians) and the settled *Hyatt* class action suit (in which some 80,000 disability claims would be re-adjudicated using the pre-1991 standards). Finally, in 1994 Congress restricted and eliminated benefits for drug addicts and alcoholics.

Having established the relationship between application and allowance rates, we turn to differences between governors of different term lengths. From Figure 2 we observe pronounced and consistent differences between first-term and multi-term governors. Because states change governors every few years from 1980 to 2000, any relationship between governors term length and allowance rates is likely more than a simple state effect.

The relationship between the ease of misclassification (by DDS agencies of applicants) is also apparent in the divergence of the allowance rates by gubernatorial term length. Notice that before the 1984 liberalization, term length appears to have little effect on the DI allowance rate. This may be because the liberalization reduced the monitoring of governors, allowing them more flexibility to deviate from the SSA's desired allowance rate. After the 1984 liberalization, multi-term governors maintain a much higher rate of disability allowances than do first term governors. Moreover, much has been made of the

steep rise in the late-eighties, and from Figure 2 it appears that much of that was driven by multi-term governors. Note that the allowance rate for first term governors declined from 1984-1989 and only rose again from 1989-1992. By 1992, allowance rates in states with first-term governors were only 3 percentage points higher than they had been in 1984 and did not rise monotonically in the 1984-1992 period. In contrast, allowance rates in states with multi term governors were about 10 percentage points higher and either remained insignificantly changed or rose during every year in the 1984-1992 period.

In short, Figures 1 and 2 suggest that two factors may affect the adjustment of DI allowance rates by governors. The first is information about the likelihood of detection. First term governors may be wary of moving DI allowance rates in response to poor economic conditions because they do not have enough information about how the Social Security Administration will react. Thus we see much more movement and larger differences by governor term length during periods of little scrutiny and reduced monitoring. The second issue is flexibility. Applying higher than expected allowance rates is risky because the potential for detection is likely increasing in the allowance rate and my have reputational consequences. Governors will often prefer not to do this if it is difficult. Second term and later governors have much more information and therefore adjust DI rates much more as economic/political needs arise.

5   A Model of Gubernatorial Learning

There appear to be fairly substantial differences in the fraction of DI applications accepted by governor term. To illustrate a potential mechanism which might result in having higher allowance rates by term length, we present a model of strategic interaction between governors and the Social Security Administration (SSA). In such a world, the monitoring by SSA reveals information to the governor. We show that this gubernatorial learning could produce the observed results.

5.1 Basic Setup

To begin, suppose the governor has utility $U(x)$, where $x = a - a^{ssa}$ and represents the difference between the allowance rate set by the governor (a) and SSA's desired allowance rate (a^{ssa}). SSA observes x. SSA can take one of three actions: i) do nothing, ii) send a warning $(s = 1)$, and iii) impose technical and management assistance or completely take over the administration (in short take over, $t = 1$). To decide which action to take, SSA follows these rules:

- send a warning if $x > c - \Delta$ (i.e. define a variable such that $s = 1\,(x > c - \Delta)$)

- take over disability determination if $x > c$ (i.e. define a variable such that $t = 1\,(x > c)$).

In these rules c represents the cost to the SSA of taking over any DDS and Δ is the amount by which SSA shades the true costs of takeover in order to ensure compliance. For illustrative purposes we will treat Δ as exogenously given.[20] Assume that governors know Δ, but don't know c.[21] That is, we assume that governors know how much SSA will shade by but they do not know the true cost of takeover. Also, assume that if $x > c$ governors utility is zero (i.e. $U(x) = 0$ for) the period and any period after. That is governors receive zero utility in this period and future periods if SSA takes over and as such governors will always avoid setting $x > c$.

In a one period model the governor weights the utility gain from setting a higher acceptance rate against the increase in the probability of takeover.[22] In a two period model, however, information is transmitted based on the SSA's action in the previous

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[20] An interesting extension to this model is one in which Δ is also a choice parameter strategically set to induce maximal compliance.

[21] Assuming that Δ is also unknown does not alter the results, while if the governor knows c, $x = c$, an uninteresting case.

[22] Note that to assure an interior solution in a one period model the main regularity condition is that the hazard rate $\frac{f(x)}{1-F(x)}$ is monotonic.

period. The governors will therefore maximize their utility over both periods, i.e.

$$\max_{x_0, x_{10}, x_{11}} U(x_0, x_{10}, x_{11}) = \Pr(t_0 = 0) U(x_0) + \Pr(t_0 = 0, t_1 = 0, s = 0) U(x_{10}) \quad (1)$$

$$+ \Pr(t_0 = 0, t_1 = 0, s = 1) U(x_{11}).$$

where x_0 is the difference between SSA's desired allowance rate and the allowance rate set by the governor at time $\tau = 0$, x_{10} is the difference between SSA's desired allowance rate and the allowance rate set by the governor at time $\tau = 1$ if the governor does not receive a warning, and x_{11} difference between SSA's desired allowance rate and the allowance rate set by the governor at time $\tau = 0$ if the governor receives a warning.

5.2 Solving the Governor's Maximization Problem

Suppose that c has a known distribution, $F(c)$, which admits a density $f(c)$. Substituting in the distribution function for the probabilities, the expected utility in 1 simplifies to:

$$[1 - F(x_0)] U(x_0) + [1 - F(x_{10})] U(x_{10}) + [F(x_0 + \Delta) - F(x_{11})] U(x_{11}) \quad (2)$$

Suppose the governor maintains the administration of the disability program (i.e. $t_0 = 0, t_1 = 0, s = 1$) and he received a warning, then x_{11} is implicitly defined by:

$$\arg\max_{x_1} P(c > x_{11} | c > x_0, s) U(x) = (1 - F(x_{11} | x_0 < c < x_0 + \Delta)) U(x_{11}) \quad (3)$$

The first order condition from equation 3 is:

$$(1 - F(x_{11} | x_0 < c < x_0 + \Delta)) U_1(x_{11}, \alpha) - f(x_{11} | x_0 < c < x_0 + \Delta) U(x_{11}) = 0$$

or more simply:

$$(F(x_0 + \Delta) - F(x_{11})) U_1(x_{11}) - f(x_{11}) U(x_{11}) = 0 \quad (4)$$

In a parallel manner the governor's strategy in the state of the world where there is no warning at time (i.e. $t_0 = 0, t_1 = 0, s = 0$) is implicitly defined by the first order condition:

$$(1 - F(x_{10})) U_1(x_{10}) - f(x_{10}) U(x_{10}) = 0 \tag{5}$$

Let x_{10}^* and x_{11}^* be the solutions to these two maximization problems. We can then rewrite equation 2 as:

$$\max_{x_0} U(x_0) = [1 - F(x_0)] U(x_0) + [1 - F(x_{10}^*)] U(x_{10}^*) + [F(x_0 + \Delta) - F(x_{11}^*)] U(x_{11}^*) \tag{6}$$

with corresponding first order condition:

$$
\begin{aligned}
0 = {} & [1 - F(x_0)] U_1(x_0) - f(x_0) U(x_0) \\
& + \{[1 - F(x_{10}^*)] U_1(x_{10}^*) - f(x_{10}^*) U(x_{10}^*)\} x_{10}'^*(x_0) \\
& + \{[F(x_0 + \Delta) - F(x_{11}^*)] U_1(x_{11}^*(x_0)) - f(x_{11}^*) U(x_{11}^*)\} x_{11}'^*(x_0) \\
& + f(x_0 + \Delta) U(x_{11}^*)
\end{aligned}
\tag{7}
$$

In equation 7, $x_{10}'^*(x_0)$ is the change in the second period solution (without warning) with respect to x_0, and similarly $x_{11}'^*(x_0)$ is the change in the second period solution (with a warning) with respect to x_0.

Note that these first order conditions (equations 4, 5, and 7) cannot be simultaneously satisfied. If all there are satisfied that implies that

$$0 = [1 - F(x_0)] U_1(x_0) - f(x_0) U(x_0) + f(x_0 + \Delta) U(x_{11}^*) \tag{8}$$

Define $G(x_0) = [1 - F(x_0)] U_1(x_0) - f(x_0) U(x_0)$. Equation 8 then implies that $G(x_0 < 0)$. However, we have assumed $G(x_{10}^*) = 0$. Because of the regularity condition

$G(z)$ is decreasing, implying that $x_{10}^* < x_0$, which cannot be optimal. Governors will never set $x_1 < x_0$ if there was no takeover in the initial period (i.e., governors should always set $x_1 \geq x_0$).

Consider a case where governors choose the interior solution if they do not receive a warning, so that $G(x_{10}^*) = 0$. If there is a warning instead, governors pursue the safest strategy and maintain the same acceptance rate in the second period (i.e. if $s = 1$, then $x_{11}^* = x_0$). In this situation, we can rewrite the first order condition:

$$0 = G(x_0) + [F(x_0 + \Delta) - F(x_0)]U_1(x_0) - f(x_0)U(x_0) + f(x_0 + \Delta)U(x_0) \qquad (9)$$

In order for equation 9 to hold, $G(x_0) + [F(x_0 + \Delta) - F(x_0)]U_1(x_0) - f(x_0)U(x_0) < 0$. Since $x_{10}^* > x_0$ and $G(z)$ is decreasing in z, we know that $G(x_0) > 0$. This implies that $F(x_0 + \Delta) - F(x_0)U_1(x_0) - f(x_0)U(x_0) < 0$.

Note however that this implies that:

$$G(x_0) - |[F(x_0 + \Delta) - F(x_0)]U_1(x_0) - f(x_0)U(x_0)| > 0 \Rightarrow$$
$$G(x_0) - (-\{[F(x_0 + \Delta) - F(x_0)]U_1(x_0) - f(x_0)U(x_0)\}) > 0 \Rightarrow$$
$$G(x_0) + [F(x_0 + \Delta) - F(x_0)]U_1(x_0) - f(x_0)U(x_0) > 0$$

Thus there does not exist an interior solution where after a warning the governor will set the acceptance rate at the same level. Intuitively this results indicates that because governors know they still have some room to increase their acceptance rates and the warning itself does not impose any costs (so getting another warning without a takeover is costless), it is not optimal for them to simply maintain the status quo when given a warning.

Next, consider a case where governors choose the optimal x_1 if they receive a warning (i.e. the first order condition for x_{11}^* is satisfied). If there is no warning, governors simply increase by Δ (i.e. $x_{10}^* = x_0 + \Delta$). Note that since Δ is known, and the strategy of the

SSA is known, governors know they can safely increase by Δ and still avoid takeover. Additionally, $G(x_{11}^*) > 0$. Since we know that $x_{11}^* > x_0$, this implies that $G(x_0) > 0$. The first order conditions can then be written as:

$$0 = G(x_0) + G(x_0 + \Delta) + f(x_0 + \Delta) U(x_{11}^*) \tag{10}$$

$$0 = [F(x_0 + \Delta) - F(x_{11}^*)] U_1(x_{11}^*) - f(x_{11}^*) U(x_{11}^*)$$

The first condition can be satisfied if $G(x_0 + \Delta)$ is sufficiently negative. In this case, governors will always choose $x_{11} > x_0$ and the warning by the SSA simply dictates the magnitude of the increase.[23]

To summarize: the main prediction of the model is that *ceteris paribus* acceptance rates in the second period are at least as large as in the first period, and are larger whenever governors receive a warning.

6 Evidence Linking Allowance Rates and Political Factors

6.1 Evidence of Learning as a Source of Term Differences

A model of gubernatorial learning appears to explain the simple observations from Figure 2. To test this, we estimate a series of regressions reported in Table 3. Later specifications control for the employment-population ratio which we argue is a more exogenous measure of labor market strength. Because individuals classified as disabled to not contribute to the state's unemployment rate, the use of unemployment rate to measure [SOMETHING MISSING] Specifications also include average state income, fraction of working age population, the fraction married, the fraction white, fraction below poverty,

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[23]Whenever it is not satisfied, there are no interior solutions in the second period and the two boundary solutions are $x_{11}^* = x_0$, $x_{10}^* = x_0 + \Delta$.

and the age-adjusted state mortality rate as well as the DI and unemployment insurance replacement rate. Newey–West standard errors are reported in parentheses. Columns (1) through (4) report the DI allowance rate, and columns (5) through (8) the the concurrent DI plus SSI allowance rate.

The first set of regressions, reported in columns (1), (5) and (9), use a specification that controls for year fixed effects. It appears that first term governors systematically accept 1.5 percentage points fewer applicants to the DI program corresponding to about a 3.7 percent difference. The estimates for concurrent rates are slightly higher, and correspond to a 5.3 percent difference. Note that although SSI is a means-tested program unlike DI, it appears to be following a similar pattern.

The second specification, reported in columns (2), and (8) includes state and year fixed effects. The third specification clusters standard errors. The estimates are quite similar and in fact the point estimate on first term governors is not significantly different between the specifications. Note that in all three specifications DI and concurrent applications are increasing in term length. The specifications in columns (4), (8) and (12) include GLS estimates to correct for serial correlation. The point estimate shrink by about 0.4 of a percentage point for all allowance rates.

Despite changes in the magnitude of the point estimates, the overall findings appear to be robust to specification. First-term governors have lower acceptance rates for applicants of the disability insurance and supplemental security income programs. These term differences appear even when controlling for employment rates and other workforce and population demographics. This suggests that the results are not due simply to correlations between various economic or demographic trends.

Another potential cause of these differences could be that there are "high allowance" states which are also "incumbent-favorite" states. That is, some states are both more likely to have multi-term governors and more likely to have higher allowance rates. This is unlikely first because governors do indeed appear to change on a regular basis. The probability of winning re-election is only about 48 percent, when considering the governors

who cannot run, choose not to run, and lose. Moreover, our specifications controlling for state and year fixed effects should absorb any state effects such as predisposition towards incumbents. While the results from Table 3 are indeed consistent with our model, they are not conclusive as to the political nature of disability insurance rates.

6.2 Political Need, Gubernatorial Power, and Disability Insurance Allowance Rates

The model of gubernatorial learning has implications for the usage of DI as a political tool. While there are gains from using DI, if it indeed serves as a vote-buying mechanism, it is also risky. Because c is unknown, governors who are not constrained from otherwise addressing economic conditions may prefer not to use expand DI maximally while governors who are constrained either through political institutions or economic factors may be forced to increase allowance rates more than they might otherwise. While a good deal of the political economy literature focuses on unemployment and political outcomes, it is equally plausible that governors who are constrained from social welfare spending through political institutions may use DI as a means to improve the well-being of individuals in their state.

To further explore the relationship between necessity and allowance rates, we estimate regressions with state and year fixed effects within various sub-samples. The results, reported in Table 4, highlight how as governors are constrained, either through economic conditions or political institutions, they are more likely to use DI as a means of public welfare. Column (1) of Table 4 provides estimates for the full sample. In states with high unemployment rates (i.e. higher than the national median) multi-term governors have an even higher allowance rate. This fits with the theory that governors may be using DI as free (from a state budget perspective) way of dealing with adverse economic shocks. The same is not true for high deficit spending states. First-term governors in states which finance a higher percentage of their expenditures through deficits have almost the same

acceptance rate as the full sample.

In states with restrictions on tax and expenditure increases and especially in states with supermajority requirements for new tax or expenditure laws, first-term governors have substantially lower acceptance rates relative to multi-term governors than the sample as a whole. This is suggestive of a more "risky" use of DI at times when governors may be constrained from passing other legislation. If higher acceptance rates increase the chance of SSA takeover, then the amount governors increase the acceptance rates by in their second term will be influenced by their ability to pass other interventions (obviating the need for a large increase in DI acceptances).[24]

Note that republican governors have an even higher allowance rate than the average multi-term governor. This may be related to two factors. First, republican governors may be in states in which there is a greater distaste for state spending and tax increases. This means that the governor has few options if he or she wishes to expand social protection. Second, republican governors career concerns may be such that higher state deficits are more detrimental than greater usage of federal programs. As a result, republican governors appear to be quite willing to use federal public welfare programs.

While there appear to be raw differences in the acceptance rates by term length, this could be related to political survival and political savviness. In order to test this, we estimate a set of specifications with governor fixed effects. In these specification, single term governors who are never re-elected are absorbed by the governor fixed effects. Thus, identification for the first-term effect comes from comparing governors in their first term to later terms, essentially treating multi-term governors as panel observations on the same individual. Table 5 reports a comparison of estimates using governor fixed effects to those using state fixed effects. The DI only allowance rate is still lower for first term governors relative to second term governors but the effect is not significant. However, the effect

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[24]The specifications reported in Table 4 use individual subgroups for clarity of discussion. Results from a pooled regression are similar and there are no significant interactive effects between the subgroups (although there are likely too few observations to get sufficient statistical power to identify any interactive effects).

among concurrent applicants (columns (6)) and indeed among the total number of DI applications (not reported) actually increases. Moreover if a governor cannot run again (he or she is prevented by term limit laws), the effect is also larger in the governor fixed effects setting, providing additional evidence of career concerns.

7 Concluding Remarks

Our results provide fairly strong evidence that governors in their second term allow higher acceptance rates for federal Disability Insurance (DI). We believe this inefficiency is due to the inherently imperfect principal-agent situation set up the by the administration of DI. In particular, because the federal government funds DI but to a large extent leaves the management and administration to state government, there is broad scope for gubernatorial discretion to influence the allowance rates. The irony of such a scenario is that the monitoring by the Social Security Administration (SSA) actually serves to inform governors about the extent to which they can costlessly increase DI. The evidence presented here suggests that the same governors, over time, will increase their allowance rates once they learn how much room they have to increase the rates.

We also provide some evidence confirming the vote-buying use of DI by comparing governors who have a greater incentive or need to use DI as a political tool. In particular, we find that governors with higher than average unemployment rates have even larger effects in their first term. Moveover, governors who are restricted in their ability to pass social welfare programs (either because of political institutions or a split with the legislature) have even higher DI allowance rates after the first term. This is consistent with our model of learning and also suggests that there may indeed be some costs to using DI as a vote-buying mechanism.

The results of this paper provide some insight into the ways in which DI administration can be responsible for reduced labor force participation. In a world with perfect information and monitoring, governors could not use disability insurance as a means of

vote buying because individuals who were not sufficiently disabled would not be allowed onto the DI rolls. This paper identifies a specific mechanism for how misclassifications and state inconsistencies may underlie misuses of social welfare program by political figures. The average estimates presented in this paper account for about 10 percent of the rise DI over the two-decade time period examined in this paper. However, much of the difference occurred over the same time period as the rise in DI rolls suggesting this political effect may be particularly relevant for the rise in DI and its implications for labor force participation. Moreover, while we identify governors as a source for the politicization of DI, there may be other ways in which state politicians more generally exploit the inherent principle-agent problem set up by the administration of the federal DI programs.

Overall, the changes we find are both significant and substantial. Unfortunately, we are not able to make strong statements about the social welfare impact of this politicization of DI allowances because we have little information about who is being allowed onto the rolls. If governors are simply providing some form of social insurance or long-term unemployment insurance for individuals who could not be employed and might otherwise suffer severe financial hardship then this use of DI to provide a stop-gap safety net may be net-beneficial. On the other hand, if individuals who would otherwise be employed or actively seeking employment are entering DI, then the program may be quite socially costly. The social welfare implications of the rise in DI rolls and its relationship to this particular mechanism for that rise is therefore left as an area of future research. However, the results provide a cautionary tale for governments seeking to reduce costs from administration. Monitoring in the form of low cost, not very credible threats is not simply ineffective but may actually be counter-productive. In this case, the monitoring system actually facilitates misuse of the system and higher DI rolls, likely far outweighing the costs needed to more effectively monitor state determination services. Thus we would recommend either a single agent structure, through federalization of DI or a more strict monitoring system with credible, costly penalties, in order to more efficiently administer DI and SSI.

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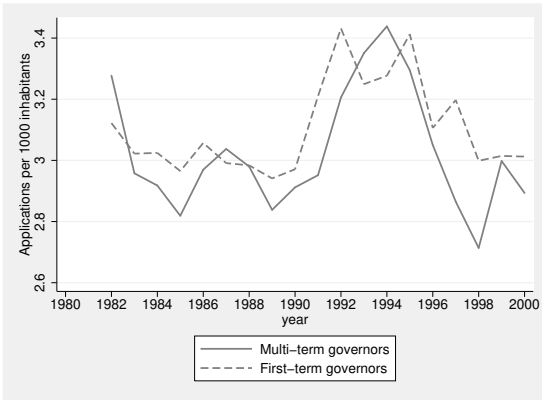
Figure 1: DI applications ($\times$ 100,000)
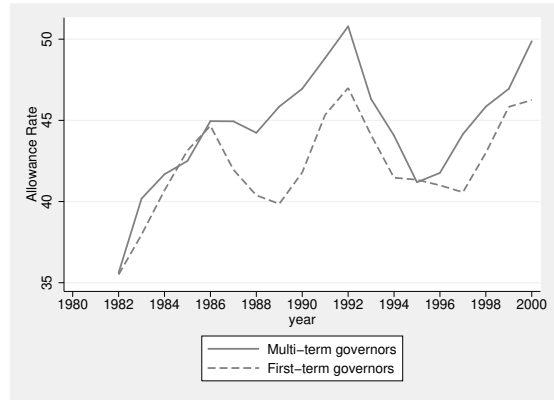
Figure 2: DI allowance rates
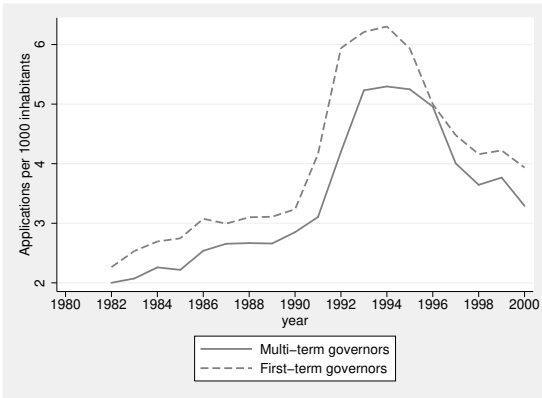
Figure 3: SSI applications ($\times$ 100,000)
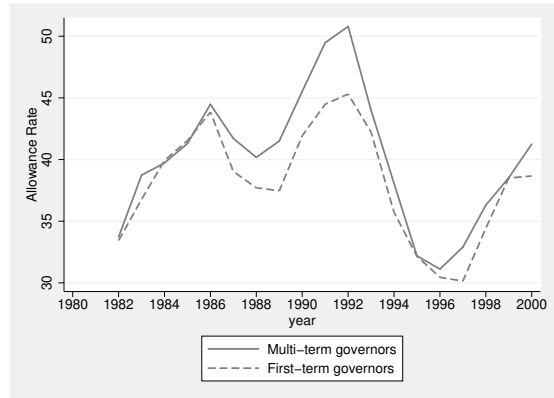
Figure 4: SSI allowance rates

Table 1: Summary Statistics for Disability Application and State Demographic Variables

	N	Mean	Standard Dev	Min	Max
Panel A: Disability Application Variables					
DI Applications	950	11,581	12,088	540	68,524
DI Allowance Rate	950	0.432	0.074	0.240	0.650
SSI Applications	950	15,759	20,501	214	136,419
DI and SSI Combined Allowance Rates	950	0.293	0.068	0.130	0.550
DI Total Applications (DI + Concurrent Applications)	950	20,907	21,353	870	139,725
DI Total Allowance Rates (DI + Concurrent Rates)	950	0.371	0.070	0.200	0.620
Panel B: State Demographic and Economic Variables					
Unemployment Rate	950	0.060	0.022	0.020	0.180
Unemployment Rate from 1984-2000	800	0.056	0.018	0.020	0.130
Labor Force Participation Rate	950	0.669	0.040	0.510	0.760
DI Replacement Rate	950	0.365	0.046	0.250	0.549
UI replacement rate	950	0.370	0.053	0.200	0.530
Real Family Assistance per capital ($1982)	864	0.040	0.025	0.005	0.132
Mean personal income (x1000)	950	19.496	5.744	8.990	37.547
Fraction of population below poverty line	950	0.138	0.042	0.030	0.280
Fraction of population below 100-125% of poverty	950	0.048	0.014	0.010	0.090
Fraction of population between 125 -150% of poverty	950	0.050	0.014	0.010	0.100
Percentage with health insurance coverage	950	0.754	0.057	0.560	0.880
Fraction of population that is working age	950	0.613	0.023	0.530	0.680
Fraction of population aged 5-17	912	0.191	0.017	0.070	0.269
Fraction of population married	950	0.493	0.023	0.420	0.560
Fraction of population that is white	950	0.807	0.141	0.220	1.000

Table 2: Summary Statistics for Political Variables

	N	Mean	Std. Dev.	Min	Max
Panel A: Gubernatorial Descriptive Variables					
First Term Governors	895	0.607	0.489	0.000	1.000
Second Term Governors	895	0.306	0.461	0.000	1.000
Third Term or Later Governors	895	0.087	0.282	0.000	1.000
Governor is a Democrat	912	0.487	0.500	0.000	1.000
Governor's Age	912	53.50	7.90	34.00	78.00
Panel B: Gubernatorial Outcome Variables					
Incumbents Lost Re-election	234	0.128	0.335	0.000	1.000
Incumbents could not run for re-election	905	0.239	0.427	0.000	1.000
Incumbents eligible to run but did not	839	0.175	0.380	0.000	1.000
Percent of votes captured by winner	250	56.88	7.69	35.40	82.40
Governors won with a margin of greater than 10 percentage points	950	0.625	0.484	0.000	1.000
Panel C: Rules Impacting Gubernatorial Influence/Power					
Governors has a line-item veto	912	0.854	0.353	0.000	1.000
Super-majority requirements for tax or expenditure increase	900	0.183	0.387	0.000	1.000
State has a limitation on tax or expenditure increases	900	0.453	0.498	0.000	1.000
State has a restrictive tax/expenditure limitations	900	0.258	0.438	0.000	1.000
Panel D: Other Political Variables					
One party received more than 60 percent of votes	384	0.167	0.373	0.000	1.000
Fraction of state senate members who are democrats	891	0.573	0.176	0.114	1.000
Fraction of state house or assembly members who are democrats	892	0.567	0.173	0.157	0.952
Fraction of state senate members who are women	912	0.191	0.085	0.016	0.433
Fraction of state house or assembly members who are women	912	0.142	0.093	0.000	0.469
Governor and legislative majority are of opposite parties	912	0.475	0.500	0.000	1.000
Governor and the President are of the same party	950	0.382	0.486	0.000	1.000
Governor and the President are of different parties	950	0.618	0.486	0.000	1.000
Governor is a Republican and the President is a Democrat	909	0.226	0.418	0.000	1.000
Percentage of expenditures that are deficit spending	864	0.438	0.080	0.238	0.705

Table 3: Estimates of Differences in Allowance Rates by Gubernatorial Term Length

Dependent Variable	(1) Disability Insurance (DI) Allowance Rate	(2)	(3)	(4) Concurrent (DI + SSI) Allowance Rate	(5)	(6)	(7) Disability Insurance (DI) Log-applications	(8)	(9)	(10) Concurrent (DI + SSI) Log-applications	(11)	(12)
mean		43.90			30.08			892.8			870.8	
=1 if multi-term governor	1.31**	1.36*	0.99**	1.67**	1.61*	1.34***	-2.36	-0.58	0.35	-2.21	-1.15	-1.71
	(0.63)	(0.79)	(0.43)	(0.70)	(0.80)	(0.45)	(1.56)	(1.42)	(1.62)	(1.86)	(1.75)	(2.38)
=1 if governor cannot run again	-1.28	-1.00	-0.85*	-1.88**	-1.66**	-0.87*	3.46*	1.77	0.60	3.88	3.17	0.71
	(0.78)	(0.79)	(0.47)	(0.73)	(0.70)	(0.45)	(2.01)	(1.81)	(1.89)	(2.35)	(1.98)	(2.61)
=1 if the previous governor is from the same party		0.84	0.61		0.21	0.80*		-0.02	1.38		-0.26	-3.23
		(0.70)	(0.42)		(0.64)	(0.43)		(1.39)	(1.80)		(2.17)	(2.43)
Employed/Population		31.38	18.83**		-1.78	2.41		-260.74***	-291.71***		-225.78***	-345.18***
		(20.81)	(8.24)		(21.78)	(7.64)		(40.59)	(34.60)		(61.97)	(50.57)
Mean personal income		-0.02	-0.20***		0.02	-0.27***		0.25	1.54***		-0.43	0.07
		(0.21)	(0.07)		(0.18)	(0.07)		(0.65)	(0.31)		(0.67)	(0.43)
% of pop below 100% of poverty level		0.46	-10.50*		-7.52	-20.60***		14.64	6.62		2.04	34.38
		(14.60)	(6.35)		(10.65)	(6.16)		(23.17)	(23.60)		(33.05)	(31.17)
% of working age pop (18¡=age¡=64)		-22.91	38.54***		4.21	71.40***		-35.08	253.81***		46.21	133.58**
		(22.48)	(12.76)		(22.59)	(12.46)		(48.59)	(45.36)		(59.05)	(63.37)
Married		-11.72	-38.04***		-29.56*	-52.42***		104.72***	-69.09*		-26.31	3.44
		(17.25)	(11.15)		(16.57)	(10.91)		(37.73)	(41.64)		(51.19)	(57.62)
White		0.84	9.05***		6.35	2.78		-24.15	-221.57***		-3.74	-238.56***
		(11.72)	(3.13)		(9.87)	(2.49)		(30.57)	(16.82)		(29.01)	(24.34)
Age-Adjusted-Rate		-0.00	-0.04***		0.01	-0.02***		0.01	0.13***		0.09	0.02
		(0.01)	(0.00)		(0.01)	(0.00)		(0.03)	(0.02)		(0.06)	(0.03)
DI replacement rate		-1.96	0.34		11.02	-1.63		-110.60**	-72.29***		-203.49***	-253.09***
		(17.02)	(5.88)		(15.77)	(6.13)		(47.32)	(25.01)		(62.38)	(33.50)
UI replacement rate		1.51	-2.62		10.88	9.55**		27.91	3.02		38.99	-36.61
		(7.25)	(4.52)		(9.20)	(4.48)		(20.40)	(23.09)		(37.09)	(30.25)
State FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Clustered Standard Errors	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
Estimation Method	OLS	OLS	GLS	OLS	OLS	GLS	OLS	OLS	GLS	OLS	OLS	GLS
Observations	749	749	749	749	749	749	749	749	749	749	749	749
R-squared	0.79	0.80	–	0.73	0.73	–	0.99	0.99	–	0.99	0.99	–

Standard errors in parentheses (in the case of OLS Newey-West with a lag length of 4). Coefficients that are significant at the .10 [.05] (.01) are marked with *[**](***). Regressions all include additional controls for state marriage rates and age-adjusted state death rates.

Table 4: Estimates of Differences in Allowance Rates by Gubernatorial Term Length for Subgroups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Sample Restricted to States in Years in which they have				
	Full Sample	Unemployment Rate above National Median Unemployment	% of expenditures which are deficit spending above average % of deficit spending	Split Government (Governor and Legislative Majority of Opposite Parties)	Restrictions on tax and expenditure increases	Super-majority requirements for new tax or expenditure laws	Republican Governor	Governor with Line-Item Veto (Can reject single items in legislation)
Panel A: Dependent Variable is Disability Insurance (DI) Only Allowance Rate								
=1 if multi-term governor	1.53**	2.46***	1.11*	1.46*	1.98**	2.82**	2.85***	0.23
	(0.60)	(0.84)	(0.63)	(0.84)	(0.78)	(1.12)	(0.90)	(1.02)
=1 if the previous governor is from the same party	0.91*	2.62**	0.32	0.73	1.74**	0.74	1.10	1.06
	(0.55)	(1.03)	(0.75)	(0.80)	(0.74)	(1.22)	(0.88)	(0.97)
=1 if governor cannot run again	-1.15*	-2.89***	-1.15	-2.78***	-1.32	-4.29***	-3.16***	-1.07
	(0.63)	(0.90)	(0.75)	(0.83)	(0.91)	(0.95)	(1.04)	(1.03)
Panel B; Dependent Variable is Concurrent (DI + SSI) Allowance Rate								
=1 if multi-term governor	1.60**	1.69**	1.47*	1.75**	2.09**	3.18***	2.35***	-0.05
	(0.64)	(0.82)	(0.79)	(0.89)	(0.91)	(1.06)	(0.84)	(1.18)
=1 if the previous governor is from the same party	0.21	1.37	0.10	0.55	1.03	0.37	0.63	0.55
	(0.53)	(0.86)	(0.75)	(0.83)	(0.71)	(1.02)	(0.80)	(1.09)
=1 if governor cannot run again	-1.67***	-2.20**	-1.75**	-2.93***	-1.78*	-3.47***	-2.72***	-0.71
	(0.62)	(0.92)	(0.82)	(0.85)	(0.96)	(0.88)	(0.96)	(1.17)
Observations	745	265	329	371	317	144	368	287

Newey-West standard errors in parentheses (lag length of 4). Coefficients that are significant at the .10 [.05] (.01) are marked with *[**](***).
Regressions all include additional controls for state marriage rates and age-adjusted state death rates.

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Table 5: Estimates of Gubernatorial Learning Separate from Electoral Effects

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable	Disability Insurance (DI) Allowance Rate (in%)			Concurrent (DI + SSI) Allowance Rate (in%)		
mean			44.02			30.15
=1 if multi-term governor	1.36*	1.43		1.61*	1.62*	
	(0.80)	(1.04)		(0.80)	(0.96)	
=1 if governor will serve more than one term			-0.56			-1.20
			(0.85)			(1.03)
=1 if previous governor is from the same party	0.84	1.67	1.40*	0.21	0.36	0.84
	(0.70)	(1.01)	(0.81)	(0.64)	(0.94)	(0.70)
=1 if governor cannot run again	-1.01	-1.53	-2.20*	-1.67**	-1.75*	-2.52***
	(0.79)	(0.97)	(1.10)	(0.70)	(0.94)	(0.71)
State FE	Y	N	Y	Y	N	Y
Year FE	Y	Y	Y	Y	Y	Y
Governor FE	N	Y	N	N	Y	N
Observations	745	745	457	745	745	457
R-squared	0.80	0.88	0.84	0.73	0.84	0.78

Newey–West standard errors in parentheses (lag length of 4). Coefficients that are significant at the .10 [.05] (.01) are marked with *[**](***). Regressions all include additional controls for year fixed effects, state marriage rates and age-adjusted state death rates.

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