

# Governance, Bureaucratic Rents and Well-Being Differentials Across U.S. States

Simon Luechinger<sup>a), \*</sup>, Mark Schelker<sup>b)</sup>, and Alois Stutzer<sup>c)</sup>

<sup>a)</sup> University of Lucerne, KOF Swiss Economic Institute, ETH Zurich; <sup>b)</sup> University of St. Gallen, CESifo;

<sup>c)</sup> University of Basel

September 7, 2011

## Abstract

We analyze the influence of institutional restrictions on bureaucratic rents. As a measure for these rents, we propose subjective well-being differentials between workers in the public administration and workers in other industries. Based on data for the U.S. states, we estimate the extent to which institutional efforts to strengthen bureaucratic accountability affect differences in well-being. We find that the differences are smaller in states with high transparency, elected auditors, and legal deficit carryover restrictions. These findings are consistent with limited rent extraction under these institutional conditions. No effect is found for performance audits and regulatory review.

*JEL:* D72, D73, I31, J45

*Keywords:* bureaucracy, balanced-budget rules, public auditors, public administration, regulatory review, rent-seeking, subjective well-being, transparency

---

\* *Simon Luechinger*, University of Lucerne, Department of Economics, P.O. Box 7992, 6000 Lucerne 7, Switzerland, phone: +41 41 228 4609, [simon.luechinger@unilu.ch](mailto:simon.luechinger@unilu.ch). *Mark Schelker*, University of St. Gallen, SIAW-HSG, Bodanstrasse 8, 9000 St. Gallen, Switzerland, phone: +41 71 224 25 78, [mark.schelker@unisg.ch](mailto:mark.schelker@unisg.ch). *Alois Stutzer*, University of Basel, Department of Business and Economics, Peter Merian-Weg 6, 4002 Basel, Switzerland, phone: +41 61 267 33 61, [alois.stutzer@unibas.ch](mailto:alois.stutzer@unibas.ch).

We are grateful to Thomas Braendle, Thorsten Henne, Michael Zehnder and the participants of the Annual Meeting of the Swiss Society of Economics and Statistics for helpful comments.

## 1 Introduction

Public sector governance affects public servants' discretion and motivation to provide goods and services that meet citizens' preferences with a minimal wastage of resources. Thereby, the design of administrative and fiscal institutions in a democracy often involves difficult trade-offs. On the one hand, workers in the public administration, as 'trustees', have to be given discretionary authority to carry out their responsibilities. On the other hand, restrictions have to be imposed to ensure that they behave in a responsive and accountable manner.

In this paper, we apply a principal-agent framework of bureaucracy with citizens as the ultimate principals in order to contribute to a better understanding of public governance issues. In particular, we study how effectively specific government institutions restrict public administrators in the pursuit of private interests and the acquisition of rents. Rents are defined as the utility premiums of workers in the public administration relative to workers from other industries and can consist of wage differentials, monetary fringe benefits, non-monetary job amenities, and possibilities for extracting bribes. The empirical study backing this paper analyses governments in U.S. states. The states play a central role in domestic policy-making in the American federal government system and possess extensive delegated responsibilities in many policy areas. Simultaneously, policy-making occurs within a common national institutional framework. This setup ideally allows us to make a comparative analysis of the influence of public sector governance on bureaucratic rents. Specifically, we address how alternative fiscal transparency regimes, selection rules and mandates of state auditors, balanced-budget laws, and restraints to administrative rule-making affect the rents of public servants.

As a direct measure for rents, we exploit differences in the reported subjective well-being of employees in the public administration and employees in other industries across the U.S. states. This approach has the advantage of measuring the total net utility differential between people working in different industries. Traditional approaches, based on wage differentials, are either not applicable, because they start from a competitive equilibrium where no rents exist, or because they cannot capture all the possible benefits. In particular, analyses of wage differentials offer no guidance in interpreting any wage differential, either in terms of a rent or compensation. Job queues potentially capture the total compensation, but proxy the rent only for the marginal position. Furthermore, job queues provide no information on government sector rents, if government jobs are allocated by cronyism. Setting reported bureaucratic corruption equal to rents is not appropriate either, because it is not clear whether corruption

leads to *extra* benefits for public administrators or not (e.g., because of the possibility of rent dissipation).

We analyze data from the National Survey of Families and Households in the late 1980s and early 1990s in which people report their individual well-being (i.e., how “things are these days” on a scale from 1 “very unhappy” to 7 “very happy”). The responses are analyzed in conjunction with a detailed coding of workers’ industries. The specifications of the micro-econometric well-being functions exploit cross-sectional variation to estimate level effects of the various governance institutions on people’s subjective well-being. The focus is, however, on the interaction effects between institutional restrictions and the status of being employed in the public administration. This specification captures variation in well-being differences that systematically correlate with governance institutions.

In our main analysis for the years 1992-1994, we find that in U.S. states with high transparency regimes, elected auditors, and balanced budget laws the difference in subjective well-being between employees in the public administration and employees in other industries is substantially smaller, *ceteris paribus*. The findings are consistent with limited rent extraction under these institutional conditions. We do not find any correlation between the subjective well-being of public servants and either performance audits or regulatory review. The results are robust to the inclusion of variables for state population size, state per capita income, political preferences of the state electorate and state unemployment as well as corresponding interaction effects with employment in the public administration. They are also robust to the inclusion of state fixed effects and the exclusion of individual states. However, one caveat should be mentioned upfront: We find no effects of elected auditors and transparency in a smaller sample and smaller set of states for the years 1987-1989. Further, in this earlier period, the estimated effect for no deficit carry-over rules is weak and sensitive to the exclusion of individual states.

Our study draws on research in political economics addressing the effect of government institutions on (fiscal) policy outcomes as well as on corruption and extends it to bureaucratic rents (see Section 2 for references). The idea of measuring rents with differences in reported subjective well-being was introduced in Luechinger et al. (2008) and was applied in a cross-country framework.

Section 2 presents the theoretical considerations on the role of specific democratic institutions for bureaucratic rents. Section 3 explains the empirical strategy, and Section 4 describes the

data. The results of the empirical analysis are reported in Section 5. Section 6 offers concluding remarks.

## **2 Institutions and Bureaucratic Rents**

The sovereign authority of the public bureaucracy providing public services offers employees in the public administration the opportunity to generate rents. In contrast to a model of a benevolent bureaucracy, a political economy view predicts that public administrators will acquire those rents and protect them against dissipation. Moreover, the pursuit of rents does not simply lead to transfers. As the extraction of rents often involves investments of valuable resources, there are fewer resources available for productive economic activity, entailing a pareto-inferior situation. Rent-seeking government actors thus generate a lower level of welfare overall.<sup>1</sup> Opportunities for bureaucratic rent-seeking are manifold and often tied to the several tiers of principal-agent relationships which characterize bureaucracies; i.e., those between individual employees and managers of agencies; those between managers of agencies and the legislature; or those between officials and voters. First, there are several characteristics of government bureaus which hamper the use of explicit incentives for aligning the interests of individual public servants with the interests of their superiors. Most notably, there is a multiplicity of dimensions – of tasks; of principals and their often-conflicting interests regarding the choice of ends and the means; and of the tiers of management and front-line workers (Dixit 2002). Moreover, output is difficult to measure in the government sector. After all, a key characteristic of a government bureau is the non-market nature of its output. These aspects of the organizational structure in the government sector license subordinates to renege on public work effort in order to pursue personal goals, giving them higher utility than when strictly pursuing agency goals. Second, informational asymmetries give administrators considerable discretion vis-à-vis the legislature, which allows them to pursue their own goals via budget and slack maximization (see Niskanen, 1971). Finally, when interest groups succeed in legislating rents, employees of the public administration are likely to share in these rents. Public agencies often engage in rulemaking and possess a variety of policy-implementing instruments that make them attractive targets for rent-seeking activities. The policies enacted by the legislature and the government agencies also create property rights, which the employees can sell.

---

<sup>1</sup> Rents are, of course, pursued by private actors in the private sector as well. This occurs in industries that possess monopoly power or in professions where large entry barriers exist such as the liberal professions. These rents affect the distribution of subjective well-being *within* the private sector. Overall, they are expected to reduce the level of welfare.

We identify and address four major institutions that have the function of aligning the incentives of employees in the public administration with citizens' preferences and preventing abuse or exploitation of their functionaries' positions. The first three aim at strengthening accountability throughout the democratic system. The fourth emphasizes the checks and balances between government agencies, the legislature and officials heading the executive branch. We develop the arguments in general terms but within an institutional framework that allows mapping them to the context of U.S. states; i.e., a presidential regime with an elected governor, and, in some states, several other elected officials heading the executive branch.

## **2.1 Fiscal transparency**

As outlined above, information problems in the democratic decision-making process are a major obstacle to holding public servants accountable. Various political institutions have been proposed or established for the purpose of reducing such information problems. Major institutions are transparency requirements mandating information disclosure as well as the subsequent review of such disclosed information by public auditors (see below for the latter aspect). Increased transparency, which involves disclosure and access to reliable, comprehensive and timely information, allows the legislature, political parties, the media, citizens, and others to better observe the workings of government. In general, the beneficial effects of transparency requirements stem from the improved predictability and credibility of political processes. However, there are also counterarguments asserting that transparency inhibits politicians and public servants from taking productive risks and breaking promises in the interest of political expediency as more decisions become politicized (for a discussion, see Alt et al. 2006).

Previous empirical evidence supports the favorable effects of increased transparency. Stricter transparency requirements are associated with lower levels of debt accumulation (Alt and Lassen 2006a) and smaller political deficit cycles (Alt and Lassen 2006b).

Based on the theoretical arguments and the previous evidence, we derive *Hypothesis 1*: Increased fiscal transparency reduces the discretion of public administrators in the allocation of funds and thus rents in their industry.

## **2.2 Public auditors**

Transparency requirements are ineffective if the disclosed information is not accurate or timely. It is therefore important that they are backed by independent review. The review of financial information is usually conducted by independent public auditing institutions. These

are mandated to verify and certify the financial statements that are prepared by the bureaucracy and issued by the government. If the audits are of poor quality or the auditor is not independent from the government, financial statements lose credibility (e.g., Frey 1994, Schelker 2008).

Auditors typically conduct financial audits, in which they scrutinize financial statements. Recent randomized field experiments show that independent audits reduce corruption (Olken 2007) and influence electoral decisions (Ferraz and Finan 2008). However, some auditing institutions also conduct various forms of performance audits to ensure efficient policy implementation. With this extended mandate, audits cover a wider range of government activities. In a study analyzing U.S. state auditors, Schelker (2011) finds evidence that performance audits improve policy outcomes as reflected in government bond ratings. According to Schelker and Eichenberger (2010), extending the audit mandate even further to include not only standard ex post audits, but also ex ante audits of the budget draft and individual policy proposals leads to significantly lower taxes and expenditures.

*Hypothesis 2a:* Auditors with a supplementary mandate to conduct performance audits review a wider range of government activities. This improves the quality of information available to the principal, thus reducing information asymmetries and bureaucratic rents.

The effectiveness of audits also depends on the auditors' incentives to reveal inconsistencies and their protection from sanctions by the audited agent. In Tirole's (1986) three-tier principal-agent model in which a principal hires a supervisor to control the agent, the main danger arises where the supervisor and the agent collude. The principal will therefore implement contracts that make collusion between the agent and the supervisor unattractive. Models from contract theory assume that the principal himself writes contracts with the agent as well as with the supervisor/auditor in order to implement collusion-proof contracts (e.g., Tirole 1986; Bolton and Dewatripont 2005). A first step towards reducing the risk of collusion is to keep the auditor institutionally independent from government agents, most notably from the executive and the bureaucracy, eliminating direct channels for side-payments and reciprocal behavior. Auditor independence is thus influenced by the appointing and dismissal procedures (e.g., Maskin and Tirole 2004; Schelker 2008).

*Hypothesis 2b:* Elected auditors have strong electoral ties to the principal - the citizens - and are less likely than appointed auditors to collude with the agents - the public administrators. Their independence allows effective reviewing of publicly disclosed information, thereby reducing information asymmetries and bureaucratic rents.

### **2.3 Balanced-budget rules**

Fiscal rules aim at restricting the government in the budget process and are a general response to many agency problems identified in political economics. These include the ones mentioned above for fiscal transparency and public auditors. More generally, electoral competition in a narrow race may lead governments to adopt a short-time horizon and pursue policies that the citizenry would not approve of if it was informed of the full, long-term costs. Alternatively, government branches may propose inflated projects, exploiting the fact that political engagement for sustainable public finances has the characteristics of a public good. In both cases, fiscal rules have the capacity to counteract misaligned incentives. However, there is a trade-off, as fiscal rules reduce a government's flexibility in freely pursuing a discretionary policy in response to unforeseen contingencies (Milesi-Ferretti 2003).

Many countries, and virtually all U.S. states, apply fiscal rules that restrict expenditure behavior and the issuing of sovereign debt. However, the various 'balanced-budget' rules applied in this context differ widely: They allow borrowing over one or more fiscal years; apply to the entire budget period or only a part of it; and are combined with more or less formal provisions that enforce them (e.g., Poterba 1996).

Previous evidence indicates that fiscal rules systematically affect fiscal outcomes. Stringent balanced-budget laws contribute, for example, to lower public deficits and to faster reactions to income shocks, thus smoothing budget surpluses and deficits (Alt and Lowry 1994; Poterba 1994).

We apply the argument to government sector rents in *Hypothesis 3*: Stringent balanced-budget rules reduce the scope for a government to allocate funds over time, since this restricts its ability to carry deficits over time. Such a restriction hardens the budget constraint and raises a government's incentive to more closely monitor the bureaucracy's use of public funds, thus reducing the potential abuse of funds.

### **2.4 Restraints to government rule making**

The previous theoretical arguments address the extent to which rents are transferred from the private to the public sphere and so also affect the rents of public administrators. However, rent sharing between elected politicians, chief officials and the bureaucracy assumes different forms depending on the specific checks and balances that are implemented in the political process. In order to control the bureaucracy, politicians from the executive and the legislative

apply a wide set of strategies involving regulatory review practices (e.g., Weingast and Moran 1983 and McCubbins et al. 1987; 1999; de Figueiredo and Vanden Bergh 2004).

Government agencies have the competence to set rules and regulations in many important policy areas, from environmental protection and public health to banking regulation and transportation. While the discretion that administrative agencies have provides them with the flexibility to respond to new challenges, it also allows them to pursue private interests, and to give in to offers from regulated industries. In order to hold agencies responsive and accountable, many jurisdictions introduce specific procedures for reviewing new regulations. They focus on (i) how agencies advise potentially interested parties of plans to craft new or change existing regulations, (ii) how interested parties can put forward their own views and even affect the content of regulations, and (iii) how different actors from the legislative, executive and judicial branch are involved in the regulatory review process.

In the U.S., states record these procedures in their State Administrative Procedure Act. Importantly, government agencies are bound by various degrees of restraint in their rule-making authorities (Grady and Simon 2002). We concentrate on the political actors that constrain agencies; i.e., the governor's office or its designee, the office of attorney general, the legislature, including both the committee system and the full body, and an independent rules review entity. We are not aware of any systematic empirical work on the consequences of a more or less strict regulatory review process.

We propose *Hypothesis 4* on how regulatory review affects government sector rents: The stricter the control of administrative rule-making is by any of the several involved political actors, the lower are any rents in the public administration.

Hypothesis 4 does not take into account the tendency for opposing interests to exist between the executive branch and the legislator in a presidential system. Opposing interests induce legislators to adopt proactive measures in order to protect their interests within the bureaucracy. Legislators impose detailed rules of procedure (including regulatory reviews), which cannot be easily altered by the executive. This, however, has the overall effect of obstructing a bureaucracy's political control mechanisms and undermines the positive effect of regulatory reviews stated in Hypothesis 4.

## **2.5 Other potential determinants of rents**

From the multitude of further potential determinants of well-being differences between industries, we concentrate on four factors that are taken into account in the empirical analysis to assess the robustness of our results.

First, the per capita income level in a state is a proxy variable for many factors affecting political governance such as an educated citizenry or social capital, but also the level of available resources that can potentially be transferred between sectors.

Second, 'state population' measures the number of people who have to be administered and thus reflects the magnitude of the organizational problem from which public administrators might benefit.

Third, due to extended employment protection of employees in the public administration relative to other industries any difference in subjective well-being is expected to depend on the state of the economy (Luechinger et al. 2010).

Fourth, subjective well-being in the public administration might also depend on the population's attitudes to the state's active role in various areas of life: A public administrator's status is expected to be higher in more liberal states. It is conceivable that people's political attitudes are, in fact, responsible for the degree of restraint imposed on a bureaucracy. In advance of the empirical analysis, note that, when we take a state's political orientation into account (as measured in terms of the political position of the elected state representatives), we implicitly control for the correlated institutional factors that we have omitted as separate variables.

## **2.6 Alternative causes of utility premiums in the public administration and rent dissipation**

So far, the discussion of rents concentrated on situations that allow public administrators to capture rents because of a failure in the alignment of their interests with those of citizens. However, the exploitation of rents and utility premiums by employees in the public administration need not necessarily engender only adverse consequences. First, principals might even intend that public servants profit from certain utility premiums. A principal might offer them a wage above their opportunity cost in the other industries, so as to reduce the likelihood that they sacrifice the public's interest for their own. The size of this wage

increment is inversely related to the probability of detection, and directly related to the size of potential gains from malpractice.<sup>2</sup>

Second, employees in the public administration may derive more utility from their job than their counterparts in other industries, because they are intrinsically motivated and enjoy carrying out their task (Frey 1997). As our interest focuses primarily on the variation of rents across states, any general level effect does not interfere with the empirical analysis.

Despite the possibility of bureaucratic rent-seeking at each level of the principal-agent relationship, it is not clear whether public administrators succeed in capturing any rents at all. The rents may be dissipated in the process of acquiring and defending them. Similarly, intrinsically motivated agents, sharing the mission of the government bureau, are prepared to work for less than they would earn in the private sector. Therefore, whether employees in the public administration are able to capture rents, and under what conditions they are able to do so, are ultimately empirical questions.

### **3 Empirical Strategy**

The economic idea of a rent is a utility premium that an individual can appropriate owing to his or her monopolistic position or informational advantage. In order to directly test for rents in the public administration, utility thus has to be measured. We approximate the utility premium by the difference in reported subjective well-being between workers employed by the public administration and workers in other industries. This approach takes advantage of the concept of subjective well-being for economic questions<sup>3</sup> and has been introduced in Luechinger et al. (2008).

Focusing on subjective well-being allows us to capture the total net benefits of a position in the public administration. Thereby, benefits can extend beyond the respective job; for example, benefits derived from housing market advantages, the availability of public services such as education for one's children, and pension benefits. This 'all-inclusive' aspect distinguishes our approach from previous research which studied the job satisfaction of public

---

<sup>2</sup> If efficiency wages are paid in order to prevent misuse of bureaucratic leeway, the prediction of the previous section regarding the relationship between institutional constraints and rents in the public administration remains unchanged: The weaker the institutional constraints, the higher are rents either through reduced work effort, corruption etc. or through higher (efficiency) salaries. It is, however, questionable whether, under weak institutional conditions, "optimal" efficiency wages can be implemented including the sanctioning of misbehavior.

<sup>3</sup> Recent economic analyses based on data on subjective well-being provide new insights in many areas of economic research. For reviews see, e.g., Frey and Stutzer (2002), Di Tella and MacCulloch (2006) and Stutzer and Frey (2010); for studies on the effect of institutional and political factors on subjective well-being see, e.g., Frey and Stutzer (2000) and Dreher et al. (2010).

and private sector employees (Blanchflower and Oswald 1999; Heywood et al. 2002). The general concept of identifying (labor market) rents in terms of an individual's self-evaluation of their own situation is, however, implied in this literature and is applied by Clark (2003).

In order to assess how the difference in subjective well-being between workers in the public administration and other industries – our measure for bureaucratic rents – is related to the institutional factors described in the previous section, we estimate variants of the following empirical model:

$$(1) \quad SWB_{ij} = \beta_0 + \beta_1 \cdot 1(\text{Public administration})_{ij} + \beta_2 \cdot 1(\text{Public administration})_{ij} \cdot (\mathbf{IC}_j - \overline{\mathbf{IC}}) + \beta_3 \cdot (\mathbf{IC}_j - \overline{\mathbf{IC}}) + \beta_4 \cdot (\mathbf{Z}_{ij} - \overline{\mathbf{Z}}) + \beta_5 \cdot 1(\text{Public administration})_{ij} \cdot (\mathbf{X}_j - \overline{\mathbf{X}}) + \beta_6 \cdot (\mathbf{X}_j - \overline{\mathbf{X}}) + \varepsilon_{ij}$$

where  $SWB_{ij}$  is the subjective well-being of individual  $i$  living in state  $j$ ;  $1(\text{Public administration})_{ij}$  is a dummy variable that takes on the value 1 if the respondent is employed in the public administration and 0 otherwise;  $\mathbf{IC}_j$  is the institutional variable of interest; and  $\mathbf{Z}_{ij}$  and  $\mathbf{X}_j$  are vectors of individual and state level controls, respectively.

The individual level control variables  $\mathbf{Z}_{ij}$  capture personal characteristics according to which individuals in the public administration and individuals in other industries might differ from one another, and which have an impact on reported subjective well-being, such as sex, age, education, marital status, ethnicity and religious orientation. Income, working hours and occupation are not included as control variables, because these job characteristics may be important channels through which rents are appropriated. If these job characteristics were held constant, the pervasiveness of any rent in the public administration would be underestimated. In addition, we include state-level control variables  $\mathbf{X}_j$  that capture the income level in the state, the size in terms of population, the rate of unemployment and a proxy for political orientation (i.e., the ADA score). All institutional and control variables are expressed as deviations from their mean:  $\mathbf{IC}_j - \overline{\mathbf{IC}}$ ,  $\mathbf{Z}_{ij} - \overline{\mathbf{Z}}$ , and  $\mathbf{X}_j - \overline{\mathbf{X}}$ . The coefficient of the constant term,  $\beta_0$ , can thus be interpreted as the subjective well-being of the average individual living in a state with average characteristics, if he or she were to work in the private sector. The coefficient  $\beta_1$  measures the average difference in subjective well-being between a person employed in the public administration and a person employed in any other industry, ceteris paribus.

The main coefficient of interest is  $\beta_2$ . It indicates how much smaller or larger the differential in subjective well-being for employees in the public administration is, if some specific institutional conditions are in place (i.e., a dummy variable takes value one) or are more

pronounced by one unit of the index variable. The level effect of institutional conditions is reflected in coefficient  $\beta_3$ .

The various effects captured by  $\beta_1$ ,  $\beta_2$ , and  $\beta_3$  are subject to different identification challenges. The average difference in subjective well-being between public administrators and employees in other industries  $\beta_1$  is biased to the extent that people self-select into the public administration based on unobserved characteristics that are correlated with their reported subjective well-being (Luechinger et al. 2006). The institutional level effect captured with  $\beta_3$  is biased to the extent that other state characteristics (which affect subjective well-being, but which are not included in the estimation equation) are correlated with the specific institutional factor. We therefore concentrate on  $\beta_2$  in our discussion of the results. The interaction term identifying  $\beta_2$  can be interpreted as an application of a differences-in-differences estimator. Independently of any general difference in subjective well-being between industries and any general correlation between institutional conditions and subjective well-being, the interaction term identifies any systematic variation in the well-being differences across states that is correlated with institutional conditions.

To assess the robustness of our estimates we control for unobserved state specific heterogeneity by including state fixed effects and we evaluate the sensitivity of our results by excluding individual states from the estimation. Throughout, we use a robust estimator of variance that allows for clustering at the state level.

#### **4 Data**

The data including information on people's subjective well-being as well as individuals' industry and a range of individual level control variables come from the National Survey of Families and Households (NSFH) (Sweet et al. 1988; Sweet and Bumpass 1996). The NSFH is a survey of a nationally representative sample with three waves of data collection (1987-1989, 1992-1994, and 2001-2008). Our main analysis is based on the second wave, which has complete data for the largest cross-section sample of all the three waves; the second interview's first-wave main respondents and their current and their first-wave spouses (if the latter two are not the same). We use data from the first wave to assess the robustness of our findings of the institutional variables that are available for the late 1980s; we cannot use third wave data because the third wave does not contain geographical information.

In the second wave of the NSFH, over 16,000 individuals were interviewed. After restricting the sample to respondents who report their subjective well-being and the industrial sector of

their current employment and to individuals who have non-missing values for the control variables, as well as after having excluded respondents from the District of Columbia, our sample contains data for 7,444 individuals. Individuals from all U.S. states, except North Dakota (due to missing data), are included in the sample.

The NSFH elicits subjective well-being with the following question: ‘Next are some questions about how you see yourself and your life. First, taking things all together, how would you say things are these days?’ Individuals are asked to state their well-being on a scale from 1 (very unhappy) to 7 (very happy). The dummy for employment in the public administration is created on the basis of the respondent’s industry; it encompasses elected offices and positions in the public administration, but not members of the armed services or from the education sector.<sup>4</sup> Individual level controls are sex, age, race, marital status, religion, and the log of years of education.<sup>5</sup>

Based on the theoretical ideas outlined in Section 2, we add state-level variables on transparency, auditors, balanced-budget provisions, regulatory review, corruption, and a series of control factors.<sup>6</sup>

*Fiscal transparency:* An index proposed by Alt et al. (2006) is used to measure transparency. The index includes nine dimensions: (1) Is the budget reported according to GAAP standards?; (2) Are multi-year expenditure forecasts prepared?; (3) What is the frequency of the budget cycle?; (4) Are the revenue forecasts binding?; (5) Does the legislative branch have (or share) responsibility for the revenue forecasts?; (6) Are all appropriations included in a single bill?; (7) Does a nonpartisan staff write appropriation bills?; (8) Is the legislature prohibited from passing open-ended appropriations?; and (9) Does the budget require published performance measures? The overall index is a state's average score over all available sub-measures.<sup>7</sup> In 1993, the index is lowest for Indiana (with a value of 0.11) and highest for Utah (with a value of 0.89).

---

<sup>4</sup> The public administration variable encompasses the following industry codes: executive and legislative offices (900), general government, n.e.c. (901), justice, public order, and safety (910), public finance, taxation, and monetary policy (921), administration of human resources programs (922), administration of environmental quality and housing programs (930), administration of economic programs (931), national security and international affairs (932).

<sup>5</sup> We follow Lehrer and Chiswick (1993) to group the 65 response categories for religious preference into 7 broad groups.

<sup>6</sup> For reasons of confidentiality, the publicly available survey data do not include any geographical information. However, upon request the NSFH group kindly merged the state level data to the survey data for us.

<sup>7</sup> The following states lack information on one or two dimensions: GA, KS, KY, LA, MN and MT (one dimension missing) and MA and VT (two dimensions missing). For more details, see Alt et al. (2006).

*State auditing institutions:* We use two measures to capture a state auditor's mandate and independence as proposed by Schelker (2008, 2011). Auditor independence is captured with an indicator variable taking value 1 if the chief auditor is elected by the citizens and the value zero if he or she is appointed by either the legislature or the executive. In 1993, there were elected chief auditors in 17 U.S. states. The variable performance audits is an index capturing whether the mandate includes economy and efficiency audits, program audits and compliance audits, which all target the use of public funds. Whenever a form of audit is part of the mandate, the index is increased by one unit, thus ranging from 0 to 3. The average score across the U.S. states is 1.62 for 1993.

*Balanced-budget provisions:* Our measure captures the strictest form of balanced budget requirement, which is a restriction to carryover deficits to the next budgetary period. The indicator stems from Alt and Lowry (1994) and takes a value of 1 if the government is not allowed to carryover a deficit to the next period, and zero if otherwise. Twenty-four states featured the strictest form of balanced budget rule in the United States in 1993. Weaker forms of balanced budget laws require that the governor submits a balanced budget, where failing this the legislature must enact a balanced budget, while actual deficits can be carried over to the next period simply by borrowing.

*Regulatory review:* The control of administrative rule-making is defined in the state administrative procedure acts. Four indices measure the restraints embodied in these acts both de jure and de facto on state government agencies in the mid-1990s. The indices have been constructed by Grady and Simon (2002), based on information provided by the actors involved in regulatory review and oversight. The four indices are related to the four actors with potential formal power over agencies' rule-making discretion. These are the governor's office or its designee, the office of the attorney general, the legislature (including both the committee system and the full body), and an independent rules review entity. The indices can take values between 0 and 8. Regulatory review is least pronounced in Mississippi, which is indicated by an average index value of 0.50; regulatory review in Maryland is most pronounced, indicated by an average index value of 4.75.

*Control factors:* In all regressions, we include a state's real per capita income and the state population in logs, and interacted with the dummy for government-sector employment as a control variable. In order to assess the robustness of our results, some regressions contain ADA scores (Anderson and Habel 2009), and the state unemployment rate in levels and interacted with the dummy for public sector employment as additional control variables. ADA

scores proxy political preferences within the electorate of a state. The measure relies on the average of the state representatives' ideological position on a conservative-liberal scale ranging from 0 to 100 (Groseclose et al. 1999, Anderson and Habel 2009). The most conservative state in 1993 is Wyoming with a score of 6.42. The most liberal state is Hawaii with a score of 87.57.

Table 1 shows summary statistics for all individual and state level variables included in our analysis for the sample in our baseline regressions.

<Table 1 about here>

## 5 Results

Columns I, III, V and VII of Table 2 report the baseline regressions. In order to assess the influence of institutional restrictions on bureaucratic rents we focus on the relevant interaction effects. The results are consistent with the Hypotheses 1, 2b, and 3, formulated in Section 2. An increase in accountability through strict fiscal transparency rules, the election of state auditors, and stringent balanced-budget rules is statistically significantly associated with lower well-being differences in the public administration. A one-standard deviation increase of the institutional variable transparency lowers the reported subjective well-being of public administrators relative to other workers by 0.104 points. If the chief auditor is elected rather than appointed, the difference is reduced by 0.289 points. A no carry-over rule is related to a 0.390 points lower difference. Hypotheses 2a and 4 cannot be confirmed from the data – at least not in the full sample (see below). Performance audits are not statistically correlated with the differences in subjective well-being in any significant way. The same holds for the variables capturing the limited discretionary rule-making power of civil servants (regarding restraints placed on them by elected officials). The respective partial correlation coefficients are neither individually nor jointly significant; the p-value for the interaction and main effects is 0.286, the p-value for the interaction effects is 0.452.

Note that since we cannot control for self-selection into the different industries the estimated coefficients of the basic difference between public administrators and workers in other industries cannot be interpreted directly.

<Table 2 about here>

One concern may be that the institutional factors are systematically related to political preferences of the electorate and to economic performance. In order to address this issue, columns II, IV, VI and VIII include ADA scores and the unemployment rate as well as the

corresponding interactions with employment in the public administration as additional controls. The results are robust to the inclusion of these additional controls. If anything, the results become statistically stronger.

To further test the robustness of our results, we introduce state fixed effects, which capture any unobserved state-specific heterogeneity. Table 3 reports the coefficients of all interaction terms estimated according to the specifications in Table 2. The results remain entirely robust to the inclusion of state fixed effects.

<Table 3 about here>

To assess the sensitivity of our results we repeated our baseline regressions with one state excluded at a time. Table 4 reports the resulting lower and upper bound estimates along with the estimates for the full sample from Table 2. Overall, the results are robust to the exclusion of individual states. The size of the coefficients for transparency, elected auditors and no carry-over rules are relatively stable, and all estimates remain significant at conventional levels. The estimates for rule-making restraints are rather sensitive to the exclusion of individual states. The upper bound estimates exceed lower bound estimates by a factor of between 3.5 and 7.5. For the sake of brevity, we omit the estimates from dimensions other than legislative restraints and independent commission restraints, which at least in some cases indicate systematic correlations.

<Table 4 about here>

Our main results are based on the second wave of the NSFH; i.e., for the years 1992-1994. We prefer the second to the first wave, since we have variables for all institutional aspects of interest. Moreover, it is the larger cross-section, and it covers more states. Still, the variables on elected auditors, transparency and no carry-over rules are also available for the years of the first wave, 1987-1989, with a sample size of 6,152 and 42 states. With this smaller dataset and fewer states, previous results cannot be replicated. The main parameters of interest cannot be estimated precisely, and we find insignificant and sensitive estimates for the control specifications. The estimated effects for the interaction terms between public administrators and elected auditor (coef.: 0.062; std. err.: 0.197) as well as transparency (coef.: 0.238; std. err.: 0.356) are both statistically highly insignificant. The estimated effect of no carry-over rules (coef.: -0.125; std. err.: 0.165) is in most cases statistically insignificant, but remains negative with smaller effects compared to the baseline regressions. The effect becomes weakly statistically significant (coef.: -0.282; std. err.: 0.162) if New York is excluded. If anything, the estimated effect for no carry-over rules in the years 1987-1989 is weak and

sensitive to the exclusion of individual states, while no significant results can be found for elected auditors and transparency when using the smaller first wave dataset. We have no convincing explanation for these results beyond the smaller sample size. However, it is worth noting that the difference is not due to the different coverage of states: Restricting the second wave regressions to the same sample of states as in the first wave regressions does not materially affect the results.

For the individual level control variables, we find that women and men are equally happy with their lives. Subjective well-being is u-shaped in age, with a minimum around the age of forty. No statistically significant difference in subjective well-being between white and black respondents is estimated, *ceteris paribus*. However, Hispanics and American Indians report higher well-being scores than whites, all else being equal. Married people express a higher level of happiness, and separated and widowed people a lower level of happiness, than people who never married. Compared to people with no religious affiliation, Catholics and Protestants report higher well-being. The results for individual characteristics correspond with the findings in Luttmer (2005) for the same data set.

The partial correlations for the state level control variables are reported at the bottom of Table 2. None of the main effects is statistically significantly related to the level of reported subjective well-being across states. However, in larger states, the subjective well-being difference between public administrators and other workers is significantly larger. Doubling population size is related to an increase in the difference of between 0.13 and 0.18. In states where more liberal politicians are elected to congress, a smaller difference is observed. If ADA scores increase by one standard deviation, any well-being premium of public servants is reduced by between 0.11 (est. II) and 0.19 (est. IV and VI).

## **6 Conclusions**

Voters and elected officials delegate legislative and executive authority to bureaucratic agencies. This allows public servants to carry out their responsibilities. However, it also offers them an opportunity to exploit their monopolistic position and informational advantage in order to extract rents. Institutional reforms that strengthen accountability and reduce the discretionary leeway in the public administration can alleviate this well-known problem. Such reforms have gained a new urgency as cash-strapped governments in U.S. states and around the world are forced to cut back spending. Adequate institutional reforms may provide a way of reducing spending without the need to reduce services by the same amount.

Our analysis sheds some light on the promise of such reforms. The empirical results for the early 1990s suggest that transparency requirements, public auditors and balanced budget provisions are effective means for reducing bureaucratic rents. However, given our (partial) failure to replicate the results for earlier years, it would be important to repeat the analysis for other countries and periods for which data is available.

## References

- Alt, James E. and David Dreyer Lassen (2006a). Fiscal Transparency, Political Parties, and Debt in OECD Countries. *European Economic Review* 50(6): 1403-1439.
- Alt, James E. and David Dreyer Lassen (2006b). Transparency, Political Polarization, and Political Budget Cycles in OECD Countries. *American Journal of Political Science* 50(3): 530-550.
- Alt, James E. and Robert C. Lowry (1994). Divided Government, Fiscal Institutions, and Budget Deficits: Evidence from the States. *American Political Science Review* 88(4): 811-828.
- Alt, James E., David Dreyer Lassen and Shanna Rose (2006). The Causes of Fiscal Transparency: Evidence from the American States. *IMF Staff Papers* 53(3): 30-57.
- Anderson, Sarah and Philip Habel (2009). Revisiting Adjusted ADA Scores for the U.S. Congress, 1947–2007. *Political Analysis* 17: 83–88
- Blanchflower, David G. and Andrew J. Oswald (1999). Well-Being, Insecurity and the Decline of American Job Satisfaction. Mimeo, Dartmouth College.
- Bolton, Patrick and Mathias Dewatripont (2005). *Contract Theory*. Cambridge, MA: MIT Press.
- Clark, Andrew E. (2003). Looking for Rents Using Subjective Labour Market Data. Mimeo, École Normale Supérieure, Paris.
- de Figueiredo, Rui J. P., Jr., and Richard G. Vanden Bergh (2004). The Political Economy of State-Level Administrative Procedure Acts. *Journal of Law and Economics* 47(2): 569-588.
- Di Tella, Rafael and Robert J. MacCulloch (2006). Some Uses of Happiness Data in Economics. *Journal of Economic Perspectives* 20(1): 25-46.
- Dixit, Avinash (2002). Incentives and Organizations in the Public Sector: An Interpretative Review. *Journal of Human Resources* 37(4): 696-727.
- Dreher, Axel, Christian Bjørnskov and Justina A.V. Fischer (2010). Formal Institutions and Subjective Well-Being: Revisiting the Cross-Country Evidence. *European Journal of Political Economy* 26(4): 419-430.
- Ferraz, Claudio and Frederico Finan (2008): Exposing Corrupt Politicians: The Effect of Brazil's Publicly Released Audits on Electoral Outcomes. *Quarterly Journal of Economics* 123(2): 703-745.
- Frey, Bruno S. (1994): Supreme Auditing Institutions: A Politico-Economic Analysis. *European Journal of Law and Economics* 1(3): 169-176.
- Frey, Bruno S. (1997). *Not Just for the Money: An Economic Theory of Personal Motivation*. Cheltenham, U.K.: Edward Elgar.
- Frey, Bruno S. and Alois Stutzer (2000). Happiness, Economy and Institutions. *Economic Journal* 110(466): 918-938.
- Frey, Bruno S. and Alois Stutzer (2002). What Can Economists Learn from Happiness Research? *Journal of Economic Literature* 40(2): 402-35.
- Grady, Dennis O. and Kathleen M. Simon (2002). Political Restraints and Bureaucratic Discretion: The Case of State Government Rule Making. *Politics & Policy* 30(4): 646-679.
- Groseclose, Tim, Steven D. Levitt, James M. Snyder (1999). Comparing Interest Group Scores across Time and Chambers: Adjusted ADA Scores for the U.S. Congress. *American Political Science Review* 93(1): 33-50.
- Heywood, John S., W. Stanley Siebert and Xiangdong Wei (2002). Worker Sorting and Job Satisfaction: The Case of Union and Government Jobs. *Industrial & Labor Relations Review* 55(4): 595-609.
- Lehrer, Evelyn L. and Carmel U. Chiswick (1993). Religion as a Determinant of Marital Stability. *Demography* 30(3): 385-404.

- Luechinger, Simon, Alois Stutzer and Rainer Winkelmann (2006). The Happiness Gains from Sorting and Matching in the Labor Market. IZA Discussion Paper No. 2019, Bonn.
- Luechinger, Simon, Alois Stutzer and Stephan Meier (2008). Bureaucratic Rents and Life Satisfaction. *Journal of Law, Economics and Organization* 24(2): 476-488.
- Luechinger, Simon, Alois Stutzer and Stephan Meier (2010). Why Does Unemployment Hurt the Employed? Evidence from the Life Satisfaction Gap between the Public and the Private Sector. *Journal of Human Resources* 45(4): 998-1045.
- Luttmer, Erzo F.P. (2005). Neighbors as Negatives: Relative Earnings and Well-Being. *Quarterly Journal of Economics* 120(3): 963-1002.
- Maskin, Eric and Jean Tirole (2004). The Politician and the Judge: Accountability in Government. *American Economic Review* 94 (4): 1034-1054
- McCubbins, Mathew D., Roger G. Noll and Barry R. Weingast (1987). Administrative Procedures as Instruments of Political Control. *Journal of Law, Economics, and Organization* 3(2): 243-277.
- McCubbins, Mathew D., Roger G. Noll and Barry R. Weingast (1999). The Political Origins of the Administrative Procedure Act. *Journal of Law, Economics, and Organization* 15(1): 180-217.
- Milesi-Ferretti, Gian Maria (2003). Good, Bad or Ugly? On the Effects of Fiscal Rules with Creative Accounting. *Journal of Public Economics* 88(1-2): 377-394
- Niskanen, William A., Jr. (1971). *Bureaucracy and Representative Government*. Chicago, IL: Aldine Press.
- Olken, Benjamin A. (2007): Monitoring Corruption: Evidence from a Field Experiment in Indonesia. *Journal of Political Economy* 115(2): 200-249.
- Poterba, James M. (1994). State Responses to Fiscal Crises: The Effects of Budgetary Institutions and Politics. *Journal of Political Economy* 102(4): 799-821
- Poterba, James M. (1996). Budget Institutions and Fiscal Policy in the U.S. States. *American Economic Review* 86(2): 395-400.
- Schelker, Mark (2008). *Making Auditors Effective: Theory, Evidence, Perspectives*. Baden-Baden: Nomos.
- Schelker, Mark (2011). The Influence of Auditor Term Length and Term Limits on US State General Obligation Bond Ratings. *Public Choice*, forthcoming.
- Schelker, Mark and Reiner Eichenberger (2010). Auditors and Fiscal Policy: Empirical Evidence on a Little Big Institution. *Journal of Comparative Economics* 38(4): 357-380.
- Stutzer, Alois and Bruno S. Frey (2010). Recent Advances in the Economics of Individual Subjective Well-Being. *Social Research* 77(2): 679-714.
- Sweet, James A. and Larry L. Bumpass (1996). The National Survey of Families and Households - Waves 1 and 2: Data Description and Documentation. Mimeo, Center for Demography and Ecology, University of Wisconsin-Madison.
- Sweet, James A., Larry L. Bumpass, and Vaughn Call (1988). The Design and Content of the National Survey of Families and Households. NSFH Working Paper 1. Center for Demography and Ecology, University of Wisconsin-Madison.
- Tirole, Jean (1986): Hierarchies and Bureaucracies: On the Role of Collusion in Organizations. *Journal of Law, Economics and Organization* 2(2): 181-214.
- Weingast, Barry R. and Mark J. Moran (1983). Bureaucratic Discretion or Congressional Control? Regulatory Policymaking by the Federal Trade Commission. *Journal of Political Economy* 91(5): 765-800.

**Table 1. Summary statistics**

Variable	Mean	Std. Dev.	Min	Max
<i>Individual level variables</i>				
Happiness	5.41	1.21	1.00	7.00
Public administration	0.06	0.24	0.00	1.00
Male	0.50	0.50	0.00	1.00
Female	0.50	0.50	0.00	1.00
Age	40.99	10.44	19.00	85.00
Age squared (/100)	17.89	9.49	3.61	72.25
White	0.80	0.40	0.00	1.00
Black	0.13	0.33	0.00	1.00
Hispanic	0.05	0.22	0.00	1.00
American Indian	0.01	0.08	0.00	1.00
Asian	0.01	0.08	0.00	1.00
Other ethnicity	0.00	0.03	0.00	1.00
Never married	0.09	0.29	0.00	1.00
Married	0.72	0.45	0.00	1.00
Separated	0.04	0.19	0.00	1.00
Divorced	0.13	0.34	0.00	1.00
Widowed	0.02	0.16	0.00	1.00
No religion	0.11	0.31	0.00	1.00
Catholic	0.24	0.42	0.00	1.00
Jewish	0.02	0.14	0.00	1.00
Ecumenical Protestant	0.29	0.45	0.00	1.00
Exclusivist Protestant	0.30	0.46	0.00	1.00
Mormon	0.02	0.15	0.00	1.00
Other religion	0.02	0.14	0.00	1.00
Ln(years of education)	2.64	0.20	0.00	3.04
<i>State level variables</i>				
Transparency	0.46	0.18	0.11	0.89
Elected auditor	0.26	0.44	0.00	1.00
Performance audits	1.92	1.15	0.00	3.00
No carry-over rules	0.49	0.50	0.00	1.00
Governor restraints	3.43	2.60	1.00	8.00
Attorney general restraints	1.78	1.93	0.00	8.00
Legislative restraints	3.40	2.05	0.00	8.00
Ind. commission restraints	1.75	2.94	0.00	8.00
Ln(state income)	9.56	0.11	9.26	9.83
Ln(population)	15.74	0.88	13.07	17.26
Unemployment rate	6.66	1.39	2.60	10.80
ADA score	46.70	13.61	6.42	87.57

Notes: Summary statistics for sample in baseline regressions. N = 7,444.

**Table 2. Institutions and government-private sector subjective well-being differentials**

<i>Dependent variable: Happiness</i>	I	II	III	IV	V	VI	VII	VIII
Private sector					Reference group			
Public administration	-0.048 (0.061)	-0.037 (0.056)	-0.059 (0.058)	-0.052 (0.054)	-0.060 (0.054)	-0.051 (0.048)	-0.045 (0.061)	-0.040 (0.060)
Public administration x transparency	-0.587 (*) (0.320)	-0.757 * (0.299)						
Public administration x elected auditor			-0.289 * (0.114)	-0.278 * (0.124)				
Public administration x performance audits			0.022 (0.056)	0.026 (0.053)				
Public administration x no carry-over rules					-0.390 ** (0.119)	-0.444 ** (0.101)		
Public administration x governor restraints							-0.007 (0.022)	-0.003 (0.022)
Public administration x attorney general restraints							0.031 (0.035)	0.007 (0.036)
Public administration x legislative restraints							-0.041 (0.036)	-0.040 (0.033)
Public administration x ind. Commission restraints							-0.039 (0.026)	-0.030 (0.026)
Transparency	0.008 (0.077)	0.021 (0.074)						
Elected auditor			0.030 (0.024)	0.021 (0.028)				
Performance audits			-0.021 (*) (0.012)	-0.024 * (0.011)				
No carry-over rules					0.013 (0.030)	0.018 (0.031)		
Governor restraints							-0.004 (0.004)	-0.005 (0.004)
Attorney general restraints							-0.006 (0.006)	-0.003 (0.006)
Legislative restraints							-0.006 (0.006)	-0.008 (0.006)
Ind. Commission restraints							-0.003 (0.004)	-0.005 (0.004)

*To be continued.*

**Table 2, part 2**

Male	Reference group							
Female	-0.010 (0.025)	-0.010 (0.025)	-0.010 (0.025)	-0.010 (0.025)	-0.008 (0.025)	-0.008 (0.025)	-0.009 (0.025)	-0.008 (0.025)
Age	-0.036 ** (0.013)	-0.036 ** (0.013)	-0.036 ** (0.013)	-0.035 ** (0.013)	-0.036 ** (0.013)	-0.035 ** (0.013)	-0.037 ** (0.012)	-0.036 ** (0.013)
Age squared (/100)	0.044 ** (0.014)	0.044 ** (0.014)	0.044 ** (0.014)	0.044 ** (0.014)	0.044 ** (0.014)	0.044 ** (0.014)	0.045 ** (0.014)	0.045 ** (0.014)
White	Reference group							
Black	0.036 (0.049)	0.035 (0.049)	0.037 (0.048)	0.038 (0.048)	0.032 (0.049)	0.031 (0.049)	0.035 (0.047)	0.038 (0.047)
Hispanic	0.087 (0.053)	0.094 (*) (0.053)	0.093 (*) (0.054)	0.099 (*) (0.054)	0.089 (*) (0.053)	0.098 (*) (0.053)	0.077 (0.055)	0.084 (0.055)
American Indian	0.221 * (0.101)	0.229 * (0.099)	0.226 * (0.102)	0.235 * (0.101)	0.218 * (0.101)	0.227 * (0.099)	0.220 * (0.100)	0.231 * (0.100)
Asian	-0.205 (0.183)	-0.205 (0.182)	-0.205 (0.183)	-0.207 (0.182)	-0.206 (0.180)	-0.207 (0.180)	-0.195 (0.183)	-0.198 (0.182)
Other ethnicity	0.329 (0.205)	0.323 (0.206)	0.338 (0.204)	0.331 (0.207)	0.332 (0.206)	0.326 (0.208)	0.319 (0.204)	0.309 (0.208)
Never married	Reference group							
Married	0.229 ** (0.048)	0.228 ** (0.048)	0.225 ** (0.049)	0.224 ** (0.049)	0.228 ** (0.048)	0.227 ** (0.048)	0.231 ** (0.048)	0.229 ** (0.048)
Separated	-0.687 ** (0.108)	-0.691 ** (0.107)	-0.691 ** (0.109)	-0.695 ** (0.108)	-0.682 ** (0.109)	-0.686 ** (0.108)	-0.686 ** (0.108)	-0.690 ** (0.108)
Divorced	-0.064 (0.070)	-0.066 (0.069)	-0.068 (0.071)	-0.070 (0.070)	-0.064 (0.070)	-0.065 (0.070)	-0.064 (0.070)	-0.066 (0.070)
Widowed	-0.304 ** (0.107)	-0.304 ** (0.106)	-0.304 ** (0.107)	-0.305 ** (0.106)	-0.305 ** (0.106)	-0.306 ** (0.106)	-0.304 ** (0.107)	-0.305 ** (0.106)
No religion	Reference group							
Catholic	0.110 * (0.048)	0.108 * (0.048)	0.110 * (0.048)	0.107 * (0.048)	0.110 * (0.048)	0.108 * (0.048)	0.112 * (0.047)	0.109 * (0.047)
Jewish	-0.018 (0.097)	-0.022 (0.096)	-0.019 (0.095)	-0.022 (0.094)	-0.020 (0.097)	-0.024 (0.096)	-0.018 (0.097)	-0.021 (0.096)
Ecumenical Protestant	0.161 ** (0.049)	0.161 ** (0.050)	0.157 ** (0.049)	0.156 ** (0.051)	0.161 ** (0.048)	0.161 ** (0.050)	0.166 ** (0.049)	0.164 ** (0.050)
Exclusivist Protestant	0.161 ** (0.057)	0.164 ** (0.057)	0.157 ** (0.057)	0.158 ** (0.058)	0.162 ** (0.056)	0.165 ** (0.057)	0.160 ** (0.059)	0.161 ** (0.059)

*To be continued.*

**Table 2, part 3**

Mormon	-0.080 (0.100)	-0.073 (0.102)	-0.077 (0.101)	-0.068 (0.100)	-0.092 (0.104)	-0.086 (0.106)	-0.083 (0.098)	-0.070 (0.103)
Other religion	0.085 (0.107)	0.085 (0.105)	0.081 (0.106)	0.080 (0.105)	0.087 (0.107)	0.087 (0.106)	0.088 (0.108)	0.086 (0.108)
Ln(years of education)	0.074 (0.099)	0.073 (0.098)	0.075 (0.100)	0.075 (0.099)	0.074 (0.100)	0.073 (0.099)	0.075 (0.099)	0.074 (0.099)
Public administration x ln(state income)	-0.297 (0.576)	0.695 (0.633)	-0.532 (0.628)	-0.044 (0.704)	-1.026 <sup>(*)</sup> (0.515)	-0.195 (0.508)	-0.279 (0.615)	0.299 (0.793)
Public administration x ln(population)	0.221 ** (0.082)	0.202 * (0.079)	0.218 * (0.088)	0.253 * (0.097)	0.193 ** (0.069)	0.186 ** (0.062)	0.242 * (0.106)	0.235 * (0.111)
Public administration x unemployment rate		-0.012 (0.033)		-0.054 (0.033)		-0.026 (0.030)		-0.044 (0.044)
Public administration x ADA scores		-0.014 ** (0.005)		-0.008 <sup>(*)</sup> (0.005)		-0.014 ** (0.004)		-0.008 (0.005)
Ln(state income)	-0.236 (0.155)	-0.352 <sup>(*)</sup> (0.186)	-0.190 (0.148)	-0.297 (0.182)	-0.215 (0.173)	-0.320 (0.205)	-0.196 (0.157)	-0.329 <sup>(*)</sup> (0.193)
Ln(population)	-0.024 (0.021)	-0.024 (0.024)	-0.017 (0.019)	-0.017 (0.024)	-0.023 (0.021)	-0.024 (0.024)	-0.033 (0.021)	-0.028 (0.023)
Unemployment rate		-0.002 (0.014)		-0.001 (0.015)		-0.001 (0.014)		-0.006 (0.015)
ADA score		0.002 (0.001)		0.002 (0.001)		0.002 (0.001)		0.002 (0.001)
Constant	5.408 ** (0.012)	5.409 ** (0.012)	5.408 ** (0.011)	5.409 ** (0.011)	5.408 ** (0.012)	5.409 ** (0.012)	5.408 ** (0.012)	5.408 ** (0.012)
Number of observations	7,444	7,444	7,444	7,444	7,444	7,444	7,444	7,444
Number of clusters	49	49	49	49	49	49	49	49
R squared	0.037	0.038	0.038	0.038	0.038	0.039	0.037	0.038

Notes: (1) OLS estimations; (2) robust standard errors in parentheses adjusted for clustering on state level; (3) \*\* is significant at the 99 percent level; \* at the 95 percent level, and <sup>(\*)</sup> at the 90 percent level.

**Table 3. Robustness I: Including state fixed effects**

<i>Dependent variable: Happiness</i>	I	II	III	IV	V	VI	VII	VIII
Private sector					Reference group			
Public administration	-0.056 (0.060)	-0.045 (0.056)	-0.068 (0.058)	-0.060 (0.054)	-0.067 (0.054)	-0.058 (0.048)	-0.055 (0.061)	-0.048 (0.059)
Public administration x transparency	-0.608 (*) (0.317)	-0.763 * (0.291)						
Public administration x elected auditor			-0.305 * (0.118)	-0.304 * (0.128)				
Public administration x performance audits			0.016 (0.057)	0.020 (0.053)				
Public administration x no carry-over rules					-0.391 ** (0.117)	-0.443 ** (0.098)		
Public administration x governor restraints							-0.008 (0.022)	-0.004 (0.021)
Public administration x attorney general restraints							0.024 (0.036)	0.0004 (0.036)
Public administration x legislative restraints							-0.039 (0.037)	-0.040 (0.033)
Public administration x ind. Commission restraints							-0.038 (0.025)	-0.030 (0.026)
State fixed effects	yes	yes	yes	yes	yes	yes	yes	yes
Baseline controls	yes	yes	yes	yes	yes	yes	yes	yes
Additional controls	no	yes	no	yes	no	yes	no	yes
Number of observations	7,444	7,444	7,444	7,444	7,444	7,444	7,444	7,444
Number of clusters	49	49	49	49	49	49	49	49
R squared	0.043	0.044	0.043	0.044	0.044	0.045	0.043	0.044

*Notes:* (1) OLS estimations; (2) robust standard errors in parentheses adjusted for clustering on state level; (3) \*\* is significant at the 99 percent level; \* at the 95 percent level, and (\*) at the 90 percent level; (4) empirical specifications according to Table 2.

**Table 4. Robustness II: Exclusion of individual states**

Interaction term	Coef.	Rob. SE	Excl. State
Public adm. x elected auditor	-0.278 *	0.124	-
	-0.208 (*)	0.127	WV
	-0.369 *	0.147	OK
Public adm. x transparency	-0.757 *	0.299	-
	-0.604 *	0.301	WI
	-0.916 **	0.273	ID
Public adm. x no carry-over rules	-0.444 **	0.101	-
	-0.380 **	0.095	WI
	-0.489 **	0.097	MD
Public administration x legislative restraints	-0.040	0.033	-
	-0.018	0.032	WI
	-0.061 (*)	0.034	MO
Public adm. x ind. commission restraints	-0.030	0.026	-
	-0.008	0.025	WI
	-0.060 *	0.025	CO

*Notes:* (1) This table reports the smallest and the largest coefficients from repeated estimations of regressions with one state excluded at a time; for comparative purposes, the coefficients of the regressions for the whole sample are also shown; the regressions contain the same set of variables as the regressions in Table 2; (2) OLS estimations; (3) robust standard errors in parentheses adjusted for clustering on state level; (4) \*\* is significant at the 99 percent level; \* at the 95 percent level, and (\*) at the 90 percent level.