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ARTICLE: What Do **Revolving-Door Laws** Do?

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LEXISNEXIS SUMMARY:

... To determine whether these effects of revolving-door laws on electricity prices are robust to other state-level control variables, we estimate the following regression equation: ...where log(p st) is the natural logarithm of real electricity prices (residential, industrial, or commercial) in state s during year t; elected st is an indicator variable that equals one if state s elects its public utility commissioners in year t and zero otherwise; revolving st is an indicator variable that equals one if state s has adopted a revolving-door law by year t and zero otherwise; X st is a vector of state-year control variables that includes a measure of electricity production costs (Besley and Coate's 2003 fuel cost index), state population, state population squared, the state-level legislative ideology index, the Democratic governor indicator, real income per capita, real income per capita squared, the percentage of the population over age 65, and the percentage of the population between ages 5 and 17; S s and T t are state and year fixed effects; gamma s t is the state-specific time trend; and epsilon st is an error term. ... Revolving-Door Regulations and Electricity Prices We first analyze how post-government-employment restrictions affect outcomes by examining the impact of these laws on electricity prices. ... Figures 1, 2, and 3 show the relationship between the age-averaged adjusted price in states with laws and the age of revolving-door laws (for the 5 years before and after the adoption of revolving-door regulations) for industrial, residential, and commercial prices, respectively.

HIGHLIGHT: Abstract

On the basis of evidence from state public utility commissions, we find that revolving-door laws--laws that restrict the post-government-employment opportunities of public sector workers, including public utility regulators--do not do much, at least with respect to electricity prices. In this paper, we take advantage of a quasi experiment afforded by the fact that revolving-door laws were introduced in different states at different times to investigate their effects on electricity prices. Our findings suggest that while revolving-door laws temporarily dampen industrial electricity prices, they have no effect on commercial or residential prices. There is also some evidence that these regulations affect the characteristics of state public utility commissioners; commissioners from states with revolving-door

regulations serve shorter terms and are less likely to be subsequently employed in the private sector, compared with their counterparts from states without revolving-door laws.

TEXT:

[*421] 1. Introduction

It is often argued that revolving-door regulations--laws that restrict the post-government-employment options of public employees--advance the public interest. Plans to pursue a subsequent career in the private sector may induce current public employees (for instance, regulators) to treat potential private sector employers favorably. Contacts and inside information obtained by employees while in public employment may also give firms that hire them undue influence on government decision making. Revolving-door laws can play a role in reducing the potential for capture of the regulatory apparatus by regulated **[*422]** firms. For instance, in the context of public utility regulation, revolving-door laws--by precluding or delaying the possibility of future employment of current regulators by public utilities--may reduce the likelihood that utility commissioners will set rates that are favorable to utilities. Accordingly, a majority of state governments, as well as the U.S. federal government, restrict the labor market opportunities of their former employees. [n1]

While policy makers and politicians have emphasized the benefits of revolving-door laws, economists and political scientists have argued that post-government-employment restrictions may not have the desired effects. Take rate regulation of public utilities as an example. Revolving-door laws may have dampening effects on the prices that utilities are allowed to charge. But if cost changes have to be accommodated in the long run, then any dampening effects will be short-lived. Furthermore, it is not clear that employment restrictions curtail the influence of all special interests. Regulations aimed at reducing the influence of regulated firms may facilitate capture of the regulatory apparatus by other interest groups, for instance, organized consumers. Finally, these laws have potentially costly unintended consequences. Restrictions on future employment options may discourage ambitious, career-oriented individuals from entering or remaining in public service, preclude welfare-enhancing interactions between the private and public sectors, or lower a regulator's incentive to invest in industry-specific knowledge (Che 1995; Salant 1995). [n2]

Yet relatively little scholarship has empirically evaluated the effects of revolving-door regulations. This is an important omission since there is evidence that the revolving door influences the behavior of regulators (Berry 1979; Gormley 1979; Navarro 1982; Freitag 1983; Cohen 1986). Moreover, substantial resources are devoted to enforcing revolving-door regulations at the federal, state, and local levels. [n3] Our paper attempts to fill this void in the literature. We first exploit quasi-experimental variation across states and time in the introduction of revolving-door regulations to examine how these laws influence electricity prices charged to residential, commercial, and industrial customers. We then use individual-level data for a sample of state public utility commissioners to explore how revolving-door laws affect two characteristics of these individuals: their length of tenure as commissioners and their subsequent career paths after leaving public service.

[*423] Our key findings are as follows. The introduction of state-level revolving-door laws temporarily lowers electricity prices, but this dampening effect applies only to the prices faced by industrial consumers, not residential or commercial prices. This finding suggests two limitations of revolving-door regulations. First, by reducing the likelihood of industry capture of the regulatory apparatus, these regulations may influence policy choices and outcomes in ways that diminish the influence of public utilities in the short term but facilitate the influence of other interest groups, specifically those representing organized electricity consumer interests. Second, revolving-door regulations do not have a lasting effect on prices, and most likely because of the necessity of accommodating cost increases eventually in a setting where price/cost margins are small.

We also find that commissioners from states with revolving-door laws serve shorter terms and are less likely to be employed in the private sector after leaving government service. Thus, the laws seem effective in reducing employment opportunities of former regulators. But to the extent that they increase the turnover rate of regulators, and that experience is valuable for government jobs, the laws may have harmful effects on commissioner quality.

This research builds on a handful of other studies. First, Besley and Coate (2003) find that electricity prices are significantly lower in states that elect public utility commissioners than in states where commissioners are appointed. Using the same data set, we also find that electricity prices are lower in states that elect their public utility commissioners, even when we control for the presence of a revolving-door law. Accordingly, our analysis furthers Besley and Coate (2003) by providing evidence of another institution that may affect consumer-regulator agency costs.

This paper is also related to Gely and Zardkoohi (2001), who analyze the effect of federal post-government-employment restrictions introduced during the Clinton administration on the stock returns of firms associated with cabinet members. These authors show that firms associated with cabinet members appointed during the Carter, Reagan, and Bush Sr. administrations experienced above-normal returns, but those associated with cabinet members appointed during the Clinton administration obtained lower returns. Gely and Zardkoohi thus show that the value of connections established while working for the government are significantly curtailed as a result of revolving-door regulations.

Finally, Che (1995) and Salant (1995) develop theoretical models to show how regulations that reduce the opportunities for interaction between public and private sectors harm welfare. While we cannot test these hypotheses directly, our evidence on the relationship between revolving-door regulations and commissioner characteristics is suggestive of another unintended consequence of revolving-door regulations, namely, the selection of less ambitious individuals into public service.

The remainder of this paper is structured as follows. Section 2 presents the empirical analysis of how the introduction of revolving-door laws affected state-level electricity prices. Section 3 discusses the commissioner data set and our **[*424]** empirical results on the relationship between revolving-door laws and commissioners' characteristics. Section 4 concludes.

2. Revolving-Door Regulations and Electricity Prices

We first analyze how post-government-employment restrictions affect outcomes by examining the impact of these laws on electricity prices. By post-government-employment restrictions and revolving-door regulations, we refer to rules that impose restrictions on the job opportunities of government officials after their departure from government service. If revolving-door regulations, by constraining the future career options of public utility commissioners, have the intended effect of reducing the likelihood that commissioners will make decisions favorable to electric utilities, the adoption of these laws may reduce electricity prices. This effect may also arise because revolving-door regulations make it easier for other interest groups to influence public utility commissioners. For instance, organized electricity consumers (for example, industrial users) may be better positioned to influence public utility commission (PUC) rate setting if revolving-door laws are in place.

Because revolving-door regulations were introduced by different states at different times, we can estimate the effect of the adoption of these regulations on prices by using a difference-in-differences (DID) framework. That is, we use states that did not adopt regulation during the same period as a control group to identify the effects of revolving-door regulations on prices from within-state variation in electricity prices following the introduction of a revolving-door law.

The data for this analysis come from several sources. We surveyed state ethics commissions, state attorney general offices, and state statutes to obtain information on the years in which states adopted their first revolving-door law. Data on residential, commercial, and industrial electricity prices, costs, and other time-varying state-level variables are from Besley and Coate (2003) and Hauge, Jamison, and Prieger (2012). We use these data because the time period they cover (1960-96) overlaps with the period during which state-level post-government-employment restrictions were adopted. Descriptive statistics for the regression variables are shown in Table 1.

2.1. The Adoption of Revolving-Door Laws as a Quasi Experiment

To make valid causal inferences, we need to establish that the adoption of revolving-door regulations at the state

level is exogenous with respect to other factors that influence electricity prices. Two pieces of evidence suggest that the adoption of these regulations by state governments constitutes a valid quasi experiment. First, post-government-employment restrictions apply to large numbers of public employees, not merely members of PUCs. Indeed, utility commissioners are almost never explicitly mentioned in these statutes. Rather, the restrictions apply generally to large segments of a state's public sector. This suggests that the adoption of these regulations was not motivated by a perceived **[*425]** need to alter the behavior of public utility commissioners and electricity rates per se but rather by a political demand to improve state-level government ethics more generally. In other words, because revolving-door laws were adopted in response to a general desire to clean up government at the state level, the introduction of these laws is probably uncorrelated with other factors that influence electricity prices.

Table 1

Descriptive Statistics, 1960-96

	N	Mean	SD	Min	Max
Revolving-door regulation	1,824	.21	.41	0	1
Elected commissioner	1,824	.26	.44	0	1
Real residential prices per kWh (cents)	1,824	6.33	1.71	.59	11.70
Real industrial prices per kWh (cents)	1,824	3.65	1.26	.67	8.18
Real commercial prices per kWh (cents)	1,824	5.93	1.67	1.99	13.69
Real fossil fuel cost index	1,812	.76	.55	.01	4.97
Real income per capita	1,776	10,308.72	2,486.60	4,067.57	21,152.96
State population	1,776	4,587,008	4,798,931	291,000	32,300,000
Percentage ages 5-17	1,776	22.50	3.62	14.70	35.40
Percentage ages [>=] 65	1,776	11.04	2.19	4.00	18.60
Legislature ideology index	1,824	55.68	14.21	18.64	81.47
Democratic governor indicator	1,824	.39	.47	0	1

Sources. Besley and Coate (2003); Hauge, Jamison, and Prieger (2012), with calculations by the authors.

Second, an analysis of the correlates of revolving-door regulations suggests that the adoption of these regulations is sufficiently exogenous to generate valid causal inferences. If the adoption of post-government-employment regulations is to serve as a quasi experiment, the characteristics of states that adopt revolving-door laws (the treatment group) should be similar to the characteristics of states that do not (the control group). To determine whether this is the case, we estimated a series of discrete-time Cox proportional hazard models to study the probability of adopting revolving-door regulations. Our control variables were a series of state-year variables that proxied for changes in a state's economic, political, and business environments. In particular, we included changes in real electricity prices and production costs, changes in real per capita income, changes in state population, an indicator variable that equals one if the state governor was a Democrat in a given state year and zero otherwise, and a time-varying index of a state legislature's ideology (higher numbers on the index indicate a more liberal legislature). [n4] We also included region dummies and used state-level data from 1960-96 to estimate the models.

Hazard ratios from these estimations are displayed in Table 2. Values greater **[*426]** than 1 indicate an increase in

the hazard ratio (that is, an increase in the likelihood of adopting revolving-door regulations), while values below 1 indicate a reduction in the hazard ratio (that is, a decrease in the likelihood of adopting revolving-door regulations). The results suggest that there are no systematic relationships between state-level characteristics and the adoption of revolving-door regulations. State-level residential, commercial, and industrial electricity prices have a positive but statistically insignificant effect on the hazard ratio. Our proxies for a state's political and business climate--the Democratic governor indicator and the legislature ideology index--are also not statistically significant. While we cannot know for certain whether the adoption of revolving-door laws is truly exogenous, these results are supportive of the possibility of a quasi experiment.

Table 2

Discrete-Time Hazard Model of the Adoption of Revolving-Door Regulations

	(1)	(2)	(3)	(4)	(5)
Change in residential prices	1.03				.95
	(.33)				(-.89)
Change in commercial prices		1.32			1.05
		(1.23)			(.31)
Change in industrial prices			1.41		1.51
			(1.04)		(1.08)
Change in costs				1.02	1.02
				(.89)	(1.05)
Change in state population	1.49	1.19	1.21	1.23	1.19
	(1.30)	(.95)	(1.21)	(1.20)	(.97)
Change in per capita income	1.10	1.16	1.16	1.08	1.16
	(.68)	(1.11)	(1.10)	(.53)	(1.08)
Democratic governor indicator	1.02	1.02	1.01	1.03	1.01
	(.78)	(.75)	(.77)	(.80)	(.78)
Legislative ideology	.93	.93	.92	.93	.92
	(1.03)	(1.03)	(1.12)	(.98)	(1.15)
N	1,397	1,397	1,397	1,364	1,364

Note. Values are hazard ratios from Cox proportionate hazard models, with *z-statistics* (clustered by state) in parentheses. Region dummies are included. Smaller sample sizes are due to missing information on costs.

2.2. Effects of Revolving-Door Laws on Electricity Prices

We now turn to an analysis of the effects of revolving-door laws on electricity prices using states that do not adopt revolving-door laws in a given year as a control group. As a first pass, we would like to see whether revolving-door laws are correlated with changes in electricity prices. Creating a succinct visual representation of the effect of regulation on electricity prices is difficult in our context since different states adopted regulations at different times over a 30-year period. Accordingly, for each electricity price (industrial, residential, and commercial), we used the following procedure. First, for each year we computed the average electricity price among states without revolving-door laws, which we call the average price for no-law states. Second, we computed for each year and **[*427]** in each state with revolving-door laws the difference between the state's own electricity price and the average price for no-law states, which we call the adjusted price in states with laws. Finally, we averaged the adjusted prices in states with laws over the

age of revolving-door laws, where a value of zero is assigned for the year of passage, positive ages are assigned to years after the passage of the laws, and negative ages are assigned to years prior to the passage. This process gives us the age-averaged adjusted price in states with laws, which is essentially the average difference between electricity prices in states with revolving-door regulations and electricity prices in states without revolving-door regulations (over the life span of the revolving-door laws). Figures 1, 2, and 3 show the relationship between the age-averaged adjusted price in states with laws and the age of revolving-door laws (for the 5 years before and after the adoption of revolving-door regulations) for industrial, residential, and commercial prices, respectively.

Two patterns are apparent from these figures. First, there is an upward trend in electricity prices in states that adopted revolving-door regulations relative to states that did not. This is consistent with the positive (but not statistically significant) coefficient estimate found for the effect of changes in electricity prices on the hazard ratio for adoption of revolving-door regulations, as shown in Table 2. Second, in the first 3 years after revolving-door regulations are introduced, this upward trend is dampened, most markedly for industrial prices, but after the third or fourth year the gap between prices in states with and without revolving-door laws follows its original trend. Accordingly, the figures show that revolving-door regulations may have reduced the growth rate of electricity prices, but the dampening effects are only temporary.

To determine whether these effects of revolving-door laws on electricity prices are robust to other state-level control variables, we estimate the following regression equation:

Image 1

where log(*p[st]*) is the natural logarithm of real electricity prices (residential, industrial, or commercial) in state *s* during year *t;* elected*[st]* is an indicator variable that equals one if state *s* elects its public utility commissioners in year *t* and zero otherwise; revolving*[st]* is an indicator variable that equals one if state *s* has adopted a revolving-door law by year *t* and zero otherwise; ***X****[st]* is a vector of state-year control variables that includes a measure of electricity production costs (Besley and Coate's [2003] fuel cost index), state population, state population squared, the state-level legislative ideology index, the Democratic governor indicator, real income per capita, real income per capita squared, the percentage of the population over age 65, and the percentage of the population between ages 5 and 17; *S[s]* and *T[t]* are state and year fixed effects; [gamma] *[s] t* is the state-specific time trend; and [epsilon] *[st]* is an error term.

[*428] Figure 1. Industrial electricity prices prior to and after the adoption of revolving-door regulations.

Figure 2. Residential electricity prices prior to and after the adoption of revolving-door regulations.

[*429] Figure 3. Commercial electricity prices prior to and after the adoption of revolving-door regulations.

We control for whether commissioners are elected or appointed because Besley and Coate (2003) find that elected regulators set lower prices than appointed ones. State population and its squared term are included to allow for scale economies in electricity production. We use the deflated value of Besley and Coate's (2003) fossil fuel cost index to proxy for production costs. Real per capita income and its squared term as well as the demographic variables hold constant factors that influence the demand for electricity in a given state-year. To control for a state's political and business environment, we include the Democratic governor indicator and the state legislative ideology index. State and year fixed effects control for unobserved heterogeneity at the state level and across time that may influence electricity prices. Finally, we include state-specific trend terms that allow us to control at least partially for other unobservable factors at the state level that change over time and might potentially influence electricity prices. The inclusion of trend terms is also warranted since Figures 1-3 indicate that prices were rising in states that adopted regulations relative to those in states that did not (although, as noted earlier, this effect is not statistically significant).

For each electricity price, we estimate two separate regression models. The first model includes the revolving-door indicator, the elected commissioner indicator, state and year fixed effects, and the state-specific trend terms. The second

model also includes all the other time-varying state-level variables mentioned earlier. Table 3 shows the regression results. Columns 1-3 show the coefficient estimates from the first model, in which the dependent variable is the log of

[*430] Table 3 Effects of Revolving-Door Regulations on the Log of Electricity Prices

industrial price, the log of residential price, and the log of commercial price, respectively. In columns 4-6, the second model is used to obtain the coefficient estimates.

The coefficient of interest is x, which is the DID estimate of the effects of revolving-door regulations on electricity prices. If revolving-door laws reduce the influence of electricity producers (and perhaps increase the influence of electricity consumers) on the regulatory apparatus, x should be negative and statistically significant. But, as shown in Table 3, for all three types of electricity prices, the coefficient on the revolving-door regulation variable (x) is statistically insignificant, whether or not time-varying controls are included. Consistent with Besley and Coate (2003), we find that residential prices are lower when regulators are elected rather than appointed. [n5]

These basic findings survive several robustness checks. First, the results are unchanged when we use real electricity prices (as opposed to their natural logarithm) as the dependent variable. Second, when we recode the revolving-door indicator variable to be equal to one at 5 years prior to actual adoption (and all years after) or at 5 years after actual adoption (and all years after), the coefficient estimates on the revolving-door variable are still statistically insignificant. Accordingly, there are no anticipated or delayed effects of revolving-door regulations. Finally, qualitatively similar results are found when we estimate the regression using data from every 5 years rather than annual data.

The limitation with the above approach is that the effects of revolving-door regulations in different years are lumped together, which does not allow for the impact of revolving-door laws to vary over time, as suggested by Figures 1-3. Thus, we estimate the effects of regulation with separate dummy variables for **[*431]** each of the 5 years before and after its passage. The results shown in Table 4 indicate that for industrial prices, having a revolving-door law reduces prices within the first few years, but the effect disappears after the fourth year. For other prices, however, there are no significant effects. [n6] As before, residential prices (but not commercial or industrial prices) are lower in states that elect their commissioners.

Table 4

Electricity Prices 5 Years before and after the Adoption of Revolving-Door Regulations

	Industrial	Residential	Commercial
Elected commissioner	-.02	-.046 **	.004
	(.02)	(.016)	(.004)
RD[t-5]	-.033	-.036 *	-.030
	(.023)	(.017)	(.020)
RD[t-4]	-.032	-.030 +	-.017
	(.025)	(.017)	(.024)
RD[t-3]	-.038	-.038 *	-.027
	(.028)	(.019)	(.028)
RD[t-2]	-.034	-.027	-.01
	(.024)	(.023)	(.03)
RD[t-1]	-.042	-.033	-.021
	(.027)	(.027)	(.034)
RD [t]	-.036	-.040	-.021

	(.028)	(.032)	(.042)
RD[t+1]	-.049 +	-.012	-.008
	(.029)	(.028)	(.040)
RD[t+2]	-.072 *	-.029	-.039
	(.030)	(.031)	(.040)
RD[t+3]	-.064 +	-.021	-.014
	(.036)	(.037)	(.041)
RD[t+4]	-.094 **	-.037	-.013
	(.034)	(.037)	(.044)
RD[t+5]	-.041	-.029	-.014
	(.030)	(.040)	(.045)
RD[t+6+]	-.050	-.014	-.001
	(.040)	(.42)	(.042)

+ p < .10.

* p < .05.

** p < .01.

Note. Each regression includes year and state fixed effects, a time trend, and state-specific time trends, as well as all remaining time-varying state-level covariates. The term RD*[t+i]* is an indicator variable that is equal to one for the *i* th year after a revolving-door law is introduced and zero in all other years. The term RD [t+6+] is an indicator variable that is equal to one in the sixth year and all subsequent years after a revolving-door law is introduced. Clustered standard errors are in parentheses. *N* = 1,764.

[*432] The bottom line is that revolving-door laws have a temporary and negative effect on industrial prices but not on other prices. The effect can be detected when we code separately for each year but not when we use a single dummy variable. This makes sense since the effect is only temporary. These results are also consistent with the data presented in Figures 1-3. The magnitude of the temporary effect on industrial prices is actually quite substantial, with industrial prices lowered by 5, 7, 9, and 6 percent in the first 4 years after the passage of the revolving-door law. Nevertheless, for the fifth year, as well as for the sixth and subsequent years, there is no statistically significant effect.

The overall results suggest that the effectiveness of the two mechanisms in reducing consumer-regulator agency costs, namely, revolving-door laws and the election of commissioners, depends on the type of electricity price that is regulated. For residential users, the method of commissioner selection (election versus appointment) seems to have the largest and most statistically significant effect on lowering prices. For industrial prices, in contrast, the adoption of a revolving-door law has the most negative and statistically significant effect on prices (relative to trend). However, as shown in Figures 1-3, prices ultimately catch up with their preregulation trend. What explains this pattern?

While we cannot answer this question definitively, we posit the following argument. Commissioners who are elected have a strong incentive to cater to the median voter. Among electricity consumers, the median voter is a residential customer, not a commercial or industrial customer. This provides elected commissioners with a strong incentive to keep residential rates low. In such an environment, a revolving-door law has at best a negligible additional effect on lowering residential prices. Because the reelection incentive does not provide commissioners with as strong an incentive to keep commercial or industrial prices low, other mechanisms (such as revolving-door laws) have a greater

potential to reduce regulator-consumer agency costs. In particular, organized consumers such as industrial electricity users are well positioned to benefit from revolving-door laws, perhaps because they are not precluded from employing former regulators.

However, over time this effect diminishes, and prices follow their preregulation trend. While we cannot determine precisely why this occurs, we think that two factors are in play. First, for an industry such as electricity generation in which price-cost margins are small, cost increases must eventually be passed on to consumers in the form of higher prices. In fact, if we use the same procedure described earlier for electricity prices to graph the production cost index of states with and without revolving-door regulations, we find that states that adopted revolving-door regulations also experienced a steady upward trend in costs relative to states that did not. Regulators may therefore find it unsustainable to keep prices low indefinitely. Second, after the revolving-door is foreclosed, utilities may adjust their political action strategies and find other ways to influence utility commissioners (perhaps through larger campaign contributions to elected **[*433]** regulators or through more intensive lobbying). Accordingly, the influence of regulated firms is only temporarily abated by the adoption of revolving-door regulations.

3. Additional Effects of Revolving-Door Regulations

Here we provide some evidence on the additional effects of revolving-door regulations. In particular, we use individual-level information for a sample of state public utility commissioners to explore the effects of revolving-door regulations on commissioners' tenure length and their post-government-employment career paths. [n7]

Our working hypotheses are as follows. First, commissioners in states with revolving-door regulations will tend to have shorter tenures. Because post-government-employment restrictions generally prohibit regulators from working for companies or on cases in which they have been previously involved, these regulations may reduce the desirable length of tenure. Second, commissioners in states with post-government-employment restrictions will be less likely to find jobs with public utility companies or get employed in the private sector more generally. This could be because revolving-door laws reduce the attractiveness of regulators as potential employees or because these regulations result in the selection of less ambitious individuals into public service.

To test these hypotheses, we searched for information on all the commissioners who left their state public utility commission jobs between 1994 and 2005. Among this group of 129 commissioners, we were able to obtain information on the year of departure and subsequent employment for 97. The data sources we used include various publications by the National Association of Regulatory Utility Commissioners (NARUC 1992-2003a, 1992-2003b, 1994-2005), the Council on Government Ethics Laws (COGEL 1993-2002), and online sources. Table 5 provides summary statistics of various characteristics of this group of individuals, as well as information on the PUCs where they worked before their departure. Because our sample is small, the results from this analysis should be interpreted cautiously.

Table 6 presents regression estimates of how revolving-door laws affect tenure length and the probability of working for the private sector after departure. Instead of using the dummy variable indicating the existence of any post-government-employment restrictions, we use an indicator for whether a commissioner is forbidden to work on previous cases after leaving the government. Compared to the more generic dummy variable for a revolving-door law, the latter provides more detailed information on the type of restrictions faced by commissioners. In particular, it tells us whether the law restricts a former commissioner's **[*434]** engagement in cases that she may have been involved with as a regulator.

Table 5

Summary Statistics for Departing Commissioners'

Characteristics, 1994-2005

Variable	Mean	SD
Commissioner characteristic:		

Master's degree or higher	.71	.46
Tenure (years)	6.63	5.20
Works for private sector after departure	.36	.48
Commission characteristic:		
Revolving-door-regulation indicator (at time of departure)	.66	.47
Commissioner forbidden to work for regulated utilities (at time of departure)	.11	.30
Stipulated term length for commissioners	5.40	.91
Commissioner salary relative to per capita income in state (at of departure)	3.11	.54

Sources. Commissioner characteristics and stipulated term lengths for commissioners are from NARUC (1992-2003a, 1992-2003b, 1994-2005) and the authors' online searches. Information on post-government-employment restrictions is from COGEL (1993-2002), the authors' survey of state ethics commissions and state attorney general offices, and online searches. $N = 97$.

The results show that this specific type of post-government-employment restriction has a negative and statistically significant effect on the tenure length of state public utility commissioners, and it also has a negative and statistically significant effect on the likelihood of a commissioner's securing subsequent employment in the private sector. For the tenure regression, we use ordinary least squares estimation, while we use the logistic estimation for the future-employment regression.

These results are consistent with our hypotheses, showing that revolving-door laws may have other unintended consequences. Given that experience is important for any job, the higher turnover rate among utility commissioners in revolving-door-law states may have harmful effects on the quality of public service. In addition, to the extent that the restrictions on future job prospects are binding, the position of public utility commissioner becomes less attractive. This difference in circumstances may reduce the talent pool from which public utility commissioners are drawn.

4. Conclusion

This paper evaluates the effects of post-government-employment restrictions on electricity prices. We find that the introduction of revolving-door laws does not lower residential or commercial electricity prices. These laws do reduce industrial electricity prices, but only temporarily. This would suggest that post-government-employment restrictions temporarily reduce the scope of industry capture, but perhaps only by delaying the inevitable pass-through of costs by electricity producers. Future work should investigate whether these findings are unique to electric utilities or apply to other regulated industries as well.

There is also some evidence that revolving-door laws influence the characteristics **[*435]** of public utility commissioners. Commissioners from states with revolving-door laws are less likely to obtain subsequent employment in the private sector and serve shorter terms in office than their colleagues from states without revolving-door laws. Revolving-door laws may, therefore, have negative consequences in terms of selection into public employment. But caution is called for in generalizing these results because of the small sample size of our commissioner data set.

Table 6

Revolving-Door Regulations, Tenure Length, and Future Employment

	Years of Tenure	Works for Private Sector

	(1)	(2)
Commissioner forbidden to work on previous cases (at time of departure)	-3.247 **	-.399 **
	(.871)	(.072)
Stipulated term length for commissioners	.628	
	(.578)	
Commissioner salary relative to per capita income in state (at time of departure)	-1.099	
	(1.259)	
Commissioner has a master's degree or higher		-.065
		(.110)

** P < .01.

Note. Ordinary least squares regression is used for column 1, and the logistic model is used for column 2. The coefficient estimates in column 2 are marginal effects, and robust standard errors clustered at the state level are in parentheses. A former commissioner is considered to work for the private sector if she is not working for the government or a nonprofit organization. *N* = 97. *R*<2> = .05.

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FOOTNOTES:

n1 For instance, as part of its Standards of Ethical Conduct for Employees of the Executive Branch, the U.S. Office of Government Ethics restricts the labor market opportunities of former federal employees. In addition, a number of federal agencies supplement these standards to maintain even tighter restrictions. See, for instance, Regulations Concerning Post Employment Conflict of Interest (5 C.F.R. sec. 2637 [2012]) and Agency Supplemental Standards of Conduct Regulations. For details on state revolving-door laws, see COGEL (1993-2002).

n2 Boehm (1996) reports that several attorneys left state employment after New York enacted legislation in 1987 that placed restrictions on employment opportunities of former government workers. This anecdote suggests that revolving-door laws may have some impact on the types of individuals who serve in the public sector.

n3 Forty states currently have state ethics commissions that are charged with, among other tasks, enforcing revolving-door legislation.

n4 See Hauge, Jamison, and Preiger (2012) for details on the construction of the legislature ideology index.

n5 There are reasons, however, that our results are not strictly comparable with those of Besley and Coate (2003). First, in their regressions, the dependent variable is the average price, not the natural log. Second, Besley and Coate exclude from their regressions all states that switched their method of commissioner selection. We include these states in our regressions.

n6 It is interesting to note that during the fifth through third years prior to the adoption of a revolving-door law, residential prices are lower

in states that eventually adopt revolving-door regulations, but the effect disappears in later years. We suspect that this is just an anomaly of the data set.

n7 See Law and Long (2011) for a more thorough examination of the effects of revolving-door regulations on public utility commissioners.