

Do Wrongful-Discharge Laws Impair Firm Performance?

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Abstract

We estimate the effects on firm costs and profitability of wrongful-discharge protections adopted by U.S. state courts during 1977–99. By examining the data of approximately 18,000 commercial banks, after controlling for local state economic conditions, we find evidence of a relationship between the adoption of the implied contract exception and the increase in labor expenses. In addition, adoption of the implied contract exception is found to have a significant and negative effect on overall profitability. The study corroborates previous findings that wrongful-discharge laws place increased costs on employers.

1. Introduction

We investigate the economic impact of employment protections by examining approximately 18,000 banks over the period from 1977 to 1999. We focus on wrongful-discharge laws, a collective term describing limitations to an employer's discretion to terminate employees that have arisen largely from the common law over the past 30 years.¹ These limitations challenge the traditional employment-at-will rule, which establishes a legal presumption that an employee may be discharged by her employer for any reason—a good reason, a bad reason, or no reason at all (Morris 1994).

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¹ Montana passed a statute in 1987 establishing a good-cause standard of discharge for all employment terminations (Robinson 1996). No other state has passed a statute limiting employment at will. The Model Employment Termination Act was proposed by the Uniform Law Commissioners in 1991, but no state has yet to adopt it (Navaretta 1996).

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The rise of these exceptions generally has generated a vigorous debate. Some scholars have contended that current protections insufficiently protect employees and have argued for a nationwide imposition of a good-cause regime—limiting employers to discharge only for objectively “just” reasons such as incompetence, lack of work, or insubordination (McGinley 1996; Freed and Polsby 1989; Abrams and Nolan 1985). Other scholars, questioning the efficiency of employment discharge laws and highlighting their costs, have advocated retention of a pure employment-at-will regime (Epstein 1984; Power 1984). The result has been that since 1985 at least 200 legal articles have studied some aspect of employment at will and its exceptions (Bird 2005).

This debate over wrongful-discharge exceptions to employment-at-will rules is an important matter of public policy. Eighty-five percent of surveyed U.S. private employees work under employment-at-will terms, with most governed by at least one wrongful-discharge exception (Verkerke 1995).² Furthermore, the cost of wrongful-discharge litigation is significant. At least 10,000 wrongful-discharge lawsuits are filed in state courts annually (Kelly 1997), and jury awards can potentially cost firms hundreds of thousands of dollars (Jung 1997; Dertouzos, Holland, and Ebener 1988). Employers may also shoulder indirect costs from revising employment handbooks, implementing bureaucratic discharge procedures, increasing documentation requirements, and retaining unproductive employees (Autor 2003). Managers implicated by wrongful-discharge complaints, even when those complaints are not meritorious, are more likely to suffer diminished career advancement, lower performance ratings, and higher turnover rates when compared to their nonimplicated counterparts (Lewin 1987).

We contribute to the literature examining the economic effects of wrongful-discharge law. Some studies, such as Autor, Donohue, and Schwab (2006) and Kugler and Saint-Paul (2004) focus on wage and employment effects. By contrast, Autor, Kerr, and Kugler (2007), Petrin and Sivadasan (2006), and others use firm-level data to examine labor, capital costs, and total factor productivity. This paper complements this firm-level work by focusing on firm-level labor expenses, capital investments, and profitability. By using balance sheet and income statement data, we are able to directly measure the impact of wrongful-discharge laws on firm-level expenses and profitability. Using our panel data sample, we find that wrongful-discharge law impacts labor expenses and profitability. The effects are both economically and statistically significant. This result is consistent with previous studies hypothesizing that wrongful-discharge laws impose costs on employers (for example, Abraham 2004; Autor 2003).

² Specifically, just over half of all employers surveyed establish explicit written employment-at-will provisions for their employees. One-third of employers surveyed use documents that contain no explicit dismissal guidelines, thereby establishing employment at will as the default rule. Verkerke's (1995) findings are further buttressed by Sutton and Dobbin (1996).

2. Wrongful Discharge in the United States

2.1. *The Development of Wrongful-Discharge Law*

For much of the twentieth century, employees served at the whim of their employers.³ During the 1970s and 1980s, withering scholarly criticism of the harshness and arbitrary nature of employment at will resulted in a growing adoption of common-law limitations. Between 1979 and 1999, 43 states had adopted some kind of wrongful-discharge exception (Autor, Donohue, and Schwab 2006). State courts rationalized these employment protections on the grounds that they were consistent with legislative will, necessary to balance the changing employment relationship, and consistent with underlying contract principles (Walsh and Schwarz 1996).

Wrongful-discharge law ultimately matured into three common-law exceptions: the public policy exception, the good-faith exception, and the implied-contract exception. Each state has its own common-law decisions that have considered these exceptions. While some states recognize all three exceptions, others recognize two, one, or none at all.

The public policy exception states that an employer who discharges an employee in violation of an important public policy does so for a reason that the legislature or society deems so unreasonable that statutory or common law expressly or impliedly prohibits it. (Baucus and Dworkin 1998). Typical exceptions include (1) refusing to participate in an illegal act, (2) performing a public obligation such as jury duty, (3) exercising a legal right or interest, and (4) exposing legal wrongdoing in the employee's firm (Bird 2005). The common thread underlying most public policy exceptions is that employers are prohibited from discharging employees who have third-party effects on society or government (Schwab 1996). At least 43 states recognize the public policy exception (Autor, Donohue, and Schwab 2006).

The implied-contract exception states that an employer cannot discharge an employee with whom the employer has created an explicit or implicit promise not to terminate without good cause. Thus, employer representations of job security or employment terms through casual statements or work rules can establish enforceable, contractual terms even though a written contract exists and the employment-at-will rule applies. Actions invoking the implied-contract exception commonly arise from statements in an employment handbook or oral

³ The underlying construct on which wrongful discharge is based traces its history to the late nineteenth century. Horace Wood, writing a treatise on master and servant law, concluded that employment at will, the freedom for both employer and employee to terminate an employment relationship at any time for virtually any reason, was the dominant paradigm of U.S. employment law (Wood 1877). In spite of the dubious support for Wood's assertion at the time (Freed and Polsby 1990; Feinman 1976), the employment-at-will doctrine garnered widespread support, as it rode on the coattails of the rising prominence of the "freedom of contract" philosophy and ideals of individualism popular at the time (Snyder 2003).

assurances by a manager implying job security. At least 43 states recognize the implied-contract exception (Autor, Donohue, and Schwab 2006).

The good-faith exception originates from the basic concept in contract law that neither party to an agreement should deny the other the full benefits of the contractual relationship. Although seemingly broad, the good-faith exception has been applied narrowly where it has been adopted. State courts have limited awards to cases in which an employer denies an employee the benefit of an expected bargain, such as a pension benefit, sales commission, sick leave, or vacation time (Autor, Donohue, and Schwab 2006; Bird 2005). At least 11 states recognize the good-faith exception in the context of employment (Autor, Donohue, and Schwab 2006).

2.2. Theorized Impacts of Wrongful-Discharge Laws

Previous scholarship has questioned the impact and efficacy of the employment-at-will system and its accompanying exceptions. Early authors such as Blades (1967) cited the increased dependence of employees on employers, the minimal ability of employees to leverage the labor market to their advantage in employer relations, and the limited availability of collective bargaining as reasons for the courts to mitigate employment at will. Lopatka (1984) noted the perceived inequities in different protections between unionized and government employees and those neither unionized nor employed by a government entity. McGinley (1996) remarked that employees need legislative protection because purportedly loyal corporate employers who previously rewarded employees with benefits and job security now discharge employees even during periods of increasing profits.

The Coase principle holds that if property rights are clearly defined and may be transferred with zero transaction costs, then distribution of property rights does not impact economic efficiency (Coase 1960). In a standard competitive model, employment protections from discharge are economically equivalent to mandated employment benefits. Discharge protections make employing workers more costly and therefore result in an inward shift in labor demand. The Coase theorem will apply if the cost of the mandated protection equals the value that the workers perceive in that protection. Therefore, wages will fall to cover the cost of the benefit without productivity or employment consequences (Autor, Kerr, and Kugler 2007).

Dismissal protections, however, can impose costs on efficiency. If the value the worker places on the dismissal protection is less than the cost of providing that protection by the employer, the efficient result is undone. The deadweight loss can arise from internal costs for maintaining the employment protection or external costs through benefits paid to third parties such as attorneys (Lazear 1990). If employment restrictions encourage employees to use the threat of litigation, even litigation of a frivolous nature, as a bargaining tool, inefficiencies will further increase. Non-Coasean employment protection can thus degrade labor market efficiency. As a result, employers have a reduced incentive to hire

new workers and fire incumbent ones (Donohue 1989; Lindbeck and Snower 1986). Over time, if dismissal protections impose employment costs without raising corresponding productivity levels, shifts in a supply-and-demand curve would predict that wages would fall as a result (Autor, Donohue, and Schwab 2006).

In contrast to the Coasean view, however, standard flow models of the labor market imply that dismissal protections raise wages by increasing the bargaining power of workers (Autor, Donohue, and Schwab 2006; compare Blanchard and Portugal 2001). This view arises from the notion that the higher costs associated with the dismissal alternative increase the bargaining power of incumbent employees to demand higher wages. This notion is reinforced by the apparent widespread perception by employees that they possess strong employment dismissal rights analogous to just-cause protections (Kim 1997). As a result, there may be two countervailing forces impacting wages arising from dismissal protections. On the one hand, reduced efficiency arising from a non-Coasean state will drive labor demand inward and exert downward pressure on wages. On the other hand, dismissal protections give workers increased leverage with which to bargain for higher wages.

The literature remains ambiguous regarding whether dismissal protections place a net positive, negative, or neutral pressure on wage levels. For example, Fishback and Kantor (1995) found that employers were able to pass on a portion, though far from all, of the costs of higher postaccident compensation to some workers in the form of reduced wages. In contrast, Gruber (1994) found that firms entirely offset the cost of government-mandated maternity benefits by a decline in women's wages. Autor, Donohue, and Schwab (2006) found that the adoption of wrongful-discharge doctrines did not have any significant impact on workers' wages. It is inconclusive, then, as to whether dismissal protections exert a net negative or positive overall pressure on wages.

A similarly developing literature addresses whether dismissal protections impact firm productivity. Wrongful-discharge protections appear to impose hiring and firing costs on firms. This is supported by Miles (2000) and Kugler and Saint-Paul (2004). The increase of adjustment costs from wrongful-discharge protections is a necessary precondition for impacts on productivity.

Theory predicts that dismissal protections will distort production choices, thereby lowering firm productivity. Although inefficient non-Coasean dismissal protections can reduce allocative efficiency, this may not necessarily translate into a decreased technical efficiency of production. On the one hand, firms may be more reluctant to dismiss unproductive workers because of the increased costs associated with discharge. On the other hand, dismissal protections may cause firms to hire employees more stringently and thus to select more productive employees, although implementing such hiring measures may have costs of their own. Another factor may be that dismissal protections promote capital deepening, a shift toward capital over labor as a choice for improving productivity. Finally, employee demands for higher wages arising from the reduced power to

fire that employers possess might trigger firms to reduce job creation and increase the threshold productivity level at which a firm chooses to hire. The result might be an increase in productivity at the firm level because less productive hires never occur because of more conservative behavior by firms (Autor, Kerr, and Kugler 2007; Besley and Burgess 2004).

Few studies have been completed that explore the aggregate effects using microlevel data and explore the consequences for firm productivity. Attributing the mixed evidence published on whether firing costs have an economic impact to low-power statistical tools, Petrin and Sivadasan (2006) introduced and applied a novel model that directly estimates the difference between marginal revenue product and the marginal input price using plant-level data. Using data from Chilean manufacturing firms, the authors found that increases in firing costs widen the gap between the marginal revenue product of labor and wages for blue-collar and white-collar workers. Prieger (2005) found that the enactment of the Americans with Disabilities Act and its associated increased costs negatively impacted the food store industry by reducing the number of food store businesses by 1.5–2.3 percent. These costs may reduce the productivity of all firms or, conversely, improve the productivity of the remaining surviving firms in the marketplace, depending on changes in the market structure. Besley and Burgess (2004) studied Indian manufacturing firms to determine whether pro-worker amendments to the Industrial Disputes Act impacted a variety of measures. They found that Indian states that more frequently amended the act in favor of workers experienced lowered output, employment, investment, and productivity in registered or formal manufacturing. Support exists for the conclusion that employment protections have affected labor markets on a global scale (Kugler 2007).

Most recently, Autor, Kerr, and Kugler (2007) evaluated the link between productivity and firing costs by using establishment-level data from the Annual Survey of Manufacturers and the Longitudinal Business Database. The study first found that adoption of the good-faith exception to employment at will reduced annual employment fluctuations and the entry of new establishments in states that adopted the exception. The study next found that the adoption of the good-faith exception caused an increase in capital deepening, which led to a rise in labor productivity. At the same time, the authors found evidence of a decline in total factor productivity following adoption of the good-faith exception. These effects were found to be strongest during the first 3 years after adoption and then to decline afterward. Although much useful work has been done in this area, the conclusion that dismissal protections reduce firm productivity may still be uncertain.

Empirical studies of wrongful discharge have examined other pertinent effects. Oyer and Schaefer (2000, 2002) studied the relationship between damage awards available to wrongful-discharge plaintiffs and returns to experience among protected workers. Schanzenbach (2003) found no consistent effect on job tenure from the adoption of the public policy and good-faith exceptions but did find an effect from the adoption of the implied-contract exception. Kugler and Saint-

Paul (2004) found that adoption of wrongful-discharge protections slowed the rate of hiring of unemployed workers.

In addition, Krueger (1991) studied the correlation between erosion of employment at will and the proposal of unjust-dismissal legislation in state legislatures. Miles (2000) explored the impact of wrongful discharge laws on aggregate employment. Abraham (2004) used an event study methodology to establish that an announcement of pro-employee wrongful-discharge decisions by California and New York high courts had a negative impact on shareholder returns. In contrast, pro-employer wrongful-discharge decisions by the courts increased shareholder returns. Autor (2003) attributed a surprising 20 percent of the growth of the temporary-help industry between 1973 and 1995 to the rise of wrongful-discharge protections. Dertouzos and Karoly (1992) examined the effect of wrongful-discharge protections on employment growth. They concluded that states adopting a tort-based wrongful-discharge cause of action suffered a drop in employment anywhere between 1 and 7 percent, depending on the exception adopted and the industry examined. This finding, however, has not been confirmed by later studies (Autor, Donohue, and Schwab 2006; Schanzenbach 2003; Miles 2000), and efforts have been made to reconcile the differences in findings (Autor, Donohue, and Schwab 2004).

The previous literature has focused primarily on employment and productivity measures. The contribution of our study is to examine the economic impact of firm-level cost and profitability effects by type of wrongful-discharge law. The link between costs, profitability, and productivity is ambiguous. The constraints of wrongful-discharge laws may cause firms to dedicate resources to increased productivity elsewhere. However, increased productivity may still lead to lower profitability because the firm is operating under a constrained environment compared to unconstrained firms operating in a state without wrongful-discharge protections.

3. Data Description and Variable Specification

We have five sources of data for our study. First is the Commercial Bank Database (CBD), from the Federal Reserve Bank of Chicago, which contains data from all banks filing the Report of Condition and Income required by the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Comptroller of the Currency. These reports include balance sheets, income statements, risk-based capital measures, and off-balance-sheet data. Second, we obtained data on state-by-state branch operations of individual banks from SNL Securities. Our third source of data is Autor, Donohue, and Schwab (2006), who code wrongful-discharge laws for all 50 states. Fourth, we used Kroszner and Strahan (1999) as our source for interstate banking regulations. Finally, we collected state economic data from Global Insight.

We began with a sample of 309,922 bank-year observations from CBD taken from the years 1976–99. We eliminated observations for banks that reported

zero employees, zero salaries, or negative equity. We also eliminated outliers that are defined as banks with returns on assets over 200 percent. This reduced the sample size to 307,292 observations. We use these bank-year observations to calculate 1,200 state-year mean observations (24 years \times 50 states).

We checked the robustness of our results to the use of various weighting methods. We applied two different weighting schemes to calculate the state-year means. We computed equally weighted means and weighted observations based on the log of the number of full-time employees. Also, it is noteworthy that the number of banks used to determine state means varied considerably from state to state. Therefore, for our regressions we also varied the weights of the state-by-state means based on the number of banks in the state. For one set of tests we weighted the state observations by the log of the number of banks in the state. For another set of tests we equally weighted observations. All of our main results hold for each of the weighting schemes described above.⁴ Hereafter, all of our reported results use equally weighted state means and equally weighted state observations in the regressions.

3.1. *Wrongful Discharge*

For the legal coding of state wrongful-discharge laws, we relied on the taxonomy of Autor, Donohue, and Schwab (2006). They used the cross-state, over-time adoption of wrongful discharge to measure how wrongful discharge impacts earnings in state labor markets and employment levels in those markets.⁵ We used the adoption of wrongful-discharge exceptions for 1976–99, the years of focus for our study. Our sample includes the vast majority of cases in which states adopted wrongful-discharge laws.

Autor, Donohue, and Schwab tied changes in business practice to wrongful-discharge law through the notion that court decisions would trigger a letter from a firm's attorney notifying that firm about the favorable or unfavorable change in the law. They counted a change in the law as any significant state appellate court or state supreme court decision that approved of a new exception. The classification system devised by Morriss (1995) presented a substantially similar list of relevant adoption timings. Walsh and Schwarz (1996) classified wrongful-discharge adoptions under different adoption years in some instances, which

⁴ It is interesting to note that our results were stronger when we used weights that placed a relatively higher weight on smaller banks.

⁵ We consider the applicable state law to be the same as the law governing the state's banking operations. For our data, except for banks with interstate banking, bank headquarters and bank operations are without exception in the same state. A bank with a state of incorporation different from its bank operations will not affect our legal classification of applicable state law. Under a "typical" wrongful-discharge scenario involving a discharged bank employee, the branch manager and not a distant corporate headquarters would have broad discretion in disciplining his or her employees (Bartel 2004). The formation of the employment agreement, the illegal discharge, the location of the employer's offices, and the residence of the discharged employee would all be in the same state. Thus, under the various standards applied by states, the state law applied and the state that held jurisdiction over the case would likely be the same. For a more in-depth discussion on choice-of-law issues, see Symeonides (2006) and Solimine (1989).

Table 1
Number of Banks Governed by Wrongful-Discharge Laws by Year

Year	Full Sample	Implied Contract	Public Policy	Good Faith	No Laws
1976	14,686	2,139	2,990	268	10,897
1977	14,692	2,174	3,020	269	10,864
1978	14,667	2,208	3,039	269	10,810
1979	14,639	2,263	3,084	268	10,722
1980	14,712	2,779	4,499	568	9,449
1981	14,810	3,160	5,255	615	8,332
1982	14,700	4,201	5,608	827	7,167
1983	14,629	7,170	5,620	867	4,477
1984	14,615	7,937	7,861	902	2,528
1985	14,559	10,829	9,392	1,579	1,559
1986	14,313	10,927	10,634	1,562	1,476
1987	13,818	11,743	10,975	1,544	1,071
1988	13,228	11,477	10,552	1,503	1,082
1989	12,820	11,045	10,746	1,055	1,098
1990	12,478	10,701	10,699	1,009	1,108
1991	12,093	10,343	10,352	968	1,091
1992	11,721	9,970	10,080	930	1,033
1993	11,346	9,756	9,748	904	1,004
1994	10,870	9,352	9,341	910	957
1995	10,347	8,915	8,893	875	915
1996	9,934	8,608	8,584	834	829
1997	9,526	8,247	8,241	789	791
1998	9,139	7,910	7,906	926	609
1999	8,950	7,713	7,711	913	624

were utilized by Miles (2000). Autor, Donohue, and Schwab explained the contrasting legal classifications by concluding that Walsh and Schwarz selected later cases that provide the clearest articulation of the law rather than the more significant earlier precedent-setting cases in a particular state.⁶

Table 1 offers a yearly summary of the total number of banks and the number of banks governed by each of the three wrongful-discharge exceptions. The bank sample size holds steady until approximately 1985 and then begins to drop more rapidly. Most of the decline may be attributed to the failure and acquisition of smaller banks (Wilmarth 1995). This trend may also reflect early waves of bank mergers that became a significant trend in the 1990s (Wilmarth 2002). In addition, this period witnessed declines in new bank charters, which implies that banks faced increasing barriers of entry to commence operations (Wilmarth 1995).

The column values reflect already discussed changes in wrongful-discharge law. The marked increase in banks governed by the implied-contract and public

⁶ The question remains whether economic factors might cause the adoption of wrongful-discharge exceptions. Judges have almost never cited economic reasons as the motivation for adopting a wrongful-discharge exception. Typical reasons given by courts adopting a wrongful-discharge exception include that the adoption was harmonious with established contract principles, consistent with emerging legal trends, or provided a better balance between the rights of the parties (Walsh and Schwarz 1996). Thus, economic variables are not likely endogenous to our models.

policy exceptions is attributed to the rapid adoption of these doctrines during the 1980s. Conversely, the number of banks under which no exceptions applied declined just as quickly, from 10,722 in 1979 to just over 1,000 by 1987, with little additional change until the late 1990s. The good-faith exception, which received some, but not widespread, acceptance during this time, applied to a relatively small pool of banks by 1999.

In order to perform our tests, we define a dummy variable for each of the laws we study. The dummy variables, IC (implied contract), PP (public policy), and GF (good faith) equal one when the bank's headquarters is located in a state that has the particular policy exception (based on Autor, Donohue, and Schwab [2006]) in that year and zero otherwise.

3.2. *Interstate Banking*

Unlike federal antidiscrimination laws, which apply to all 50 states, wrongful-discharge laws are a product of state law. As noted above, state laws vary widely in their wrongful-discharge protection, offering an ideal variance from which to test differing impacts of wrongful-discharge law. Most public firms reporting usable data, however, do not neatly limit themselves to intrastate operations. Thus we needed to select enterprises that would report consistent and detailed performance data and would best reveal the effect of state law variances.

We overcame this methodological challenge by selecting commercial banks as our firm data set, which as an industry is suitable for a study such as this one. Banking system operations have traditionally been heavily regulated. Bank employees, however, unlike civil servants and other groups, do not receive special legal protections from employment discharge. In other words, rank-and-file bank employees are generally subject to at-will employment terms no different from the terms regulating employees of most private industries (Kahn and McCarthy 1999).⁷

Banks are also appropriate for this study because Congress has traditionally restricted state-chartered banks to operations in a single state. Federal laws such as the McFadden Act (12 U.S.C. sec. 36) and the Douglas Amendment to the Bank Holding Company Act (12 U.S.C. sec. 1842(d)) and state laws have traditionally limited the ability of banks to open branches or acquire additional banks outside of a single state (Garten 1989; Berg 1996). By the early 1990s, banks gained broad interstate banking freedom,⁸ but before that time, state and

⁷ Senior bank employees of national banks are subject to employment at will by statute. The National Bank Act (12 U.S.C. sec. 24) permits a national bank's board of directors to dismiss a president, vice president, cashier, or other officer "at pleasure," a phrase generally interpreted to mean at will. A federal circuit split exists as to whether the National Bank Act's employment-at-will statute preempts state bank officers from availing themselves of state wrongful-discharge laws (Kahn and McCarthy 1999). As this statute applies only to senior executives, we do not expect it to have a material effect on our study.

⁸ The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, which allowed bank holding companies to acquire banks in any state and after July 1, 1997, allowed multiple banks to merge, is credited with triggering the broad expansion of interstate banking (Markham 2000).

federal regulations allowed only limited expansion beyond state lines (Markham 2000). As a result, using banks allows us to focus on the impact of a single state's employment laws on businesses that largely do not extend beyond state lines. This minimizes the impact of clouded results from employees working in and being governed by multiple state wrongful-discharge laws.

SNL Securities provided information about interstate branch operations in June 1999 for 9,014 banks.⁹ By 1999, all 50 U.S. states permitted interstate banking operations (Kroszner and Strahan 1999). Of the 9,014 banks for which we had data in 1999, only 242 (2.68 percent) had branch offices in more than one state. Given that interstate banking has been growing over time, we surmise that in the years prior to 1999, even fewer banks possessed interstate banking operations.

Although the vast majority of our sample banks have operations in only one state, we control for the effect of interstate banking on our results with an interstate variable, IB (interstate banking), which equals one when it is located in a state that allows interstate banking in that year and zero otherwise (Kroszner and Strahan 1999). In the following empirical section, we also perform robustness tests to check whether our results are unduly affected by the relatively few banks in our sample with interstate operations.

3.3. *Employment, Labor Expenses, Capital Expenses (Investment), and Profitability*

We measure bank employment as full-time employee equivalents, FTE. Banks have three primary types of expenses: labor, capital, and interest. We do not expect a relationship between wrongful-discharge laws and banks' interest expense. We define labor expense as salary and bonuses divided by FTE. We use a number of proxies for investment. Capital expenses are expenses of premises and fixed assets divided by fixed assets. We also use fixed assets by itself. In addition, we construct the ratio of fixed assets to FTE. Finally, our measure of profitability, return on assets (ROA) is net income divided by total assets.

We have over 300,000 bank-year observations for our variables. However, we are interested in the overall impact on the banks in each state in each year. Therefore, we calculate 1,200 state-year mean observations for each of our variables. In Table 2, we provide summary statistics for our employment, expense, and performance variables.

As seen in Table 2, total state-year observations for states governed by implied-contract, good-faith, and public policy exceptions are 701, 717, and 162, respectively. This reflects the adoption of wrongful-discharge exceptions through the years in our data set and thus presents a reduced sample size. Employee

⁹ SNL Securities data report branch operations in June of a given year, while our data from the CBD report operations from December of a given year. This explains why the SNL Securities' June 1999 report of 9,014 interstate banks having interstate banking operations falls roughly between the CBD year-end reports of 9,139 for the year 1998 and 9,139 for the year 1999.

Table 2
Descriptive Statistics: State Means by Year

Variable	Mean	Median	Min	Max	SD
All states (N = 1,200):					
Full-time employees	203.48	113.57	19.69	4,348.61	280.22
Labor expense (\$1,000s)	25.53	24.79	9.32	111.35	10.06
Capital expense (%)	143	1.37	1.18	8.76	.31
Return on assets (%)	.84	.91	-2.25	4.69	.0052
Total assets (\$1,000s)	439,078	189,152	17,114	13,025,900	892,749
Implied contract (N = 701):					
Full-time employees	196.18	126.34	20.57	1,382.5	220.85
Labor expense (\$1,000s)	29.52	29.42	9.69	57.19	8.36
Price of capital (%)	143	139	118	262	16
Return on assets (%)	.81	.9	-2.25	3.58	.0058
Total assets (\$1,000s)	461,315	242,703	28,350	6,615,974	729,192
Public policy (N = 717):					
Full-time employees	196.18	126.34	20.57	1,382.5	220.85
Labor expense (\$1,000s)	29.07	29.1	9.43	59.58	8.73
Price of capital (%)	143	138	118	333	19
Return on assets (%)	.85	.93	-2.2	4.69	.0058
Total assets (\$1,000s)	449,789	243,158	29,495	9,597,280	693,620
Good faith (N = 162):					
Full-time employees	298.54	261.24	22.66	1,799.67	262.19
Labor expense (\$1,000s)	32.8	33.15	10.05	59.58	10.01
Price of capital (%)	152	144	125	333	27
Return on assets (%)	.78	.82	-2.25	4.69	.0094
Total assets (\$1,000s)	678,1556	587,976	37,281	4,048,097	672,682
No exceptions (N = 331):					
Full-time employees	199.14	93.38	19.69	4348.61	341.58
Labor expense (\$1,000s)	18.06	15.69	9.32	111.35	9.05
Price of capital (%)	114	134	12	876	51
Return on assets (%)	.0088	.0093	-.0068	.0228	.000035
Total assets (\$1,000s)	339,478	105,768	17,114	13,025,900	1,048,792

numbers did not vary much for the banks surveyed. The typical bank in our sample reported having approximately 200 full-time employees, with banks operating under the good-faith exception reporting slightly larger numbers. This may reflect adoptions of the good-faith exception later in our sampling period when banks tended to be fewer but larger in size.

3.4. Economic Conditions

Gross state product could affect bank performance independent of whether the states enforce wrongful-discharge laws. Therefore, in order to improve the precision of our estimates, we include a control variable for local economic conditions. We define the variable GSP, gross state product, for our entire sample period on a state-by-state basis. The GSP data were all standardized to year 2000 dollars.

4. Empirical Results

In this section we address four primary questions regarding the impact of wrongful-discharge laws on banks. First, does wrongful-discharge protection increase or decrease bank employment? Second, does wrongful-discharge protection lead to higher or lower paid workers? Third, does wrongful-discharge protection cause banks to invest more or less in capital to potentially increase the productivity of workers they are unable or unwilling to dismiss? Finally, does wrongful-discharge protection affect the overall profitability of banks?

4.1. Specifications

All specifications include year fixed effects and state trend variables. We report Huber-White standard errors clustered on states. For our first specification, using differences of differences, we estimate the following equation:

$$\text{DEP}_{st} = S_{st} + Y_t + \beta_{\text{IC}} \text{IC}_{st-1} + \beta_{\text{PP}} \text{PP}_{st-1} + \beta_{\text{GF}} \text{GF}_{st-1} + \varepsilon_{st} \quad (1)$$

where DEP_{st} is the dependent variable for state s at time t . Included in S_{st} are the state trend variable and GSP. The variable GSP controls for the possibility that states enact wrongful-discharge protections to protect workers' jobs when economic conditions are unfavorable. Without this control, we may find a spurious relationship between performance and protections. Similarly, the state trend variables and year dummies (Y_t) reduce the possibility of finding a spurious relationship due to a missing smooth trend variable or a specific annual shock.

Since we are particularly concerned about any time trends in our data that may be correlated with our wrongful-discharge variables, we include in our

second specification two periods of lag values for the dependent variable as shown below:

$$\begin{aligned} \text{DEP}_{st} = & S_{st} + Y_t + \beta_{\text{IC}} \text{IC}_{st-1} + \beta_{\text{GF}} \text{GF}_{st-1} \\ & + \beta_{\text{PP}} \text{PP}_{st-1} + \text{DEP}_{st-1} + \text{DEP}_{st-2} + \varepsilon_{st}. \end{aligned} \quad (2)$$

We are also concerned about whether the effects of our wrongful-discharge laws are affected by whether the state allows interstate banking. Therefore, for our third specification, we rerun our first specification, equation (1), for banks that maintained exclusively intrastate operations in 1999.

Although this procedure removes the direct effects of interstate banking, it limits our sample to banks that existed in 1999. This method also excludes banks, if any exist, that expanded into interstate operations, sold off their interstate assets, and returned to interstate operations all before 1999. As a result, when we calculate state-year means, we are left with 177,509 observations. Clearly, the observations are more numerous in the later years. For example, of the 14,686 banks listed in the sample in 1976, only 6,478 remained in business in 1999.

For our fourth specification, we perform an additional test of the impact of interstate banking on our results. Whether or not a particular bank has interstate operations, the mere presence of interstate banking may affect our results. In states that allow interstate operations, banks may be better able to avoid the potential negative consequences of wrongful-discharge laws. Banks permitted to develop interstate banking operations may invest less in their intrastate operations in expectation of expansion into other states. In order to measure this possible effect, we construct additional interaction variables between the interstate banking dummy variable and each of the wrongful-discharge dummies:

$$\begin{aligned} \text{DEP}_{st} = & S_{st} + Y_t + \beta_{\text{IC}} \text{IC}_{st-1} + \beta_{\text{GF}} \text{GF}_{st-1} + \beta_{\text{PP}} \text{PP}_{st-1} \\ & + \beta_{\text{IB}} \text{IB}_{st} + \beta_{\text{ICIB}} (\text{IC}_{st-1} \times \text{IB}_{st}) + \beta_{\text{PPIB}} (\text{PP}_{st-1} \times \text{IB}_{st}) \\ & + \beta_{\text{GFIB}} (\text{GF}_{st-1} \times \text{IB}_{st}) + \varepsilon_{st} \end{aligned} \quad (3)$$

The interaction term allows us to examine if the impact of wrongful-discharge law differs on the basis of whether or not a state allows interstate banking.

For our final specification, we examine the coefficients of various lags for our key variables:

$$\begin{aligned} \text{DEP}_{st} = & S_{st} + Y_{st} + \sum_{p=-5}^2 \beta_{\text{IC}t+p} \text{IC}_{st+p} + \sum_{p=-5}^2 \beta_{\text{PP}t+p} \text{PP}_{st+p} \\ & + \sum_{p=-5}^2 \beta_{\text{GF}t+p} \text{GF}_{st+p} + \varepsilon_{st}. \end{aligned} \quad (4)$$

If we find significant positive and negative coefficients for unexpected lags such

Table 3
Effects of Employment-at-Will Doctrines on log Full-Time-Employee Equivalents

	(1)	(2)	(3)	(4)
IC ($t - 1$)	-.0001 (.0123)	-.0025 (.0126)	-.0016 (.0118)	.0005 (.0125)
PP ($t - 1$)	.0114 (.0120)	.0093 (.0120)	.0169 (.0143)	.0100 (.0117)
GF ($t - 1$)	.0226 (.0224)	.0185 (.0201)	.0304 (.0305)	.0208 (.0224)
log FTE ($t - 1$)		.0341 (.0798)		
log FTE ($t - 2$)		-.1653 (.0957)		
IB ($t - 1$)				-.0498 (.0212)
IB \times IC ($t - 1$)				.0061 (.0137)
IB \times PP ($t - 1$)				.0597 (.0164)
IB \times PP ($t - 1$)				.0426 (.0174)
Sample Observations	All banks 1,100	All banks 1,050	Single state of operations 1,100	All banks 1,100

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Huber-White robust standard errors clustered on states are reported in parentheses.

as $t - 5$ (the impact 5 years after the law is passed) or $t + 2$ (impact 2 years before the law), this would suggest that the relationships were not casual.

4.2. Employment and Labor Expenses

We begin our tests by examining the impact of discharge laws on employment levels and labor expenses. We are interested in whether wrongful-discharge exceptions lead to changes in employment levels, which, in turn, affect wage levels. As noted, dismissal protections have been theorized to increase wages because of the increased bargaining power such protections give employed workers. Conversely, the reduced efficiency arising from discharge protections may cause demand of labor to drive inward, thereby forcing wages downward overall.

As shown in Tables 3 and 4, there is not a significant relation between log FTE and any of the wrongful-discharge exceptions. Although there is no significant evidence of an impact on employment levels, we do find that wrongful-discharge exceptions affect wages. Tables 5 and 6 present regression results with labor expenses as a dependent variable. For all of the specifications in Table 5, we find that the adoption of the implied-contract doctrine is significantly and positively related to labor expenses in the following year (1.01 log points). The results translate into an annual cost of approximately \$300 per employee resulting from the implementation of this wrongful-discharge exception. Given that the mean number of full-time employees in banks governed by the implied-contract

Table 4
Effects of Employment-at-Will Doctrines on log Full-Time
Employee Equivalents, by Time Period

	(1)		(2)	
	Coefficient	SE	Coefficient	SE
IC $t + 2$	.0121	.0136	.0107	.0151
IC $t + 1$	-.0183	.0128	-.0176	.0156
IC	-.0220	.0166	-.0202	.0191
IC $t - 1$	-.0058	.0141	-.0035	.0152
IC $t - 2$	-.0131	.0115	-.0081	.0139
IC $t - 3$	-.0091	.0129	.0021	.0153
IC $t - 4$	-.0132	.0116	-.0147	.0134
IC $t - 5$	-.0105	.0114	-.0151	.0128
PP $t + 2$	-.0207	.0172	-.0180	.0160
PP $t + 1$	-.0089	.0197	-.0191	.0219
PP	.0106	.0202	.0077	.0198
PP $t - 1$	.0121	.0119	.0222	.0149
PP $t - 2$	.0015	.0134	.0168	.0132
PP $t - 3$	.0014	.0170	.0089	.0136
PP $t - 4$	.0069	.0120	.0090	.0125
PP $t - 5$	.0027	.0184	-.0041	.0160
GF $t + 2$	-.0147	.0419	.0071	.0356
GF $t + 1$	-.0348	.0336	.0023	.0304
GF	.0632	.0302	.0815	.0331
GF $t - 1$	.0597	.0284	.0843	.0424
GF $t - 2$	.0463	.0461	.0650	.0452
GF $t - 3$	-.0601	.0512	-.0338	.0412
GF $t - 4$	.0605	.0424	.0690	.0478
GF $t - 5$	.1029	.0641	.0986	.0596
Sample	All banks		Single state of operations	

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Standard errors are Huber-White robust and are clustered on states. $N = 800$.

exception was 196, the average cost to each bank for the adoption of wrongful discharge was approximately \$59,000. Such results, though apparently quite large, are not the first that show a large impact of wrongful-discharge adoption. As mentioned, Autor (2003) found that adoption of wrongful-discharge legislation explained 20 percent of the growth of the temporary-help industry between 1973 and 1995. Autor, Donohue, and Schwab (2006) found that the implied-contract exception reduced state employment rates by .8–1.7 percent. In Table 6 the coefficient for implied contract is significant for $t - 1$ but not any other period, providing additional evidence that the results in Table 5 are not due to a spurious correlation.

One might expect that if regulation increases firing costs, causing an increase in employment, employee salaries would decrease. This finding is also consistent with the concept that, over the long term, if employment protections raise costs without corresponding productivity improvements, wages are likely to decline as a result. This effect would be amplified if employees file unsuccessful lawsuits. These lawsuits would drain employer resources and trigger irrationally conser-

Table 5
Effects of Employment-at-Will Doctrines on Labor Expenses

	(1)	(2)	(3)	(4)
IC ($t - 1$)	.0101 (.0055)	.0114 (.0053)	.0115 (.0068)	.0104 (.0056)
PP ($t - 1$)	-.0090 (.0078)	-.0085 (.0083)	-.0116 (.0084)	-.0089 (.0075)
GF ($t - 1$)	.0161 (.0113)	.0147 (.0123)	.0182 (.0104)	.0155 (.0099)
log Labor Expense ($t - 1$)		-.3231 (.0368)		
log Labor Expense ($t - 2$)		-.0681 (.0472)		
IB ($t - 1$)				-.0058 (.0212)
IB \times IC ($t - 1$)				.0095 (.0136)
IB \times PP ($t - 1$)				-.0013 (.0117)
IB \times GF ($t - 1$)				.0139 (.0213)
Sample	All banks	All banks	Single state of operations	All banks
Observations	1,100	1,050	1,100	1,100

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Huber-White robust standard errors clustered on states are reported in parentheses.

vative manager decision making with regard to discharging incompetent or unproductive employees (Autor, Donohue, and Schwab 2006).

Overall, our results reveal a positive relationship between labor expenses and the enforcement of implied-contract wrongful-discharge exceptions. This may occur because employees already believe that they are protected by just-cause standards. Therefore, they have no reason to bargain with and receive lower wages from employers who are bound by stringent wrongful-discharge laws. This reasoning is supported by Kim (1997), who found that workers falsely believe that they have far greater legal security from arbitrary discharge than employment at will provides.¹⁰ Kim concluded that most employees believe that they are, in essence, protected by a just-cause standard. A just-cause standard is a blanket protection greater than all three wrongful-discharge exceptions combined, allowing terminations for narrow reasons such as incompetence or insubordination (Bird 2005; Weeks 1986). Following this logic, employment law protections such as wrongful discharge would not cause wages to decline.

In addition, wrongful protections might raise wages by increasing the bargaining power of employees. Workers already employed may be aware of the

¹⁰ Kim (1997) reported that a large majority of people believe that, among other things, firing an employee to replace him or her with an employee receiving a lower wage, firing an employee because he or she reports theft, and firing an employee because of personal dislike are all illegal acts. Contrary to these beliefs, employment at will allows employers to discharge employees for these and numerous other reasons.

Table 6
Effects of Employment-at-Will Doctrines on Labor
Expenses, by Time Period

	(1)		(2)	
	Coefficient	SE	Coefficient	SE
IC $t + 2$	.0045	.0062	.0037	.0071
IC $t + 1$	.0032	.0074	.0032	.0084
IC	.0119	.0081	.0137	.0090
IC $t - 1$	.0152	.0073	.0182	.0086
IC $t - 2$	.0003	.0062	.0021	.0071
IC $t - 3$	.0076	.0071	.0063	.0071
IC $t - 4$	.0063	.0065	.0093	.0066
IC $t - 5$	-.0013	.0085	.0025	.0097
PP $t + 2$	.0041	.0146	-.0007	.0121
PP $t + 1$	-.0103	.0122	-.0066	.0136
PP	.0091	.0096	.0108	.0100
PP $t - 1$	-.0045	.0115	-.0074	.0122
PP $t - 2$	.0077	.0093	.0059	.0095
PP $t - 3$	-.0005	.0102	-.0004	.0108
PP $t - 4$	-.0049	.0059	-.0027	.0060
PP $t - 5$	.0094	.0105	.0104	.0109
GF $t + 2$	.0604	.0355	.0431	.0251
GF $t + 1$	.0010	.0239	.0060	.0260
GF	.0232	.0274	.0255	.0311
GF $t - 1$	.0277	.0258	.0260	.0224
GF $t - 2$	.0329	.0152	.0287	.0154
GF $t - 3$	.0319	.0244	.0301	.0259
GF $t - 4$	-.0190	.0163	-.0187	.0164
GF $t - 5$	-.0276	.0352	-.0392	.0380
Sample	All banks		Single state of operations	

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Standard errors are Huber-White robust and are clustered on states. $N = 800$.

firing costs required to discharge an employee under a legal system that minimizes employer discretion. Because the costs of firing employees are potentially significant (Schanzenbach 2003), workers can bargain with employers for higher wages. That is, firing those same workers would incur significant legal costs from the process of discharge and any subsequent meritorious or nonmeritorious litigation (Autor, Donohue, and Schwab 2006).

4.3. Capital Expenses (Investment)

In the previous section, we found evidence of increased labor costs resulting from wrongful-discharge protections. In Tables 7 and 8, we present results for the relationship between wrongful-discharge protections and capital (premises and fixed assets) expenses. In Table 7, none of the wrongful-discharge protections have a significant relationship with capital expenses. Although we do not present the results in tables, the two other proxies for capital investment, fixed assets and the ratio of fixed assets to FTE, were not significantly related to any of the wrongful-discharge protections.

Table 7
Effects of Employment-at-Will Doctrines on Capital Expenses

	(1)	(2)	(3)	(4)
IC ($t - 1$)	.0047 (.0124)	.0045 (.0125)	-.0035 (.0168)	.0051 (.0124)
PP ($t - 1$)	.0023 (.0152)	.0075 (.0135)	-.0106 (.0113)	.0020 (.0152)
GF ($t - 1$)	-.0038 (.0251)	.0080 (.0290)	-.0162 (.0153)	-.0045 (.0243)
log Labor Expense ($t - 1$)		-.4229 (.0327)		
log Labor Expenses ($t - 2$)		-.1387 (.0717)		
IB ($t - 1$)				-.0103 (.0128)
IB \times IC ($t - 1$)				.0050 (.0106)
IB \times PP ($t - 1$)				.0097 (.0155)
IB \times GF ($t - 1$)				.0203 (.0194)
Sample	All banks	All banks	Single state of operations	All banks
Observations	1,100	1,050	1,100	1,100

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Huber-White robust standard errors clustered on states are reported in parentheses.

The lack of a significant finding may be a product of the industry studied. Banks may not be as able as other firms to make necessary capital investments to offset labor costs. Therefore, the lack of strength of our result may arise from the limited ability of the banking industry to make labor-to-capital shifts to compensate for increased hiring and firing costs.

4.4. Profitability

As we stated previously, we are interested in whether an increase in compensation and/or capital expenses leads to less profitable banks. As noted above, even though increases in labor and capital expenses may increase productivity, profitability may actually decrease. If wrongful-discharge laws actually result in higher wages and greater investment in capital without a commensurate increase in income, the ratio of expenses to income should increase, implying lower profitability.

Tables 9 and 10 present results for ROA as a dependent variable. Table 9 reveals a significant correlation between IC and ROA. Column 1 shows that the size of the impact is economically significant—a reduction of a negative one-tenth of 1 percent in ROA when a state adopts the implied-contract exception.

Given a mean ROA of .0081, the adoption of the implied-contract exception thus reduces profitability by 13.5 percent of total ROA. For every million dollars

Table 8
Effects of Employment-at-Will Doctrines on Capital
Expenses, by Time Period

	(1)		(2)	
	Coefficient	SE	Coefficient	SE
IC $t + 2$	-.0205	.0288	-.0511	.0512
IC $t + 1$	.0150	.0150	.0201	.0279
IC	.0100	.0138	-.0062	.0317
IC $t - 1$	.0101	.0199	.0171	.0573
IC $t - 2$	.0060	.0116	.0098	.0404
IC $t - 3$	.0096	.0124	.0007	.0222
IC $t - 4$	.0315	.0210	.0180	.0252
IC $t - 5$	-.0273	.0173	-.0324	.0211
PP $t + 2$	.0157	.0224	.0265	.0268
PP $t + 1$	.0041	.0148	.1138	.0834
PP	.0306	.0165	.0412	.0362
PP $t - 1$	.0092	.0213	.0299	.0217
PP $t - 2$	.0365	.0246	.0140	.0204
PP $t - 3$	.0115	.0122	.0091	.0208
PP $t - 4$	-.0141	.0182	.0004	.0227
PP $t - 5$	.0009	.0160	.0236	.0245
GF $t + 2$	.0399	.0323	-.0271	.0247
GF $t + 1$	.0149	.0312	.2316	.1879
GF	.0591	.0313	.0687	.0409
GF $t - 1$	.0267	.0471	.0068	.0449
GF $t - 2$	.0251	.0576	.0219	.0278
GF $t - 3$	.0260	.0270	-.0254	.0513
GF $t - 4$	-.0631	.0450	.1058	.0725
GF $t - 5$	.0188	.0240	-.0400	.0921
Sample	All banks		Single state of operations	

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Standard errors are Huber-White robust and are clustered on states. $N = 800$.

in assets a bank possesses, adoption of the implied-contract exception costs the bank \$1,000. The results in Table 10 are supportive of a negative impact of IC on profitability. Lags $t - 1$ and $t - 2$ are significant for IC. None of the coefficients for the PP or GF are significant.

The negative impact on IC appears to reinforce the notion that wrongful-discharge protections impose hiring and firing costs (Kugler and Saint-Paul 2004; Miles 2000). The implied-contract exception is generally regarded as the most far-reaching exception to employment at will in that it covers the broadest range of employment disputes (Colvin 2003). It has been found to be more strongly associated with employment outcomes than other exceptions (Miles 2000). This may explain the sole significance of the implied-contract exception as having a dampening effect on ROA.

4.5. Entry and Exit

In this section we investigate whether the wrongful-discharge exceptions impact the decision of banks to operate in a particular state. Autor, Kerr, and Kugler

Table 9
Effects of Employment-at-Will Doctrines on Return on Assets

	(1)	(2)	(3)	(4)
IC ($t - 1$)	-.0011 (.0005)	-.0011 (.0005)	-.0010 (.0005)	-.0010 (.0005)
PP ($t - 1$)	.0004 (.0004)	.0005 (.0004)	.0004 (.0005)	.0003 (.0004)
GF ($t - 1$)	-.0002 (.0009)	-.0001 (.0010)	.0000 (.0010)	-.0002 (.0009)
log Labor Expense ($t - 1$)		-.0326 (.0908)		
log Labor Expense ($t - 2$)		-.1324 (.0598)		
IB ($t - 1$)				.0002 (.0006)
IB \times IC ($t - 1$)				.0000 (.0004)
IB \times PP ($t - 1$)				.0006 (.0008)
IB \times GF ($t - 1$)				-.0004 (.0011)
Sample Observations	All banks 1,100	All banks 1,050	Single state of operations 1,100	All banks 1,100

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Huber-White robust standard errors clustered on states are reported in parentheses.

(2007) addressed whether employment fluctuations in their Longitudinal Business Database and Annual Survey of Manufacturers data sets may be explained by changes in firm entry and exit. We express similar concerns and thus also examine whether our results are influenced by firms entering or exiting the sample.¹¹

For these tests we divide our sample into three groups: entering, exiting, and continuing banks. A bank is classified as entering if it was not in the sample the previous year. Similarly, a bank is classified as exiting if it is not in the sample the following year. Continuing banks consist of all banks that did not exit or enter and thus remain in the sample in the previous and following years. We run tests for the years 1977–98 since we need 2 years of data at the beginning and end to determine whether a bank is entering or exiting, respectively.

Our results reveal a positive relationship between IC and the total number of banks. The relationship is significant for specifications (3) and (4). With the total number of firms increasing, one would expect an increase in entering, a decrease in continuing, or a decrease in exiting firms. However, we do not find any sig-

¹¹ In related literature, Kerr and Nanda (2007) found that deregulation of interstate branch banking that lifted local banking monopolies created a positive effect on the entry rates and sizes of nonfinancial startup firms relative to the expansions of banks already in operation. Similar findings were reported by Black and Strahan (2002), who found significant increases in startup entry rates following deregulation. Although greater numbers of nonfinancial firms enter and fail with deregulation, these results show that bank deregulation may “democratize” firm entry and permit some new enterprises to join the ranks of incumbent competitors.

Table 10
Effects of Employment-at-Will Doctrines on Return
on Assets, by Time Period

	(1)		(2)	
	Coefficient	SE	Coefficient	SE
IC $t + 2$	-.0001	.0004	-.0001	.0004
IC $t + 1$	-.0007	.0007	-.0007	.0008
IC	-.0007	.0006	-.0009	.0007
IC $t - 1$	-.0018	.0006	-.0020	.0007
IC $t - 2$	-.0014	.0007	-.0015	.0007
IC $t - 3$	-.0011	.0010	-.0015	.0011
IC $t - 4$	.0000	.0007	-.0001	.0007
IC $t - 5$	-.0014	.0010	-.0016	.0011
PP $t + 2$	.0006	.0006	.0006	.0007
PP $t + 1$	.0020	.0012	.0020	.0013
PP	.0012	.0010	.0012	.0011
PP $t - 1$	.0009	.0007	.0010	.0008
PP $t - 2$	.0011	.0006	.0011	.0007
PP $t - 3$	.0003	.0006	.0003	.0007
PP $t - 4$	.0002	.0005	.0003	.0006
PP $t - 5$	.0008	.0005	.0009	.0005
GF $t + 2$	.0003	.0018	.0005	.0019
GF $t + 1$	-.0005	.0014	-.0008	.0014
GF	-.0009	.0016	-.0007	.0016
GF $t - 1$	.0000	.0018	.0005	.0020
GF $t - 2$	-.0011	.0011	-.0008	.0012
GF $t - 3$	-.0033	.0023	-.0036	.0024
GF $t - 4$	-.0015	.0016	-.0012	.0017
GF $t - 5$	.0029	.0018	.0033	.0020
Sample	All banks		Single state of operations	

Note. Values are results of first-difference regressions using state mean by year. All specifications include year fixed effects and state trends. Standard errors are Huber-White robust and are clustered on states. $N = 800$.

nificant relationships for the number of continuing, entering, or exiting firms. The individual effect may not be significant, but it may be possible that the combination of the three is significant. When tested individually, we do not find any significant relationships for the number of continuing, entering, or exiting firms.

As a final robustness check, we examine whether our results for profitability are unduly influenced by entering or exiting firms. For this test we limit our sample to the subset of continuing banks. Although we do not report our results in tables, IC remains significant in all four specifications. We did not test only entering and exiting banks, since many states have very few if any banks entering and leaving during the years in our sample, and thus the test would not produce meaningful results.

5. Conclusion

This paper finds evidence that enforcement of implied-contract wrongful-discharge laws has an impact on firms. Adoption of implied-contract exceptions

is associated with an increase of labor expenses and a negative effect on profitability. Our findings align with related research concluding that wrongful-discharge laws impose costs upon employers.

These findings contribute to the debate on optimal applications of employer discharge protections by providing evidence of the economic consequences of these laws. Wrongful-discharge laws, while offering protection against arbitrary or unfair firings, may impede employer performance by imposing litigation costs on employers or requiring employers to create and manage a defensive bureaucratic regime.

These costs, however, should not be overestimated. We did not find a significant correlation between wrongful-discharge adoptions and capital investments. Furthermore, the significant correlations detected were modest and transitory. Effects on labor expenses and profitability appear only for the first year after the adoption of the implied-contract doctrine. Although employers might overreact to legal developments owing to an irrational fear of wrongful-discharge litigation (Edelman et al. 1992), the adoption of wrongful-discharge laws does not appear to impose long-term firm effects.

This paper does not attempt to define conclusively all collateral costs. Yet these results present firm ground for further scholarship on the costs to employers of laws that protect employees from arbitrary employer actions. These results also provide important answers to state policymakers. Although this study alone cannot resolve whether a court or legislature should adopt or rescind wrongful-discharge laws, the results present evidence of potential negative economic consequences to employers that may factor into investment decisions.

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