

# FIRMS' DECISIONS WHERE TO INCORPORATE\*

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## ABSTRACT

This paper empirically investigates the determinants of firms' decisions where to incorporate. We find that states that offer stronger antitakeover protections are substantially more successful both in retaining in-state firms and in attracting out-of-state incorporations. We estimate that, compared with adopting no antitakeover statutes, adopting all standard antitakeover statutes enabled the adopting states to more than double the percentage of local firms that incorporated in state (from 23 to 49 percent). Indeed, we find no evidence that the incorporation market has even penalized the three states that passed antitakeover statutes, which are widely viewed as detrimental to shareholders. We also find that there is commonly a big difference between a state's ability to attract incorporations from firms located in and out of the state, and we investigate several possible explanations for this home-state advantage.

## I. INTRODUCTION

THIS paper uses data on firms' incorporation choices to study the market for corporate law in the United States. In particular, the paper focuses on the demand side of this market by studying the determinants of firms' incorporation decisions. Analyzing these decisions is valuable for understanding the patterns of incorporation and the outcomes of regulatory competition in the corporate area.

A central feature of the U.S. corporate environment is the presence of regulatory competition in corporate law. Corporations are free to choose their state of incorporation, and they are subject to the corporate law of the state in which they have chosen to incorporate. Whether and to what extent this regulatory competition works well has long been one of the most hotly

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debated questions among corporate law scholars. As European corporations have recently become free to choose their country of incorporation among the European Community Countries, this question has also become important in Europe.

According to the view that appears to dominate the current thinking of corporate law academics, state competition produces a “race to the top” that benefits shareholders.<sup>1</sup> On this view, the desire to attract incorporations induces states to develop and provide corporate arrangements that enhance shareholder value. An alternative view is more skeptical with respect to the incentives provided by state competition.<sup>2</sup> On this view, competition encourages states to provide rules that are too favorable to corporate managers and controllers with respect to corporate issues, such as takeover rules, that have a major effect on the private benefits of managers and controllers.

In this debate, most scholars have made similar assumptions about the supply side of the market, namely, that states seek to attract incorporations. However, scholars have differed in their views on the demand side, namely, on what type of rules would make states more successful in attracting incorporations. Note, however, that the demand side would be important even if one were to relax the assumption that states seek to maximize the number of incorporations. Even if some or many states selected their corporate rules on the basis of considerations other than such maximization, the demand side would determine the distribution of firms among states of incorporation.

The debate on state competition has stimulated a large body of empirical research. This research has largely focused on analyzing how shareholder wealth is affected by incorporating in Delaware.<sup>3</sup> Several studies have examined whether reincorporations to Delaware are associated with abnormal returns.<sup>4</sup> In addition, a recent, influential study by Robert Daines suggested

<sup>1</sup> See, for example, Ralph K. Winter, Jr., *State Law, Shareholder Protection, and the Theory of the Corporation*, 6 *J. Legal Stud.* 251 (1977); Daniel R. Fischel, *The “Race to the Bottom” Revisited: Reflections on Recent Developments in Delaware’s Corporation Law*, 76 *Nw. U. L. Rev.* 913 (1982); Ralph K. Winter, Jr., *The “Race for the Top” Revisited: A Comment on Eisenberg*, 89 *Colum. L. Rev.* 1526 (1989); Frank H. Easterbrook & Daniel R. Fischel, *The Economic Structure of Corporate Law* (1991); and Roberta Romano, *The Genius of American Corporate Law* (1993).

<sup>2</sup> See, for example, William L. Cary, *Federalism and Corporate Law: Reflections upon Delaware*, 83 *Yale L. J.* 663 (1974); Lucian Arye Bebchuk, *Federalism and the Corporation: The Desirable Limits on State Competition in Corporate Law*, 105 *Harv. L. Rev.* 1435 (1992); and Lucian Arye Bebchuk & Allen Ferrell, *Federalism and Corporate Law: The Race to Protect Managers from Takeovers*, 99 *Colum. L. Rev.* 1168 (1999).

<sup>3</sup> For surveys of this work, see Sanjai Bhagat & Roberta Romano, *Event Studies and the Law: Part II: Empirical Studies of Corporate Law*, 4 *Am. L. & Econ. Rev.* 380 (2002); and Roberta Romano, *The Need for Competition in International Securities Regulation*, 2 *Theoretical Inquiries L.* 387 (2001).

<sup>4</sup> See, for example, Roberta Romano, *Law as a Product: Some Pieces of the Incorporation Puzzle*, 1 *J. L. Econ. & Org.* 225 (1985); Michael Bradley & Cindy A. Schipani, *The Relevance of the Duty of Care Standard in Corporate Governance*, 75 *Iowa L. Rev.* 1 (1989).

that incorporation in Delaware is correlated with a higher Tobin's  $Q$ .<sup>5</sup>

As we discuss in detail in a review of the existing evidence written with Allen Ferrell, this body of empirical work does not tell us all that much about the overall performance of state competition.<sup>6</sup> To begin, the evidence on positive correlation between Delaware incorporation and a higher Tobin's  $Q$  or abnormal stock returns price is much more mixed than supporters of state competition commonly believe. Further, even if such a positive correlation did exist, the endogeneity of incorporation decisions would make it impossible to infer that the correlation results from the positive effect of Delaware incorporation on firm value rather than from the tendency of firms with higher value to select Delaware. Finally, even if Delaware incorporation had a positive effect on firm value, this effect would not teach us much about how well state competition works overall; because of the network benefits from incorporating in the dominant state, doing so could be beneficial even in an equilibrium in which state competition does not work well.<sup>7</sup>

In any event, the existing empirical work does not examine some significant aspects of the incorporation market on which this paper focuses. Whereas prior work has taken incorporation decisions as given, we seek to investigate the determinants of these incorporation decisions. Identifying the determinants of these decisions is essential for understanding the demand side of the incorporation market. Furthermore, whereas prior work has examined only how the market is divided between Delaware and non-Delaware firms, this paper examines also the distribution of incorporations among all states. This examination enables us to study how states other than Delaware differ in their performance in the market for incorporations.

In particular, we investigate which features of corporate law systems make them more and less successful in attracting incorporations. We also study how incorporation choices are influenced by firms' location, and, finding such influence, we investigate the reasons for its existence. The results we report are for the set of all nonfinancial firms; when financial firms are included, the results are similar and are reported in the February 2002 Olin Discussion Paper version of this paper.<sup>8</sup>

We start by providing a full account of the distribution of incorporations among states. Putting aside Delaware, states still differ greatly both in their

<sup>5</sup> See Robert Daines, Does Delaware Law Improve Firm Value? 62 J. Fin. Econ. 525 (2001).

<sup>6</sup> See Lucian Bebchuk, Alma Cohen, & Allen Ferrell, Does the Evidence Favor State Competition in Corporate Law? 90 Cal. L. Rev. 1775 (2002).

<sup>7</sup> For a formal model demonstrating this point, see Oren Bar-Gill, Michal Barzuza, & Lucian Bebchuk, The Market for Corporate Law (Discussion Paper No. 377, Harvard L. Sch. 2002), available at [www.papers.ssrn.com/abstract=275452](http://www.papers.ssrn.com/abstract=275452). This paper models a race-to-the-bottom equilibrium in which (1) states are induced to provide rules that give managers excessive private benefits and (2) incorporation in the dominant state is associated with a higher shareholder value because of the institutional advantages and network benefits offered by that state.

<sup>8</sup> See Lucian Arye Bebchuk & Alma Cohen, Firms' Decisions Where to Incorporate (Discussion Paper No. 351, Harvard L. Sch. 2002).

ability to retain firms headquartered (“located”) in them and in their ability to attract out-of-state incorporations. For example, whereas Illinois and California retain only 11 percent and 22 percent of the firms located in them, respectively, Indiana and Minnesota retain 70 percent and 75 percent, respectively. As for out-of-state incorporations, 33 states attract fewer than 10 out-of-state incorporations each, whereas seven states attract more than 25 out-of-state incorporations each.

Turning to the determinants of incorporation decisions, our first main finding is that the location of firms has substantial influence on incorporation decisions: firms display substantial home-state preference when incorporating. States thus enjoy a significant home-state advantage in competing for the firms located in them, and they generally have much greater ability to attract incorporations from in-state firms than from out-of-state firms. Even states that are hardly able to attract out-of-state firms (that is, whose corporate law system is rarely “purchased” by out-of-state “buyers”) generally succeed in retaining a significant fraction of their in-state firms.

The identified importance of in-state incorporations makes it necessary to revise the conventional account of state competition. Under this account, Delaware confronts vigorous competitors for out-of-state incorporations. In fact, although a substantial fraction of public firms are not incorporated in Delaware, the great majority of these firms are simply incorporated in the state of their headquarters. When one focuses on out-of-state incorporations, Delaware’s dominance of this market is greater than is commonly recognized.<sup>9</sup>

We investigate why the location of firms has such an influence on incorporation choices. We discuss four factors that can lead firms to disfavor out-of-state incorporation, and we find evidence consistent with three stories—ones that are based on (1) the higher costs of out-of-state incorporations, (2) the desire of firms to benefit from local favoritism, and (3) the influence of local lawyers. For example, we find that large firms are more likely to remain in state when they are located in small states where their clout enables them to obtain some benefits from local favoritism. The evidence, however, is inconsistent with a story that is based on firms having no reason to leave states that have adopted the uniform Model Business Corporation Act; firms located in such states do not exhibit a greater tendency to remain in state.

We also examine how firms incorporating out of state (mostly in Delaware)

<sup>9</sup> That location might affect choices was suggested by the observation made in Robert Daines, *Does Delaware Law Improve Firm Value?* (Working Paper CLB-99-011, New York Univ. 1999), that the majority of firms incorporate either in their home state or in Delaware. In contemporaneous work, Daines presents evidence that firms display home preference in their incorporation decisions when they first go public. The results of Daines’s study, which is based on data on the dates of initial public offerings (IPOs), complement and reinforce our findings, which are based on Compustat data on the stock of all firms existing at the end of 1999. See Robert Daines, *The Incorporation Choices of IPO Firms*, 77 *N.Y.U. L. Rev.* 1559 (2002).

differ from firms incorporating in state. The home-state bias is weaker, although still significant, among large firms and among firms that went public more recently; accordingly, such firms are disproportionately incorporated in Delaware. Our findings suggest that, in contrast to what much prior empirical work has implicitly assumed, Delaware firms might well be different from non-Delaware firms prior to their incorporation in Delaware.

Our second main finding concerns the effects of antitakeover statutes on states' success in attracting incorporations. As will be discussed, the dominant view among legal scholars, supported by some empirical work, is unfavorable to the proliferation of such state statutes. Supporters of state competition, however, argue that it has not encouraged such proliferation. They believe that the incorporation market does not reward the amassing of antitakeover statutes but rather rewards states that are more resistant to pressure by local firms' managers for antitakeover protection. We test this prediction and find it to be inconsistent with the evidence.

At one end of the spectrum, states with no antitakeover statutes, such as California, do poorly and retain a relatively small fraction of the companies located in them. At the other end of the spectrum, states that amass most or all standard antitakeover statutes are the most successful both in retaining in-state firms and in attracting out-of-state firms. More generally, antitakeover protections are correlated with success in the incorporation market; adding antitakeover statutes significantly increases the ability of states to retain their local firms and to attract out-of-state incorporations.

The effect we identify is not only statistically significant but also large in magnitude. Controlling for other firm and state characteristics, we estimate that, had states that currently have all standard antitakeover statutes not adopted them, they would have lost more than half of their current incorporations of local firms (going down from 49 percent of all firms located in these states to 23 percent of these firms). Conversely, adoption of all standard antitakeover statutes by states that currently have no such statutes would have more than doubled the percentage of local firms they retained (from 23 to 50 percent).

We pay special attention to two types of statutes—the “recapture,” or “disgorgement,” statute adopted by Pennsylvania and Ohio and the mandatory staggered boards statute adopted by Massachusetts. These statutes have been widely criticized as detrimental to shareholder value, and supporters of state competition, such as Roberta Romano and Daines, have blacklisted them as extreme.<sup>10</sup> However, we find no evidence that the passage of these statutes has hurt the states adopting them in the incorporation market. Thus, it might be that the antitakeover protections established by Pennsylvania, Ohio, and Massachusetts do not reach the level that would start discouraging incor-

<sup>10</sup> See Roberta Romano, *Competition for Corporate Charters and the Lesson of Takeover Statutes*, 61 *Fordham L. Rev.* 843 (1993); and Daines, *supra* note 5.

porators. In contrast to the evidence on how amassing standard antitakeover statutes attracts incorporations, however, there is no evidence that extreme statutes have such an effect. Thus, it might be that the adoption of such statutes is close to the outer limits of how far a state can go in providing antitakeover protections without discouraging incorporations.<sup>11</sup>

Our findings indicate that it is not possible to maintain, as corporate scholars have commonly done, that (1) state antitakeover statutes largely do not serve shareholders and that (2) state competition provides states with strong incentives to provide rules that are optimal for shareholders. One or both of these two propositions need to be revised. Whatever position one ultimately adopts, the identified connection between antitakeover statutes and success in the incorporation marketplace has significant implications for the debates on state competition, on takeover law, and on corporate governance in general.

We also identify some other state characteristics that have an effect on how states fare in the incorporation market. For example, states that have a more “liberal” culture, which might be associated with judicial activism, are less successful in retaining in-state companies. States that have adopted the Revised Model Business Corporation Act (or its predecessor) are not more successful in attracting incorporations either from local firms or from out-of-state firms. The approach that we put forward can also be used to identify other features of states that make them attractive for incorporators.

Our analysis is organized as follows. Section II describes the data and provides summary statistics about the patterns of incorporations. Section III studies firms’ home-state preferences and the factors that pull firms in the direction of in-state incorporation. Section IV investigates how states’ corporate law rules, and especially antitakeover statutes, affect their success in attracting incorporations. Section V makes concluding remarks and suggests directions for subsequent empirical work on the subject.

## II. DATA AND SUMMARY STATISTICS

The data set that we use includes all the publicly traded firms for which there were data in the Compustat database at the end of 1999 and which have both their headquarters and their incorporation in the United States.<sup>12</sup>

<sup>11</sup> In contemporaneous work, Guhan Subramanian also examines the effects of antitakeover statutes on the ability of states to retain their local firms. See Guhan Subramanian, *The Influence of Antitakeover Statutes on Incorporation Choice: Evidence on the “Race” Debate and Antitakeover Overreaching*, 150 U. Pa. L. Rev. 1795 (2002). As will be discussed in Section IV, his conclusions on this issue are consistent with ours with respect to standard antitakeover statutes but not with respect to extreme statutes. He does not study the effect of states’ antitakeover statutes on their success in attracting out-of-state incorporations and the overall effect that migration of firms to out-of-state incorporations has on the level of antitakeover protection.

<sup>12</sup> This point in time was the most recent one for which there were data for the great majority of firms when we did our empirical analysis.

Following Daines, who argues that financial firms are different in their corporate governance needs and that their incorporation decisions are sometimes influenced by some special considerations, we excluded all financial firms and were left with 6,530 publicly traded firms.<sup>13</sup> As already noted, an earlier version of this paper reports results for the set of all firms (both financial and nonfinancial), and these results are qualitatively quite similar to the ones reported below.<sup>14</sup>

Table 1 displays how firms are distributed among states of location for all publicly traded firms, for all Fortune 500 firms, and for all firms that went public in the 5-year period 1996–2000. By “states of location” we shall refer throughout the paper to the state where the firm’s headquarters are located (which are the only location data provided by Compustat). We shall refer to the 51 jurisdictions in the United States—the 50 states and the District of Columbia—as states.

Not surprisingly, states that have large populations and big economies have more firms located in them. California, with the biggest population and economy, is home to the headquarters of 19 percent of all firms. Its share is especially large (27 percent) among firms that went public in the period 1996–2000, presumably because of the large incidence of Silicon Valley firms going public in these years. New York and Texas come in second and third, each with about 9 percent of the firms. In an unreported regression, we find that the number of firms located in a state is highly correlated with the size of its population.

Table 2 displays the distribution of incorporations among states for all publicly traded firms, for all Fortune 500 firms, and for all firms going public in the 5-year period 1996–2000. A comparison of Table 2 with Table 1 indicates that the distribution of locations and the distribution of incorporations are quite different. As is well known, Delaware has by far the largest stake of incorporations: 58 percent of all firms, 59 percent of Fortune 500 firms, and even a higher percentage—68 percent—of firms that went public in the period 1996–2000.

Although no state even comes close to Delaware in terms of the number of incorporations, some states do much better than others. Whereas three states have more than 200 incorporations each, and eight states have between 100 and 200 incorporations each, 30 states have fewer than 50 incorporations each, with 17 states having fewer than 10 incorporations each.

These two tables do not indicate where the firms located in each state choose to incorporate, nor where the firms incorporated in each state are located. Table 3 therefore presents a matrix that indicates for each state how the firms located in it divide their incorporations among this state and all other states. A quite noticeable feature of Table 3 is the concentration of

<sup>13</sup> See Daines, *supra* note 5.

<sup>14</sup> See Bebchuk & Cohen, *supra* note 8.

TABLE 1  
DISTRIBUTION OF FIRMS' LOCATIONS AMONG STATES

ALL PUBLICLY TRADED FIRMS			FORTUNE 500 FIRMS			FIRMS GOING PUBLIC 1996-2000		
State	Number of In-State Firms	Percentage	State	Number of In-State Firms	Percentage	State	Number of In-State Firms	Percentage
California	1,254	19.20	California	41	11.08	California	549	27.31
Texas	586	8.97	Texas	36	9.73	Texas	172	8.56
New York	576	8.82	New York	32	8.65	New York	165	8.21
Massachusetts	360	5.51	Illinois	31	8.38	Massachusetts	137	6.82
Florida	328	5.02	Pennsylvania	22	5.95	Florida	113	5.62
New Jersey	311	4.76	Ohio	21	5.68	Colorado	67	3.33
Pennsylvania	248	3.80	New Jersey	18	4.87	New Jersey	66	3.28
Illinois	241	3.69	Michigan	14	3.79	Georgia	62	3.08
Minnesota	212	3.25	Missouri	14	3.79	Pennsylvania	60	2.99
Colorado	201	3.08	Virginia	13	3.51	Illinois	56	2.79
Ohio	192	2.94	Florida	12	3.24	Washington	55	2.74
Georgia	178	2.73	Georgia	12	3.24	Virginia	51	2.54
Virginia	154	2.36	Minnesota	10	2.70	Minnesota	48	2.39
Connecticut	147	2.25	Connecticut	9	2.43	Connecticut	44	2.19
Washington	131	2.01	North Carolina	8	2.16	Maryland	40	1.99
Michigan	104	1.59	Washington	8	2.16	North Carolina	29	1.44
Maryland	101	1.55	Massachusetts	7	1.89	Ohio	29	1.44
Missouri	101	1.55	Maryland	5	1.35	Arizona	27	1.34
North Carolina	98	1.50	Tennessee	5	1.35	Michigan	23	1.14
Arizona	91	1.39	Wisconsin	5	1.35	Missouri	23	1.14
Tennessee	81	1.24	Alabama	4	1.08	Tennessee	21	1.04
Wisconsin	72	1.10	Arkansas	4	1.08	Utah	17	.85
Oregon	70	1.07	Arizona	4	1.08	Nevada	15	.75
Utah	70	1.07	Colorado	4	1.08	Louisiana	13	.65
Nevada	63	.97	Delaware	4	1.08	Oregon	13	.65
Other	560	8.58	Other	27	7.30	Other	115	5.72
Total	6,530	100.00	Total	370	100.00	Total	2,010	100.00



TABLE 2  
DISTRIBUTION OF INCORPORATIONS AMONG STATES

ALL PUBLICLY TRADED FIRMS			FORTUNE 500 FIRMS			FIRMS GOING PUBLIC 1996–2000		
State	Number of In-State Firms	Percentage	State	Number of In-State Firms	Percentage	State	Number of In-State Firms	Percentage
Delaware	3,771	57.75	Delaware	220	59.45	Delaware	1,364	67.86
California	283	4.33	New York	22	5.94	California	90	4.48
New York	226	3.46	Ohio	13	3.50	Nevada	72	3.58
Nevada	217	3.32	Pennsylvania	12	3.24	Florida	58	2.89
Minnesota	178	2.73	New Jersey	11	2.97	Texas	45	2.24
Florida	165	2.53	Virginia	9	2.43	Colorado	37	1.84
Texas	147	2.25	Maryland	8	2.16	Minnesota	36	1.79
Colorado	132	2.02	Florida	7	1.89	Washington	34	1.69
Pennsylvania	124	1.90	Indiana	6	1.62	Georgia	30	1.49
Massachusetts	118	1.81	California	5	1.35	Massachusetts	27	1.34
Ohio	112	1.71	Georgia	5	1.35	New York	22	1.09
New Jersey	111	1.70	Michigan	5	1.35	Pennsylvania	22	1.09
Georgia	83	1.27	North Carolina	5	1.35	Ohio	19	.95
Washington	79	1.21	Nevada	5	1.35	Maryland	16	.79
Virginia	74	1.13	Minnesota	4	1.08	Virginia	15	.74
Michigan	60	.92	Missouri	4	1.08	New Jersey	13	.65
Wisconsin	57	.87	Texas	4	1.08	Michigan	12	.60
Maryland	54	.83	Washington	4	1.08	Tennessee	12	.60
Oregon	54	.83	Wisconsin	4	1.08	Oregon	11	.55
Utah	52	.80	Illinois	3	.81	Utah	11	.55
Indiana	50	.77	Kansas	3	.81	North Carolina	10	.50
North Carolina	46	.70	Kentucky	2	.54	Wisconsin	9	.45
Tennessee	39	.60	Massachusetts	2	.54	Louisiana	7	.35
Missouri	36	.55	Oregon	2	.54	Missouri	7	.35
Illinois	32	.49	Hawaii	1	.27	Indiana	6	.30
Other	230	3.52	Other	4	1.08	Other	25	1.24
Total	6,530	100.00	Total	370	100.00	Total	2,010	100.00

TABLE 3  
LOCATION AND INCORPORATION

State	AK	AL	AR	AZ	CA	CO	CT	DC	DE	FL	GA	HI	IA	ID	IL	IN	KS	KY	LA	MA	MD	ME	MI	MN	MO
AK	1								1																
AL		3				1			23																
AK			3						15						1										1
AZ				21		2			43		1				1	2				1				1	
CA	1				273	11			898	2	1	1			1						2			2	
CO					2	74			107					1	1						1				
CT							1	17	111	1											2				
DC								2	19													1			
DE							1		27																
FL						2			149	137					1	1								1	1
GA						2			89	4	71										1	1			4
HI						1			4			6													
IA									9				10									1			2
ID									9						2										1
IL						1			189	2		1		27	1				1	1	2		1		
IN						1			15							39									
KS						3			16								11								4
KY									20	1								7							
LA						2			22										18						
MA					1				234	1										108					
MD						1			68													25			1
NE									5	1													4		
MI									40		2				1						1		58		
MN						1			49															158	1
MO									62				1	1	1	5								1	26
MS									7		1														
MT																									
NC									48	2												1			1
ND						1			2																
NE						1			11																
NH									23												1				
NJ						1			185	3					1							4			
NM						1			3																2
NV						2	2		10																2
NY						5	2		382	3					2				1	1	3				
OH						1			69	2					1	1					1				
OK						2			31							1						1			
OR									16														1		
PA					1	1			129	1	1											3			
RI									15	1											1				
SC									20																
SD									3																1
TN									37		1							1							1
TX		1			3	8			368	4	1	1	1			2		2			1		1	1	3
UT						2			27	1															
VA						1			78	1	2											4			
VT									6																
WA	1								57												2				
WI						1			16						1							1			
WV									2																
WY						3			2				1												
Total	3	5	3	21	283	132	20	2	3,771	165	83	8	14	3	32	50	19	9	22	118	54	4	60	178	36

TABLE 3 (Continued)

MS	MT	NC	ND	NE	NH	NJ	NM	NV	NY	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VA	VT	WA	WI	WV	WY	Total	
						1											1									2	
																											29
																											20
						2		9	3				1					1	1					2		91	
			1			4	1	24	6	1		1				1	2	1	7			2		1		1254	
						1		7	2									1	1			1		2		201	
						1		2	8												3		1			147	
									2													1				25	
																										27	
		2	1			3		15	9			1						1	1	1				1		328	
		1							1	1		1						1								178	
								1											1							13	
					1			2																		25	
								2														1				15	
						1		2	5		1	2						1	2				1			241	
																					1					56	
									1																	35	
		1																								29	
								3																		45	
						3		4	3		1	4	1													360	
		1						1	2												2					101	
										1	1															10	
										2																104	
					1			1	3												1					212	
										1											1					101	
4																		1								14	
	6																									6	
		38						1	4			2					1			1						98	
																										4	
						4															1			1		18	
																								1		28	
																										1	
							80	7	19			11														311	
						4		1																		9	
								45	1											1						63	
			1			3		22	141	1		1						1	3		1			1		576	
			1			4		1	1	105		1								3		1				192	
								3			22								1							61	
								3			50															70	
								2	5	4	2		98								1					248	
									1				6													24	
			1														9									30	
																		4								7	
								1	5	1								33		1			1			81	
						2	1	26	3	1	3	2	1						139	4	1	2		3		586	
								8												32						70	
								2	2	4								1			56	2		1		154	
									1													4				11	
									1			1										68			1	131	
								1															52			72	
									2			1												3		8	
																									3	9	
4	6	46	0	7	3	111	7	217	226	112	27	54	124	7	10	4	39	147	52	74	4	79	57	3	15	6,530	

TABLE 4  
IN-STATE AND OUT-OF-STATE INCORPORATIONS

	In-State Incorporations	% Total Incorporations	Out-of-State Incorporations	% Total Incorporations	Total Incorporations
All firms	2,137	32.7	4,393	67.3	6,530
Went public pre-1991	1,213	37.3	2,036	62.7	3,249
Went Public 1991–95	417	32.8	854	67.2	1,271
Went Public 1996–2000	507	25.2	1,503	74.8	2,010
Fortune 500	110	29.7	260	70.3	370
Fortune 100	18	25.3	53	74.7	71

firms in the boxes along the diagonal, which contain the numbers of in-state incorporations for each and every state. The large concentration of firms along this diagonal suggests the possible presence of a significant home-state advantage. Another noticeable and expected feature of Table 3 is the significant concentration of firms in the various boxes of one vertical column—that of Delaware; the column clearly indicates that Delaware is able to attract incorporations from all but one state.

Table 4 above presents the total number and percentage of firms incorporated in their home state—among all firms, firms going public during 1991–95 and during 1996–2000, Fortune 500 firms, and Fortune 100 firms. The table indicates that there is a substantial percentage of in-state incorporation in all groups. The fraction of in-state incorporations is smaller for firms that are large and for firms that went public in the 1990s. However, even among Fortune 100 firms, and among firms that went public in the past 5 years, the fraction of in-state incorporations is significant (about 25 percent in each case).

Table 5 displays how each state fares in the “market for corporate law.” The table indicates for each state (1) how many of its in-state firms it retains, both in absolute numbers and as a percentage of all in-state firms; (2) how many out-of-state firms it attracts, both in absolute number and as a percentage of all out-of-state incorporations; and (3) its net outflow (inflow) of firms. This table indicates that the large majority of states are net “exporters” of firms. Other than Delaware, which is a huge “importer,” only Nevada has a significant net inflow of firms (154). The table also indicates that states vary greatly in how successful they are in the incorporation marketplace, both in terms of retaining in-state firms and in terms of attracting out-of-state firms.

### III. HOME-STATE ADVANTAGE AND ITS SOURCES

#### A. *The Presence of Home-State Advantage*

The literature on state competition has generally viewed the incorporation choice of publicly traded firms as a stand-alone choice, one that depends

TABLE 5  
MIGRATION AND EMIGRATION IN THE MARKET FOR CORPORATE LAW

State	In-State Firms	Located and Incorporated in State	As % of All Firms in State	Located Elsewhere but Incorporated in State	As % of All Out-of-State Incorporations	Net Outflow
Alabama	29	3	10.34	2	.03	24
Alaska	2	1	50.00	2	.03	-1
Arizona	91	21	23.08	0	.00	70
Arkansas	20	3	15.00	0	.00	17
California	1,254	273	21.77	10	.19	971
Colorado	201	74	36.82	58	.92	69
Connecticut	147	17	11.56	3	.05	127
Delaware	27	27	100.00	3,744	57.57	-3,744
Florida	328	137	41.77	28	.45	163
Georgia	178	71	39.89	12	.19	95
Hawaii	13	6	46.15	2	.03	5
Idaho	15	2	13.33	1	.02	12
Illinois	241	27	11.20	5	.08	209
Indiana	56	39	69.64	11	.17	6
Iowa	25	10	40.00	4	.06	11
Kansas	35	11	31.43	8	.12	16
Kentucky	29	7	24.14	2	.03	20
Louisiana	45	18	40.00	4	.06	23
Maine	10	4	40.00	0	.00	6
Maryland	101	25	24.75	29	.45	47
Massachusetts	360	108	30.00	10	.16	242
Michigan	104	58	55.77	2	.03	44
Minnesota	212	158	74.53	20	.32	34
Mississippi	14	4	28.57	8	.12	2
Missouri	101	26	25.74	10	.16	65
Montana	6	6	100.00	0	.00	0
Nebraska	18	4	22.22	3	.05	11
Nevada	63	45	71.43	172	2.66	-154
New Hampshire	28	3	10.71	0	.00	25
New Jersey	311	80	25.72	31	.50	200
New Mexico	9	4	44.44	3	.05	2
New York	576	141	24.48	85	1.43	350
North Carolina	98	38	38.78	0	.00	60
North Dakota	4	0	.00	0	.00	4
Ohio	192	105	54.69	7	.11	80
Oklahoma	61	22	36.07	5	.08	34
Oregon	70	50	71.43	4	.06	16
Pennsylvania	248	98	39.52	26	.41	124
Rhode Island	24	6	25.00	1	.02	17
South Carolina	30	9	30.00	1	.02	20
South Dakota	7	4	57.14	0	.00	3
Tennessee	81	33	40.74	6	.09	42
Texas	586	139	23.72	8	.13	439
Utah	70	32	45.71	20	.31	18
Vermont	11	4	36.36	0	.00	7
Virginia	154	56	36.36	18	.28	80
Washington	131	68	51.91	11	.17	52
Washington, D.C.	25	2	8.00	0	.00	23
West Virginia	8	3	37.50	0	.00	5
Wisconsin	72	52	72.22	5	.08	15
Wyoming	9	3	33.33	12	.18	-6
Total	6,530	2,137		4,393		
Average			38.10		1.33	

only on a judgment as to which state's corporate law system would be best and that is independent of the state where the firm is located. U.S. firms incorporated in another state may transact on equal footing in any state. Consequently, being incorporated in any other state is not supposed to affect how a firm's operations will be taxed or regulated. Similarly, the corporate law of any given state, which largely affects the relationship between shareholders and managers, applies equally to all the firms incorporated in that state regardless of where they are located.

For these reasons, the conventional view regards incorporation choice as a "pure" choice of a legal regime, based on only a comparison of states' corporate law systems and a judgment on which of those systems would be best for the firm. And the corporate law rules that would best fit any given firm might depend on various features of the firm, its shareholders, or its managers, but there is no good reason to expect them to depend on the particular location of the firm's headquarters. On this view, all states are viewed as "selling" their corporate law system to all publicly traded firms, and not especially to the firms located in them. If this picture were indeed accurate, we could expect some states to be more successful than others in attracting a given type of firm, but we would not expect a state to be more successful (controlling for firm characteristics) in attracting local firms than out-of-state firms.

This conventional picture was put in doubt by Daines's observation that most firms incorporate either in their home state or in Delaware.<sup>15</sup> Our data confirm the presence of a strong home-state advantage. There is a very heavy concentration of firms along the boxes of the diagonal of Table 3. Table 5 indicates that states are generally much more attractive to their in-state firms than to out-of-state firms. Even states that do rather poorly with respect to out-of-state firms do succeed in retaining a significant fraction of their own firms.

For example, as Table 5 displays, California, which does relatively poorly on both dimensions, still does far better for in-state firms, retaining 22 percent of them, than for out-of-state firms, attracting only .2 percent of them (see Table 5). All in all, California is the incorporation choice of 273 firms located in California (out of a total of 1,254 firms headquartered in California) but only 10 firms located elsewhere (out of a total of 4,393 incorporated out of state). Although California appears unable to "sell" its corporate law system to any significant number of out-of-state firms, it does have a significant number of incorporations because it starts with a large stock of local firms with respect to which it has some home-state advantage.

To test systematically the difference in states' abilities to attract in-state and out-of-state firms, we ran the following logit regression for each state that has 10 or more firms located in it. We regressed a dummy variable that

<sup>15</sup> See Daines, Does Delaware Law Improve Firm Value? *supra* note 9.

TABLE 6  
ATTRACTIVENESS OF CALIFORNIA INCORPORATION: IN-STATE VERSUS  
OUT-OF-STATE FIRMS: LOGIT REGRESSION

Dependent Variable	Incorporated in California	Incorporated in California
Located in California	4.96 (.34)**	5.47 (.40)**
log(Sales)	-.04 (.04)	-.11 (.05)*
Tobin's $Q$	-.001 (.002)	-.001 (.002)
Return on Assets	.014 (.02)	.02 (.02)
Number of Employees	-.10 (.04)**	-.13 (.05)**
Total Equity	.0002 (.0001)*	.0003 (.0001)*
Went Public 1991–95	-.02 (.18)	.05 (.20)
Went Public 1996–2000	-.70 (.18)**	-.69 (.2)**
Constant	-5.69 (.36)**	
Two-digit industry dummy	No	Yes
$N$	5,382	4,651
Adjusted $R^2$	.4027	.4405

\* Significant at the 5 percent level.

\*\* Significant at the 1 percent level.

has a value of one if a company incorporates in the given state and zero otherwise on (1) various characteristics of the firm—specifically, the company's sales (log), its Tobin's  $Q$ , its return on assets, the number of employees, its total equity, and dummy variables reflecting whether it went public in 1996–2000, 1991–95, or before 1990; and (2) a dummy variable that has a value of one if the company is located in the given state and zero otherwise. In all the regressions, being located in the state increased the likelihood of incorporating in the state at 99 percent confidence. To illustrate, Table 6 displays the regression applying to California. The table indicates that the coefficient for being located in California is positive and large (at 99 percent confidence). Similar results are obtained in the other regressions.<sup>16</sup>

### B. Factors Pulling toward Remaining in State

As noted, if firms were paying attention only to the relative quality of the corporate law system offered by states, firms' incorporation decisions would not be influenced by their location. What explains firms giving preference to incorporating in their home state? Below we will test four other stories that might help explain why firms are pulled in the direction of remaining in state:

1. *The Extra-Costs Pull.* It might be suggested that the presence of home-state bias emerges from firms' desire to avoid the extra costs that might

<sup>16</sup> It is worth reminding the reader that by "state of location" we refer to the state where the firm's headquarters are located, which is the only location variable in Compustat. To the extent that some firms have their main location and their incorporation in a state other than where they are headquartered, the home-state advantage might be even stronger than suggested by our results.

be involved in going outside the state. Incorporation in Delaware involves a franchise tax and filing fees that are nonnegligible, although not very substantial for most publicly traded firms. Also, incorporating out of state might involve some additional transaction costs that result from the need to retain additional law firms or to conduct legal business at a distance.<sup>17</sup>

Because the extra costs of going out of state are unlikely to rise proportionately with firm size, these costs can be expected to weigh more heavily on smaller firms, and smaller firms can be thus expected to display stronger tendencies to incorporate in state. Note that, because extra costs are likely to be trivial for firms that are very large and because home-state bias is still present to some extent for Fortune 500 and Fortune 100 firms (see Table 4), the extra-costs story cannot provide a full explanation for the observed home-state bias; the question is thus only whether the extra-costs story plays a significant role.

2. *The Uniformity Story.* A complementary story to the extra-costs story can be based on the fact that many states have substantially similar corporate law codes that are all based on the Revised Model Business Corporation Act (RMBCA) (or its predecessor, the Model Business Corporation Act).<sup>18</sup> The Revised Model Act is a sample statute that was put together by a committee of corporate scholars and practitioners and that many states have adopted wholesale. For all firms that prefer being subject to RMBCA and that are headquartered in a state that has adopted RMBCA, so the story goes, even a tiny cost of going out of state might serve as a tiebreaker and lead them to remain in their state of headquarters.<sup>19</sup> A problem with this story is that, even among states that have adopted RMBCA, there is significant variance in the additional antitakeover statutes (if any) that were adopted. In any event, the prediction of this story is that firms located in states with RMBCA will show stronger tendencies to incorporate in state.

3. *The Local Favoritism Story.* A third factor that might lead some firms to give preference to in-state incorporation is the hope of getting favorable treatment. Even though a state is supposed to treat all firms incorporated in it in the same way regardless of where they are located, a firm located in a state—especially a large firm located in a small state—might hope that its stature and clout in the state would lead judges or public officials to give it favorable treatment with respect to some corporate law issues that might

<sup>17</sup> According to a study by Douglas Cumming & Jeffrey MacIntosh, Canadian lawyers whom the authors interviewed note the extra costs involved in out-of-province incorporation as an important reason for incorporating in the province of location. See Douglas J. Cumming & Jeffrey G. MacIntosh, *The Rationales Underlying Reincorporation and Implications for Canadian Corporations*, 22 *Int'l Rev. L. & Econ.* 277 (2002).

<sup>18</sup> For a detailed description and a list of the states adopting RMBCA and its close predecessor, MBCA, see American Bar Association, *Model Business Corporation Act Annotated* (1999).

<sup>19</sup> We are grateful to Frank Easterbrook for suggesting this possible story and for stressing the importance of controlling for the RMBCA factor.



arise. Similarly, a firm located in a state might expect that, if it displays “loyal citizenship” by incorporating in the state, it would increase its chances of getting favorable treatment from public officials on issues unrelated to corporate law that might arise in the firm’s dealings with the state.

A testable prediction of the local favoritism story concerns the interaction of firm size and state size. A large firm located in a small state might have a major presence (the big fish in a small pond phenomenon) and can have significant clout that can enable it to receive local favoritism.<sup>20</sup> In contrast, a firm of a similar size that is located in a big state will not be able to stand out and thus is unlikely to be able to obtain local favoritism. Thus, the local favoritism story predicts that, for large firms of any given size, those located in a small state will have a greater tendency to remain in state.<sup>21</sup>

4. *The Law Firm Factor.* A fourth factor that might pull some firms in the direction of in-state incorporation is that of agency costs in the market for legal services. Recent work by John Coates demonstrates that agency problems between lawyers and owners-managers might influence choices made at the initial public offering (IPO) stage.<sup>22</sup> In particular, it shows that the identity and location of the IPO law firm substantially affects the antitakeover charter provisions chosen by firms going public. Similarly, the identity of the law firm involved in a firm’s IPO and/or subsequent corporate affairs—and, in particular, whether the law firm is located in the firm’s state of location or elsewhere—might significantly affect the choice of incorporation state. An in-state law firm might be inclined to keep the firm in state because such in-state incorporation would enable the law firm to handle fully the firm’s corporate affairs, which would avoid the inconvenience and fee sharing involved in having to use counsel from another state. Furthermore, in-state incorporation would provide the local law firm with an advantage over out-of-state law firms that might compete for the firm’s business, as the local law firm would be likely to have greater familiarity with the home state’s corporate law and better connections in the state.<sup>23</sup>

Finally, before proceeding, it is worth noting another possible story that can be ruled up front to be inconsistent with the evidence already discussed. On the basis of this story, states tailor their corporate law to fit the type of firms located in them. Different types of firms have different needs, and states

<sup>20</sup> See Robert H. Sitkoff, Corporate Political Speech, Political Extortion, and the Competition for Corporate Charters, 69 U. Chi. L. Rev. 1103 (2002).

<sup>21</sup> Another implication of this story, whose testing is left for future work, is that firms operating in lines of business that depend more on the state (because their business is either more affected by the state’s regulation or by transactions with the state) would be more likely to remain in state. Yet another implication is that the more concentrated a company’s actual operations in its state of headquarters, the more likely the company is to incorporate in this state.

<sup>22</sup> See John Coates IV, Explaining Variation in Takeover Defenses: Blame the Lawyers, 89 Cal. L. Rev. 1301 (2001).

<sup>23</sup> See William J. Carney, The Production of Corporate Law, 71 S. Cal. L. Rev. 715 (1998).

might provide a corporate law system especially fitting for the type of firms most represented in the state. However, the regressions noted above, such as the one displayed in Table 6 for California, control for the firm's industry and for various financial features of it. It is still the case that firms located outside California are on an order of magnitude less likely to incorporate in California than firms located in California that are in the same industry and have the same financial characteristics. Furthermore, on the basis of a story in which different states cater to different niches, one would expect that each of the states offering a product that is especially good for a certain type of firm would attract a significant number of out-of-state incorporations from firms of this type. However, when firms incorporate out of state, the great majority of them go to Delaware, which indicates that the heterogeneity among firms in their corporate law needs does not play a key role in this market.

### C. *Empirical Examination*

To examine the factors that make firms more likely to remain in state, we ran two regressions in which the dependent variable was a dummy variable (in state) that has a value of one if the firm remains in state and zero if it incorporates elsewhere. In the first regression, which is reported in Table 7, column 1, the explanatory variables were only firm characteristics and state dummies used to control for state fixed effects. The firm characteristics included in this regression were the firm's sales (log), Tobin's  $Q$ , return on assets, number of employees, total equity, dummy variables indicating whether it went public in 1991–95 or in 1996–2000, and industry dummies.<sup>24</sup>

In the second regression, whose results are reported in column 2 of Table 7, we replaced the state dummies with various characteristics of the state in which the firm is located. In particular, we included

1. state demographic characteristics—the size of the state's population (log), the number of local firms, and the per capita income;
2. an interaction term of the size of the firm (as measured by the log of its sales) and the size of the state's population (as measured by the log of the state's population);
3. the state's regional location (Northeast, South, Midwest, or West);
4. a dummy variable indicating whether the state has adopted RMBCA or MBCA; and

<sup>24</sup> The number of observations in Table 7 is smaller than in Tables 1–5 because we have excluded those firms for which the relevant data are missing in Compustat. The excluded firms do not appear to be different from those remaining in any systematic way.

TABLE 7  
FACTORS INDUCING FIRMS TO REMAIN IN STATE: LOGIT REGRESSION

	DEPENDENT VARIABLE: IN-STATE INCORPORATION			
	(1)		(2)	
Firm characteristics:				
log(Sales)	-.025	(.015) <sup>+</sup>	.37	(.24)
Tobin's $Q$	-1.0E-04	(7.0E-04)	.0003	(.0007)
Return on Assets	-.0006	(.007)	-.001	(.007)
Number of Employees	-.004	(.002)*	-.004	(.002)*
Went Public 1991-95	-.26	(.08)**	-.26	(.08)**
Went Public 1996-2000	-.52	(.08)**	-.52	(.08)**
State demographic characteristics:				
log(Population)			.18	(.13)
In-State firms			-3.0E-04	(3.0E-04)
Per Capita Income			-1.8E-06	(1.7E-05)
Interaction:				
log(Sales) $\times$ log(Population)			-.03	(.015)*
State region:				
Northeast			-.58	(.13)**
South			-.36	(.12)**
West			.31	(.14)*
Uniformity of laws:				
RMBCA			-.05	(.10)
Pseudo $R^2$	.1219		.0777	

NOTE.—For legal and political state characteristics, see column 1 of Table 10. Both regressions include state and two-digit industry dummy variables. RMBCA = Revised Model Business Corporation Act.  $N = 5,325$ .

<sup>+</sup> Significant at the 10 percent level.

\* Significant at the 5 percent level.

\*\* Significant at the 1 percent level.

5. various legal and political characteristics of the state (which will be the focus of the analysis in Section IV and are listed in Table 10).<sup>25</sup>

The results indicate that larger firms are less likely to remain in state. The Number of Employees variable has in both regressions a coefficient that is negative and statistically significant (at 95 percent confidence). In the first regression, where log(Sales) are included without the interaction term between it and the state size, it also has a negative and statistically significant coefficient (at 90 percent confidence). Because some of the extra transaction costs involved in out-of-state incorporation are fixed or at least do not grow proportionately with firm size, these costs have lower weight for large firms. This finding is thus consistent with the extra-costs story. To the extent that large firms are more likely to use a national law firm, this finding might also be explained by the local lawyer story.

<sup>25</sup> The regression reported in the second column of Table 7 is the same as the one reported in the first column of Table 10; each of these tables displays only the variables that are of interest for the discussion in the relevant section of the paper.

The results in both regressions also indicate that newer firms are more likely (at 99 percent confidence) to incorporate out of state. Firms going public in recent years might have been more likely to use out-of-state law firms, as the market for legal services has become more national. High-tech firms, which were substantially represented among firms going public in the 1990s, often had significant holdings by venture capitalists and financial intermediaries connected to legal advisers from national financial centers. Thus, this finding could point toward the local lawyers story.

There is one result that is clearly consistent with the local favoritism factor and does not appear explainable by any of the other stories. As is indicated by the negative sign of the interaction term in the second regression, large firms are more likely (at 95 percent confidence) to incorporate in state when their home state is small than when it is large. Large firms are more likely to be able to benefit from local favoritism in small states, where they can stand out and have significant clout, than in large states.

In an unreported regression, we use both Sales and  $(\text{Sales})^2$  as independent variables instead of  $\log(\text{Sales})$ . Consistent with the above finding, we obtain a negative coefficient on Sales and a positive coefficient on  $(\text{Sales})^2$ . This indicates that, even though large firms are more likely to incorporate out of state than small firms, this effect is weakened once we look at very large firms, which are the ones that have the most clout and thus are most likely to benefit from local favoritism.

Interestingly, the regional location of states appears to make a significant difference (we use the division into regions used by the U.S. Census). In particular, firms located in the Northeast are more likely (at 99 percent confidence) to incorporate out of state. Firms located in the Northeast are more likely to use New York City lawyers engaged in national practice, and we suspect that such lawyers tend to use Delaware incorporations. The relevance of regional location might thus be due to the law firm factor.

Both regressions indicate that adopting RMBCA (or its close predecessor, MBCA) does not have a statistically significant effect on a state's ability to retain firms. This enables us to reject the story that the presence of a large number of home-state incorporations results from firms located in RMBCA states that prefer an RMBCA statute and use staying in their home state as a tiebreaker among a large set of states with such a statute.<sup>26</sup>

#### *D. The Characteristics of Delaware Firms*

Thus far, we have examined which characteristics make firms more likely to incorporate out of state. It might be of interest to examine in particular

<sup>26</sup> Finally, it is worth noting that, in the first regression, the dummy variables for the industry and the state explain a substantial amount of the variation and are jointly significant. The state dummy variable is especially important in explaining variation.

TABLE 8  
WHICH FIRMS MIGRATE TO DELAWARE?  
LOGIT REGRESSION

	Dependent Variable: Delaware Incorporation	
log(Sales)	.11**	(.014)
Tobin's $Q$	-2.0E-05	(.0007)
Return on Assets	-7.0E-04	(.007)
Number of Employees	.0004	(.001)
Went Public 1991-95	.43**	(.08)
Went Public 1996-2000	.72**	(.08)
Pseudo $R^2$	.1092	

NOTE.—The regression includes state and two-digit industry dummy variables.  $N = 5,340$ .

\*\* Significant at the 1 percent level.

which characteristics make firms more likely to incorporate in Delaware, the dominant jurisdiction for out-of-state incorporations.

Table 8 presents the results of a logit regression in which we regressed a dummy variable that has a value of one if the firm incorporated in Delaware and zero otherwise based on the characteristics of firms used in earlier regressions. Not surprisingly, the factors that make firms more likely to be incorporated in Delaware are quite similar to those that make firms more likely to be incorporated out of state in general. Firms are more likely to incorporate in Delaware when they are large (at 99 percent significance) and when they went public during the 1990s (again, at 99 percent significance).

Interestingly, we do not find an association between Delaware incorporation and a higher Tobin's  $Q$ , which Daines reported to hold for the 1980s and early 1990s.<sup>27</sup> This association apparently does not hold in 1999.<sup>28</sup>

Daines tried to infer from the association he found that Delaware's law is better for shareholders. In our work with Ferrell, however, we identify a selection problem with drawing such an inference even for years in which the association exists; the selection of firms that have Delaware incorporation is far from random.<sup>29</sup> The results reported in Table 8 support this argument. They indicate that the firm characteristics available from the Compustat da-

<sup>27</sup> See Daines, *supra* note 5.

<sup>28</sup> Current work by Subramanian finds that the result we obtain above for 1999 also holds for other years in the second half of the 1990s. He also finds that, during the first half of the 1990s, correlation between Delaware incorporation and higher Tobin's  $Q$  existed but was entirely driven by small firms. Guhan Subramanian, *The Disappearing Delaware Effect* (Working paper, Harvard L. Sch. 2003). In current work, we extend the work by Daines and by Subramanian by controlling for firm age and for firm-specific corporate governance arrangements, and we find no correlation between Delaware incorporation and higher Tobin's  $Q$  during the period 1990-2001. Lucian A. Bebchuk & Alma Cohen, *The Costs of Entrenched Boards* (Working paper, Harvard L. Sch. & Nat'l Bur. Econ. Res. 2003).

<sup>29</sup> See Bebchuk, Cohen, & Ferrell, *supra* note 6.

tabase, which are the data used both by us and by Daines, can explain only a very small part of the selection of firms that incorporate in Delaware. Some omitted variables with respect to firms (such as, for example, the identity of the firm's law firm) must have substantial influence on their incorporation choices. Identifying these omitted variables is an important task for future research. In the meantime, however, correlations between Delaware incorporation and shareholder value cannot be used as a reliable basis for drawing inferences concerning the effect of Delaware law on shareholder value.

#### IV. ANTITAKEOVER PROTECTION AND INCORPORATION CHOICES

We have thus far examined what factors other than states' corporate law systems affect incorporation choices. We now examine the features of states' corporate law rules that influence these decisions and, in turn, how states fare in the market for incorporations.

Prior empirical analysis has focused on examining the wealth effects of incorporating in Delaware versus incorporating elsewhere. Instead of focusing on differences between Delaware and all other states taken as a group, this paper unpacks the large group of states other than Delaware. As documented earlier, states vary considerably in their ability to retain in-state firms and to attract out-of-state firms. These differences enable us to explore what factors make states more or less attractive for firms choosing a state of incorporation. To the extent that states seek to attract incorporations, such an analysis can identify what incentives competition provides to states. In particular, we will focus on using such an analysis to investigate how offering antitakeover statutes affects states' attractiveness in the incorporation marketplace.

##### A. *Antitakeover Protections*

One of the most important and hotly debated subjects in corporate law has been the regulation of hostile takeovers. Unlike the British City Code, which bans all defensive tactics and facilitates takeover bids, most U.S. states have developed a large body of antitakeover protections over the last 25 years, a primary source of which has been the adoption of state antitakeover statutes. Antitakeover protections have also been provided by the development in the Delaware courts (whose decisions were subsequently followed by courts in other states) of doctrines that permit managers to engage in defensive tactics and, in particular, to use poison pills.

The body of academic opinion has largely viewed state takeover law as providing excessive protections against takeovers. Researchers who generally support state competition, such as Frank Easterbrook and Daniel Fischel and Romano, have been among those viewing state antitakeover statutes to be excessive.<sup>30</sup> The many scholars who believe that antitakeover statutes do not

<sup>30</sup> See Easterbrook & Fischel, *supra* note 1; Romano, *supra* note 1; Romano, *supra* note 10.

serve shareholders find support for their view in the empirical evidence on the effects of such statutes. The overwhelming majority of the event studies that examined the adoption of state antitakeover statutes found either no price reactions or negative price reactions.<sup>31</sup> Researchers have also found evidence that state antitakeover statutes have operated to increase agency costs.<sup>32</sup>

While researchers have generally taken the view that the antitakeover protections developed by state corporate law are largely excessive, they have differed on the role of state competition in this area. The proliferation of antitakeover statutes is consistent with the view that state competition provides adverse incentives with respect to issues, such as the level of antitakeover protections, that have a substantial effect on the private benefits of managers.<sup>33</sup> However, the proliferation of state antitakeover statutes might present a problem for those holding the dominant view that state competition is generally beneficial. Supporters of this view have sought to reconcile it with their belief that state antitakeover statutes do not serve shareholders by arguing that state competition does not encourage, and is thus not responsible for, the adoption of antitakeover statutes.<sup>34</sup>

On this view, amassing strong antitakeover statutes is likely to decrease rather than increase the number of incorporations. Most of these statutes were still adopted, so the argument goes, because the adopting states could not resist the lobbying or political pressure of some managers concerned about the threat of a takeover. As Ralph Winter puts it, "The problem [with antitakeover statutes] is not that states compete for charters but that too often they do not."<sup>35</sup> Thus, from this point of view, state competition has operated not to encourage the adoption of antitakeover statutes but rather to discourage and moderate them.

In support of this view, advocates of state competition have argued that Delaware, the most successful state, has adopted fewer and milder antitakeover statutes, especially compared with states such as Pennsylvania, Ohio, and Massachusetts.<sup>36</sup> It is far from clear, however, that Delaware offers less

<sup>31</sup> See, for example, Jonathan M. Karpoff & Paul H. Malatesta, *The Wealth Effects of Second-Generation State Takeover Legislation*, 25 *J. Fin. Econ.* 291 (1989). For a survey of these many studies, see Grant A. Gartman, *State Antitakeover Law* (2000).

<sup>32</sup> Marianne Bertrand and Sendhil Mullainathan found that the adoption of state antitakeover statutes resulted in increased extraction of rents through executive compensation. See Marianne Bertrand & Sendhil Mullainathan, *Executive Compensation and Incentives: The Impact of Takeover Legislation* (Working Paper No. 6830, Nat'l Bur. Econ. Res. 1999). In another study, they found that the adoption of antitakeover statutes reduced managers' incentives to minimize labor costs. See Marianne Bertrand & Sendhil Mullainathan, *Is There Discretion in Wage Setting? A Test Using Takeover Legislation*, 30 *Rand J. Econ.* 535 (1999).

<sup>33</sup> This view is developed in Bebchuk, *supra* note 2; Bebchuk & Ferrell, *supra* note 2; and Bar-Gill, Barzuza, & Bebchuk, *supra* note 7.

<sup>34</sup> See, for example, Easterbrook & Fischel, *supra* note 1; Romano, *supra* note 1.

<sup>35</sup> See Ralph K. Winter, Jr., *Foreword*, in Romano, *supra* note 1.

<sup>36</sup> See, for example, Romano, *supra* note 3.

antitakeover protection than most states. Although there are states that have more antitakeover statutes than Delaware, there are also states that have no antitakeover statutes. Furthermore, unlike other states, Delaware has a very large and developed body of case law on takeovers, which makes the absence of some statutes practically irrelevant. For example, because Delaware has a large body of judge-made law upholding the indefinite use of poison pills, the absence in Delaware of some state antitakeover statutes, such as a statute endorsing poison pills, is practically irrelevant.<sup>37</sup>

In contrast, the adoption of state antitakeover statutes did have practical significance in other states. No state other than Delaware has a developed case law on defensive tactics. Indeed, a Lexis search indicates that most states do not have even a single case on poison pills. In these states, the adoption of pill endorsement statutes and constituency statutes provided managers with the confidence, notwithstanding the absence of precedents in these states thus far, that indefinite use of poison pills would be permitted. In some states (for example, New Jersey), the adoption of a pill endorsement statute served to override an earlier case ruling against the validity of poison pills.

Furthermore, beyond the direct effect of adopting antitakeover statutes, the adoption of such statutes by a state without a developed takeover case law might have conveyed an antitakeover message. Such adoption might have signaled that the state has an antitakeover stance and would likely provide protections from takeovers as the needs for such protections arise. In Delaware, such a message was in large part supplied by case law.

Thus, in examining the question whether competition rewards stronger antitakeover protections, little can be learned from observing that Delaware has fewer antitakeover statutes than some states—both because other states vary considerably in this regard and because Delaware's takeover law is in large part provided by its developed case law. We therefore propose to approach this question by unpacking the group of all states other than Delaware and studying the cross-state differences within this group. The position taken by supporters of state competition implies that states adopting more antitakeover statutes would not do better, and indeed would do worse, in the market for incorporations. This prediction will be tested below.

### B. *Standard Antitakeover Statutes*

Table 9 uses data taken from Grant Gartman's collection of state antitakeover statutes to indicate the each state's antitakeover statutes.<sup>38</sup> The first six

<sup>37</sup> As long as the pill is in place, any additional defense is superfluous, as the pill by itself completely blocks a bidder from proceeding. And if a bidder overcomes the pill by taking control of the board in a proxy contest, a control share acquisition statute and a fair-price statute, which are generally applicable only to offers the board does not approve, would be irrelevant as well.

<sup>38</sup> See Gartman, *supra* note 31.



TABLE 9  
STANDARD ANTITAKEOVER STATUTES

State	Number of Statutes	Control Share	Fair Price	No Freeze-outs (Years)	Poison Pill Endorsement	Constituencies
Alabama	0	0	0	0	0	0
Alaska	0	0	0	0	0	0
Arizona	4	1	1	3	0	1
Arkansas	0	0	0	0	0	0
California	0	0	0	0	0	0
Colorado	1	0	0	0	1	0
Connecticut	3	0	1	5	0	1
Delaware	1	0	0	3	0	0
Florida	4	1	1	0	1	1
Georgia	4	0	1	5	1	1
Hawaii	3	1	0	0	1	1
Idaho	5	1	1	3	1	1
Illinois	4	0	1	3	1	1
Indiana	5	1	1	5	1	1
Iowa	3	0	0	3	1	1
Kansas	2	1	0	3	0	0
Kentucky	4	0	1	5	1	1
Louisiana	3	1	1	0	0	1
Maine	1	0	0	0	0	1
Maryland	5	1	1	5	1	1
Massachusetts	4	1	0	5	1	1
Michigan	3	1	1	5	0	0
Minnesota	4	1	1	4	0	1
Mississippi	3	1	1	0	0	1
Missouri	4	1	1	5	0	1
Montana	0	0	0	0	0	0
Nebraska	2	1	0	5	0	0
Nevada	5	1	1	3	1	1
New Hampshire	0	0	0	0	0	0
New Jersey	4	0	1	5	1	1
New Mexico	1	0	0	0	0	1
New York	4	0	1	5	1	1
North Carolina	3	1	1	0	1	0
North Dakota	1	0	0	0	0	1
Ohio	5	1	1	3	1	1
Oklahoma	2	1	0	3	0	0
Oregon	4	1	0	3	1	1
Pennsylvania	5	1	1	5	1	1
Rhode Island	4	0	1	5	1	1
South Carolina	3	1	1	2	0	0
South Dakota	5	1	1	4	1	1
Tennessee	5	1	1	5	1	1
Texas	1	0	0	3	0	0
Utah	2	1	0	0	1	0
Vermont	1	0	0	0	0	1
Virginia	4	1	1	3	1	0
Washington	3	0	1	5	1	0
Washington, D.C.	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0
Wisconsin	5	1	1	3	1	1
Wyoming	3	1	0	3	0	1
Total		27	27		25	31
Average	2.7			33		

columns stand for “standard” types of antitakeover statutes. We define the following dummy variables:

1. Control Share, which is equal to one if the state has a control share acquisition statute and to zero otherwise;<sup>39</sup>
2. Fair Price, which is equal to one if the state has a fair-price statute and to zero otherwise;<sup>40</sup>
3. No Freeze-outs (1–3), which is equal to one if the state has a business combination statute that prevents a freeze-out for up to 3 years after a takeover and to zero otherwise;<sup>41</sup>
4. No Freeze-outs (4–5), which is equal to one if the state has a business combination statute that prevents a freeze-out for a period longer than 3 years after a takeover (the longest period adopted by some states is 5 years) and to zero otherwise;
5. Poison Pill Endorsement, which is equal to one if the state has a statute endorsing the use of a poison pill and to zero otherwise;<sup>42</sup> and
6. Constituencies, which is equal to one if the state has a statute allowing managers to take into account interests of nonshareholders in defending against a takeover and to zero otherwise.<sup>43</sup>

All together, control share acquisition statutes were passed in 27 states, fair-price statutes in 27 states, business combination statutes (of both types) in 33 states, pill endorsement statutes in 25 states, and constituencies statutes

<sup>39</sup> A control share acquisition statute essentially requires a hostile bidder to put its offer to a vote of the shareholders before proceeding with it. If a bidder does not do so and purchases a large block of shares, it runs a very serious risk of not being able to vote these shares at all and thus will not be able to gain control despite its large holdings.

<sup>40</sup> A fair-price statute requires a bidder who succeeds in gaining control and then proceeds with a second-step freeze-out (a transaction removing remaining shareholders) to pay the remaining minority shareholders the same price it paid for shares acquired through its bid. This prevents bidders from using the threat of a second-step freeze-out at a low price as a mechanism for pressuring the shareholders into tendering.

<sup>41</sup> Business combination statutes prevent a bidder that gains control from merging the target with its own assets for a specified period of time (unless certain difficult-to-meet conditions are satisfied). Such a constraint might make it more difficult for successful bidders to realize gains from synergy following a takeover, and this, by reducing the potential profits from a takeover, might discourage potential buyers from bidding.

<sup>42</sup> Poison pills are warrants or rights issued by the company that are triggered and entitle their holders to get significant value in the event that any buyer obtains a significant block without the approval of the board. As long as they are not redeemed, poison pills make a takeover prohibitively costly. Delaware courts have approved the use of pills in a series of well-known cases, starting with *Moran v. Household International* in 1985 (490 A.2d 1059). Other states have found it necessary to ground the use of poison pills in legislation either because of the absence of such cases or in a few instances to reverse court rulings against poison pills.

<sup>43</sup> Such statutes are regarded as antitakeover statutes because allowing the managers to take into account how a takeover would affect, say, employees or debt holders provides managers with extra reasons for opposing the takeover and makes it more difficult for courts to scrutinize such decisions.

in 31 states. Of these 143 statutes, 135 statutes were adopted in the period 1985–91.<sup>44</sup>

As noted above, antitakeover statutes are possibly important not only in what they actually do but also in what they signal. They send an antitakeover message and signal that the state is likely to provide in future antitakeover protections that will be valuable for firms. Therefore, the number of statutes adopted by a given state might be important. Adopting the full arsenal of standard antitakeover statutes sends a clear antitakeover message to state courts and to potential and existing incorporators. We therefore will use, as an alternative to using dummies for each of the statutes, an antitakeover protection index (using a similar approach to that used by Rafael LaPorta and his colleagues to study cross-country differences in shareholder protection).<sup>45</sup>

Our antitakeover protection index, *Index*, attaches to each state a score from 0 to 5 that is equal to its number of standard antitakeover statutes. (Because each state can have either a freeze-out statute with up to 3 years moratorium or one with a 4- or 5-year moratorium (but of course not both), the maximum number of standard antitakeover statutes that a state can adopt is five.) We also run a regression in which we seek to avoid imposing linearity on the effects of any given increase in the index score, and to this end we define five dummy variables—*Index1*, *Index2*, *Index3*, *Index4*, and *Index5*—that each represent the set of states with the relevant number of statutes.

### C. *Extreme Statutes*

In addition to the standard statutes, there are three “notorious” states that adopted unusual and more restrictive statutes. Pennsylvania and Ohio adopted statutes that enable the “disgorgement” or “recapture” of all the short-term profits made by a hostile acquirer, thus discouraging potential hostile bidders. Massachusetts adopted a statute that mandated a staggered board, which has a strong antitakeover force,<sup>46</sup> even for firms that did not have a provision to this effect in their charter.

These two types of statutes and these three states have earned the universal scorn of commentators. Commentators have generally regarded these statutes to be especially excessive and detrimental to shareholders. Indeed, several event studies found that the statutes passed by these three states had a substantial negative effect—higher than the effects found for the passage of

<sup>44</sup> Two statutes were adopted earlier, and six statutes were adopted in 1997–99. We ran all our regressions excluding the six statutes adopted in 1997–99 and obtained similar results.

<sup>45</sup> See Rafael LaPorta *et al.*, *Law and Finance*, 106 *J. Pol. Econ.* 1113 (1998).

<sup>46</sup> The special antitakeover power of staggered boards is studied by Lucian Arye Bebchuk, John C. Coates IV, & Guhan Subramanian, *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence, and Policy*, 54 *Stan. L. Rev.* 887 (2002). This study presents evidence that staggered boards substantially increase the likelihood that a target receiving a hostile bid would remain independent.

other antitakeover statutes—on the stock value of firms incorporated in these states.<sup>47</sup>

Supporters of state competition have used these three states to support their position that state competition rewards moderation in the provision of antitakeover protections. For example, Daines and Romano use Pennsylvania, Ohio, and/or Massachusetts as prime examples for their view that Delaware's law is relatively hospitable to takeovers.<sup>48</sup>

Supporters of state competition have also directed some of their empirical work to these three states. Daines reports that firms in these three states have a lower Tobin's  $Q$ .<sup>49</sup> Note, however, that this finding is at most an indication that the statutes hurt shareholder wealth, consistent with the findings of the event studies. This finding, however, does not at all indicate that the statutes discouraged incorporations in these states and hurt the states adopting them in the incorporation market.

Romano reports that most Pennsylvania firms opted out of the Pennsylvania statute, and she views this opting out as an indication that state competition works well.<sup>50</sup> On the basis of her view, the opting out indicates that the adoption of the statute was not welcome to managers. Such a conclusion, however, cannot be drawn from this finding. Because the opt-out procedure was rather simple, the managers of Pennsylvania firms that chose to opt out of the statute were hardly hurt by its passage. In contrast, the adoption of the statute could have considerably benefited those managers who did not opt out of it and who obtained antitakeover protections that they could not have obtained otherwise. Thus, managers who opted out of the statute were largely indifferent to its adoption, but managers who did not opt out of it might well have viewed its adoption quite favorably. The substantial incidence of opting out does not therefore imply that the passage of the statute was viewed by the managers of Pennsylvania firms as a negative development. In any event, opting out by firms that remained incorporated in Pennsylvania in no way indicates that the state has been hurt in the incorporation market.

<sup>47</sup> Several studies found that passage of the Pennsylvania statute was accompanied by a substantial reduction in the value of Pennsylvania firms. See L. Mick Swartz, The 1990 Pennsylvania Antitakeover Law: Should Firms Opt out of Antitakeover Legislation? 11 *J. Acct. Auditing & Fin.* 223 (1996); Samuel H. Szewczyk & George P. Tsetsekos, State Intervention in the Market for Corporate Control: The Case of Pennsylvania Senate Bill 1310, 31 *J. Fin. Econ.* 3 (1992); and Jonathan M. Karpoff & Paul H. Malatesta, PA Law: State Antitakeover Laws and Stock Prices, *Fin. Anal. J.*, July/August 1990, at 8. Similar findings were obtained by Ryngaert and Netter with respect to the Ohio legislation and by Daines with respect to the Massachusetts statute. See Michael Ryngaert & Jeffrey M. Netter, Shareholder Wealth Effects of the Ohio Antitakeover Law, 4 *J. L. Econ. & Org.* 373 (1988); Robert Daines, Do Staggered Boards Affect Firm Value? Massachusetts and the Market for Corporate Control (Working paper, N.Y.U. L. Sch. 2001).

<sup>48</sup> See Daines, *supra* note 5; Romano, *supra* note 1; and Romano, *supra* note 3.

<sup>49</sup> See Daines, *supra* note 5.

<sup>50</sup> See Romano, *supra* note 10.

Surprisingly, supporters of state competition have not tried to test directly whether the actions of Pennsylvania, Ohio, and Massachusetts have substantially hurt these states in the incorporation market. To explore this question, we defined two additional dummy variables:

1. Recapture, which is equal to one if the state has a statute enabling the recapture of profits and to zero otherwise;<sup>51</sup> and
2. Staggered Board, which is equal to one if the state has a statute imposing staggered boards and to zero otherwise.<sup>52</sup>

#### *D. What Helps States Retain In-State Firms?*

*A First Look.* Looking at the summary statistics in Table 5, we observe that states without antitakeover statutes seem to be doing poorly in terms of the fraction of their local firms that they are able to retain. Whereas 38 percent of all firms remain in state, most of the states with no antitakeover statutes retain a much lower fraction; California, for example, retains only 22 percent of the firms located in it. Observe also that states that have all the standard antitakeover statutes generally retain a larger than average fraction of their in-state firms. For example, Indiana and Wisconsin, each of which offers a “royal flush” set of five standard antitakeover statutes, retain 70 percent and 72 percent, respectively, of the firms located in them. More generally, the fraction of local firms that each state retains is correlated with the state’s number of antitakeover statutes.

The summary statistics in Table 5 also do not display any apparent strong adverse effect on the three states adopting extreme statutes. We observe that Pennsylvania and Ohio, which have the notorious disgorgement statute, retain a larger than average fraction of their local firms and that the third “misbehaving” state, Massachusetts, retains a lower than average fraction of its local firms.

We ran the following (unreported) regression on the set of all states other than Delaware with 10 or more firms located in them.<sup>53</sup> We regressed the fraction of local firms that each state succeeds in retaining in state on the number of standard antitakeover statutes that the state has, on dummy variables indicating whether the state has one of the two types of extreme statutes, and on all the demographic and other characteristics of the state used in the regression reported in Table 7. The results indicate that increasing the number

<sup>51</sup> Recapture statutes prevent bidders that gained control from making any short-term profits by requiring that such profits be given to the acquired company.

<sup>52</sup> The staggered board statute adopted by Massachusetts changed the default: instead of allowing a staggered board only if the company opts into such an arrangement, the statute imposes such an arrangement unless the company opted out of it, and the opting-out requirements were difficult to obtain for the shareholders of existing Massachusetts firms.

<sup>53</sup> Only Arkansas, Montana, and North Dakota have less than 10 firms each.

of antitakeover statutes increases (at 95 percent significance) the fraction of local firms that incorporate in state.

Because increasing the number of antitakeover statutes might have a non-linear effect, we also ran the above regression using, instead of the number of statutes, five dummy variables indicating whether the state has one, two, three, four, or five antitakeover statutes. The results indicate that having three, four, or five antitakeover statutes increases (also at 95 percent confidence) the fraction of local firms retained. Compared with having no antitakeover statutes, having all five standard antitakeover statutes increases the fraction of local firms retained by .26, a very large increase indeed.

*Taking Firm Characteristics into Account.* The above regressions do not control for the possibility that states might vary in the characteristics of the firms located in them. To address this concern, we conducted a test controlling for firm characteristics. We regressed on the set of all firms a dummy variable that is equal to one if the firm incorporates in its home state and to zero otherwise on

1. the antitakeover protections that are offered by the state, as described below;
2. a dummy variable indicating whether the state has adopted RMBCA or MBCA;
3. the percentage of the voters choosing the Democratic candidate in the 2000 election;
4. all the characteristics of firms (including industry dummies) and demographic and regional characteristics of states examined in Section III (see Table 7, column 2).

With respect to the first variable, we used three different specifications for states' antitakeover protections. We accordingly ran three regressions, the results of which are reported in Table 10.

The regression reported in column 1 of Table 10 uses the score of each state in the antitakeover protection index to stand for the state's antitakeover protection. The regression reported in column 2 also relies on the index but, in order not to impose linearity on the influence of the index, uses five dummy variables representing the groups of states with index levels of 1, 2, 3, 4, and 5. The regression reported in column 3 uses dummy variables for each of the standard antitakeover statutes. All three regressions use dummy variables for the extreme statutes, the recapture (disgorgement) statute present in Pennsylvania and Ohio and the staggered boards statute present in Massachusetts.

All three regressions control for all the characteristics of firms and characteristics of states discussed in connection with Table 7. The coefficients of these characteristics are already reported in Table 7; we therefore do not report them again in Table 10 in order to focus on the parameters of interest in this section. It is also worth noting that, as a robustness check, we ran

TABLE 10  
WHAT MAKES STATES ATTRACTIVE FOR IN-STATE FIRMS? LOGIT REGRESSION

	DEPENDENT VARIABLE: IN-STATE INCORPORATION		
	(1)	(2)	(3)
Standard statutes:			
Control Share			.85 (.11)**
Fair Price			-.24 (.17)
No Freeze-outs (1–3 years)			-.04 (.10)
No Freeze-outs (4–5 years)			.74 (.13)**
Poison Pill Endorsement			.50 (.10)**
Constituencies			-.04 (.11)
Index	.26 (.04)**		
Index1		.42 (.24) <sup>+</sup>	
Index2		.41 (.31)	
Index3		1.26 (.26)**	
Index4		1.23 (.22)**	
Index5		1.65 (.26)**	
Extreme statutes:			
Staggered board	.49 (.15)**	.5 (.16)**	-.47 (.27) <sup>+</sup>
Recapture	.16 (.16)	.08 (.22)	.04 (.18)
RMBCA	-.05 (.10)	-.07 (.12)	.05 (.10)
Percentage of Democrats	-2.36 (.86)**	-3.06 (1.25)**	-2.64 (.99)**
Pseudo $R^2$	.0777	.0791	.0904

NOTE.—All regressions control for the firm and state characteristics in Table 7 and include a two-digit industry dummy variable.  $N = 5,325$ .

<sup>+</sup> Significant at the 10 percent level.

\*\* Significant at the 1 percent level.

the three regressions with respect to only the firms that went public during 1996–2000; we obtained results similar to those obtained for the set of all firms that we now turn to discuss.

*Standard Antitakeover Statutes.* All the regressions reported in Table 10 indicate that having standard antitakeover statutes makes a state more likely to retain local firms. The first regression indicates that having a higher score on the antitakeover index increases the fraction of retained firms (at 99 percent confidence). The second regression, which uses dummies for each of the index levels, indicates that having three or more statutes is especially helpful for retaining in-state firms (at 99 percent significance). The third regression, using separate dummies for different standard statutes, indicates that the most helpful statutes (all at 99 percent confidence) are a control share acquisition statute, a business combination statute with a long (4–5 years) moratorium period, and a pill endorsement statute.

Calculating the marginal effects from the logit regressions, we found that the effect of antitakeover statutes is not only highly significant but also substantial in magnitude. To provide a sense of the magnitude of the identified effects, we derived two estimates using the results of the regression on the antitakeover index reported in column 1. First, we derived a prediction for

the choices that the firms located in the eight states without antitakeover protection would have made had their states adopted all five standard antitakeover statutes. This allowed us to estimate that, if these eight states had adopted all five antitakeover statutes, the percentage of firms that remain in state would have more than doubled—increasing from the current level of 23 percent to 50 percent.

Conversely, we estimated in the same way what would have happened if the nine states that currently have five standard antitakeover statutes had not adopted such statutes. To this end, we used our regression to predict how the change would have affected the choices of the firms located in these nine states. This provided us with an estimate that, without the antitakeover statutes, these nine states would have lost more than half of the firms currently located in them, with the percentage of firms remaining in state declining from the current level of 49 percent of all local firms to 23 percent.

*Extreme Statutes.* In all three regressions reported in Table 10, having a recapture statute has a positive but not statistically significant effect on states' attractiveness for in-state firms. Thus, as far as retaining local firms is concerned, the evidence does not support the belief that adopting a recapture statute has hurt Pennsylvania and Ohio in the incorporation market. To be sure, according to the findings reported by Romano, some local firms opted out of the adopted statute.<sup>54</sup> There is no evidence, however, that the adoption of the statute has led firms located in Pennsylvania and Ohio to incorporate elsewhere, which is the critical test for determining success in the market for incorporations.

As to the staggered board statute, the results are mixed. A staggered board statute helps in retaining firms (at 99 percent confidence) in two regressions but has a negative effect (at 90 percent confidence). The results for both the staggered boards statute and the recapture statute are the same when the regressions are run only on the firms that went public during 1996–2000.

Whereas our findings that standard antitakeover statutes help states attract local firms are generally consistent with those of Guhan Subramanian's contemporaneous study, he concludes that the recapture and staggered board statutes have hurt the ability of the states adopting them to retain firms.<sup>55</sup> However, he uses one dummy variable to stand for the presence of either a recapture or a staggered board statute, and he controls only for firm characteristics but not for state characteristics other than their antitakeover statutes. When we ran the same regressions, we obtained results similar to his. However, in order to allow for the possibility that the incorporation market did not treat recapture and staggered board statutes in the same way, we used a separate dummy variable for each of these statutes. With this specification, the recapture statute was no longer found to hurt the states adopting it even

<sup>54</sup> See Romano, *supra* note 10.

<sup>55</sup> See Subramanian, *supra* note 11.



without introducing state characteristics. And once we controlled for state demographic and regional characteristics, the staggered board statute no longer had a negative effect on the state adopting it.

We should caution, however, against drawing from our findings any firm conclusions with respect to the effects of the adoption of extreme statutes. The dummy for recapture statute is in fact a dummy for Pennsylvania and Ohio, and the staggered board dummy is a dummy for Massachusetts, and these three states might have some special features other than having these extreme statutes. It would be fair to say, however, that the existing evidence does not provide a basis for accepting the belief of supporters of state competition that adopting extreme antitakeover statutes is penalized in the incorporation market.

*Liberal Political Culture.* It is interesting to note that, in all three regressions, states that are strongly Democratic are less successful (at 99 percent confidence) in retaining local firms. For any given set of statutory corporate provisions, judges in states that are strongly Democratic might be expected to be more willing to intervene, which might be unattractive to those making incorporation decisions.<sup>56</sup>

#### E. *What Makes States Attractive for Out-of-State Firms?*

We now turn to examine what makes states other than Delaware more or less attractive to out-of-state incorporations. Looking first at the summary statistics in Table 5, we find that out of the 10 states with more than 15 out-of-state incorporations each, eight states have four or five antitakeover statutes.

To examine this issue more systematically, we ran the regressions reported in Table 11. In these regressions, the dependent variable is  $\log(1 + \text{number of out-of-state incorporations})$  for all states other than Delaware.<sup>57</sup> For the covariants, we used the same firm and state characteristics (including the alternative specifications of antitakeover protections) that we used in the earlier regressions reported in Table 10.

Starting with state demographic characteristics, a higher per capita income helps attract out-of-state incorporations (at 99 percent confidence in all three regressions). It might be that once firms go out of state, they prefer a state with a relatively developed legal infrastructure, whose presence might be correlated with a higher per capita income.

The ideological leaning toward Democrats does not have any statistically

<sup>56</sup> Different observers might interpret this link in different ways. The desire to avoid judicial intervention might be rooted in shareholder value considerations (a positive interpretation) or in agency problems (a negative interpretation).

<sup>57</sup> We have checked different specifications, such as having the dependent variable be equal to the number of out-of-state incorporations, which yields similar results, and obtained similar results.

TABLE 11  
WHAT MAKES STATES ATTRACTIVE FOR OUT-OF-STATE INCORPORATIONS?  
ORDINARY LEAST SQUARES REGRESSION

	DEPENDENT VARIABLE: log(1 + NUMBER OF OUT-OF-STATE INCORPORATIONS)		
	(1)	(2)	(3)
Standard statutes:			
Control Share			.95 (.4)*
Fair Price			-.17 (.51)
No Freeze-outs (1-3 years)			-.01 (.44)
No Freeze-outs (4-5 years)			.38 (.51)
Poison Pill Endorsement			.70 (.37) <sup>+</sup>
Constituencies			.33 (.42)
Index	.33 (.09)**		
Index1		.99 (.57)	
Index2		1.87 (.67)**	
Index3		1.14 (.50)*	
Index4		1.68 (.48)**	
Index5		1.87 (.55)**	
Extreme statutes:			
Staggered board	-.21 (1.15)	-.155 (1.16)	-.03 (1.4)
Recapture	-.03 (.85)	.16 (.93)	.58 (.95)
RMBCA	-.53 (.32) <sup>+</sup>	-.66 (.37)	-.34 (.36)
Percentage of Democrats	-5.72 (2.14)*	-4.26 (2.30) <sup>+</sup>	-3.42 (2.47)
State demographic characteristics:			
(log)Population	7.1E-08 (1.0E-7)	-8.8E-08 (1.0E-07)	-1.1E-07 (1.2E-07)
In-State Firms	-.001 (.003)	-.005 (.003)	.004 (.003)
Per Capita Income	1.8E-04 (5.4E-05)**	1.8E-04 (5.5E-05)**	1.6E-04 (6.5E-05)*
State region:			
Northeast	.09 (.52)	.06 (.54)	.30 (.62)
South	.64 (.40)	.75 (.41) <sup>+</sup>	.98 (.47)**
West	.80 (.45) <sup>+</sup>	.98 (.47)**	.45 (.50)
Adjusted R <sup>2</sup>	.4453	.4483	.4666

NOTE.—RMBCA = Revised Model Business Corporation Act.  $N = 50$ .

<sup>+</sup> Significant at the 10 percent level.

\* Significant at the 5 percent level.

\*\* Significant at the 1 percent level.

significant role. It might be that once a firm goes out of state, it will tend to choose a state with certain clear positions on corporate law issues, and those positions will make the general ideological leaning of the state less significant.

With respect to antitakeover protection, the results clearly indicate that offering stronger antitakeover protection is also helpful in attracting out-of-state incorporations. The first regression (column 1) indicates that having a higher score on the antitakeover index makes a state more attractive (at 99 percent confidence) to out-of-state incorporations. The second regression (column 2), which uses dummies for each of the score levels, also finds such a link. Finally, the third regression (column 3) indicates that the statutes most helpful in attracting out-of-state incorporations are a control share acquisition statute and a pill endorsement statute (at 95 percent confidence and 90 percent confidence, respectively); business combinations statutes, which were the third type of statute that we identified as helpful for retaining in-state firms, are not statistically significant in attracting out-of-state incorporations.

Finally, as to the two types of extreme statutes, in all three regressions, neither a staggered board statute nor a recapture statute has a statistically significant effect on states' ability to attract out-of-state incorporations. The evidence, again, does not provide a basis for concluding that the incorporation market has penalized states adopting such statutes.

#### *F. The Overall Effects of Corporate Migration on Antitakeover Protections*

We finally turn to examine the overall effect of the migration of firms to states other than Delaware on the takeover rules governing them. Does this migration overall operate to increase antitakeover protections?

To study this question, let us first look at some summary statistics. Table 12 displays, for each level of the antitakeover index, (1) how many of the migrating firms had this index level at the home state that they left, and (2) how many of the migrating firms had this index level at their state of incorporation. The table indicates that most migrating firms either strengthened or retained their level of antitakeover protection. Sixty percent of the migrating firms moved to a state that had more antitakeover statutes than the state in which they had been located. Furthermore, whereas 23 percent of the firms moved to a state that had the same number of antitakeover statutes, 87 percent of these cases were firms whose state of location already had four or five statutes.

Table 13 reports results on the distribution of changes caused by migration. Within the group of firms not located or incorporated in Delaware, the migration of firms to out-of-state incorporation increases (at 95 percent confidence) the level of the antitakeover index that governs these firms. Furthermore, for each of the standard antitakeover statutes, this migration

TABLE 12  
ANTITAKEOVER INDEX GOVERNING FIRMS BEFORE AND AFTER MIGRATION

INDEX OF HEADQUARTERS STATE	INDEX OF INCORPORATION STATE (%)						TOTAL (%)
	0	1	2	3	4	5	
0	1 (1.03)	14 (14.43)	8 (8.25)	6 (6.19)	22 (22.68)	46 (47.42)	97 (100)
1	6 (5.71)	13 (12.38)	10 (9.52)	13 (12.38)	22 (20.95)	41 (39.05)	105 (100)
2	0 (0)	9 (30.00)	2 (6.67)	0 (0)	6 (20.00)	13 (43.33)	30 (100)
3	1 (1.54)	7 (10.77)	2 (3.08)	3 (4.62)	33 (50.77)	19 (29.23)	65 (100)
4	3 (1.09)	18 (6.52)	13 (4.71)	21 (7.61)	106 (38.41)	115 (41.67)	276 (100)
5	3 (3.95)	8 (10.53)	1 (1.32)	4 (5.26)	37 (34.82)	23 (30.26)	76 (100)
Total	14 (2.16)	69 (10.63)	36 (5.55)	47 (7.24)	226 (34.82)	257 (39.6)	649 (100)

TABLE 13  
EFFECTS OF CORPORATE MIGRATION ON ANTITAKEOVER PROTECTION

	Before	After	Increase	95 Percent Confidence Interval
Antitakeover index	2.84	3.81	.97	.8–1.13
Control Share	.41	.63	.22	.16–.28
Fair price	.59	.77	.18	.13–.22
No Freeze-outs	.69	.79	.10	.05–.014
Poison Pill Endorsement	.56	.86	.29	.25–.35
Stakeholders	.58	.76	.18	.13–.23

NOTE.— $N = 649$ .

increases (at 95 percent confidence) the likelihood that any given migrating firm will be governed by such a statute. Thus, this migration operates unambiguously to increase the overall levels of antitakeover protection enjoyed by these firms or, more accurately, their managers.

### G. *The Actual Effects of Antitakeover Statutes*

As discussed, there is a significant body of work that assumes or suggests that antitakeover defenses, and antitakeover statutes in particular, protect managers from takeovers. Supporters of state competition largely believe that state antitakeover statutes hurt shareholders and that state competition discourages the adoption of such statutes. We have seen that this belief is inconsistent with the evidence. In closing this section, however, we wish to discuss briefly the view held by some that antitakeover defenses do not have an effect on outcomes.

In particular, Sanjai Bhagat and Richard Jefferis have argued that, once the performance of firms is controlled for, takeover defenses did not affect the likelihood of managers remaining in control during the period 1984–87.<sup>58</sup> Note, however, that very little can be inferred from the effects of defenses during 1984–87 and the effects of antitakeover statutes during the period relevant for our study, the late 1990s. The period studied by Bhagat and Jefferis took place before most antitakeover statutes were adopted and before managers gained the power to “just say no” in a wide range of cases.

Indeed, there is evidence that current takeover defenses have significant consequences. Studies by Coates, Subramanian, and one of us show that takeover defenses had significant effects on the outcome of hostile bids during the second half of the 1990s.<sup>59</sup> Controlling for the performance and other features of targets, these studies find that defenses—and in particular, having a combination of a staggered board and a poison pill, which is possible only in states that allow pills—substantially increase the likelihood that a target’s managers will retain their independence. Consistent with these studies, we find in current work significant correlation between takeover defenses and lower firm value.<sup>60</sup> And the empirical evidence on the negative abnormal returns produced by the passage of the extreme antitakeover statutes suggests that at least these statutes were viewed as consequential by investors.

Furthermore, what is important for our inquiry is not whether antitakeover statutes have been in fact consequential. Rather, what is important is whether they have been viewed as potentially consequential by those making incorporation decisions. As noted, those making incorporation decisions might have attached significance to the adoption of statutes not only for their direct and immediate consequences but also for the antitakeover stance that they signal and the information they convey on how the state would likely act in the future as the takeover battlefield develops.

The evidence we have presented above is inconsistent with the proposition that, because antitakeover statutes are unlikely to be consequential for managers’ chances of retaining control, such statutes do not influence those making incorporation decisions. If this proposition were valid, we would expect states’ antitakeover statutes to have no significant effect on incorporation decisions. But we have found such an effect to be present.

One interesting investigation that future work might pursue would break the set of all publicly traded firms into those that have a controlling shareholder (or group of shareholders acting in concert) and those that do not.

<sup>58</sup> See Sanjai Bhagat & Richard H. Jefferis, Jr., *The Econometrics of Corporate Governance Studies* (2002).

<sup>59</sup> See Lucian Ayre Bebchuk, John C. Coates IV, & Guhan Subramanian, *The Powerful Antitakeover Force of Staggered Boards: Theory, Evidence, and Policy*, 54 *Stan. L. Rev.* 887 (2002); Lucian Ayre Bebchuk, John Coates IV, & Guhan Subramanian, *The Power of Takeover Defenses* (Working paper, Harvard L. Sch. and Nat’l Bur. Econ. Res. 2003).

<sup>60</sup> See Bebchuk & Cohen, *supra* note 8.

Takeovers are of greater concern for managers of firms in the former group than in the latter group. We therefore conjecture that the incorporation decisions of the former group are less sensitive to the existence of antitakeover statutes than those of the latter group.

#### V. CONCLUDING REMARKS

This paper has taken a different approach to the empirical study of state competition than prior work. Whereas prior work has focused on the wealth effects of Delaware incorporation, taking incorporation decisions as exogenous, this paper has focused on investigating the factors that influence and explain incorporation decisions. Furthermore, whereas prior work has largely put all states other than Delaware in one group, this paper has used cross-state differences to identify what makes states either more or less successful in attracting incorporations.

The evidence indicates that a significant home-state advantage is at work in the market for corporate law. In contrast to the conventional picture of state competition, a firm's incorporation choices are not solely based on comparing states' corporate law systems but are significantly influenced by the firm's location. States are substantially more successful in "selling" their corporate laws to firms located in them than to firms headquartered elsewhere. This home-state advantage is especially strong with respect to smaller and older firms, a pattern consistent with several explanations for the presence of such advantage. The evidence is consistent, we have found, with firms induced to remain in state by the desire to save costs, by the hope of benefiting from local favoritism, or by the influence of local counsel. The evidence is inconsistent, however, with the possibility that the home-state advantage is a product of the widespread adoption of RMBCA or of states tailoring their corporate law system to the type of firms located in them.

The existence of substantial home-state advantage indicates that Delaware's dominance of the incorporation market is greater than is commonly perceived. Although a large fraction of firms do not incorporate in Delaware, the great majority of these firms do not incorporate in some competitor of Delaware for out-of-state incorporation. The choice is thus not among a multitude of competitors for the national market but rather between incorporating in the home state or in Delaware. Thus, the competition for out-of-state incorporations is much weaker than has been recognized. A companion article by Assaf Hamdani and one of us analyzes the possible explanations for the absence of active competition for out-of-state incorporations.<sup>61</sup> This article also argues that, given this feature of the market, it would be desirable

<sup>61</sup> See Lucian Bebchuk & Assaf Hamdani, *Vigorous Race or Leisurely Walk: Reconsidering the Competition over Corporate Charters*, 112 *Yale L. J.* 553 (2002).

for the federal government to invigorate competition by providing a federal incorporation option.

Although all states have some success in retaining firms located in them, and although none of the other states come even close to Delaware in terms of attracting out-of-state incorporations, states differ greatly in how they fare in the incorporation market. We have used cross-state differences to study the legal and other features of states that make them attractive to incorporating firms. Among other things, we have found that states that have a heavily Democratic electorate, and thus are more likely to have activist judges, are less successful in attracting firms. States that have adopted RMBCA or its predecessor are not more successful in attracting incorporations. Demographic characteristics and location of the state also play a role.

Addressing the longstanding debate on whether state competition has encouraged the proliferation of antitakeover statutes, we have found that amassing antitakeover statutes makes states more successful in the incorporation market—both in retaining in-state firms and in attracting out-of-state incorporations. States that offer all or most of the standard antitakeover statutes do especially well, and states that offer no such statutes do especially poorly. Our estimates of the identified effect of antitakeover statutes indicate that it is quite large in magnitude.

Indeed, in contrast to the beliefs of supporters of state competition, the evidence does not indicate that the incorporation market has penalized even those three states that passed statutes universally regarded as detrimental to shareholders. These statutes thus did not bring the states adopting them to the point at which antitakeover protections drive away firms. Because these statutes did not help the adopting states attract more firms, however, this point might not be far away from the one reached by these states.

Our findings on antitakeover protection and state competition call for reconsidering a widely held view that is both negative on antitakeover statutes and positive on state competition. Those who hold this view should revisit at least one of the elements of their position. At this stage, researchers who hold this view can reasonably take different positions on how it should be revised in light of our findings.<sup>62</sup> What is important, however, is that the established link between state antitakeover statutes and incorporations be taken into account in subsequent analysis of state competition and takeover law.

<sup>62</sup> Our own view is that some state antitakeover statutes are likely beneficial or neutral. Control share acquisition statutes, for example, can address the problem of pressure to tender and facilitate undistorted shareholder choice. See Lucian Arye Bebchuk, *The Case against Board Veto in Corporate Takeovers*, 69 *U. Chi. L. Rev.* 973 (2002). However, poison pills can produce excessive protection from takeovers when they are coupled with staggered boards. As a result, the wide latitude granted to managers to use poison pills by poison pill endorsement statutes and stakeholder statutes is likely to produce excessive protection in many cases. Thus, our view is that, although some antitakeover statutes are beneficial or neutral, others are not, and that the incorporation market provides states with excessive incentives to restrict takeovers.

Our analysis can provide both the basis and questions for subsequent empirical work. Much more work can be done on the factors that induce firms to remain in state. Also, our approach for studying how incorporation choices are affected by cross-state differences can be used with respect to other features of states and their corporate law. Future work could examine how incorporation choices are affected by elements of corporate law other than those on which we have focused. Such work could help complete the picture with respect to the determinants of firms' incorporation decisions and, in turn, the incentives that state competition provides.

Finally, whereas our work has taken as given the existing differences in takeover law among states, it would be worthwhile to investigate what explains these differences—an inquiry into the supply side of the market. Given that amassing antitakeover statutes helps attract incorporations, why do all states not amass such statutes? The reason, at least in part, is presumably that not all states focus on the goal of maximizing the number of incorporations.<sup>63</sup> Although the conventional assumption in the literature on state competition is that all states are guided by this goal, the findings of this paper indicate that this is clearly not the case; after all, many states do not take some easy steps (namely, adopting more antitakeover statutes) that would likely increase the number of incorporations they attract. Exploring what makes some states but not others focus on attracting incorporations, as well as what differences among states produce their varied decisions on antitakeover statutes, are important questions for future research.

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<sup>63</sup> Some states (especially large states) might not care how many firms incorporate in them, and some states might have preferences about the substantive content of their corporate law and not only how this law would affect incorporations. (New York or California, for example, might have among their citizens a significant fraction of the shareholders of many public firms.) Marcell Kahan and Ehud Kamar have forcefully argued that most states have little interest in revenues from incorporations, and Cumming and MacIntosh have argued that the behavior of provinces is inconsistent with the view that they seek to maximize the number of (or revenues from) incorporations. See Marcell Kahan & Ehud Kamar, *The Myth of State Competition in Corporate Law*, 55 *Stan. L. Rev.* 679 (2002); and Douglas J. Cumming & Jeffrey G. MacIntosh, *The Role of Interjurisdictional Competition in Shaping Canadian Corporate Law*, 20 *Int'l Rev. L. & Econ.* 141 (2000).



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