Do the Owners of Small Law Firms Benefit from Limited Liability?

JOHN A. ROMLEY, ERIC TALLEY, AND BOGDAN SAVYCH

WR-403-ICJ
September 2007
PREFACE

This study investigates how the introduction of new organizational forms (limited liability partnerships and limited liability companies) has affected the organization and subsequent performance of small law firms. It should be of interest to policymakers at the federal and especially the state level, as well as professionals, their customers and others interested in the role that liability policy and business law play in markets for professional services. The work was completed under the auspices of the Kauffman-RAND Institute for Entrepreneurship Public Policy and was funded by the Ewing Marion Kauffman Foundation.

The RAND Institute for Civil Justice is an independent research program within the RAND Corporation. The mission of the RAND Institute for Civil Justice (ICJ), a division of the RAND Corporation, is to improve private and public decision making on civil legal issues by supplying policymakers and the public with the results of objective, empirically based, analytic research. The ICJ facilitates change in the civil justice system by analyzing trends and outcomes, identifying and evaluating policy options, and bringing together representatives of different interests to debate alternative solutions to policy problems. The Institute builds on a long tradition of RAND research characterized by an interdisciplinary, empirical approach to public policy issues and rigorous standards of quality, objectivity, and independence.

ICJ research is supported by pooled grants from corporations, trade and professional associations, and individuals; by government grants and contracts; and by private foundations. The Institute disseminates its work widely to the legal, business, and research communities, and to the general public. In accordance with RAND policy, all Institute research products are subject to peer review before publication. ICJ publications do not necessarily reflect the opinions or policies of the research sponsors or of the ICJ Board of Overseers.

The Kauffman-RAND Institute for Entrepreneurship Public Policy, which is housed within the RAND Institute for Civil Justice, is dedicated to assessing and improving legal and regulatory policymaking as it relates to small
businesses and entrepreneurship in a wide range of settings, including corporate governance, employment law, consumer law, securities regulation and business ethics. The institute's work is supported by a grant from the Ewing Marion Kauffman Foundation.

For additional information on the RAND Institute for Civil Justice or the Kauffman-RAND Institute for Entrepreneurship Public Policy, please contact:

Robert Reville, Director
RAND Institute for Civil Justice
1776 Main Street, P.O. Box 2138
Santa Monica, CA 90407-2138
(310) 393-0411 x6786;
FAX: (310) 451-6979
Email: Robert_Reville@rand.org

Susan Gates, Director
Kauffman-RAND Center for Entrepreneurship Public Policy
1776 Main Street, P.O. Box 2138
Santa Monica, CA 90407-2138
(310) 393-0411 x7452;
FAX: (310) 451-6979
Email: Susan_Gates@rand.org
CONTENTS

Preface ............................................................................................................................ iii
Contents ............................................................................................................................ v
Figures ............................................................................................................................ vii
Tables ............................................................................................................................ ix
Acknowledgments ........................................................................................................ xi
Abstract ........................................................................................................................ xiii
Acronyms ......................................................................................................................... xv

Importance of Liability for Small Professional Firms .................................................. 2
Potential Value Of LLP and LLC Forms to Small Professional Firms ......................... 4
Existing Evidence on the LLP and LLC Forms Among Professional Firms ................. 6
Focus of This Study ....................................................................................................... 7
Organization of This Document .................................................................................... 8

2. Organizational Forms for Multi-Owner Law Firms .................................................. 9
   General Partnership ..................................................................................................... 9
   Professional Corporations/Professional Associations ................................................ 9
   Limited Liability Partnerships and Limited Liability Companies ............................ 11

3. Data And Methods .................................................................................................... 14
   A New Data Set on American Law Firms in the 1990s .............................................. 14
   Organizational Structure of American Legal Services Industry, 1993 and 1999 ........ 17
   Analysis of Size and Reorganization Among GPs ..................................................... 20
   Analysis of Size, Reorganization and Growth .......................................................... 25
   Size and Reorganization Among GPs ........................................................................ 28
   Size, Reorganization and Growth ............................................................................ 33

5. Conclusions ............................................................................................................... 37

Bibliography .................................................................................................................. 41
FIGURES

Figure 1.1 Total Revenues of Law and Accounting Firms in 1997 by Firm Revenue ..................................................3
Figure 1.2 Total Employees of Law and Accounting Firms in 1997 by Firm Revenue .......................................................3
Figure 2.1 Number of States Authorizing LLP and LLC Forms for Law Firms by Year ...................................................12
Figure 3.1 Share of Law Firms by Organizational Form in 1993 and 1999 18
Figure 3.2 Organizational Forms of 1993 GPs in 1999 .................19
Figure 3.3 Organizational Forms of 1999 LLPs in 1993 .................19
Figure 3.4 Organizational Forms of 1999 LLCs in 1993 ...............20
Figure 3.5 Share of GPs in 1993 by Size Class (Number of Lawyers) ....21
Figure 3.6 Average Rates of Reorganization of GPs under New Limited-Liability Forms within States and by Year of First Authorization ..........................................................25
Figure 4.1 Rate of Reorganization under the LLP and LLC Forms as of 1999, by Number of Lawyers in 1993 .........................29
Figure 4.2 Predicted Impact of Increasing Size Class on the Rate of Reorganization, by Actual Number of Lawyers in 1993 ............32
Figure 4.3 Growth, by Reorganization under New Limited-Liability Form as of 1999 and Number of Lawyers in 1993 ...............34
Figure 4.4 Predicted Growth of New York Firms, by Reorganization under New Limited-Liability Form as of 1999 and Size in 1993 .36
(This page is intentionally left blank.)
Table 2.1 Important Features of Organizational Forms for Multi-Owner Law Firms from Perspective of an Owner .......................10

Table 4.1 Results for Multinomial-Logit Model of Organizational Form in 1999 ......................................................31

Table 4.2 Results for OLS Regression of Growth.........................35
(This page is intentionally left blank.)
We would like to thank the participants in the RAND-Kauffman conference on small business and regulation (October, 2004) for comments on an early version of this analysis.

We appreciate the support of our RAND colleagues, especially Susan Gates, Kristin Leuschner, and Carole Roan Gresenz. Nancy Good helped with the editing and preparation of the manuscript.
(This page is intentionally left blank.)
Beginning in the 1990s, states permitted law firms to organize as Limited Liability Partnerships and Limited Liability Companies. These organizational forms preserve many of the attractive features of a partnership while shielding each of a firm’s owners from liability for the malpractice of other owners. Some observers have asserted that this liability shield should be especially helpful to small law firms. If so, we would expect small partnerships to reorganize under the new forms and grow. This paper examines how the availability of these new organizational forms affected the organization of law firms during the period 1993-1999. It also explores how growth (measured in terms of number of lawyers) has varied between firms that reorganized into one of the new firms and those that did not. We find that smaller firms were much less likely to reorganize compared to larger firms, but small partnerships that reorganized grew faster than those that did not. Limited liability appears to be modestly beneficial to the owners of small law firms.
(This page is intentionally left blank.)
### ACRONYMS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>General partnership</td>
</tr>
<tr>
<td>PC/PA</td>
<td>Professional corporation/Professional association</td>
</tr>
<tr>
<td>LLP</td>
<td>Limited Liability Partnership</td>
</tr>
<tr>
<td>LLC</td>
<td>Limited Liability Company</td>
</tr>
<tr>
<td>SP</td>
<td>Sole proprietorship</td>
</tr>
</tbody>
</table>
(This page is intentionally left blank.)
1. INTRODUCTION

Legal liability is a significant concern for the owners of businesses that supply legal, accounting and other professional services.\(^1\) Adverse judgments or settlements against a professional firm might be so costly as to put the firm out of business, and the costs of resolving disputes alone can seriously impact a firm’s bottom line. Moreover, professional errors and omissions ("malpractice") represent a unique and significant source of liability exposure for professional services firms. Everyday experience and a vast body of research attest to the importance of malpractice liability to professionals generally.\(^2\)

Legal liability, furthermore, can pose a threat not just to the viability of the professional business itself but also to the personal assets of the owners. In a professional partnership, the owners’ personal assets can be called on, without limit, to satisfy a legal judgment.

Beginning in the 1990s, new “limited-liability” organizational forms became available to an important group of professional-service firms, namely, law firms. These Limited Liability Partnerships and Limited Liability Companies (LLPs and LLCs, respectively) shield each owner from vicarious liability for the firm’s obligations, including those arising from the malpractice of other owners.

While existing evidence indicates that exceptionally large law and accounting firms have embraced these forms, much less is known about their “take-up” among smaller firms, which represent a significant segment of the professional-services sector of the American economy, and how reorganization affects subsequent performance. This study examines reorganization of law-firm partnerships as LLPs and LLCs during the 1990s, as well as the growth of firms that did and did not reorganize.

\(^1\)Medicine, architecture and engineering are further examples of services that are typically viewed as professional in character.

\(^2\)See, for example, Chandra, Nundy and Seabury (2005).
IMPORTANCE OF LIABILITY FOR SMALL PROFESSIONAL FIRMS

Small firms represent a significant segment of the professional-services sector of the American economy. However, the definition of "small" varies with the professional service. In 1999 the Small Business Administration proposed that law firms and certified public accountant (CPA) firms be defined as "small" if their receipts did not exceed $5 million and $6 million, respectively (Federal Register, 1999). Figures 1.1 and 1.2 indicate that law firms with receipts of less than $5 million earned almost $65 billion in 1997 and employed 591,000 people (U.S. Census Bureau, 2000a). These figures comprise almost half of total industry receipts and almost 60 percent of employment. CPA firms with receipts of less than $5 million earned about $17 billion and employed 224,000 people.

Legal liability is a significant concern for small professional businesses. Direct impacts on a firm’s welfare can include adverse judgments or settlements as well as the costs of resolving disputes. Concern about the potential for litigation has also heightened the need for professional firms to carry liability insurance. Indeed, in a recent survey, small professional businesses ranked the cost and availability of liability insurance third on a list of seventy-five concerns, after health-insurance costs and federal taxes (Phillips, 2004).

---

3Receipts in this sector totaled $751 billion in 1997, while employment totaled 6.8 million people (U.S. Census Bureau, 2000a; U.S. Census Bureau, 2000b). These statistics include the two-digit sector 54 ("Professional, scientific and technical services") in the 1997 North American Industrial Classification System (NAICS), as well as the six-digit industry 621110 ("Offices of physicians"). This simple definition is arguably narrow. For example, "offices of dentists" (NAICS industry 621210) are excluded. Thus these statistics may be conservative.

4Law firms and CPA businesses correspond to NAICS industries 541110 and 541211, respectively. These statistics include taxable establishments with payroll operating the entire year.

5Because the 1997 Economic Census defines firm size only by ranges of receipts (e.g., $5-10 million), information on CPA firms with receipts of less than $6 million is unavailable. Hence these statistics underestimate the importance of small CPA firms.
Figure 1.1
Total Revenues of Law and Accounting Firms in 1997 by Firm Revenue

Figure 1.2
Total Employees of Law and Accounting Firms in 1997 by Firm Revenue
POTENTIAL VALUE OF LLP AND LLC FORMS TO SMALL PROFESSIONAL FIRMS

The new LLP and LLC organizational forms may help address liability concerns among small professional firms by shielding owners from vicarious liability, at least with respect to the malpractice of other owners. Concern over malpractice suggests that firms with more than one owner ("multi-owner" firms) may find these new forms especially attractive.6

Anecdotal evidence suggests that vicarious liability can be a significant concern among law firms in general. As one attorney remarked, “You would have to be out of your mind to be a partner in a law firm these days.” (Reuben, 1994) When this attorney’s firm went bankrupt, 260 partners were required to pay a total of $40 million. He then became a partner at another firm, which subsequently was required to pay $41 million for the conduct of a few partners relating to a failed savings and loan. After the firm’s insurance was exhausted, 109 partners were personally responsible for the remaining $16 million.

This example, from the 1990s, provides a reminder that the availability of the LLP and LLC forms owes much to the savings-and-loan crisis, during which federal regulators sought to recover their financial losses from lawyers and accountants affiliated with the failed financial institutions (Ciccotello and Grant, 1999). The LLP was first authorized for professionals in Texas in 1991.7

But do these new organizational forms tend to provide the greatest benefit to large or small firms? At least for law firms and perhaps accounting firms, the preceding anecdote and the historical context suggest that big businesses may be the primary beneficiaries of a limitation on vicarious liability. Ribstein (1998, 2001) has argued that vicarious liability imposes a disproportionate burden on large law firms, constraining them from operating at their efficient scale and

---

6An owner remains personally liable for her own malpractice and that of those she supervises.
7The LLC form was created in the late 1970s with small businesses in mind (Ciccotello and Grant, 1999). As we discuss in the second chapter, law firms were permitted to organize as LLCs only beginning in the 1990s.
scope. In a formal model, Romley and Talley (2005) find that limited liability strengthens the bargaining position of relatively large firms with respect to their clients. If these accounts are correct, large firms might have more to gain than small firms from the limited liability organizational forms.

Others, however, have stressed the importance of the LLC and LLP forms for small businesses. For example, the president of the Chicago Bar Association advocated the authorization of the LLP form for law firms with a hypothetical example that illustrates the potential importance of this organizational form for small firms:

"The scenario is this: a small firm with three partners, each with a different area of practice. Partner one makes an error and the firm is sued for malpractice. Judgment is entered against the firm and all of the firm's insurance and assets are used to pay the judgment. But it is not enough, and partner one has very few personal assets, so partners two and three, the non-acting, innocent partners, lose their homes to satisfy the judgment." (Nijman, 2003)

When the Illinois Supreme Court gave its approval to authorize LLPs, the same observer remarked, ""This is very good news for any law firm in Illinois, but especially for small firms." (Vock, 2003, quoting Nijman) She explained that smaller firms are asset-poor and less likely to carry enough insurance, thus jeopardizing owners' personal assets.8

It is possible that limited (vicarious) liability is attractive to professionals irrespective of firm size. A Chair of the American Bar Association subcommittee on limited-liability companies remarked, "I think every law firm in the country is probably looking at this in one way or another... It's clearly the hottest topic in the law today, at least when it comes to practice management." (Reuben, 1994)

---

8The evidence on the malpractice experience of law firms by size is limited. In Florida from 1988 to 1994, insured law firms with two to five lawyers experienced 38.5 percent of malpractice claims while employing 19.3 percent of lawyers (Ramos, 1995).
EXISTING EVIDENCE ON THE LLP AND LLC FORMS AMONG PROFESSIONAL FIRMS

There is some evidence concerning take-up of the new organizational forms in the legal-services industry. Two studies have analyzed the prevalence of the LLP and LLC forms on the basis of firm size, as defined by a firm’s number of lawyers.

Baker and Krawiec (2005) investigated New York City-based firms with at least 25 lawyers. They found that 67 percent were LLPs, and 1 percent were LLCs. Among these firms, there was no apparent relationship between size and organizational form.

Hillman (2003) considered all American law firms. He found that among firms with 50 or more lawyers in 2002, 48 percent were LLPs, and 9 percent were LLCs. Among all firms, these statistics were 9 percent and 7 percent, respectively. Hence, the respective shares of LLPs and LLCs among firms with fewer than 50 lawyers must have been less than 9 percent and 7 percent. Thus, this study found that firms with fewer than 50 lawyers were thus much less likely to be organized under the new limited-liability forms than were firms with 50 or more lawyers.

This evidence is relevant to the issue of whether small law firms benefit from the LLP and LLC forms and, in particular, their liability shields. Owners presumably tend to choose the organizational form that is best for their firms. Given this premise, we can conclude from the findings of these studies that many relatively larger firms (defined as having either 25 or more or 50 or more lawyers) have benefited from the new forms. However, because the studies to date have not looked

---

9Ciccotello and Grant (1999) investigate the prevalence of professional-services firms among businesses registering as LLPs and LLCs. Law, medicine and accounting accounted for seventy percent of LLP registrants. “Emerging” professions (such as consulting) are prominent among LLCs. These data are not directly informative about the prevalence of the new forms within (versus across) industries. Nor do the authors investigate the size of firms that opt for the LLP and LLC forms.

10While the Small Business Administration defines small law firms on the basis of receipts, the studies discussed here lacked access to such data. Our view is that the number of lawyers is likely to be highly correlated with receipts.

11The timeframe for these statistics appears to be 2003.

12The authors abstract from LLCs in this particular analysis.
specifically at firms with fewer than 25 lawyers, the existing evidence does not speak to the relationship between organizational form and size among small firms, which comprise the vast majority of firms in the U.S. (see Section 3).

FOCUS OF THIS STUDY

This study analyzes the relationship between the number of lawyers in a firm with unlimited liability and its decision to reorganize as an LLP or LLC. We also examine the performance of firms subsequent to reorganization. We did so by creating a unique data set on the number of lawyers and organizational form of American law firms over the period 1993 to 1999, when many states first permitted law firms to organize as LLPs and LLCs. While we would like to assess whether liability limitations are beneficial to the owners of small firms in a variety of professional-services industries, appropriate data on the size and organization of professional firms are generally unavailable. Thus, we focus on the legal-services industry.

Our research strategy rests on two assumptions. First, we postulate that a law firm whose owners are vicariously liable reorganizes as an LLP or LLC if and only if their benefits, particularly their liability shields, outweigh their costs, particularly the costs of reorganization. Take-up by small multi-owner law firms would then indicate that these firms benefit. Second, we postulate that growth subsequent to reorganization is a further indicator of benefits from limited liability.13

While others have investigated the relationship between limited liability and firm growth (Harhoff, Stahl and Woywode, 1998), to our knowledge, we are the first to do so in the context of professional services.

This study therefore addresses the following questions:

13Romley and Talley (2005) formally derive related hypotheses from a theoretical model relating the benefits of limited liability to firm size.
Did small multi-owner law firms whose owners were vicariously liable reorganize as LLPs or LLCs? Did "take-up" by these firms differ with their size?

Did the number of lawyers at those firms that reorganized subsequently grow? Did such firms grow faster than firms that did not reorganize?

Our analysis has limitations. First, we do not address the impact of limited liability on the creation of small law firms. While the LLC and LLP have come to be the forms of choice among small start-ups (Miller, 1997), new firms cannot be identified reliably in our data set. Second, we do not analyze the impact of limited liability on consumers of legal services. Critics have argued that lawyers benefit at their clients’ expense (McWilliams, 2004). - 14 - This important concern lies beyond the scope of the present effort.

ORGANIZATION OF THIS DOCUMENT

This report is comprised of five sections. Section Two characterizes the history and important features of the organizational forms under which a multi-owner law firm may operate. Section Three introduces our data set and describes our analytical methods. Section Four presents the results of the empirical analysis. Section Five discusses the implications of our findings for policy regarding professional liability in small businesses.

---

14On the other hand, Ribstein (2001) argues that vicarious liability harms the clients of large law firms.
2. ORGANIZATIONAL FORMS FOR MULTI-OWNER LAW FIRMS

This section describes the history of the organizational forms under which multi-owner firms have practiced law and characterizes those features that seem likely to influence owners’ decisions about form during the study period of 1993-1999.

GENERAL PARTNERSHIP

A general partnership is a form of business organization under which owners (that is, “partners”) equally share in firm profits and losses. Historically, a multi-owner firm could not operate as a corporation, only as a GP. A variety of motives accounted for this prohibition, including the view that lawyers should be accountable to their clients for malpractice (Hillman, 2003). The corporate form generally limits the vicarious liability of owners.

As Table 2.1 indicates, the most important feature of a multi-owner GP is that each owner is vicariously liable for the firm’s obligations, including those arising from the malpractice of other owners. Other features of the GP seem likely to influence owners’ choices among organizational forms. First, partnership income is taxed only once. The partnership itself pays no taxes but passes income through to its owners. The owners then pay personal taxes on the income. Corporations, in contrast, can face double taxation. Second, the GP is very “flexible.” We will describe some of the restrictions on firms that render other forms less flexible and hence less attractive, all else being equal.

PROFESSIONAL CORPORATIONS/PROFESSIONAL ASSOCIATIONS

Under the GP form, law firms could not avail themselves of certain benefits conferred by the Internal Revenue Code on corporations. For example, neither a corporation nor its employees pay taxes on pension contributions (Gilson, 1991). Professionals challenged this disparate treatment in the courts. In 1954 the Internal Revenue Service was compelled to treat business associations of professionals that had the
### Table 2.1
**Important Features of Organizational Forms for Multi-Owner Law Firms from Perspective of an Owner**

<table>
<thead>
<tr>
<th>Form</th>
<th>Vicarious liability</th>
<th>Taxation</th>
<th>Flexibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>GP</td>
<td>Yes</td>
<td>Firm passes income through to owners without paying taxes</td>
<td>Most flexible</td>
</tr>
<tr>
<td>PC/PA</td>
<td>To some extent for other owners’ malpractice, none for other obligations</td>
<td>Pensions and other benefits are treated more favorably than under GP; corporate income is taxed (unless S Corp.)</td>
<td>Probably least flexible</td>
</tr>
<tr>
<td>LLP</td>
<td>None for other owners’ malpractice, maybe for other obligations</td>
<td>Firm passes income through to owners without paying taxes</td>
<td>Flexible</td>
</tr>
<tr>
<td>LLC</td>
<td>No</td>
<td>Firm passes income through to owners without paying taxes</td>
<td>Flexible</td>
</tr>
</tbody>
</table>

"primary characteristics" of a corporation as such. The IRS complied but required that such associations be allowed the characteristics of corporations under state law. In response, states began in the 1960s to enact statutes permitting law firms to incorporate. As of 2004, every state had done so (Donn, 2004b). Following Hillman (2003), we label these forms Professional Corporations/Professional Associations (PC/PAs).

PC/PAs differ from general partnerships in several respects. First is the issue of liability. Organization as a PC/PA has generally constrained an owner’s vicarious liability for a firm’s obligations, although, during the study period, some such firms continued to face liability for other owners’ malpractice. State courts, exercising their inherent authority to regulate the legal profession, in some instances invalidated statutory prohibitions on such liability (Hillman, 2003). In other states such liability was merely capped (Donn, 2004b). In any case, an owner remains liable for his or her own malpractice and that of the employees he or she supervises, as is true for all organizational forms (Donn, 2004b).

PC/PAs also differ from other organizational forms in terms of tax treatment and flexibility. The income of a PC/PA is taxable unless the
firm opts for S-Corporation status. S Corporations, however, impose significant restrictions on firms. For example, the number of owners (i.e., shareholders) is capped at 75, and each owner must be a U.S. citizen. S-Corporation status also restricts certain tax deductions (Ciccotello and Grant, 1999).

**LIMITED LIABILITY PARTNERSHIPS AND LIMITED LIABILITY COMPANIES**

More recently, a law firm’s organizational options have broadened to include limited liability partnerships (LLPs) and limited liability companies (LLCs). The authorization of these forms has not been straightforward. In a previous study, we described the significant events in each state and our conclusions about the timing of authorization (Romley and Talley, 2005). As Figure 2.1 illustrates, a large number of states authorized LLPs and LLCs for law firms during the study period.

Limited liability partnerships (LLPs) and limited liability companies (LLCs) generally combine some of the attractive features of a partnership with those of a corporation. Under both forms, vicarious liability is limited. However, in some instances, an LLP or LLC must carry liability insurance (Ciccotello and Grant, 1999; Donn, 2004). Furthermore, business income is passed through to the owners. Finally, LLPs
and LLCs are more flexible than the PC/PA form but perhaps less so than the GP. For instance, an LLP or LLC may be required to have a finite lifetime, whereas a GP is not (Cicotello and Grant, 1999).

LLPs and LLCs differ from each other in potentially important respects. Some of these differences favor the LLP. For example, owners of law firms appear to prefer the title "Partner" under an LLP to that of "Shareholder" under an LLC (Hillman, 2003), and some practitioners reportedly fear that LLCs may eventually face regulation under securities law. On the other hand, owners of an LLP remain vicariously liable for business obligations unrelated to malpractice in some states (Donn, 2004b) and the potentially finite lifetime of an LLP may create management challenges (Cicotello and Grant, 1999).\(^\text{15}\)

The LLP and LLC forms may be attractive to existing GPs. Owners will weigh the benefits of reorganizing against the costs. The limitation on vicarious liability is the crucial benefit of the new forms relative to the GP. To the extent that the new forms are less

\(^{15}\text{In some states firms owned by one person may organize as LLCs (Cicotello and Grant, 1999.) Our focus here is on multi-owner firms.}\)
flexible than the GP, GPs would be less likely to reorganize, obscuring the benefit of limited liability to their owners. As to other costs of reorganization, registering as an LLP or LLC is a modest expense which sometimes increases with firm size (Bromberg and Ribstein, 2003). The reordering of relations among owners may be more problematic (Baker and Krawiec, 2005). We believe that these “costs” are, if anything, likely to increase with firm size, making smaller firms more likely to reorganize, all else equal. If large firms are more likely to reorganize, the reason must therefore be that limited liability is especially beneficial for these firms.

We would expect that the new forms are less attractive to PC/PAs. Such firms may incur significant tax liabilities through reorganization (Donn, 2004b). Moreover, the owners of these firms have not been vicariously liable for other owners’ malpractice in some jurisdictions.
3. DATA AND METHODS

In this section we first discuss the process used to create the data set and present some descriptive results concerning the organizational structure of the legal-services industry in the 1990s. We then describe our methods for analyzing the relationship between size, reorganization, and growth.

A NEW DATA SET ON AMERICAN LAW FIRMS IN THE 1990S

Our data set derives from the Martindale Hubbell Law Directory. Martindale Hubbell describes its directory as the "most complete listing of lawyers and firms" in the United States (Hillman, 2003). While appearance in the Directory is voluntary, a Martindale Hubbell representative has estimated that 80 to 90 percent of law firms are included.

We used computer-readable versions of the Fall 1993 and Fall 1999 editions of the Directory to create the data set. The remainder of this section describes this complex process. Our previous study elaborates on these tasks (Romley and Talley, 2005).

The data set was constructed in four steps. First, each law firm and its offices were identified. Office listings were linked to firms based on firm names. These names typically included the surnames of prominent lawyers and in many cases information on the firm's organizational form, e.g., "Professional Corporation" or "P.C." For each law firm, a main or "home" office was identified. Whenever the Directory did not designate the home of a multi-office firm, we designated the office with the most lawyers as the home office.
Our algorithm identified 65,620 firms and 74,966 offices in 1993.\textsuperscript{16} In the second step, we identified the number of lawyers at each firm. Each lawyer listing was linked to an office and thus to a firm. For 1993, we were unable to link any lawyers to 4,231 firms. For an additional 852 firms, no owner could be identified on the basis of lawyers' titles.\textsuperscript{17} Firms for whom we could not identify an owner were excluded from the sample.

The number of lawyers appears to be largely accurate among remaining firms. The number of lawyers at such firms averaged 5.41 in 1993. In comparison, the average was 2.96 in the 1992 Economic Census (U.S. Census Bureau, 1995; U.S. Census Bureau, 1996).\textsuperscript{18} Furthermore, Baker and Parkin (2006), also using the Directory, were able to identify 284,729 lawyers in firms with five or more lawyers in the U.S. in 1999; we could identify 270,746 such lawyers.\textsuperscript{19}

In the third step, we characterized the organizational form of law firms. We relied exclusively on firm names, which typically contained some information about form. Hillman (2003) classified each state’s forms of business organizations as LLPs, LLCs or PC/PAs based on a review of state policies. For example, Arkansas firms were permitted to organize as a “Professional Limited Company.” This form, which is akin

\textsuperscript{16}Our description of the data focuses on 1993 because our analysis focuses on law firms that operated as GPs in 1993.

Matching on firm names mischaracterized some unaffiliated offices as a single firm and some affiliated offices as distinct firms. A crude estimate is that as many as 1,143 firms may have been mischaracterized as distinct firms in 1993. Furthermore, our sample likely excludes some firms operated by lawyers for whom no institutional affiliation was reported. These are likely one-person firms.

\textsuperscript{17}The Directory identified a lawyer with an ownership interest by the title of “Member” in 1993 and 1999. The number of owners of a firm was obtained by counting the number of lawyers with the title “Member.”

\textsuperscript{18}This statistic includes sole practitioners, partners and associate lawyers in establishments with payroll subject to the federal income tax. The larger size of firms in our data set is consistent with our exclusion of some sole practitioners and the apparent exclusion by the Census of attorneys with an ownership interest in certain firms (e.g., PC/PAs).

\textsuperscript{19}This discrepancy, while not negligible, does not strike us as problematic.
to an LLC, may be abbreviated as “PLC.” Hence, Hillman designated an
Arkansas firm with “PLC” in its name as an LLC.\textsuperscript{20} We followed this
approach. The Directory also includes sole proprietorships (SPs), which
are law firms owned by a single lawyer. We adopted Hillman’s
classification of all remaining firms as GPs or SPs according to the
apparent ownership of the firm, as inferred from the firm name.\textsuperscript{21}

In the final step, we identified firms operating in both 1993 and
1999. We again matched on the basis of firm names and locations.
Because a firm could reorganize, names were stripped of information
about form prior to matching. If firms matched on name, we further
verified that the city and state of an office in 1993 matched those of
an office in 1999. This algorithm may have mischaracterized some
firms. For example, a law firm in 1993 may fail to match with a firm in
1999 due to a merger, spinoff or other change in ownership that entails
a change in name. Firms could also fail to match due to discrepancies
in spelling and punctuation across years. To the extent that the
failure to match was systematically related to firm size as well as
reorganization, our findings could be confounded. We have no reason to

\textsuperscript{20}Furthermore, a firm was classified as a PC/PA if its form
“designator” did not appear in Hillman’s list of PC/PA designators for
its home state, yet the designator always corresponded to a PC/PA
elsewhere. For example, a “Chartered” Arkansas firm was classified as a
PC/PA.

Based on Bromberg & Ribstein’s (2003) review of state regulation
of firm names, it appears nearly universal that LLPs must include LLP
(or some variant thereof) in their name. We do not know whether this is
true of LLCs or PC/PAs. In any case Hillman (2003) suggests that some
firms may not include information about their organizational form in
their names within the Directory. Thus the number of LLPs, LLCs and/or
PC/PAs may be undercounted. We are unaware of any reason why such
undercounting would be related to firm size, thus potentially biasing
our results.

\textsuperscript{21}Hillman (2003) classified firms with one lawyer or the word
“Associates” in their name as SPs. For the remaining unclassified
firms, those with multiple surnames in their name were classified as
GPs. Where Hillman did this by visual inspection, we did this by
counting the number of words in the firm name, once any designators for
organizational form had been removed. Because GPs can have a single
surname in their name, this general approach may undercount GPs.
believe this is true, yet we cannot preclude the possibility. In any case, there was no feasible alternative to our approach.

ORGANIZATIONAL STRUCTURE OF AMERICAN LEGAL SERVICES INDUSTRY, 1993 AND 1999

Figure 3.1 illustrates the organizational structure of the American legal-services industry in 1993 and 1999. In 1993 GPs were the leading form, with 40.6 percent of firms. PC/PAs were next most common, with 32.9%. The combined share of LLPs and LLCs was a negligible 0.4 percent. By 1999, the share of PC/PAs had risen to 47.7 percent, while that of GPs fell to 30.2 percent. The shares of LLPs and LLCs grew to 7.2 percent and 3.7 percent, respectively.

Approximately 40 percent of all law firms and 50 percent of GPs operating in 1993 were matched to a firm in the 1999 Directory. A crude estimate is that sixty-one percent of law firms survived from 1993 to 1999. This estimate suggests that we may have failed to match as many as twenty percent of GPs.

Approximately 17 percent of GPs in 1993 that were matched in 1999 had reorganized as LLPs, LLCs or PC/PAs. As Figure 3.2 illustrates, more than half of these “reorganizers” (10% out of 17%) became LLPs. Almost 25 percent became LLCs. Among law firms that had reorganized as LLPs or LLCs as of 1999, the vast majority had been GPs in 1993.

---

228.0% of law offices (as distinct from firms) "died" from 1995 to 1996 (U.S. Census Bureau, 2006). Applying this rate to the period 1993-1999 implies that almost forty percent of offices would have died [100%-(100%-8.0%)]=39.4%. The rate for offices may be a reasonable approximation of the rate for firms, as eighty-nine percent of firms in our 1993 sample had only one office.

23To give a sense of the number of reorganizations, 1,229 of the 11,954 GPs we analyze in the next section became LLPs. Another 314 became LLCs, while 526 became PC/PAs.

24Some have suggested that unlimited liability could economize on the cost of monitoring attorney conduct (Carr and Mathewson, 1991). None of the 262 LLPs or 26 LLCs in 1993 reorganized as a GP as of 1999. To the extent that these firms did not fully account for monitoring costs in deciding to be an LLP or LLC, their failure to reorganize as GPs suggests that monitoring may be of modest importance.
Figure 3.3 reveals that 96 percent of firms that became LLPs had been GPs. Eighty-seven percent of LLCs had been GPs (see Figure 3.4.)
Figure 3.2
Organizational Forms of 1993 GPs in 1999

Figure 3.3
Organizational Forms of 1999 LLPs in 1993
These descriptive findings are consistent with the view that unlimited vicarious liability can be a significant concern for the owners of many GPs. The LLP and LLC forms shield owners from such liability. While it is possible that these forms offer benefits beyond limited liability in some instances, limited liability is the crucial difference between these forms and the GP. Thus the owners of GPs will reorganize as an LLP or LLC only if their benefits, mainly consisting of limited liability, outweigh the costs of reorganization, potentially including a decrease in organizational flexibility. For the nearly four fifths of GPs in 1993 that remained GPs as of 1999, the benefits of reorganization apparently did not justify the costs.

ANALYSIS OF SIZE AND REORGANIZATION AMONG GPs

We analyzed whether small GPs in 1993 reorganized as LLPs or LLCs as of 1999 and, moreover, how “take-up” changed with firm size. A variety of measures of firm size seem intuitive, for example, receipts, profits, number of lawyers or number of owners. However, data on receipts and profits are not widely available. While our account of the value of limited liability centers on the number of owners in a
firm, we measured firm size by the number of lawyers for the sake of consistency with existing evidence. The correlation between the numbers of lawyers and owners exceeds 0.90 in any case.

As the preceding subsection describes, our data set tracks the size and organizational form of American law firms between 1993 and 1999. All of our analyses group GPs into “size classes” according to number of lawyers in 1993. These classes are defined as follows: 2-4 lawyers, 5-9, 10-14, 15-24, 25-49, and 50+. Under this approach to firm size, the relationship between firm behavior (such as reorganization) and size in different classes is fairly flexible. This flexibility may be valuable. Figure 3.5 shows the share of GPs in 1993 in each size class. Seventy-two percent had 2-4 lawyers. Ninety-six percent had fewer than 25 lawyers.

Figure 3.5
Share of GPs in 1993 by Size Class (Number of Lawyers)

---

25 In contrast, Baker and Krawiec (2005) track firms based in New York City with twenty-five or more lawyers. Hillman’s (2003) data set on American law firms in 2002 includes firm size only for firms with fifty or more lawyers.

26 GPs always have more than one lawyer.
Our analysis of the relationship between reorganization and firm size took two approaches. First, we computed the average rate of reorganization observed in our data set for each size class. Under the view that firms reorganize when the benefits outweigh the costs, we have argued that these rates reveal the extent to which some firms of a particular size benefited from limited liability. These rates are not informative, however, about the nature of the benefits.

In our second approach, we assessed whether the benefits from limited liability under the new forms flow directly from firm size. In a previous study, we investigated the optimal size and organizational form of law firms (Romley and Talley, 2005). The model developed for that study predicts that larger firms will adopt limited liability so as to improve their economic position vis-à-vis their clients. The fundamental assumption is that a lawyer’s performance is important for legal outcomes (e.g., victory at trial) but difficult to monitor. Lawyers therefore assure clients of good performance by sharing in the financial reward of good outcomes (such as a favorable judgment at trial) and forfeiting some of their personal wealth in the event of adverse outcomes. Liability for professional misconduct is one means by which lawyers can be punished for poor outcomes. Such incentives must be stronger at large law firms, because each lawyer must share the rewards with more colleagues. Large-firm clients are willing to provide stronger incentives to the extent that their financial stakes in good outcomes are greater. The model predicts, and the real world suggests, that large firms tend to have high-stakes clients. Because lawyers with high-stakes clients have only so much wealth to forfeit as punishment, clients strengthen lawyers’ incentives by increasing the reward for good outcomes. Limited liability lowers available wealth and hence further strengthens the position of large-firm lawyers.

The rates analyzed under our first approach might confound an assessment of the causal relationship just described, because factors other than size may affect the incentive to reorganize. We therefore specified and estimated a multinomial-logit model that accounted for
factors in addition to firm size (McFadden, 1974). Under this model, the probability of the \( j \)th “outcome” for the \( i \)th GP was as follows:

\[
Pr(i,j) = \frac{\exp(u_{i,j})}{\sum_{j'} \exp(u_{i,j'})}
\]  

(1)

A GP in 1993 might remain a GP in 1999, reorganize as an LLP (if permitted), reorganize as an LLC (if permitted), reorganize as a PC/PA, become a SP, or not be matched to any law firm in the 1999 data. For purposes of this analysis, the small proportion of firms that became SPs were “lumped” with GPs in 1999. Rather than changing their legal form, these firms merely shrank in size. Our benchmark specification thus included GP (or SP), LLP, LLC and PC/PA as outcomes in 1999. PC/PAs are included so as to ease comparisons between the model’s predictions and the patterns observed in the Directories and existing studies. Unmatched firms were excluded from the analysis for the same reason.27

The \( u_{i,j} \) terms in equation (1) incorporated the firm-specific factors that determine outcomes. We specified these terms as follows:

\[
u_{i,j} = \beta_{j,0} + \sum_{k=1}^{93} \beta_{j,1,k} \text{size93}_{k,i} + \beta_{j,2} \#\text{states93}_{i} + \sum_{k=1}^{93} \beta_{j,3,k} \text{home93}_{k,i} + \epsilon_{i,j}
\]  

(2)

\( \text{size93}_{k,i} \) is a variable that equals one when the \( i \)th firm belongs to the \( k \)th size class and zero otherwise. For example, \( \text{size93}_{2,3} = 1 \) and \( \text{size93}_{3,3} = 0 \) at a GP with six lawyers.28 \( \#\text{states93}_{i} \) is the number of states in which a firm had an office in 1993. The difficulty or cost of reorganizing may be greater for a GP that operated in multiple states. For example, Illinois was a late adopter of the LLP form, and so a national firm operating in Illinois would have had to divest its

---

27 It is possible that some GPs changed their names as well as reorganized under one of the new forms. Such firms would be unmatched in 1999. We were unable to deal with this potential problem.

28 Because equation (2) includes the constant \( \beta_{j,0} \), the summation is taken over \( k \neq 1 \).
Illinois operations in order to become an LLP elsewhere (Hillman, 2003).

Finally, $\text{home}_{k,j}$ is a variable that equals one when a firm’s home office is located in state $k$ and zero otherwise. As we discussed in Section Two, the various forms (including LLPs and LLCs) differed across states in their particulars. Thus the $j$th form may have been more or less attractive, relative to its alternatives, in certain states. Consistent with this possibility, Figure 3.6 plots the average rate of reorganization under either of the new limited-liability forms within each state and against the year in which one of the forms was first authorized.$^{29}$ The negative relationship between reorganization rates and year of authorization is open to a variety of interpretations. For example, early-adopting states may have created LLP or LLC forms that were especially appealing. Some firms may have opted to reorganize as a PC/PA in late-adopting states, then choosing not to reorganize again as an LLP or LLC because of the tax costs. Finally, some firms may have simply waited before reorganizing.$^{30}$ Unfortunately, these home-state “effects” could not distinguish between these explanations. In any case, these “effects” also controlled for the fact that the LLP or LLC form had not been authorized in certain states as of 1999. Our sample here and throughout our analyses excluded GPs based in Kentucky and Nebraska. Neither the LLP nor the LLC form had been authorized in these states as of 1999.

The relationship between any particular factor and an outcome $j$ can be assessed by simulation of predicted outcomes as the factor changes. We describe the results of such simulations in the next section.

---

$^{29}$Our versions of the Martindale Hubbell Law Directory were issued in the Fall of 1993 and 1999. We therefore defined year of authorization as the first year in which a form was available prior to September 1.

$^{30}$Firm size may also be correlated with $\text{home}_{k,j}$. Equation (2) distinguishes these factors.
ANALYSIS OF SIZE, REORGANIZATION AND GROWTH

We also analyzed growth among small GPs that did and did not reorganize under the new-limited liability forms. This analysis excluded GPs that reorganized as PC/PAs. Following Harhoff, Stahl and Woywode (1998) and Baker and Krawiec (2005), we defined growth as the
annualized rate of growth, in particular, in the number of lawyers between 1993 and 1999.\footnote{Growth is necessarily undefined for GPs in 1993 that were unmatched in 1999.}

First, we computed the average growth rate observed in our sample for firms that reorganized and those that did not within each size class. Next, the following regression was estimated:

\[
\text{Growth}_i = \beta_0 + \beta_1 LL99 + \sum_{k=1}^{3} \beta_{2,k} \text{size}93_{k,i} + \sum_{k=1}^{3} \beta_{3,k} LL99 \cdot \text{size}93_{k,i} + \beta_4 \#\text{states}93_i + \sum_{k=1}^{3} \beta_{5,k} \text{home}93_{k,i} + \varepsilon_i
\]  

(3)

This regression accounts for size class as before. \(LL99\) is a variable that equals one for a GP that reorganized under one of the new limited-liability forms as of 1999 and zero otherwise. \(LL99\) was also "interacted" with each size class. Finally, we again included controls for a firm’s “home state” and number of states with offices in 1993.

As we have discussed, Romley and Talley’s (2005) model of law-firm size and organizational form predicts that large firms are more likely to benefit from limited liability. The model further predicts that for firms that reorganize under limited-liability organizational forms, relatively small firms should grow if any firms do. Under unlimited liability, the personal wealth of small-firm lawyers may not have constrained punishment for poor outcomes. If so, these firms must grow after reorganizing in order to force clients to offer stronger incentives. By growing enough under limited liability, wealth becomes constrained, and clients must turn to increased rewards for good outcomes, leaving a firm’s owners better off. On the other hand, larger firms may (but need not) shrink in size, decreasing the necessary reward for good outcomes and thus ensuring that their clients remain willing to pay for good performance.

Under an assumption that reorganizers would have grown at the rate of similarly sized firms that did not reorganize, growth is defined as growing faster than this benchmark. Hypotheses about the relationship between size, reorganization and growth can then be stated in terms of
the parameters in equation (3). The interactions between \textit{LL99} and each \textit{size}_{j} term allowed growth to vary with both reorganization and size class. $\beta_{3,2} > 0$ would mean that reorganizers with 5-9 lawyers grew, i.e., grew faster than firms with 5-9 lawyers that did not reorganize. Our model would then predict that reorganizers with 2-4 lawyers must grow, i.e., faster than firms with 2-4 lawyers that did not reorganize, so that $\beta_{1} > 0$. The model does not make clear predictions about differences in growth (i.e., differences in differences). For example, it need not be the case that $\beta_{1} > \beta_{3,2}$.

We emphasize that alternative accounts of growth are consistent with our theory’s predictions, despite our best efforts to control for other factors. For example, two equally sized firms might have differed in their plans for expansion as of 1993. The firm that grew might have decided that limited liability was now worthwhile. Under this account, limited liability would be associated with, but not the cause of, growth. Ideally, the business form and size of firms would be regularly observed during the period 1993-1999, but this is not the case.\textsuperscript{32} Hence we must be cautious in our interpretation of the results about limited liability and growth.

\textsuperscript{32}We thank a reviewer for offering this example.
4. RESULTS

In this section we present the findings of our analyses. We first discuss the relationship between firm size and reorganization, and then look at the relationship among size, reorganization, and growth.

SIZE AND REORGANIZATION AMONG GPS

The analysis of firm size and reorganization is consistent with the interpretation that small GPs, and particularly the smallest firms, were significantly less likely to benefit from the new forms’ liability shields than were large firms.

Average rates of reorganization under the LLP and LLC forms are illustrated in Figure 4.1. GPs of all sizes were more likely to reorganize as LLPs than LLCs. Firms with 2-4 lawyers in 1993 were unlikely to convert to either form. 3.2 percent became LLPs, while 1.1 percent became LLCs. Among firms with 5-9 lawyers, the rates are 15.3 percent and 4.9 percent for LLPs and LLCs, respectively.

The likelihood of reorganizing increased with size among firms smaller than 25 lawyers, especially for LLPs. The rate of reorganization under the LLP form was 40.6% for firms with 15-24 lawyers; the rate for the LLC form was 12.4%. As Figure 3.5 demonstrated, these firms comprised only three percent of the sample. GPs with 2-4 lawyers comprised seventy-two percent of the sample.

The reorganization rate under the LLP form continued to increase with size, while the rate for LLCs decreased. For firms with 25-49 lawyers, these rates were 47.4 percent and 9.1 percent for LLPs and LLCs, respectively, while for firms with 50+ lawyers, the rates were 56.4 percent and 5.6 percent. Thus the rate of reorganization under either of the new limited-liability forms increased from 53.0 percent at firms with 15-24 lawyers to 56.5 percent at firms with 25-49 lawyers to 62.0 percent at firms with 50+ lawyers.
These rates of reorganization among firms with 25+ lawyers are roughly similar those found in previous studies. Baker and Krawiec (2005) found that in 2003 the shares of LLPs and LLCs among all New York City firms with 25+ lawyers were 67 percent and 1 percent. Hillman (2003) found that, in the summer of 2002, 48 percent of all American law firms with 50+ lawyers were LLPs, and 9 percent were LLCs.

Table 4.1 reports the results for the multinomial-logit model that accounted for factors in addition to firm size. The estimated parameters on firm size are highly statistically significant. To interpret the impact of firm size, we performed a thought experiment based on these estimates. For each firm, we use the results in Table 4.1 to predict how the likelihood of reorganizing as an LLP or LLC would have changed if the firm had in fact been large enough to belong to the

33The denominators in these shares include any new firms or conversions from the PC/PA form. We believe there are few such firms.
34Throughout our analyses we used variance-covariance estimators that were robust to heteroscedasticity of unknown form (Wooldridge, 2003).
next size class. The impact of size was isolated by leaving all other firm characteristics unchanged in the thought experiment. To give an example, for a GP operating in the states of Missouri and Illinois with 2-4 lawyers, we compared the predicted likelihood that the firm would reorganize as an LLP or an LLC, given its actual size, to the predicted likelihood that the firm would have reorganized, if the firm had instead had 5-9 lawyers.
Table 4.1
Results for Multinomial-Logit Model of Organizational Form in 1999

<table>
<thead>
<tr>
<th>Covariate</th>
<th>LLP</th>
<th>LLC</th>
<th>PC/PA</th>
<th>All forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-28.186*** (1.074)</td>
<td>-28.34*** (1.042)</td>
<td>-2.182*** (0.753)</td>
<td><strong>Yes</strong></td>
</tr>
<tr>
<td>5-9 lawyers in ‘93</td>
<td>1.878*** (0.095)</td>
<td>1.819*** (0.160)</td>
<td>0.637*** (0.122)</td>
<td></td>
</tr>
<tr>
<td>10-14 lawyers in ‘93</td>
<td>2.978*** (0.120)</td>
<td>2.488*** (0.224)</td>
<td>1.195*** (0.187)</td>
<td></td>
</tr>
<tr>
<td>15-24 lawyers in ‘93</td>
<td>3.642*** (0.137)</td>
<td>3.852*** (0.219)</td>
<td>1.243*** (0.238)</td>
<td></td>
</tr>
<tr>
<td>25-49 lawyers in ‘93</td>
<td>3.822*** (0.157)</td>
<td>3.571*** (0.269)</td>
<td>1.311*** (0.295)</td>
<td></td>
</tr>
<tr>
<td>50+ lawyers in ‘93</td>
<td>4.533*** (0.166)</td>
<td>3.587*** (0.305)</td>
<td>1.225*** (0.337)</td>
<td></td>
</tr>
<tr>
<td>Number of states in ‘93</td>
<td>-0.282*** (0.0625)</td>
<td>-0.340** (0.140)</td>
<td>-0.249* (0.131)</td>
<td></td>
</tr>
</tbody>
</table>

Other Statistics
- Number of observations: 11,954
- McFadden’s R squared: 0.2464

Notes: Sample included GPs in 1993 matched in 1999 and not based in Kentucky or Nebraska in 1993. GP is the excluded category in the analysis. * denotes statistical significance at the 10% level, ** at 5%, and *** at 1%. Standard errors are heteroscedasticity-robust.
We predicted the change in the likelihood of reorganizing for each firm in our sample and averaged the predictions.

Figure 4.2 illustrates the results of this experiment. GPs with 2-4 lawyers would have been 4.8% more likely on average to reorganize as an LLP, and 1.5% more likely to become an LLC, if there had instead been 5-9 lawyers at these firms. The magnitude of these impacts is large in relation to the actual rates of reorganization among firms with 2-4 lawyers. The rate of reorganization under either of the new forms increased with the number of lawyers for firms of all sizes. While firms with 15-24 lawyers would have been slightly less likely to reorganize as an LLC if they were larger, the impact of size on the likelihood of reorganizing as an LLP is larger in magnitude. On balance these firms would have been more likely to reorganize under limited liability. A similar observation applies to firms with 25-49 lawyers.\textsuperscript{35}

\textsuperscript{35}Simulation of predicted outcomes also revealed that firms with offices in more states were less likely to reorganize under any form. The number of states averaged 1.07 in 1993, with a standard deviation of 0.39.
These findings for the multinomial-logit analysis are broadly similar to those based on the observed reorganization rates. However, under the multivariate model that distinguishes the impact of firm size from the impacts of other factors, the likelihood of reorganization increased much more for firms with 25-49 lawyers than for firms with 2-4 lawyers.\footnote{36}

Thus our findings suggest that reorganization has been modestly beneficial for relatively small law firms. Under our argument that limited liability is the principal benefit of the LLP and LLC forms as well as our model of reorganization (Romley and Talley, 2005), the results of the multinomial-logit analysis are consistent with the interpretation that large firms strategically exploited limited liability in order to improve their economic position, but that the vast majority of (smaller) firms were unable to do so. While reordering relations among owners might have been a substantial impediment to reorganization, our view is that this “cost” is likely to increase with firm size, making large firms less likely to reorganize.

**SIZE, REORGANIZATION AND GROWTH**

Our analysis of size, reorganization and growth supports the interpretation that small GPs that reorganized under one of the new-limited liability forms benefited. Large firms also benefited.

Figure 4.3 illustrates the annual growth rate of GPs according to their reorganization under a new limited-liability form as of 1999 and number of lawyers in 1993.\footnote{37} The figure shows that for firms with 50+ lawyers, reorganizers grew, i.e., grew one and half percent faster

\footnote{36}The parameter estimates on the number of states in which a firm operated in 1993 imply that the probability of reorganizing as an LLP, LLC or PC/PA, relative to remaining a GP, decreased with the number of states. As we noted in Chapter Two, the LLP and LLC forms were not available in every state over the period 1993-1999. A firm that operated in multiple states might therefore have to restructure itself in order to avail itself of the LLP or LLC forms where permitted. The finding with respect to these forms is consistent with this observation.

\footnote{37}This analysis excluded from the small proportion of firms that reorganized under the PC/PA form.
per year in the number of lawyers than firms with 50+ lawyers that did not reorganize. Our model then predicts that smaller reorganizers grew faster than firms of the same size that did not reorganize. For firms with 2-4 lawyers, the growth gap is almost three percent. Growth rates tended to decrease with size among small firms. Firms with 25-49 lawyers grew about as fast as those with 15-24 lawyers.

Table 4.2 presents the results of the regression that accounted for factors other than reorganization and size. The results are illustrated in Figure 4.4 for firms based in New York State. The relationship between size, reorganization and growth in other states parallels that for New York, because “home state” shifted the intercept of the growth regression.

As with the preceding analysis of firm size and reorganization, the results are similar under the two approaches. Firms that reorganized grew more than those that did not. This gap narrowed with size; the difference for the smallest firms is statistically significantly larger than that for the largest firms. Under further
assumptions, this finding is consistent with Romley and Talley’s (2005) theoretical prediction that smaller reorganizers should grow faster than larger ones.\textsuperscript{38} The gap for the largest firms is nonetheless positive in sign at standard levels of statistical significance.

\begin{table}
\centering
\begin{tabular}{|l|l|}
\hline
Covariate & Parameter Estimate (Standard Error) \\
\hline
Constant & 1.214 (0.871) \\
Limited liability in ’99 & 3.154*** (0.342) \\
5-9 lawyers in ’93 & -1.025*** (0.189) \\
5-9 lawyers in ’93*Limited liability in ’99 & -0.847* (0.509) \\
10-14 lawyers in ’93 & -1.474*** (0.418) \\
10-14 lawyers in ’93*Limited liability in ’99 & 0.121 (0.640) \\
15-24 lawyers in ’93 & -1.682*** (0.640) \\
15-24 lawyers in ’93*Limited liability in ’99 & -0.765 (0.822) \\
25-49 lawyers in ’93 & -1.431* (0.868) \\
25-49 lawyers in ’93*Limited liability in ’99 & -1.011 (1.006) \\
50+ lawyers in ’93 & -0.309 (0.853) \\
50+ lawyers in ’93*Limited liability in ’99 & -1.381 (0.976) \\
Number of states in ’93 & -0.190 (0.163) \\
Controls for home state in ’93 & Yes \\
\hline
\end{tabular}
\caption{Results for OLS Regression of Growth}
\end{table}

Notes: Sample included 1993 GPs operating as GPs, LLPs or LLCs in 1999 and not based in Kentucky or Nebraska in 1993. * denotes statistical significance at the 10% level, ** at 5%, and *** at 1%. Standard errors are heteroscedasticity-robust.

This evidence is open to the alternative interpretation that better-managed firms were more likely both to reorganize and to grow. Under this view, reorganization is an effect of growth rather than a cause. Similarly, it is possible that firms grew for reasons unrelated to limited liability, then opted to reorganize.

\textsuperscript{38}Romley and Talley (2005) do not model the dynamics of firm growth. One would have to assume that firms that reorganized would have grown at the same rate as firms that did not (on average, and conditional on size), had the former firms not opted to reorganize.
Figure 4.4
Predicted Growth of New York Firms, by Reorganization under New Limited-Liability Form as of 1999 and Size in 1993
5. CONCLUSIONS

This study has investigated whether the owners of relatively small law firms have benefited from limited liability under the LLP and LLC forms. Our research strategy rested on two assumptions. First, we postulated that a GP reorganizes as an LLP or LLC if and only if their benefits, particularly their liability shields, outweigh their costs, particularly the costs of reorganization. Take-up by small multi-owner GPs would then indicate that these firms benefit. Second, we postulated that growth subsequent to reorganization is a further indicator of benefits.

We therefore analyzed the relationship between firm size and the reorganization and growth of GPs under the new forms. Using a new data set on the number of lawyers and organizational form of American firms during the 1990s, we found that smaller firms were much less likely to reorganize. Indeed, while 62 percent of GPs with 50+ lawyers reorganized as an LLP or LLC between 1993 and 1999, only 4.3% of GPs with 2-4 lawyers did so. We also found that comparing GPs with similar numbers of lawyers in 1993, firms in each size class grew faster than those that did not.

One may wonder why so few small firms reorganized, if limited liability causes growth among small law firms, and growth is good. One explanation is that some other factor causes both reorganization and growth. In Romley and Talley’s model (2005), firms with high-stakes clients can improve their bargaining position by reorganizing under limited liability, yet small reorganizers may have to grow in order to do so. The model predicts, and the real world suggests, that larger firms tend to have high-stakes clients. Thus, while our data and analysis are subject to limitations, our empirical findings suggest that limited liability is modestly beneficial to the owners of small law firms organized as GPs.

Whether the new forms have served their purpose is unclear. Some advocates asserted their likely benefits to small firms. If our findings are disappointing, policy might target the benefits of limited
liability to firms smaller than some size threshold. The LLP and LLC forms are presently available to law firms of any size. Indeed, if smaller and larger firms compete, these forms might favor large firms by lowering their costs relative to small firms (Ribstein, 2001). In other contexts policymakers have imposed maximum size limits on policies intended to help small businesses and minimum size thresholds (i.e., small-business exemptions) on policies that impose costs on firms (Keefe, Gates and Talley, 2005.)

More generally, the impact of limited liability on consumers of legal services is an important policy issue. The generalizability of this study’s findings to other professional services also merits further investigation.
(This page is intentionally left blank.)
BIBLIOGRAPHY


Keefe, Ryan, Susan M. Gates and Eric Talley, Criteria Used To Define a Small Business in Determining Thresholds for the Application of


