THE JOURNAL OF ECONOMIC HISTORY

VOLUME 69 SEPTEMBER 2009 NUMBER 3

The Limited Partnership in New York, 1822–1858: Partnerships Without Kinship

ERIC HILT AND KATHARINE O'BANION

In 1822 New York became the first of many common law states to authorize the formation of limited partnerships. Little is known about the effects of these statutes. This article analyzes the use of the limited partnership in nineteenth-century New York City. We find that the form was adopted by a surprising number of firms, and that limited partnerships had more capital, failed at lower rates, and had fewer members with kinship ties, compared to ordinary partnerships. The results suggest that the introduction of the limited partnership facilitated investments that would not have occurred in the absence of the form.

In the early nineteenth century, most multi-owner firms in Britain and the United States were organized as partnerships, in which the members would bear unlimited liability. Unlimited liability was an essential characteristic of partnerships at common law, and was perceived as vital to the mercantile credit networks that financed these firms.[1] But it also likely limited the circumstances in which the form could be used, and in particular foreclosed the possibility of partners raising capital by taking on passive "outside" investors.[2] French law, in contrast, recognized a partnership form known as the *société en*

The Journal of Economic History, Vol. 69, No. 3 (September 2009). ISSN 0022-0507.

Eric Hilt is Assistant Professor, Department of Economics, Wellesley College, Wellesley, MA 02481; and Faculty Research Fellow, NBER. E-mail: ehilt@wellesley.edu. Katharine O'Banion is J.D. Candidate, Yale Law School, P.O. Box 208215, New Haven, CT 06520–8215. E-mail: katharine.obanion@yale.edu.

We are grateful to Amalia Kessler, Naomi Lamoreaux, Aldo Musacchio, Peter Temin, Akila Weerapana, two anonymous referees, and seminar participants at the NBER Summer Institute for helpful comments and suggestions.

[1] On the significance of unlimited liability for partnerships at common law, see Kent, *Commentaries*, vol. III. On the importance for credit networks, see Eden, *Policy*, p. 5.

[2] Ffookes, *Partnership*, pp. 9–10. On the risks associated with forming a partnership, see Lamoreaux, "Partnership Form"; and Bodenhorn, "Hold-Up."

commandite, in which some partners were treated as outside investors and granted limited liability. The *commandite* was quite successful in France, and over the nineteenth century, repeated attempts were made to introduce it into England.[3] Yet opponents of this innovation argued the form was "contrary to the whole genius and spirit of the English law," and successfully resisted its introduction there until the twentieth century.[4]

American legislators, however, were much more willing to experiment with altering the law in order to suit the needs of their growing economy. In 1822 the State of New York introduced the *commandite* into its laws, with a statute that named it the "limited partnership." New York thus became the first common law state to authorize the form. By 1886 limited partnerships had been authorized in all but three of the then-existing states and territories.[5] These statutes represented a significant legal innovation, and at the time were "supposed to be well calculated to bring dormant capital into active and useful employment."[6] But it was difficult to anticipate how the new institution would function and how much use it would find. American limited partnership statutes created a new class of partner, called a "special partner," who was granted limited liability and was required to delegate the management of the firm to the "general partners," who remained personally liable. To prevent fraud, the statutes imposed strict registration requirements for these firms, as well as regulations on the form of payment made by the special partners, the name the businesses could take, and the publication of the registration certificate. The penalty for failing to comply with these and other terms of the statutes was that the special partners would be stripped of their limited liability.[7] The special partners thus faced a "lurking danger" that they could be exposed to unlimited liability as a result of minor or accidental deviations from the terms of the statutes, a problem that would be made more acute if common law judges were hostile to the form and interpreted the statutes conservatively.[8]

[3] On the history and usage of the *commandite* in France, see Freedeman, *Joint-Stock*. On the debates over the introduction of the *commandite* in England, see Saville, "Sleeping Partnership." A similar form was adopted in Ireland in 1782. Levi, "Appendix."

[4] Lord Brougham, *Hansard's Parliamentary Debates*, 1838 v. 44 cc. 840.

[5] Louisiana had authorized the *commandite* since its years as a French colony. The code of the State of Louisiana later named them partnerships *in commendam*. Bates, *Limited Partnership*.

[6] Kent, *Commentaries*, vol. III, p. 12.

[7] See Bates, *Limited Partnership*. The French commercial code imposed weaker registration requirements, but held that they "shall be observed under pain of nullity." Rodman, *Commercial Code*, Book I, Title III, Section I, Article 42.

[8] Warren, *Corporate Advantages*, p. 306.

Most of the modern scholarship on the limited partnership in the nineteenth-century United States has concluded that because of this danger, the institution was utilized only rarely.[9] Indeed, the notion that the limited partnership was "never widely adopted in America in the nineteenth century" is accepted quite generally.[10] Yet little evidence exists on the extent to which the limited partnership form was adopted by nineteenth-century American firms. And perhaps more importantly, almost nothing is known about the types of firms that did utilize these statutes, or the contracting problems the limited partnership was or was not used to address.

This article analyzes the effects of the introduction of the limited partnership in New York City from 1822, the year the state authorized the form, until 1858. Using newly collected data, this article investigates the extent to which the city's merchants and manufacturers utilized the limited partnership, and the nature and significance of their use of the form. Two sets of statistical analyses are performed. The first consists of a comparison of firm capital, industrial composition, and performance between a random sample of 320 New York City ordinary partnerships existing in 1853 and the more than 200 limited partnerships that operated in that year. The second focuses on a data set of the special partners, and analyzes their occupations and the connections between these individuals and their firms.

The results indicate that the limited partnership was of increasing importance in New York City over the first half of the nineteenth century, with a total of 1,098 such firms created between 1822 and 1858. Moreover, the form was significant in ways beyond the mere frequency of its use. Compared to ordinary partnerships, limited partnerships had more capital and were less likely to fail (even controlling for firm capital). Perhaps more importantly, the institution of the limited partnership appears to have facilitated investments that were unlikely to have occurred in its absence. Most of the special partners were themselves general partners in another firm, often in the same industry. Limited partnership stakes thus enabled these merchants to invest in multiple partnerships simultaneously, a position that would have been untenable in the absence of the form.[11]

In addition, the personal connections among the members of limited partnerships were quite different from those typically found in ordinary partnerships. Most ordinary partnerships were founded on the basis of

[9] See, for example, Howard, "Limited Partnership"; Lamoreaux and Rosenthal, "Legal Regime"; and Warren, *Corporate Advantages*.

[10] Hansmann, Kraakman, and Squire, "Rise of the Firm," p. 1396.

[11] See the discussion below.

kinship ties.[12] In contrast, the members of limited partnerships were far less likely to be related to one another, either by marriage or consanguinity. These latter differences were not simply due to selection: although the merchants who formed limited partnerships were a wealthy elite, their own ordinary partnerships were quite different from their limited partnerships. Successful, well-established merchants invested as special partners with young entrepreneurs from outside their kinship networks, even though their own ordinary partnerships were likely to be formed with family members.

These results suggest that the limited partnership may have facilitated a more efficient allocation of capital within the mercantile world of New York City. The preference of New York's merchants to form partnerships with members of their own kinship network—either the product of a desire to work with family members, or a solution to the problem of finding trusted associates—restricted the range of potential partners available to a merchant.[13] If talented, energetic businessmen, perhaps with complementary skills or resources, were less likely to be chosen as partners if they were outside a merchant's kinship network, then the matches that resulted were likely less productive. These matches may have nonetheless been the best among what was feasible, given the constraints posed by the preference to work with family, or the need to find partners who could be trusted.[14] By offering the protection of limited liability and easing the problems posed by membership in multiple partnership firms, the institution of the limited partnership may have facilitated more efficient matches. If a member of a family partnership learned of a talented businessman or a prospective firm with a promising opportunity, he could invest as a special partner, while remaining with his own family firm.

The results of this article contribute to several areas of historical research. First, they add to a large and growing comparative literature on businesses' choice of organizational form and the significance of the limited partnership.[15] In common law contexts, there is little evidence on the use of the limited partnership, and much of it has indicated that

[12] Little systematic data on this point exists, but this notion is widely held in the literature. See, for example, Porter, *Jacksons*, pp. 88–98; Porter and Livesay, *Merchants*, p. 21; and Albion, *Rise*, pp. 235–59. Beckert, *Monied Metropolis*, states that 1850s New York "merchant houses were nearly always family enterprises" (p. 31).

[13] In general, the adoption of the corporate form in mercantile businesses in the early nineteenth century was rare and unsuccessful; Hilt, "Incentives," analyzes the failure of the corporate form in whaling in the 1830s and 1840s.

[14] See the discussion in Porter, *Jacksons*, p. 98.

[15] See, for example, Lamoreaux and Rosenthal, "Legal Regime"; Guinnane et al., "Corporation"; Gómez-Galvarriato and Musacchio, "Larger Menus"; and Abramitzky, Frank, and Mahajan, "Black Box."

the form was unimportant.[16] In contrast, the results of this article suggest that the limited partnership facilitated a large number of investments in New York City firms, even though the corporate form was widely available at the time.[17] A second literature to which this article contributes analyzes the evolution of American law, and its role in economic development.[18] Limited partnership statutes were enacted to facilitate new investments, and also represented an important legal innovation, since they grafted a civil law institution into the common law. These statutes, and the case law that developed in response, have therefore attracted considerable scholarly attention.[19] Lastly, the results presented here contribute to the literature on commercial partnerships in the nineteenth century, and in particular on the role of kinship ties within these firms.[20]

THE LIMITED PARTNERSHIP AND NEW YORK'S 1822 STATUTE

The concept of the limited partnership dates at least as far back as twelfth-century Italy, where it was known as the *accomandita*.[21] In France, the *société en commandite* was recognized in its first commercial code, Colbert's Ordinance of 1673, and a more precise specification of the form was included in its 1807 commercial code, which received significant attention in the United States.[22] New York's 1822 statute was an adaptation of the 1807 code's terms relative to the *commandite*. The initial bill, proposed by Assemblyman Philip Brasher of New York City, was in fact little more than a transcription of

[16] For example, Stanley Howard's search of the records of five New Jersey counties from 1837 to 1931 turned up only 142 limited partnerships, and Lamoreaux and Rosenthal's sample of over 160 Boston partnerships from the 1840s and 1850s contained only two limited partnerships. Howard, "Limited Partnership"; and Lamoreaux and Rosenthal, "Legal Regime."

[17] New York adopted general incorporation acts for manufacturing firms in 1811, banks in 1838, and firms in numerous other sectors beginning in 1847. See Seavoy, *Origins*. For industries not covered by a general incorporation act, the state government was often quite liberal in granting charters by special act; on New York's early-nineteenth-century corporations, see Hilt, "Ownership."

[18] Important works in this literature include Friedman, *History*; Handlin and Handlin, *Commonwealth*; Horwitz, *Transformation*; Hurst, *Law*; and Nelson, *Americanization*.

[19] See, for example, Bates, *Limited Partnership*; Begbie, *Partnership*; Howard, "Limited Partnership"; Troubat, *Commandatary*; and Kessler, "Limited Liability."

[20] See, for example, Porter, *Jacksons*; Porter and Livesay, *Merchants*; and Chandler, *Visible Hand*. Lamoreaux, "Partnership Form," however, finds little evidence of the importance of kinship ties.

[21] Troubat, *Commandatary*. Weber, *Commercial Partnerships*, analyzes the early antecedents the modern limited partnership.

[22] See Cook, *Codification*. The first English translation of the 1807 commercial code appeared in 1814, in Rodman's *Commercial Code of France*.

passages from the 1807 code.[23] The bill also made the first official use of the term "limited partnership" to denote the organizational form.[24] In the New York Assembly's Committee of Ways and Means, the granting of limited liability to members of partnership firms aroused concerns about fraud, an issue frequently raised by opponents of corporations.[25] In response, the committee inserted a provision imposing a fine of $1,000 for fraud, and a clear requirement that each special partner's name and amount invested be included in the registration certificate for the firm.[26]

The New York Statute of 1822 authorized the formation of limited partnerships in virtually any industry other than banking or insurance once a registration certificate was filed with the clerk of the county in which the business would operate.[27] The partners were required to then publish the contents of their registration certificate for at least six weeks in two newspapers, and dissolutions could be affected only by similar publication. Subsequent modifications to the law required still more detail in the registration certificates, including a statement of the industry in which the firm would operate.[28] As was the case with the *commandite* in France, the special partners were forbidden from participating in the management of the firm. But unlike with the *commandite*, the terms of any partnership contract that the members of the limited partnership executed were not included in the firm's certificate.

In many states, the proponents of limited partnerships argued for their adoption as a substitute for the corporation, and in some cases radical Jacksonian Democrats proposed authorizing limited partnerships as a way

[23] The initial bill contains long passages taken verbatim from Rodman's 1814 translation of the 1807 code, which account for more than half of its text. New York *Legislative Documents*, 1822, no. 102; and Rodman, *Commercial Code of France.* Assemblyman Brasher was an attorney prominent in New York City's political and economic affairs.

[24] This term seems to have been first applied to the organizational form by Rodman in his translation of the commercial code of France. Previously, the term "limited partnership" had denoted partnerships where the scope of the firm's activities and debts was restricted. In Louisiana, the form was known as the partnership *in commendam*.

[25] *Journal of the Assembly*, pp. 952–53. New York's 1821 Constitutional Convention debated imposing personal liability on financial corporations, but instead adopted a provision requiring a two-thirds vote to approve new corporate charters. Seavoy, *Origins*, p. 95. The evolution of the states' policies toward corporations is analyzed in Wallis, "Market-Augmenting."

[26] New York *Legislative Documents*, 1822, no. 172. This fine was included in the 1822 law, but was subsequently replaced with language making anyone committing fraud "liable to an indictment for a misdemeanor" in New York's *Revised Statutes* of 1829 (vol. 1, p. 766). Kessler, "Limited Liability," analyzes the significance of the anonymity granted to special partners in the French code.

[27] *Laws of New York*, 1822, chap. 244.

[28] New York *Revised Statutes*, 1829, vol. 1, p. 764.

to undermine the special privileges of corporations.[29] In the realm of politics, the limited partnership was therefore closely tied to the corporation, and the introduction of the form can be interpreted as a step in the progression towards granting broad access to the powers normally reserved for incorporated entities.[30] In a practical sense, however, the limited partnership was quite different from the corporation. Of the many essential attributes of corporations, it retained only limited liability, and the limitation on liability was partial because there were still general partners who were personally liable for the firm's debts. Moreover, a limited partnership had no legal identity separate from that of the individual partners and could not own property or act in law; if a partner left or died, the partnership would dissolve; and the stake of the special partner was totally illiquid—it could not be sold or transferred without dissolving the firm.[31] A corporation, in contrast, was a distinct legal entity; its shares were tradable; and its shareholders all had voting rights over the management of the firm and limited liability, except in very special circumstances.[32] The limited partnership, above all else, was a partnership.

NEW YORK CITY AND THE ADOPTION OF THE LIMITED PARTNERSHIP

In the early nineteenth century, New York City emerged as the most important commercial center in the United States, and in particular became the nation's largest port for international trade, the largest market for banking and finance, and a crucial point in the distribution of manufactured goods and primary commodities.[33] With the exception of banks and insurance companies, which were required by statute to

[29] See, for example, the discussion in Cadman, *New Jersey*; and Troubat, *Commandatary*. It is significant that New York authorized the form following its 1821 constitutional convention, which discussed many anticorporate proposals. See Seavoy, *Origins*.

[30] On the significance of this progression towards open access to the corporate form, see North, Wallis, and Weingast, "Conceptual Framework."

[31] The rule that initially prevailed in New York (as in other states) was that any alteration to the business as stated on its certificate, including the identities of the partners or the operations or capitalization of the business, would result in its dissolution. In 1838 Pennsylvania modified its limited partnership statute to make the stakes of the special partners transferable, although the consent of the other partners was required. A number of other states, including New York, eventually followed. See the discussion in Troubat, *Commandatary*; and Gilmore, *Handbook*. In contrast, in France, a modified version of the limited partnership with fully transferable shares developed, known as the *société en commandite par action*, but this form was not explicitly authorized in the original 1807 code. Freedeman, *Joint-Stock*.

[32] For example, New York's 1828 *Revised Statutes* introduced provisions making directors and stockholders in corporations personally liable in cases of fraud (vol. I, pp. 588–599).

[33] See, for example, Porter and Livesay, *Merchants*; Albion, *Rise*; and, on cotton merchants, Chandler, *Visible Hand*.

incorporate, many if not most of the firms engaged in these economic activities were organized as partnerships. Did many of them utilize the limited partnership once it became available?

All of the limited partnership certificates filed in the county clerk's office in New York City from 1822 until 1858 were collected and coded for this article. The certificates indicate that New York's businessmen did not begin taking advantage of the limited-partnership option immediately. The first registration was filed on December 16, 1822, but only six limited partnerships were formed before 1827. Figure 1 shows the number of limited partnerships created each year from 1822 to 1858 (a total of 1,098 limited partnerships were formed during this period). It was not until the 1830s that the new partnership form began to catch on.

Several developments may have played a role in its increasing popularity in the 1830s. New York's landmark *Revised Statutes*, published in 1829, compiled and organized the state's most important laws (including its limited partnership statute) into an accessible format, and were accompanied by efforts to publicize and explain their contents.[34] Other publications that may have raised awareness of the availability of the form and made it more accessible were collections of template legal documents intended for laymen, which contained examples of limited partnership contracts.[35]

Business conditions certainly played an important role in determining the rate of creation of limited partnerships. The sharp rise and fall in the number of new limited partnerships in the mid-1830s coincided with the speculative boom preceding the Panic of 1837 and the depression that followed. There was a general trend of increasing use of the limited partnership over time, and the number of limited partnerships formed per year within the sample period was highest in the 1850s. The volumes containing the registration certificates also contain the certificates of dissolution and renewal, and from these the annual number of operating limited partnerships can be calculated. Again, the number of operating firms rose over time, reaching a peak at the end of the sample period in 1858, when 277 limited partnerships existed. Because ordinary partnerships did not need to file registration certificates, there is no equivalent official source for the number of ordinary partnerships. However, from business directories it can be

[34] New York *Revised Statutes*, 1829. One of the revisers, John C. Spencer, published a long series of articles detailing and explaining the contents of the Revised Statutes in the *Ontario Messenger*, which were later compiled into a book. Spencer, *Notes*.

[35] See, for example, Potter, *Every Man*, p. 25.

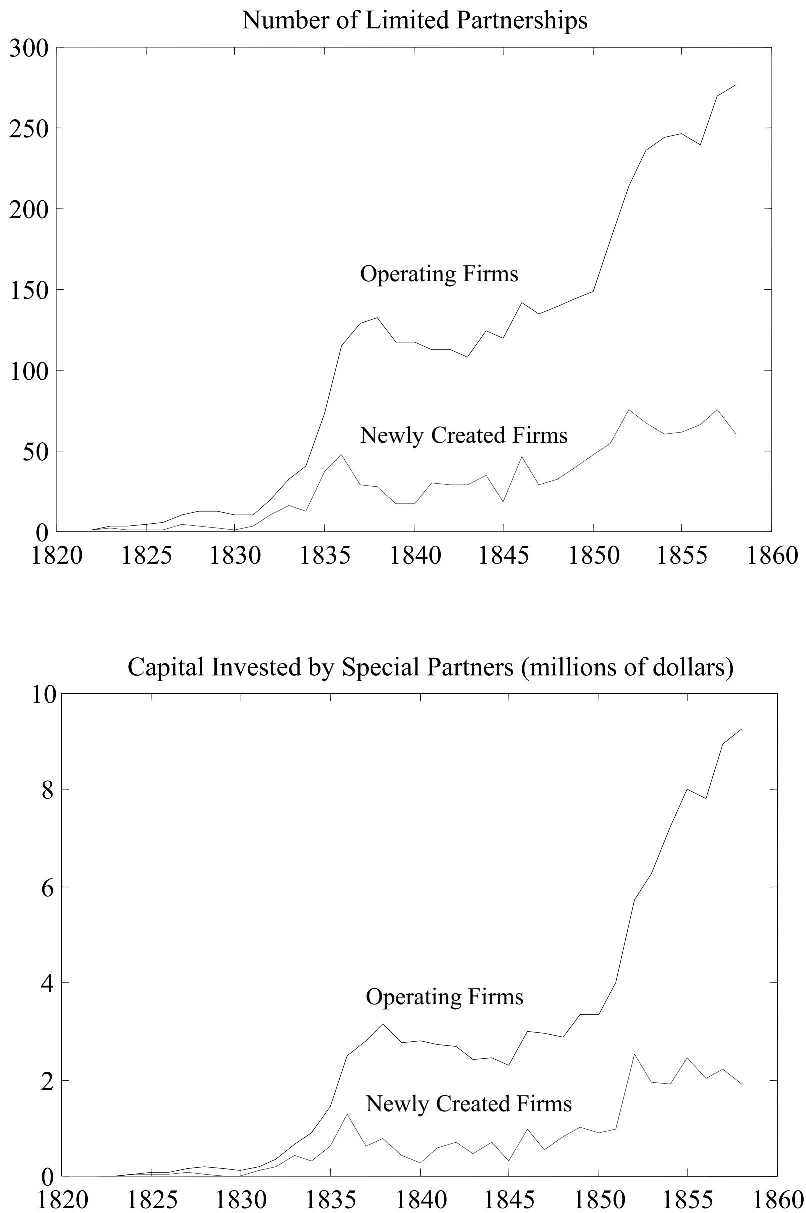

FIGURE 1
LIMITED PARTNERSHIPS IN NEW YORK CITY, 1822–1858

Source: Limited partnership registrations, dissolutions, and renewals, New York County Clerk's Office.

estimated that the limited partnerships were equal in number to about 4 percent of operating ordinary partnerships in the 1850s.[36]

Although limited partnerships were uncommon relative to ordinary partnerships, they may have held a disproportionately large share of the total capital of all partnerships. The lower part of Figure 1 displays the total amount of capital invested by special partners in newly created limited partnerships, and operating limited partnerships, for each year over the sample. In the peak year of the sample (1858), more than $9 million had been invested by special partners in the operating limited partnerships; the total amount invested between 1822 and 1858 was more than $28.2 million.[37]

What stance did the courts take towards these firms? The reason most of the prior scholarship has suggested that the limited partnership was not widely adopted is that there is some case law indicating that judges interpreted limited partnership statutes quite narrowly. The special partners therefore faced the danger of being stripped of their limited liability due to minor deviations from the terms of the statute. In New York, the first reported case relative to one of these firms did not arise until 1836.[38] In that decision and in the case law that developed subsequently, New York's judges do not appear to have been overly conservative in their interpretation of the statute.[39] The New York Supreme Court, for example, rejected an attempt by a creditor to strip a special partner of his limited liability because of an error in the spelling of the special partner's name in the publication of the firm's

[36] *Doggett's New York City Partnership Directory* lists 3,846 ordinary partnerships in 1850; in that year there were 149 limited partnerships. The number of limited partnerships rose rapidly in the following years; if the number of ordinary partnerships did not keep pace, the relative fraction of limited partnerships must have grown. As there is no reliable way to obtain data on newly created ordinary partnerships, it is not possible to obtain data directly comparable to Lamoreaux and Rosenthal's data for France or Gómez-Galvarriato and Musacchio's for Mexico City, which are based on newly registered firms. Lamoreaux and Rosenthal, "Legal Regime"; and Gómez-Galvarriato and Musacchio, "Larger Menus."

[37] It is important to note that this figure does not include the investments of general partners in these firms, which were not stated on the registration certificates. For the firms in the 1853 sample below, the general partners on average contributed 47 percent of each firm's capital.

[38] *Phillips v. Stewart*, Ant. N.P. Cas. (2nd ed.) 337 (N.Y. Sup. Ct. 1837). In this case, the creditor of a limited partnership named the special partner of the firm in a suit for payment of the firm's debts; the court sided with the defendants, and told the plaintiff, "You must bring your action against the general partner." The obvious error in bringing suit against the special partner suggests that the plaintiff was either unfamiliar with the law, or sought to test its validity in court.

[39] *Madison County Bank v. Gould*, 5 Hill 309 (N.Y. Sup. Ct. 1843), discusses which violations were sufficient to render the special partners liable, and which were not.

certificate.[40] Special partners did face the risk that they could lose their limited liability, and some were indeed made personally liable, but this was probably regarded as unlikely to occur as a result of minor violations of the statute.[41]

The composition of New York's limited partnerships, as recorded on their certificates, is presented in Table 1. On average, the limited partnerships had a total of three partners, with two general partners and one special partner, who contributed about $21,500. There were 1,013 unique individuals who held stakes as special partners during this period; on average, each invested in 1.32 limited partnerships. The general partners overwhelmingly lived in New York City and Brooklyn, but the special partners were somewhat more likely to live outside the New York City area, often in New Jersey, upstate New York, or Connecticut. The average duration of the firms' existence specified on the registration certificates was about 43 months, but 24 percent of the firms dissolved prior to the limitation date; the actual duration of the firms' existence (including renewals) was on average about 38 months.[42]

The industrial composition of the limited partnerships is also presented in Table 1. The data in the table indicate that the limited partnerships were overwhelmingly engaged in mercantile activities; these firms frequently listed themselves as "jobbers" or "commission merchants" on their certificates.[43] The categories of "professionals" (which includes attorneys) and "personal services" (which includes tavern keepers, laundry washers, and the like) together accounted for only a small fraction of the limited partnerships. Manufacturers, which mostly included artisans and firms engaged in light manufacturing, such as shoemakers, ready-made clothing manufacturers, and jewelers, accounted for a much larger fraction of the firms.

[40] *Bowen v. Argall*, 24 Wend. 496 (N.Y. Sup. Ct. 1840). The court also held that publication of the certificate within one week of the firm's registration was sufficient to comply with the statute's requirement that the certificate be published "immediately."

[41] *Smith v. Argall*, 6 Hill 479 (N.Y. Sup. Ct. 1844), for example, held that an overstatement of the special partner's contribution to the firm's capital was grounds to strip his limited liability. This decision stated that "defects of mere form may be overlooked and disregarded," but that misrepresenting the capital of the firm was a substantive violation.

[42] This pattern of relatively short durations for the firms is consistent with data on ordinary partnerships obtained from mid-nineteenth-century Boston business directories by Lamoreaux, who found that only 33 percent of partnerships sampled in 1845 survived to 1850. Lamoreaux, "Partnership Form."

[43] A commission merchant often received merchandise from a manufacturer on consignment, and did not actually hold title to the goods. A jobber purchased goods from manufacturers or their commission merchants, and resold them to retailers, often in different parts of the country. See Porter and Livesay, *Merchants*.

TABLE 1
LIMITED PARTNERSHIPS:
FINANCES, INDUSTRIES, AND PARTNER DATA, 1822–1853

	Mean	SD	Min.	Max.
Firm averages				
Number of partners				
Total number of partners	3.12	1.12	2	20
Number of general partners	1.90	0.81	1	5
Number of special partners	1.22	0.71	1	17
Firm capital ($)				
Total contributed by special partner	25,722	34,167	50	360,000
Average per special partner	21,578	26,059	50	360,000
Residence of general partners (%)				
New York City	74.74	37.08	0	100
Brooklyn	17.69	32.50	0	100
Other U.S.	7.30	21.25	0	100
Foreign	0.28	3.17	0	50
Duration (months)				
Duration on certificate	42.71	18.97	5	242
Actual duration	38.22	21.82	0	242
Industry (%)				
Professional	0.18	—	—	—
Personal services	0.27	—	—	—
Mercantile	81.43	—	—	—
Manufacturing	18.12	—	—	—
Special partner averages				
Total number of special partner stakes	1.32	0.79	1	8
Total value of investments ($)	27,883	49,352	50	555,000

Notes: The data for the residences of the partners is calculated as the average of the percentage of partners residing in each place across firms. For the data on firms, N = 1,098. There were a total of 1,013 unique individuals who held special partner stakes in these firms; this is the number of observations for the data on special partners at the bottom of the table.
Source: Limited partnership registrations, dissolutions, and renewals, New York County Clerk's Office.

In general, the large sums invested in these firms indicate that the limited partnership was utilized by elite merchants. And indeed many prominent individuals and firms appeared on the registration certificates, including the dry goods retailers Lord & Taylor; Howland & Aspinwall, the shipping firm that played a dominant role in trade between New York and the Pacific; Junius S. Morgan, father of J. P. Morgan; and two German banks, which made enormous investments as special partners with New York City firms.[44] The nature of the limited partnership contract may have made this pattern of use inevitable, since it forced the special partner to make a completely illiquid investment, something a small investor would have found unattractive. Moreover, the risk that the special partner could lose his limited liability due to violations of the terms of the statute might also have made the form appealing only to the very affluent. But how different were these firms from typical partnerships, and in what ways did they differ? The next section describes the sources and data used to make systematic comparisons between the two types of firms.

DATA ON NEW YORK CITY LIMITED AND ORDINARY PARTNERSHIPS

Cross-Sectional 1853 Sample

Two samples were collected for analysis: a cross-section of partnerships existing in 1853, and a data set of special partners and their firms from 1845 to 1853. The cross-sectional data set presents an opportunity to compare the characteristics of limited partnerships to those of a random sample of ordinary partnerships, in order to observe any systematic differences across the two types of firms. The panel of special partners, in turn, will be used to analyze the connections between the special partners and the firms in which they were copartners, and to investigate the role of selection in determining the differences between the two types of firms.

The cross-sectional data set consists of all limited partnerships existing in 1853, and a random sample of ordinary partnerships existing in that year. The ordinary partnerships were sampled from a New York City business directory for 1852/53 by selecting the first entry on each page corresponding to a partnership (thus excluding sole proprietorships and corporations).[45] The directory provided each business's name,

[44] In 1854 the Bank for Commerce and Industry of Darmstadt invested $500,000 with a limited partnership that acted as bankers and commission merchants, and in 1857 the Credit Institution of Industry & Commerce of Dessau invested $365,000 with a commission-merchant limited partnership.

[45] *Wilson's Business Directory of New York City, 1852–1853*. If one of the businesses sampled from the directory turned out to be a limited partnership, rather than an ordinary partnership, it was replaced with the next candidate on the same page. Because the directory is organized by industry rather than alphabetically and a business may appear under more than one industry heading, the sample may be somewhat biased towards businesses that fit into multiple industry classifications. However, this likely translates to a bias towards larger businesses, which, as discussed below, is a bias already present in our primary source of information on these ordinary partnerships.

address, and industry. This produced a sample of 320 ordinary partnerships, or approximately 8 percent of all partnerships listed in the directory, to compare to the 217 limited partnerships found to be operating in that year.[46] Information on the partners and finances of these firms was then sought in the credit reports of R. G. Dun & Co.[47] Although the New York City credit reports date back to 1841 when R. G. Dun & Co., then called the Mercantile Agency, was founded, entries are quite sparse until the early 1850s, which is why 1853 was chosen as the year for the cross-sectional sample. Data on 186 of the 217 limited partnerships and 140 of the 320 ordinary partnerships were found in the Dun ledgers. The purpose of the Dun reports was to provide creditors with information on businesses' financial health and prospects, so correspondents would have been most likely to compile reports on businesses that had issued commercial paper to finance purchases or other transactions. The Dun reports are therefore biased towards firms that were large and active in the business world.

Although the extent of the data in the Dun reports varied by firm, several types of information were frequently available for the partnerships in the sample. In addition to a partnership's address and industry and the names of all partners, the reports typically provided a partnership's total capital or net worth, and often provided estimates of the individual partners' net worth as well.[48] The reports also indicated a partnership's fate, and whether it was dissolved or failed. Finally, the Dun reports often noted how the general partners in a firm were connected to each other and how the special partners were connected to the general partners.

Data Set of Special Partners

In order to investigate the relationship between firm characteristics and status as a limited partnership, a data set of special partners and their firms was constructed. To begin, all 247 special partners in limited partnerships created between 1845 and 1853 who lived in New York

[46] There were actually 236 limited partnerships operating for at least one day in that year, but 19 of them dissolved in January and were excluded from the analysis.

[47] The R. G. Dun & Co. credit reports are in the Historical Collections of Baker Library, Harvard Business School. The Dun & Co. correspondents sent their reports at least twice a year to the clerks in the New York office, who copied them into ledgers, which were gradually split apart as they filled up, with each portion receiving new pages and forming a new ledger. Beginning from approximately 21 volumes, the firm ended up with 281 volumes containing information on New York City businesses (1841–1892), which are not organized chronologically.

[48] The date on which a firm's information was observed by the Dun agents varied; information from the year closest to 1853 was recorded.

City or Brooklyn were identified from the limited partnership certificates. The general partners were then linked to other firms using directories of partnerships from 1849/50 and 1853/54 that listed all partners' names.[49] The firms were then looked up in the Dun records and data on its members and finances was recorded. In addition, the Dun records were searched for the names of all 247 special partners as individuals, in case some were not members of partnerships but operated as independent merchants, sole proprietors, or officers of corporations.[50] Finally, city directories and commercial directories were searched for the names of the individuals as well, to see if they operated as independent merchants, and to see if an occupation was listed for them.

Of the 247 New York and Brooklyn special partners, 30 could not be found in the partnership directories, commercial directories, city directories, or the Dun reports. Thus the sample consists of the 217 individuals for which a firm or occupation could be found. For each of these individuals' partnerships, information comparable to that of the cross-sectional data set was obtained, although for many of them, no Dun record could be found, or the records that were found did not include information on key variables.

EMPIRICAL ANALYSIS: CROSS-SECTIONAL COMPARISONS

Were limited partnerships distributed across industries in the same way as ordinary partnerships? Table 2 presents comparisons of the industries of the ordinary partnerships and limited partnerships in the cross-sectional sample. In general, the data in the table indicate that limited partnerships tended to be formed at higher rates than ordinary partnerships in the industries with larger average capital, and at lower rates than ordinary partnerships in industries with low average capital.

The top part of the table, which classifies the partnerships into broad industry categories, indicates that the distributions of the two types of firms were quite different. About 44 percent of the ordinary partnerships were mercantile businesses, compared to 76 percent of the

[49] *Doggett's New York City Partnership Directory, for 1849 and 1850*; and *Rode's New York & Brooklyn Partnership Directory for 1853 & 1854.* These present alphabetical lists of firms (with no industry classifications), and include the names of every copartner of every firm.

[50] The Dun records contain information on individuals only if they were economically active. Corporate officers who had other business interests were frequently rated as borrowers in the Dun ledgers, but many officers were only listed as part of the description of the corporation itself, in which case the search on the individual's name would not lead to any record.

TABLE 2
INDUSTRY COMPARISONS:
NEW YORK CITY PARTNERSHIPS, 1853

		Frequency		
Industry	Firm Capital, All Partnerships Mean ($)	Limited Partnerships Mean (%)	Ordinary Partnerships Mean (%)	$P > \| t \|$
Broad industry categories				
Professional	30,333	0.46	7.12	0.000
Personal services	26,375	0.00	9.34	0.000
Mercantile	79,063	75.58	43.75	0.000
Manufacturing	35,769	23.96	39.69	0.000
Mercantile				
Trade in dry goods	68,804	37.79	13.13	0.000
Trade in groceries and commodities	59,194	17.05	17.81	0.820
Other/Unspecified trade	105,917	18.89	11.25	0.013
Bankers and brokers	415,000	1.84	1.56	0.804
Manufacturing				
Garments and shoes	38,875	8.76	7.19	0.508
Fancy goods and jewelry	38,700	1.84	4.69	0.080
Ships and carriages	13,500	0.92	5.63	0.005
Food, drinks, and cigars	59,357	1.84	6.25	0.015
Machinery and metalware	9,194	2.30	4.06	0.267
Other manufacturing	40,444	8.29	11.88	0.184

Note: $P > | t |$ denotes the significance level of a two-sided test of differences in means. For firm capital, $N = 235$; for the industry category variables, $N = 517$.
Sources: Limited partnership registrations, New York County Clerk's Office; and R. G. Dun & Co. ledgers, New York City.

limited partnerships, and essentially none of the limited partnerships were in the professions or in personal services. The lower panel of the table presents additional detail on the activities of the mercantile and manufacturing businesses in the sample. Among mercantile firms, the limited partnerships were more likely to be engaged in the buying and selling of dry goods and also more likely to list themselves as "general commission merchants" or "importers," which we classified as unspecified trade.[51] These two categories also had the highest average capital except for bankers and brokers. The ordinary partnerships generally engaged in each subcategory of manufacturing at a substantially higher rate than the limited partnerships. The one exception

[51] We grouped firms engaged in trade in "fancy goods" and clothing with those trading in dry goods. Fancy goods included things like combs, silks, trimmings, and "furnishings."

was in shoe and garment manufacturing, where both types of firms were engaged at similar rates.

The data obtained from the Dun reports on the firms includes great detail on their finances and membership. However, only 44 percent of the ordinary partnerships appeared in the Dun ledgers, compared to 86 percent of the limited partnerships. Since the Dun reports were intended for creditors and therefore likely included the larger and more economically active firms, the comparisons based on the Dun reports that follow show the difference between nearly all of the limited partnerships and a highly selected group of the ordinary partnerships.

The composition of the limited partnerships differed from that of the ordinary partnerships. Table 3A presents data on the members of the firms. The limited partnerships and the ordinary partnerships had roughly the same number of general partners (two), but the limited partnerships had one special partner as well. The lower part of the table presents the ages of the partners in each type of firm.[52] On average, the partners in the ordinary partnerships were nearly three years older than the general partners in the limited partnerships (38.4 vs. 35.7 years old). But the special partners were on average ten years older than the general partners in their firms. Finally, the data indicate that the general partners in limited partnerships were worth considerably less than the general partners in ordinary partnerships.[53]

Did the limited partnerships actually have more capital than the ordinary partnerships? Table 3B presents tests of differences in means for firm capital, and, because the distribution of capital for these firms contains some enormous outliers, the medians are also compared. It should be noted that these data represent estimates provided by the Dun agents, and are likely quite imprecise and noisy.[54] In terms of means, the limited partnerships had about 15 percent more capital, with about 47 percent of the capital supplied by the general partners, and the balance by the special partners. The difference in average capital across firm types is not statistically significant, but the median capital of the limited partnerships ($40,000) was twice as large as the median level of

[52] These data were obtained from a searchable online census database.

[53] As the special partners' wealth could not be pursued by the creditors of the firms, the Dun agents rarely recorded their net worth. The data set on special partners presented below contains information on the net worth of many of these individuals, obtained from the Dun entries for their ordinary partnerships.

[54] For example, the estimates tend to cluster on round numbers: there were 17 firms whose capital was estimated to be equal to exactly $50,000, but there were none with any amount between $45,000 and $50,000, and none between $50,000 and $55,000.

Table 3A
FIRM COMPOSITION:
NEW YORK CITY PARTNERSHIPS, 1853

	Limited Partnerships	Ordinary Partnerships	$P > \| t \|$
Number of partners			
Total number of partners	3.15	2.24	0.000
General partners	1.99	2.24	0.002
Special partners	1.16	—	—
Age of partners			
General partners	35.52	38.22	0.002
Special partners	46.22	—	—
Finances of partners			
Net worth of general partners ($)	25,611	64,053	0.001

Note: $P > | t |$ denotes the significance level of a two-sided test of differences in means.
Sources: Limited partnership registrations, New York County Clerk's Office; R. G. Dun & Co. ledgers, New York City; and the Census of 1850, accessed through an online index.

Table 3B
CAPITAL COMPARISONS:
NEW YORK CITY PARTNERSHIPS, 1853

	Limited Partnerships	Ordinary Partnerships	*P-value of Difference*
Mean			
Total capital ($)	68,953	60,954	0.559
General partners' contribution (%)	46.60	100.00	0.000
Median			
Total capital ($)	40,000	20,000	0.000
Capital per general partner ($)	20,500	10,000	0.000
Capital per partner ($)	12,667	10,000	0.070

Notes: For the limited partnerships, capital per partner is calculated as total capital divided by the number of general partners plus special partners. In some cases, the Dun reports state the "net worth" of a firm, rather than its capital; this is true for 42 ordinary partnerships and five limited partnerships. For these firms, the net worth is used in lieu of capital. If these data are excluded from the comparisons, the results are substantially the same. The p-values reported are for a two-sided t-test of differences in means, or for the tests of differences in medians, the significance level of the Pearson chi-squared test statistic is reported.
Source: R. G. Dun & Co. ledgers, New York City.

capital for the ordinary partnerships ($20,000), and this difference is statistically significant. The limited partnerships did, however, have one more partner than the ordinary partnerships. The bottom row in Table 3B compares median capital per partner for the two types of firms, and the data indicate that the limited partnerships had about 27 percent more capital per partner, even including the special partners in the total number of partners.

Were these differences in firm capital across firm types due to the fact that they were engaged in different industries, or were they due instead to differences in the merchants who organized the firms? In order to explore this question, Table 4 presents median regressions for firm capital, with a limited partnership dummy as an independent variable, and location and industry dummies as additional controls, along with a dummy variable indicating whether or not the firm existed in 1846.[55] The location dummies, which indicate the political "ward" within which the firm was located, were included to capture any differences within industries correlated with geography.[56] The results in column 3 indicate that even controlling for industry and for geography, the median capital of the limited partnerships was much higher than that of the ordinary partnerships (about $17,000 more), and this difference is highly statistically significant. Column 5 presents median regressions for capital per partner. The results indicate that the limited partnerships had over $3,000 more capital per partner, but this difference is estimated imprecisely.

In general, the Dun agents' reports provide little if any information on the performance or profits of the firms, except in a few cases of spectacular success. However, the records very carefully report on any failures of the firms—essentially, bankruptcies.[57] Although the Dun agents rarely recorded the extent of the firm's losses in these cases, which were therefore simply coded as a binary variable indicating "failure," these events can be thought of as the worst possible outcome for the performance of the firm. In general, the failure of a firm (conditional on its industry and capital) might be interpreted

[55] The 1846 edition of *Doggett's New York City Copartnership Directory* was used to code this variable. For the limited partnerships, the exact duration of their existence can be computed from their registration certificates and dissolution notices, but no comparable information is available for ordinary partnerships.

[56] The location dummies were coded from the addresses of the firms, which were then matched on an 1850 New York City map that included ward boundaries. At the time, New York City had 17 wards, which were local political jurisdictions. Many of the prominent mercantile firms in the data set were located in the first three wards (the very lowest part of Manhattan). The location dummies may proxy for the firm's status as a wholesaler or retailer, since the firms located in primarily residential wards were very likely to be retailers.

[57] The Dun agents seemed to record that a firm "failed" if it was unable to meet its obligations and was forced to renegotiate its obligations with its creditors. In at least some cases, this appears to have occurred without formal bankruptcy proceedings or the dissolution of the firm. For example, the merchant tailors Booth & Foster, a limited partnership formed in 1850, was recorded as having failed in 1852 but nonetheless kept operating; the firm's creditors eventually received 50 cents for every dollar of claims they had on the firm.

TABLE 4
MEDIAN REGRESSIONS:
FIRM CAPITAL, NEW YORK CITY PARTNERSHIPS, 1853

	Total Firm Capital (000s)			Capital/ General Partner (000s)	Capital/ Partner (000s)
	(1)	(2)	(3)	(4)	(5)
Limited partnership	25.000***	12.750*	16.750**	8.375**	3.333
	(6.296)	(7.425)	(7.402)	(3.239)	(2.595)
Existed in 1846			28.375**	10.167	8.833
			(14.294)	(6.238)	(6.153)
Ward fixed effects	No	Yes	Yes	Yes	Yes
Industry fixed effects	No	Yes	Yes	Yes	Yes
Observations	235	214	214	214	214
Pseudo R-squared	0.04	0.13	0.15	0.16	0.14

*** denotes significance at the 1 percent level.
** denotes significance at the 5 percent level.
* denotes significance at the 10 percent level.
Notes: This table reports the results of median regressions, with bootstrapped standard errors. Standard errors in parentheses. In constructing the firm capital variable (the dependent variable), a firm's net worth was used instead of its total capital when capital data were unavailable; all regressions include a dummy equal to 1 if firm capital was calculated from net worth. A constant term (not reported) is also included in the regressions.

as evidence of excessive risk taking or generally poor management. Therefore, in Table 5, we regress the firm failure variable on a variable indicating status as a limited partnership, and other firm characteristics, to investigate whether the failure rate of limited partnerships was different from that of ordinary partnerships.

For the sample firms that operated in 1853, we analyzed the determinants of failures in 1853 or 1854; firms that failed in subsequent years were coded as survivors. Limited partnerships whose registrations expired before 1854 were regarded as not having been exposed to the risk of failure for a comparable amount of time, and were excluded from the regressions.[58] For the 281 firms in the resulting data set, 9.4 percent of the ordinary partnerships failed within 1853/54, compared to 4.9 percent of the limited partnerships, a difference which is substantial but not statistically significant. Columns 2 through 4 of Table 5 present

[58] Including failures through 1855, and limited partnerships whose existence extended into that year, produces similar results, but for subsequent years, the number of observations becomes too small for reasonable estimation.

TABLE 5
REGRESSIONS:
FIRM FAILURE, NEW YORK CITY PARTNERSHIPS, 1853–1854
(dependent variable = 1 if the firm failed in either 1853 or 1854)

	(1)	(2)	(3)	(4)
Limited partnership	–0.044	–0.045	–0.074*	–0.111*
	(0.031)	(0.035)	(0.043)	(0.058)
Existed in 1846			–0.077	–0.101*
			(0.051)	(0.059)
Firm capital/10,000				–0.004***
				(0.001)
Ward fixed effects	No	Yes	Yes	Yes
Industry fixed effects	No	Yes	Yes	Yes
Observations	281	281	281	204
Pseudo R-squared	0.01	0.07	0.08	0.15

*** denotes significance at the 1 percent level.
** denotes significance at the 5 percent level.
* denotes significance at the 10 percent level.
Notes: Robust standard errors in parentheses. In constructing the firm capital variable, a firm's net worth was used instead of its total capital when capital data were unavailable; all regressions include a dummy equal to 1 if firm capital was calculated from net worth. A constant term (not reported) is also included in the regressions.

regressions where controls for industry, location, previous duration of existence, and firm capital are added in succession. Firms that had existed since at least 1846 were less likely to fail; since limited partnerships were on average younger firms, controlling for prior existence increases the magnitude of the negative effect of status as a limited partnership on the failure rates of the firms. Controlling for the firms' capital, a powerful determinant of failure, has a similar effect. Although in general, the effect of status as a limited partnership is not precisely estimated, the effects are quite large, relative to a mean failure rate of 7.14 percent. This rough indication of superior performance is at least consistent with average managerial quality being higher among the limited partnerships.

The last and perhaps most interesting characteristic of the firms to compare is the personal connections among the partners. When evaluating the creditworthiness of a firm, the Dun agents frequently commented on the background of the partners themselves, including whether or not they had worked together in a prior firm (and if so, in

TABLE 6
FIRM ORIGINS:
NEW YORK CITY PARTNERSHIPS, 1853

	Limited Partnerships Mean (%)	Ordinary Partnerships Mean (%)	$P > \mid t \mid$
At least two partners have the following relationship			
Partners together in prior firm	44.69	10.91	0.000
Employees together or employer and employee	21.23	18.18	0.532
Related (by marriage or consanguinity)	29.61	53.64	0.000

Note: For the limited partnerships, the calculations include connections between the special partners and the general partners, between different general partners, and between different special partners. $N = 289$. $P > \mid t \mid$ denotes the significance level of a two-sided test of differences in means.
Source: R. G. Dun & Co. ledgers, New York City.

what capacity), and whether or not they were related. Table 6 presents summary statistics for data describing the personal connections among the partners in the firms of the sample. The binary variables in the table are coded as equal to one if any two partners had the personal connection described, and for the limited partnerships, they include the special partners. These variables are not mutually exclusive, and in theory could all be equal to one for a given firm.[59]

The personal connections forming the origins of the partnerships in the sample clearly differed by firm type. The limited partnerships were much more likely to have partners who had been in business together in prior firms, either as partners or as employers and employees, compared to the ordinary partnerships. More importantly, the ordinary partnerships were significantly more likely to have partners who were related to one another, compared to the limited partnerships (53.6 percent vs. 29.6 percent). The data on the relationships among the members of limited partnerships presented in the table include all the partners, both special and general. If we consider only the general partners within the limited partnerships, they were related to one

[59] As the Dun agents almost never recorded such information in the negative ("these partners are not related"), the question of which entries to code as zero arises. The approach taken was as follows: if the Dun agents provided any information relative to any aspect of the background of the partners, the variables for the relationships not mentioned were coded as zero. The implicit assumption imposed was that if the Dun agents commented on any aspects of the background of the partners, they were fully informed about all aspects of the partners' backgrounds and relationships. This almost certainly overstates the number of zeros in the data set, and therefore understates the rates reported in the table. The use of a stricter standard for coding the zeros among these variables results in substantially higher means for all of the variables, but none of the relative comparisons across firm types change in important ways.

another 12 percent of the time. The special partners were related to the general partners 21.2 percent of the time.[60]

Taken as a whole, these results imply that limited partnerships had more capital than ordinary partnerships, and even after controlling for capital, they were more successful. The form was utilized by sophisticated and talented merchants, who were usually not related to one another, but instead met one another in the business world. But were these differences in personal connections among partners simply the result of the elite status of the merchants who formed limited partnerships? Perhaps elite merchants could rely less on family when choosing their investments in firms. These issues will be explored in much greater depth using the second data set collected for this article, the data set of special partners and their firms.

SPECIAL PARTNERS AND THEIR FIRMS

In order to investigate the relationships between the special partners and their firms, a data set was collected of the occupations and firms of the special partners who resided in New York and Brooklyn from 1845 to 1853. Many of the special partners made investments in multiple limited partnerships; the average number was about 1.3, but some invested in as many as four. Who were these men?

The data in Table 7 indicate that 56 percent of the special partners were general partners in an ordinary partnership at the time of their investments. This is a clear indication that the institution of the limited partnership facilitated investments that were unlikely to have occurred in its absence, since acting as a general partner in two ordinary partnerships would have been untenable: it would have created serious conflicts of interest, and would have exposed the assets of each firm's partners to the creditors of the other partnership.[61]

Most of the remaining special partners were also from New York City's mercantile community. About 18 percent of special partners were retired merchants, 15 percent were independent merchants (in business alone), about 4 percent were officers of corporations, and 3 percent

[60] These two numbers do not add up to the number in the table (29.6 percent) because for about 3 percent of firms, the general partners were related to one another, and the special partners were related to the general partners.

[61] On the weak entity shielding afforded to partnerships, see Hansmann, Kraakman, and Squire, "Rise of the Firm." The formation of additional "branches" of a partnership firm in another city or country is one circumstance in which individuals became members of several ordinary partnerships. See Albion, *Rise*, p. 264; and Chandler, *Visible Hand*, p. 36.

TABLE 7
NEW YORK SPECIAL PARTNERS, 1845–1853:
OCCUPATION AND WEALTH

	Mean
Primary occupation (%)	
Copartner in an ordinary partnership	55.61
Retired/Former merchant	17.67
Independent merchant	14.75
No occupation	5.07
Officer in a corporation	4.15
Professional	2.77
Wealth	
Net worth ($)	190,000

Note: For the occupation variables, N = 217; for net worth, N = 73.
Sources: R. G. Dun & Co. ledgers, New York City; *Wilson's Business Directory of New York City*, 1849, 1852; and *Doggett's New York City Directory*, 1845–1852.

were professionals in business alone, mainly lawyers. Another 5 percent of the special partners were listed in directories as residing in New York City, but without any occupation. Finally, the average net worth of the special partners of $190,000 is a sign that they were probably among the mercantile community's more successful and wealthy members.[62]

These data on the wealth and occupations of the special partners provide further insight into the use of the limited partnership, in light of the potential concern about the loss of limited liability. For these wealthy and successful merchants, the risk that the courts might strip them of their limited liability may not have represented an unusual or unacceptable source of danger. Moreover, the benefits of status as a special partner extended beyond limited liability: the special partner's arm's-length relationship with the operations of the limited partnership facilitated simultaneous investments in multiple partnerships. It could be that status as a passive "outside" investor in a partnership firm was as important as limited liability to the special partners.

The connections between special partners and their firms were associated less with kinship and more with professional and industrial

[62] This measure of net worth, or wealth net of debts, was estimated by the Dun agents based on their inspection of the firms' accounts and the partners' assets, and interviews with their suppliers, customers, and competitors. For 60 of the special partners, their 1850 tax valuation for personal and real estate was found in Darling, *List of Persons*. Their average tax valuation, $68,595, was far lower than the average net worth estimated by the Dun agents. This difference may reflect ownership of assets not subject to tax, such as property outside of New York City, or shares in incorporated companies, but it also likely reflects the fact that assessors were often unable to identify many of the business assets held by taxpayers. The two measures of wealth are, however, positively correlated; the correlation coefficient between the two is 0.58.

TABLE 8
SPECIAL PARTNERS AND THEIR FIRMS, 1845–1853

	Limited Partnerships	Ordinary Partnerships
Special partner ties to firm (%)		
Former partner or employer of general partner	46.41	7.95
Related to general partner	18.78	53.93
General partner in a firm in the same industry	53.27	—
Firm finances ($)		
Total firm capital	66,742	300,854
Stake in firm	23,848	174,208
Stake in firm as percent of special partner's net worth	16.98	85.18

Notes: The first column presents data for all special partner-limited partnership pairs for limited partnership investments of New York City special partners. The second column presents means only for special partner-general partnership pairs. For all but the last row in the table, $N = 270$, representing the firms of 144 individuals. In the last row, there are 157 observations from 73 individuals.
Source: R. G. Dun & Co. ledgers, New York City.

ties. The upper rows of Table 8 indicate that special partners were related to at least one general partner in their limited partnerships only 19 percent of the time, compared to 54 percent of the time for their ordinary partnerships, a dramatic contrast that is quite similar to the difference observed across firm types in Table 6.[63] For 46 percent of the special partners' investments in limited partnerships, at least one of the general partners was their former employee or partner.[64] The industry of their own ordinary partnerships and their limited partnerships was the same 53 percent of the time. This is suggestive evidence that diversification motives were of secondary importance in the decision to invest in a limited partnership, at least with respect to diversification of industry risk factors.

In their finances, the two types of firms differed dramatically: the ordinary partnerships had much more capital than the limited partnerships. The data in Table 8 indicate that on average, the stakes in limited partnerships—defined as the partner's net worth minus the value

[63] In Table 6, 29.6 percent of limited partnerships are stated to have at least two related partners, when all partners are considered. When relationships between special partners and general partners only are considered, this rate falls to 21.2 percent, which is quite similar to the 18.8 percent reported in Table 8.

[64] Note that this number is not directly comparable to the data in Table 6, since those data include connections among all partners, not just those between a special partner and a general partner.

TABLE 9
REGRESSIONS:
FAMILY CONNECTIONS, FIRM CAPITAL

	Dependent Variable: Kinship Ties		Dependent Variable: Firm Capital	
	(1)	(2)	(3)	(4)
Limited partnership	–0.351***	–0.469***	–234,113***	–261,640
	(0.064)	(0.109)	(43,212)	(196,788)
Individual fixed effects	No	Yes	No	Yes
Industry fixed effects	No	Yes	No	Yes
Observations	270	270	195	195
R-squared	0.13	0.73	0.28	0.82

*** denotes significance at the 1 percent level.
** denotes significance at the 5 percent level.
* denotes significance at the 10 percent level.
Notes: Robust standard errors, adjusted for clustering on individual merchants, reported in parentheses. A constant term (not reported) is also included in the regressions.

of their stake in their limited partnership——were equivalent to about 17 percent of the special partner's net worth. For those special partners who were members of ordinary partnerships, their stake in their ordinary partnership was effectively the balance (about 85 percent) of their net worth.

In order to investigate these differences more carefully, and address the issue of selection, Table 9 presents the relationship between family connections and status as a limited partnership after controlling for individual and industry fixed effects. That is, for partner *i* in firm *j*, the relationship

$$\text{kin}_{ij} = \alpha + \beta\,\text{limited}_j + \textstyle\sum_k \lambda_k \text{industry}_{jk} + \delta_i + e_{ij}$$

is estimated, where kin_{ij} is a binary variable equal to one if the partner has kinship ties to some other general partner in the firm; limited_j is a variable equal to one if the firm is a limited partnership; the industry variables are binary variables for each industry; and the δ_i is a fixed effect for each of the special partners in the sample. The coefficient β is estimated from the variation within individual merchants' partnerships.[65] The ordinary partnerships included in the data set are

[65] For 81 of the special partners, data on firm capital and personal connections with the other partners is available for at least one limited partnership and an ordinary partnership. Many of these special partners invested in multiple limited partnerships in addition to their ordinary partnerships, and β is identified from the 188 observations representing these men's firms. The remaining observations in the data set correspond to firms where there is data only for the special partner's limited partnerships, or his general partnership, but not both, so they do not provide identifying variation in the regressions in columns 2 and 4 in Table 9.

those in which a special partner was a member at the same time they were invested in their limited partnership.

The results indicate that even when controlling for industry and when focusing only on the variation within each individual merchant's firms, the special partners were much more likely to form ordinary partnerships than limited partnerships with their relatives. The estimated effect in Table 9 indicates that the merchants in the data set were about 47 percent less likely to be related to their partners in their limited partnerships, compared to their ordinary partnerships, and this difference is highly significant. These merchants chose to form their ordinary partnerships with members of their kinship networks, and their limited partnerships with businessmen with whom they had no kinship ties.

This sharp distinction in the degree of kinship ties between the two types of firms could have been due to the perils of unlimited liability. Merchants may have formed ordinary partnerships with their kin because they believed that they knew their relatives better and could trust them more than other business associates. But these men may have had other reasons to form partnerships with their relatives that had nothing to do with trust—they may have enjoyed working with family, or brought in their younger relatives to help them learn and profit from the family business. Whatever their motives for forming family partnerships, the limited partnership enabled merchants to make additional investments in other firms, and act something like venture capitalists. Their principal business was their family partnership, but the limited partnership enabled them to simultaneously hold stakes in other partnerships, whose members were generally drawn from the business world, and in particular from outside their kinship network.

In Table 9, when the dependent variable is firm capital, the results indicate that the special partners invested a great deal less of their capital in the limited partnerships than they did in their general partnerships. This holds true even though the limited partnerships on average had more total capital than did the average ordinary partnership. This is yet another indication of just how wealthy the special partners were.

CONCLUSION

The importance of the limited partnership in the nineteenth-century United States has long been doubted, and scholars have speculated on the reasons for its infrequent adoption. However, limited partnerships played an important role in the mercantile sector of antebellum New

York, the leading financial and commercial city in America. A total of 1,098 limited partnerships were formed in the city in the years up to 1858, and the investments made with these firms were often quite large, in the aggregate totaling more than $28.2 million. During the years of the sample, the corporate form became increasingly accessible, and the proliferation of corporations enabled investors to purchase shares in firms in a wide range of industries. But the mercantile world remained dominated by partnerships, and the limited partnership, which created the possibility of holding a stake as an outside investor, facilitated investments in these firms. Over the remainder of the nineteenth century, the limited partnership found continued widespread use, and the total number of limited partnerships formed in New York City during the nineteenth century can be conservatively estimated to be at least 3,000.[66]

Compared with ordinary partnerships, New York's limited partnerships had more capital; operated disproportionately in mercantile sectors, particularly in buying and selling dry goods; and failed at a lower rate, even conditional on the amount of capital they had. These were elite firms, formed by wealthy and successful merchants and given abundant resources to pursue lucrative business opportunities. The investors who provided capital to these firms often knew the general partners from previous connections in the business world, and were only rarely related to them. This was quite different from most ordinary partnerships, where the partners were often from within the same kinship network, and this difference is not simply due to selection. The special partners' own ordinary partnerships were much more likely to be formed on the basis of kinship ties. The limited partnership appears to have facilitated investments in the businesses of talented young merchants who wealthy investors knew through their business dealings. The superior performance of the limited partnerships, even conditional on the amount of capital they held, is an indication that these investments were indeed made with men chosen on the basis of their talent and potential.

The reason most of the prior scholarship has concluded that the limited partnership was not widely adopted is that the special partners faced the danger of being stripped of their limited liability due to minor deviations from the terms of the statute. But it is clear that quite a few wealthy businessmen did not see this as a serious impediment to the use of the form. The risk that the courts might impose liability for the debts

[66] There are no lists or tabulations to use to count these enterprises, but the number of volumes of limited partnership registrations for the years 1822–1900 (totaling 33), coupled with a conservative estimate of limited partnerships per volume, suggests a total of more than 3,000 over the century.

of their limited partnerships, which were often formed with their former partners and employees, may have been perceived as remote or may not have represented an unusual or unacceptable source of danger for the special partners. Moreover, the benefits of the limited partnership extended beyond limited liability: the special partner's arm's-length relationship with the firm facilitated simultaneous investments in multiple partnerships, which would not have been tenable in the absence of the form.

The introduction of the limited partnership into the laws of New York, an innovation that was copied by most of the other states over the nineteenth century, is an important example of an American state shaping the law to fit its economic needs. The statute created a new class of investor—the special partner—who would hold a stake in a partnership firm as a passive, outside investor. This represented a significant departure from the common law doctrine of partnerships, and the use of the new form in New York City was quite economically important. The question of whether the limited partnership found similar patterns of use in other environments awaits further research.

REFERENCES

Abramitzky, Ran, Zephyr Frank, and Aprajit Mahajan. "Inside the Black Box: Partnerships in Rio de Janeiro, 1870–1891." Working Paper, Stanford University, 2007.

Albion, Robert G. *The Rise of New York Port.* New York: Scribner's Sons, 1939.

Bates, Clement. *The Law of Limited Partnership*. Boston: Little, Brown & Company, 1886.

Beckert, Sven. *The Monied Metropolis: New York City and the Consolidation of the American Bourgeoisie, 1850–1896*. New York: Cambridge University Press, 2001.

Begbie, Matthew. *Partnership "en Commandite," or Partnership with Limited Liabilities*. London: Effingham Wilson, 1848.

Bodenhorn, Howard. "Partnership and Hold-Up in Early America." NBER Working Paper No. W8814, Cambridge, MA, 2002.

Brown, Ronald L. *The Law School Papers of Benjamin F. Butler: New York University School of Law in the 1830s.* New York: Greenwood Press, 1987.

Cadman, John W. *The Corporation in New Jersey*. Cambridge, MA: Harvard University Press, 1949.

Chandler, Alfred. *The Visible Hand: The Managerial Revolution in American Business*. Cambridge, MA: Harvard University Press, 1977.

Cook, Charles M. *The American Codification Movement: A Study of Antebellum Legal Reform.* Westport, CT: Greenwood Press, 1981.

Darling, William A. *List of Persons, Copartnerships, and Corporations Who Were Taxed on Seventeen Thousand Five Hundred Dollars, and Upwards, in the City of New York.* New York: John F. Whitney, 1851.

Doggett's New York City Directory, 1845–1853. New York: John Doggett Jr.

Doggett's New York City Partnership Directory, 1845–1853. New York, John Doggett Jr.

Eden, Frederick. *On the Policy and Expediency of Granting Insurance Charters.* London: Burton, 1806.

Ffookes, Woodforde. *Law of Partnership an Obstacle to Social Progress.* London: W. G. Benning & Co., 1854.

Freedeman, Charles E. *Joint-Stock Enterprise in France, 1807–1867.* Chapel Hill: University of North Carolina, 1979.

Friedman, Lawrence M. *The History of American Law*. New York: Simon & Schuster, 1985.

Gilmore, Eugene A. *Handbook on the Law of Partnership Including Limited Partnerships*. St. Paul, MN: West Publishing Co., 1911.

Gómez-Galvarriato, Aurora, and Aldo Musacchio. "Larger Menus and Entrepreneurial Appetite: An Empirical Investigation of Organizational Choice in Mexico, 1886–1910." Working Paper, Harvard Business School, 2008.

Guinnane, Timothy, Ron Harris, Naomi Lamoreaux, and Jean-Laurent Rosenthal. "Putting the Corporation in its Place." *Enterprise and Society* 8, no. 3 (2007): 687–729.

Handlin, Oscar, and Mary Flug Handlin. *Commonwealth—A Study of the Role of Government in the American Economy: Massachusetts, 1774–1861*. Cambridge, MA: Belknap Press, 1969.

Hansmann, Henry, Reinier Kraakman, and Richard Squire. "Law and the Rise of the Firm." *Harvard Law Review* 119, no. 5 (2006): 1335–1403.

Hilt, Eric. "Incentives in Corporations: Evidence from the American Whaling Industry." *Journal of Law and Economics* 49, no. 1 (2006): 197–227.

______. "When Did Ownership Separate from Control? Corporate Governance in the Early Nineteenth Century." This JOURNAL 68, no. 3 (2008): 645–85.

Horwitz, Morton J. *The Transformation of American Law: 1790–1860*. Cambridge, MA: Harvard University Press, 1977.

Howard, Stanley E. "The Limited Partnership in New Jersey." *Journal of Business of the University of Chicago* 7, no. 4 (1934): 296–317.

Hurst, James Willard. *Law and the Conditions of Freedom in the Nineteenth-Century United States*. Madison: University of Wisconsin Press, 1956.

Journal of the Assembly of the State of New York at Their Forty-Fifth Session, Begun and Held at the Capitol, in the City of Albany, the First Day of January, 1822. Albany: Cantine & Leake, 1822.

Kent, James. *Commentaries on American Law*. New York: O. Halsted, 1826.

Kessler, Amalia D. "Limited Liability in Context: Lessons from the French Origins of the American Limited Partnership." *Journal of Legal Studies* 32, no. 2 (2003): 511–48.

Lamoreaux, Naomi R. "The Partnership Form of Organization: Its Popularity in Early-Nineteenth-Century Boston." In *Entrepreneurs: The Boston Business Community, 1750–1850*, edited by Conrad E. Wright and Katheryn P. Viens, 269–95. Boston: Massachusetts Historical Society, 1997.

Lamoreaux, Naomi R., and Jean-Laurent Rosenthal. "Legal Regime and Business's Organizational Choice: A Comparison of France and the United States During the Era of Industrialization." *American Law and Economics Review* 7, no. 1 (2005): 28–61.

Levi, Leone. "Appendix." In *First Report: Commissioners Appointed to Inquire . . . [On] Mercantile Laws.* London: Eyre and Spottiswoode, 1854.

Limited Partnership Registrations, 1822–1858. Division of Old Records, New York County Clerk's Office. New York, NY.

Nelson, William E. *Americanization of the Common Law: The Impact of Legal Change on Massachusetts Society, 1760–1830*. Cambridge, MA: Harvard University Press, 1975.

New York. *Minutes of the Common Council of the City of New York, 1784–1831*. Published by the City of New York, 1917.

North, Douglass C, John Joseph Wallis, and Barry R. Weingast. "A Conceptual Framework for Interpreting Recorded Human History." NBER Working Paper No. 12795, Cambridge, MA, 2006.

Porter, Glenn, and Harold C. Livesay. *Merchants and Manufacturers: Studies in the Changing Structure of Nineteenth-Century Marketing*. Baltimore, MD: Johns Hopkins Press, 1971.

Porter, Kenneth W. *The Jacksons and the Lees: Two Generations of Massachusetts Merchants, 1765–1844.* Cambridge, MA: Harvard University Press, 1937.

Potter, Paraclete. *Every Man His Own Lawyer, or, The Clerk and Magistrate's Assistant, Adapted to the Revised Statutes and Greatly Enlarged.* Poughkeepsie, NY: Conner & Cooke, 1834.

R. G. Dun & Co. ledgers, New York City. Collection Baker Library, Harvard University. Cambridge, MA.

Rode's New York & Brooklyn Partnership Directory, 1853. New York: Charles R. Rode.

Rodman, John. *The Commercial Code of France.* New York: C. Wiley, 1814.

Saville, John. "Sleeping Partnership and Limited Liability, 1850–1856." *Economic History Review* 8, no. 3 (1956): 418–33.

Scoville, Joseph A. *The Old Merchants of New York City*. By Walter Barrett [pseudonym]. New York: Carleton, 1863.

Seavoy, Ronald E. *The Origins of the American Business Corporation, 1784–1855*. Westport, CT: Greenwood Press, 1982.

Spencer, John C. *Notes on the Revised Statutes of the State of New York.* Albany, NY: Webster and Skinners, 1830.

Troubat, Francis J. *The Law of Commandatary and Limited Partnerships in the United States*. Philadelphia: James Kay, Jun, & Brother, 1853.

Wallis, John Joseph. "Market-Augmenting Government? States and Corporations in Nineteenth-Century America." In *Market-Augmenting Government: The Institutional Foundations for Prosperity*, edited by Omar Azfar and Charles A. Cadwell, 223–65. Ann Arbor: University of Michigan Press, 2003.

Warren, Edward H. *Corporate Advantages Without Incorporation*. New York: Baker, Voorhis & Co., 1929.

Weber, Max. *The History of Commercial Partnerships in the Middle Ages*. Trans. Lutz Kaelber. Lanham, MD: Rowman & Littlefield, 2003.

Wilson's Business Directory of New York City, 1849–1853. New York: John F. Trow.