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The Limited Partnership in New York, 1822-1853: Partnerships without Kinship
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ABSTRACT

In 1822, New York became the first common-law state to authorize the formation of limited partnerships, and over the ensuing decades, many other states followed. Most prior research has suggested that these statutes were utilized only rarely, but little is known about their effects. Using newly collected data, this paper analyzes the use of the limited partnership in nineteenth-century New York City. We find that the limited partnership form was adopted by a surprising number of firms, and that limited partnerships had more capital, failed at lower rates, and were less likely to be formed on the basis of kinship ties, compared to ordinary partnerships. The latter differences were not simply due to selection: even though the merchants who invested in limited partnerships were a wealthy and successful elite, their own ordinary partnerships were quite different from their limited partnerships. The results suggest that the limited partnership facilitated investments outside kinship networks, and into the hands of talented young merchants.

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1 Introduction

In the nineteenth century, merchant partnerships were often founded on the basis of kinship ties.[1] Consider the career of Isaac N. Phelps, a prominent figure in New York City's business world. After starting out as an independent merchant in the hardware business, in 1853 he formed a partnership with his cousin John J. Phelps, in banking and real estate.[2] Isaac and his cousin John lived in brownstone houses on the same block of Madison Avenue as two other members of the Phelps family, both also prominent merchants.[3] Their firm I.N. & J.J. Phelps continued in business until John J. Phelps retired; Isaac would later form a new banking partnership with his son-in-law, with whom he would remain until his retirement in 1881.[4] Whether because he knew them well and trusted them, or because he simply preferred to work with them, Isaac Phelps exhibited an almost clannish tendency to form his partnership firms with members of his family. Yet over the years he became an investor in several other partnerships whose members were not from within his kinship network. For example, in the 1850s he invested $25,000 in the auction house of Coffin & Haydock, and $20,000 in the dry goods importers Lee & Case.[5] These investments were facilitated by New York's limited-partnership statute: Phelps was a "special partner" in both firms, which meant that he was an investor with limited liability and played no role in

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[1] Little systematic data on this point exists, but this notion is widely held in the literature. For example, Porter (1937: 88-98) emphasizes the importance of kinship ties among Massachusetts merchants, and Porter and Livesay (1971: 21) discuss the role of such ties among the partners in New York mercantile firms. Likewise most of the New York "merchant princes" whose careers are described in Albion (1939: 235-59) operated partnerships with their relatives. Finally, Beckert (2001: 31) states that 1850s New York "merchant houses were nearly always family enterprises," and Chandler (1977: 36) characterizes the institution of the merchant partnership as "normally a family affair."

[2] John Jay Phelps was formerly a wholesale merchant in partnership with his cousin Amos R. Eno, in the firm of Eno & Phelps (Scoville 1863).

[3] Isaac N. Phelps lived on Madison Avenue at the corner of 37th St., and John J. Phelps lived at the corner of 36th. William E. Dodge, of Phelps, Dodge & Co., and related by marriage to the Phelps family, and George D. Phelps, president of the Delaware, Lackawanna and Western Railroad Company, both lived on that same block (*New York City Directory*, 1854). A contemporary insurance atlas indicates that their homes—the only four on that block —were large brownstones (Perris 1854: 83).

[4] In 1877 Isaac N. Phelps formed Phelps, Stokes & Co. with his son-in-law Anson Phelps Stokes, and Anson's father James Stokes, formerly of Phelps, Dodge & Co. He died in 1888 with a fortune estimated at $10 million (I.N. Phelps obituary, *New York Times*, 2 August 1888).

[5] Limited-partnership registrations, Department of Old Records, New York County Clerk's Office, New York NY.

their operations. His status as a special partner enabled him to be an investor in both firms while a general partner in I.N. & J.J. Phelps.

Isaac Phelps's use of the limited partnership realized the intentions of the New York State Legislature when it authorized the creation of such firms in 1822. In that year, New York became the first common-law state to permit the formation of limited partnerships, which were previously unknown to the common law, and unavailable in England; over the nineteenth century, most of the American states followed New York's example and adopted limited-partnership statutes.[6] In recommending the approval of New York's statute, the committee that drafted the bill stated that "young and enterprising men" could use the form to pursue commerce "on advances by rich, but retired capitalists."[7] Although Phelps was not retired at the time he made his investments as a special partner, he was indeed richer and older than the general partners in his limited partnerships.[8] With the protection of limited liability, and the possibility of holding stakes in multiple firms, Phelps used the limited-partnership form to invest with younger merchants who were outside his kinship network.

Isaac Phelps's limited partnerships are noteworthy not only because they differed from his ordinary partnerships, but also because of the very fact that they were formed at all. Most of the modern scholarship on the limited partnership in the nineteenth-century United States has concluded that the institution was utilized only rarely, and has sought to understand the reasons for its infrequent use.[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-

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[6] Louisiana, which followed French civil law, was the only state to authorize the creation of limited partnerships (known there as partnerships *in commendam*) before New York. Connecticut authorized limited partnerships later in 1822, and by 1886, limited partnerships were authorized in all but three of the then-existing states and territories (Bates 1886). Bates develops a typology of limited-partnership statutes, and lists 21 states and territories that essentially copied much or all of New York's statute; the remaining states' statutes were fundamentally quite similar. Britain ultimately enacted a limited-partnership statute in 1907.

[7] *Journal of the Assembly* (1822: 953).

[8] In 1853, the average age of the general partners in Lee & Case and Coffin & Haydock was 38; Isaac Phelps was 50. In that year, Phelps was worth $320,000, whereas the average net worth of the general partners in those firms was $34,000. (Net worth data from R.G. Dun & Co. entries for the firms: New York City 197:18; 365:175; 366:201; 366:252. Age data from the Census of 1850, accessed through an online index.)

[9] See, for example, Howard (1934), Lamoreaux and Rosenthal (2005), and Warren (1929).

[10] Hansmann, Kraakman, and Squire (2006: 1396).

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 paper analyzes the effects of the introduction of the limited partnership in New York City from 1822, the year the state authorized the formation of these firms, until 1853. Using newly collected data, the paper investigates the extent to which the city's merchants and manufacturers adopted the limited-partnership form when it became available, 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 size, 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 dataset of the special partners, and compares the firms in which they were special partners to the firms in which they were general partners. These latter comparisons are used to analyze the differences in the relationships between the special partners and the other members of the two types of firms, and to investigate the role of selection in determining the differences in firm characteristics between limited partnerships and ordinary partnerships.

The results indicate that the limited-partnership form was of increasing importance in New York City over the first half of the nineteenth century, with a total of 773 such firms created between 1822 and 1853. Moreover, it was significant in ways beyond the mere frequency of its use. In particular, limited partnerships had more capital, were more likely to be engaged in mercantile pursuits, were less likely to fail, and were composed of members who were less likely to be related to one another, either by marriage or consanguinity, compared to ordinary partnerships. 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 like Isaac N. Phelps 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. Nearly all of New York's multi-owner firms engaged in commerce and light manufacturing in the first half of the nineteenth century were organized as partnerships.[11] 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[12]—effectively restricted the range of potential partners available to a merchant. If talented, energetic businessmen, perhaps with complimentary skills or resources, were less likely to be chosen as partners if they were outside a merchant's kinship network, the matches that resulted were likely less productive. These matches may, of course, 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.[13] But by offering the protection of limited liability, and easing the problems posed by membership in multiple partnership firms,[14] 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 paper contribute to several areas of research. First, they add to a large and growing comparative literature on businesses' choice of organizational form and the significance of the

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[11]One important exception is the Commission Company of New York, a corporation chartered in 1813 with an authorized capital of $600,000, formed to distribute manufactured goods in the manner of commission merchants (*New York Laws*, 1813, ch. 150). The firm did operate for at least a few years (Cole 1926) but did not survive into the 1820s (tax lists, New York Comptroller, 1824-27, New York State Archives, Albany NY). In general, the adoption of the corporate form in mercantile businesses was unsuccessful; Hilt (2006) analyzes the failure of the corporate form in the nineteenth-century whaling industry, a business traditionally dominated by small partnerships.
[12] Lamoreaux (1997) and Bodenhorn (2002) discuss the costs and tradeoffs associated with the partnership form, which kinship ties may have helped resolve; Levin and Tadelis (2005) and Morrison and Wilhelm (2008) model the choice of the partnership form. The fact that wealthy, well-connected merchants, who presumably had longstanding relationships with many other merchants outside their kinship network, often chose instead to form partnerships with their relatives suggests that a desire to form family businesses motivated their choice in at least some cases.
[13] Porter (1937: 98) concludes about the Jacksons, Lees, and Cabots of Massachusetts: "the comparative security from flagrant dishonesty, resulting in doing business on a family basis" compensated for the loss of "increased energy and initiative" that could have been "produced by an infusion of fresh blood." In these comments Porter is referring to all forms of family businesses, but the sentiment no doubt applies to the specific case of partnerships.
[14] Although it would have been possible to become a member of multiple ordinary partnerships simultaneously, this could create practical as well as legal difficulties. See the discussion below.

limited partnership. For example, Lamoreaux and Rosenthal (2005), who analyze the menu of organizational forms available in nineteenth-century France and the United States, and Guinnane et al. (2007), who analyze the choice of organizational form for a broader range of countries in the nineteenth and twentieth centuries, have documented that the limited partnership served an important role in many civil-law countries in the nineteenth century. Likewise research on particular civil-law countries, such as Gómez-Galvarriato and Musacchio's (2008) study of firms in Mexico City from the 1880s through 1910, and Abramitzky, Frank, and Mahajan's (2007) work on Rio de Janeiro firms from a similar time period, has analyzed the determinants of the decision to organize a firm as a limited partnership. The results of this paper are consistent with many of the findings of these works, in that they show that even in an environment where the corporate form was generally accessible, the limited partnership fulfilled an important role.[15]

In common-law contexts, there is considerably less evidence on the use of the limited partnership. Howard's (1934) search of the records of five New Jersey counties (representing around one-third of the state's population) from 1837 to 1931 turned up only 142 limited partnerships, and Lamoreaux and Rosenthal's (2005) sample of over 160 Boston partnerships from the 1840s and 1850s contained only two limited partnerships. The results of this paper suggest that the institution of the limited partnership may have been of greater importance in some common-law contexts than previously believed.

A second literature to which this paper contributes analyzes the development of American business law, and in particular the history of the limited-partnership form in the United States. In the nineteenth century, American law was often viewed as a tool for the promotion of economic development, and numerous authors have analyzed how the law both responded to and stimulated economic changes.[16] The introduction of the limited partnership was a clear example of the states

[15] New York adopted general incorporation acts for manufacturing firms in 1811, banks in 1838, and firms numerous other sectors beginning in 1847 (see Seavoy 1982). For industries not covered by a general incorporation act, the state government was usually quite liberal in granting charters by special act, and granted more than 1,000 charters to businesses prior to 1830.

[16] Important works in this literature include Friedman (1985), Handlin and Handlin (1969), Horwitz (1977), Hurst (1956), and Nelson (1975).

attempting to facilitate investments in new businesses through innovations in the law; Kessler's (2003) analysis of the motives behind the enactment of New York's 1822 statute argues that the legislature's intention was to democratize access to limited liability. Limited partnership statutes also represented an important legal development: they grafted a civil-law institution into the common law. The statutes themselves, and the case law that developed in response, have therefore attracted considerable scholarly attention.[17] The analysis of this paper complements these works by presenting an empirical analysis of the use of the limited partnership in nineteenth-century America's largest and most economically important city.

Finally, the results presented here contribute to the literature on mercantile firms in the nineteenth century, and in particular on the role of kinship ties within these firms. For example, Porter's (1937) analysis of the business enterprises of Massachusetts merchants, and Porter and Livesay's (1971) and Chandler's (1977) discussions of American merchant partnerships, all emphasize the importance of kinship ties among the members of these firms.[18] This paper presents quantitative evidence of the role of kinship ties within New York's mercantile firms, which is generally consistent with the results of those works. The paper also presents some of the first systematic evidence on the composition, finances and industries of New York City's partnership firms, which is of independent interest.

2 The Limited Partnership and New York's 1822 Statute

In accordance with the common-law doctrine that anyone who participates in the profits from a venture must personally bear the risks of its losses, members of partnerships in the early United States faced unlimited liability.[19] The institution of the limited partnership departed from the ordinary partnership by creating a new class of partner, known as a special partner, who was granted limited

[17] See, for example, Bates (1886), Begbie (1848), Howard (1934), and Troubat (1853).
[18] One important exception is Lamoreaux's (1997) analysis of Boston partnerships in the mid-nineteenth century, which finds considerably less evidence of kinship ties among the members of those firms.
[19] See the discussion in Freeman (1950) and Hansmann, Kraakman, and Squire (2006). Kent's *Commentaries* states that "if a person partakes of the profits, he is answerable as a partner for losses, on the principle, that by taking a part of the profits, he takes from the creditors a part of the fund which is the proper security for the payment of their debts" (Kent 1826, vol. III p. 5).

liability. The special partners were not permitted to participate in the operations of the firm, and had no direct role or voting rights in its management. Instead, they made an investment at the commencement of the partnership and held a residual claim on the profits arising from its operations. In essence, the special partner was a disenfranchised equity investor: the price of limited liability for the special partner was the loss of any voice in the management of the firm.

The status of the special partner as an outside investor with no voting rights probably limited the appeal of the form in some contexts.[20] However, it also conferred the possibility of investing in multiple partnerships simultaneously. Although acting as a general partner in more than one ordinary partnership would have been possible, it could have created serious incentive problems, especially for mercantile businesses,[21] and was quite uncommon.[22] The possibility of holding a stake as a special partner, with limited liability and no role in the management of the firm, would have made investments in multiple partnerships much simpler and more convenient. There is no evidence that New York's legislature anticipated this feature of the limited partnership when it authorized the form, but as we will see, New York City's merchants certainly exploited it.

The concept of the limited partnership dates at least as far back as twelfth-century Italy.[23] In France, the limited partnership was first recognized in a 1673 statute, and it was included in the 1807

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[20] In Louisiana, one judge remarked, "It is only to be regretted, however, that the legislative restraint in this State, which forbids the partner *in commendam* from taking an active part in the affairs of the concern under certain onerous penalties, has not been somewhat relaxed, for persons who would have engaged their capital in an enterprise in the management of which they would have had a voice, have studiously avoided doing so…" (Ullman v. Briggs, 32 La. Ann. 655 (La. 1880)). Warren (1929: 306) also emphasizes this issue.

[21] A merchant acting as a general partner in two ordinary partnerships would face a conflict of interest when a trading opportunity arose: which firm's capital would be used to exploit this opportunity? Moreover, the possibility of manipulating transactions between firms for personal gain would arise. A further potential problem could arise from the bankruptcy of one of a merchant's partnerships: that firm's creditors could force the liquidation of his other partnership's assets to recover the debts owed, because of the weak entity shielding afforded to partnerships (Hansmann, Kraakman, and Squire 2006: 1388). This might have made merchants reluctant to form a partnership with someone who was involved in another partnership. Finally, any legal disputes between the two firms would be difficult to resolve; the same person could not appear on both sides of a lawsuit.

[22] There are two important exceptions. The first is the formation of additional "branches" of a partnership firm in another city or country. In many cases these were simply additional offices of the same firm, with a slightly different name, and perhaps one or two junior partners unique to a particular branch (Albion 1939: 264; Chandler 1977: 36). The second is the formation of what was once called a "limited partnership"—that is, a venture whose scope of activities was strictly limited to a very specific context or transaction, which in some circumstances could shield the firm's assets from creditors holding claims against the partners arising from some other business venture. Livingston v. Roosevelt (4 Johns. 251 (N.Y. 1809)) discusses the limits of this concept.

[23] Bates (1886) describes the history of the institution of the limited partnership; see also Troubat (1853).

commercial code, which received significant attention in the United States.[24] New York's 1822 statute was adapted from the French code, and represented the first introduction of the form into any common-law jurisdiction.[25] In that year, a bill to authorize limited partnerships was proposed by Assemblyman Philip Brasher of New York City, an attorney prominent in that city's political and economic affairs.[26] Brasher's bill essentially translated the provisions of the French code relative to the *société en commandite simple*, as the limited partnership is known there.[27] The bill also made the first official use of the term "limited partnership" to denote the organizational form.[28]

The bill was referred to the Assembly's Committee of Ways and Means. The possibility of granting limited liability to members of partnership firms aroused concerns about fraud, an issue frequently raised by opponents of corporations.[29] In response, the committee "added provisions to prevent fraud and mismanagement"[30] to the bill, including a provision imposing a fine of one thousand dollars for fraud.[31] The modified bill also included the requirement that each special partner's name and amount invested be included in the registration certificate for the firm.[32] In its report recommending that

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[24] See Cook (1981). The first English translation of the 1807 commercial code appeared in 1814 (Rodman 1814).
[25] As early as 1815, and repeatedly thereafter, attempts were made in Britain to introduce the limited-partnership form there, without success. See Hunt (1936) and Burdick (1908).
[26] Brasher had been a director of the Franklin Insurance Company when it was founded (*Laws of New York*, 1818, ch. 45) and was a stockholder in at least two others (manuscript stockholder lists, records of the New York State Comptroller's Office, Albany NY). Previously, he had been an alderman in New York City (New York 1917). He is listed in *Longworth's Directory* of the city as an attorney in the 1820s.
[27] The initial proposal contains long passages taken verbatim from Rodman's 1814 translation of the French Commercial Code of 1807, which account for more than half of its text (New York *Legislative Documents*, 1822, no. 102; Rodman 1814).
[28] This term seems to have been first applied to the organizational form by Rodman (1814) 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; see above. In Louisiana, the form was known as the partnership *in commendam*.
[29] 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 1982: 95). The evolution of the states' policies toward corporations is analyzed in Wallis (2003).
[30] *Journal of the Assembly* (1822: 953).
[31] The modified bill stated that "if any of the partners shall be guilty of fraud in the affairs of the partnership, besides making good the party injured, he or they shall forfeit and pay, the sum of one thousand dollars, upon conviction thereof, to any person who will sue for the same, one half to his own use, and the other half to the use of the people of this state" (New York *Legislative Documents*, 1822, no. 172). This provision was included in the 1822 law, but was subsequently replaced with language making anyone committing fraud "liable to an indictment for a misdemeanor" (New York *Revised Statutes*, 1829, vol. 1 p. 766).
[32] New York *Legislative Documents*, 1822, no. 172. The 1807 French commercial code requires that the names of the partners "other than…the commanditary partners" be listed in the abstract of the partnership agreement that must

the New York Assembly pass the limited-partnership bill, the committee argued that "however unwilling we are in general to introduce principles, or to innovate upon established laws, yet the experience of Europe, would justify us in adopting a law authorising limited partnerships." The committee concluded that the proposal would "be a great benefit to the mercantile and manufacturing interests of the state."[33] The act was passed April 17, 1822.[34]

The New York statute 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. The partners were required to then publish the contents of their registration certificate for at least six weeks in two newspapers, in order to inform the community of the creation of a limited partnership, and dissolutions could only be effected 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.[35] But as with ordinary partnerships under the common law, the terms of any partnership agreement that the members of the limited partnership executed (which might have stated the fraction of profits to which each partner was entitled, or restrictions on the actions of the partners) were not published or included in the 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 to undermine the special privileges of corporations.[36] 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

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be filed to form a limited partnership (Book I, Title III, Section I, Articles 42-43). Kessler (2003) analyzes the significance of the anonymity granted to special partners, and concludes that such anonymity was appealing to French nobility, who may not have wanted to be associated publicly with a commercial enterprise.

[33] *Journal of the Assembly* (1822: 952-53).

[34] *Laws of New York*, 1822, ch. 244.

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

[36] See, for example, the discussion in Cadman (1949) and Troubat (1853). It is probably significant that New York adopted the form following its 1821 constitutional convention, which discussed many anti-corporate proposals. See Seavoy (1982).

incorporated entities.[37] But in a practical sense, the limited partnership was quite different from the corporation. It possessed only one of the many essential attributes of corporations (limited liability), and only partially—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.[38] 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.[39] The limited partnership, above all else, was a partnership.

The innovative nature of the limited partnership resulted in a source of uncertainty in its implementation: the stance the courts would take toward these firms. Partly because the form represented such a radical departure from the common-law doctrine of personal liability in partnerships, and partly in an effort to protect the community against fraudulent abuses, American limited-partnership statutes declared that special partners would be made general partners with unlimited liability if the provisions of the law were not followed precisely.[40] Much of the prior literature on limited partnerships has argued that common-law judges tended to side with creditors who tried to use any minor deviation from the terms of the statutes to strip special partners of their limited liability (see, for example, Warren 1929); the common

[37] On the significance of this progression towards open access to the corporate form, see North, Wallis, and Weingast (2006).
[38] 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 (1853: 58) and Gilmore (1911: 640). 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 authorized in the original 1807 code. See the discussion in Lamoreaux and Rosenthal (2005).
[39] For example, New York's 1828 *Revised Statutes* introduced provisions making directors and stockholders in corporations personally liable in cases of fraud (vol. I, 588-599).
[40] It should be noted that the French commercial code essentially imposed the same penalty for violating its terms with respect to registration. It states that "these [registration] formalities shall be observed under pain of nullity," which would most likely cause the commanditary partners to lose their special status (Book I, Title III, Section I, Article 42).

law, it has been said, is the "strong enemy" of the limited partnership.[41] The case law on this issue, however, is somewhat inconsistent, and New York judges in particular do not appear to have been overly conservative in their interpretation of the limited-partnership statute.[42] Nonetheless, the danger of potentially losing their limited liability must have affected the willingness of potential special partners to enter into limited-partnership agreements. But if the limited partnership form was used in spite of this danger, its benefits must have been perceived to outweigh this risk. This issue will be analyzed in greater depth in what follows.

3 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.[43] With the exception of banks and insurance companies, which were required by statute to 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 1853 were collected and coded for this paper. 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 1853 (a total of 773 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

[41] Jacquin v. Buisson, 11 How. Pr. 385 (N.Y. 1855).
[42] See, for example, Bowen v. Argall, 24 Wend. 496 (N.Y. 1840), which held that an error in the spelling of the name of the partners in the publication of the certificate was not a substantial enough violation of the statute constitute a violation of its terms. Madison County Bank v. Gould (N.Y. Sup. 1843) discusses which violations are sufficient to render the special partners liable, and which are not. For a thorough treatment of the law of limited partnerships, see Bates (1886) and Troubat (1853).
[43] See, for example, Porter and Livesay (1971), Albion (1939), and, on cotton merchants, Chandler (1977).

1830s.[44] 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 the publication of these volumes was accompanied by efforts to publicize and explain their contents.[45] 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.[46] Finally, the first university law school in New York City, that of New York University, opened in that decade, and may have helped improve the sophistication of the city's bar.[47]

But business conditions certainly also 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 this banking crisis. There was a general trend of increasing use of the limited partnership over time, and the number of limited partnerships formed each year reached its peak in this period in 1852, when a total of 76 limited partnerships were created. 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 within the sample period in 1853, when 236 limited partnerships existed. Because ordinary partnerships did not need to file registration certificates, there is no equivalent official source for the number of

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[44] There does not seem to have been any early developments in the case law that might have stimulated use of the form. The first reported case relative to limited partnerships in New York did not occur until 1836, when the creditor of a limited partnership formed in that year named the special partner of the firm in the suit for payment of a debt; the courts quickly sided with the defendants, and told the plaintiff "you must bring your action against the general partner" (Phillips v. Stewart, N.Y. Sup. 1836). 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, and neither interpretation is consistent with there having been much case law on the subject at the time.

[45] 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 1830).

[46] See, for example, Potter (1824: 25).

[47] At the time, attorneys were required to go through a seven-year clerkship in order to join the bar. Some also attended one of the small, private law schools in the area. On the significance of NYU's law school and the nature of early legal education, see Brown (1987).

ordinary partnerships. However, from business directories it can be estimated that the limited partnerships were equal in number to about 4% of operating ordinary partnerships in the 1850s.[48]

Although limited partnerships were uncommon relative to ordinary partnerships, the amount of capital invested in many of them was enormous, and the aggregate investment made by special partners was quite substantial. This implies that limited partnerships 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 (1853), more than six million dollars were invested by special partners in limited partnerships; the total amount invested between 1822 and 1853 was more than $17.7 million. 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.

The composition of the firms, also recorded on the 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 $20,000. 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 for the firms' existence specified on the registration certificates was about 43 months, but about 24% of the firms dissolved prior to the limitation date; the average duration of the firms' existence (including renewals) was about 38 months.[49] Finally, there were 715 unique individuals who held stakes as special partners during this period; on average, each invested in 1.31 limited partnerships.

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[48] For example, *Doggett's New-York City Partnership Directory* lists 3,846 ordinary partnerships operating in the city in 1850; in that year there were 149 limited partnerships in operation. It should be noted that the number of operating 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 (2005) data for France or Gómez-Galvarriato and Musacchio's (2008) for Mexico City, which are based on newly registered firms, rather than operating firms.

[49] 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 (1997), who found that only 33% of partnerships sampled in 1845 survived to 1850.

The industrial composition of the limited partnerships is presented in Table 2. 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.[50] 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 shoe makers and jewelers, accounted for a much larger fraction of the firms.

The large sums invested in these firms reflect the prominence and affluence of many of the individuals involved. In the years prior to 1853, the limited-partnership form was utilized by the dry goods retailers Lord & Taylor; Howland & Aspinwall, the shipping firm that played a dominant role in trade between New York and the Pacific; and merchants such as Junius S. Morgan, father of J.P. Morgan.[51] In the years that followed this pattern appears to have continued; the ledgers of registration certificates of subsequent years list the financier Jay Gould, along with several large German banks, among the special partners of later limited partnerships.[52]

These, of course, were elite firms. In order to analyze how the typical limited partnership differed from the typical ordinary partnership, and to investigate the use of the limited partnership in depth, two datasets containing detailed data on ordinary partnerships as well as limited partnerships were collected. The next section describes the sources and data.

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[50] 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 (1971).

[51] After being founded in the 1820s, Lord & Taylor became a limited partnership in 1834, and again in 1839. In 1851, the Dun agents estimated that the firm had $250,000 in capital (NY vol. 367: 360). In 1852, Samuel Lord of the firm invested as a special partner with the firm of James Wilde Jr., a clothing manufacturer. Howland & Aspinwall had an estimated capital of $600,000 in 1853 (Dun NY vol. 347: 722). In 1842, Junius S. Morgan became a special partner in the dry goods commission merchant firm of Bramhall, Abernethy, and Collins.

[52] In 1872, Jay Gould became a special partner in four different limited partnerships; the total value of his investments was $350,000. In 1854, the Bank for Commerce and Industry of Darmstadt invested $500,000 with the New York bankers and commission merchants G. von Baur & Co. as a special partner; likewise, in 1857 the Credit Institution of Industry & Commerce of Dessau invested $365,000 with the commission merchants Gelpeke, Kentgen & Reitchett. Several more such investments were made by German banks in the ensuing years.

4 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 dataset of special partners and their firms from 1845 to 1853. The cross-sectional dataset 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 dataset 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[53] by selecting the first entry on each page corresponding to a partnership (thus excluding sole proprietorships and corporations).[54] The directory provided each business's name, address, and industry. This produced a sample of 320 ordinary partnerships, or approximately 8% of all partnerships listed in the directory, to compare to the 217 limited partnerships found to be operating in that year.[55] Information on the partners and finances of these firms was then sought in the credit reports of R.G. Dun & Co. (now Dun & Bradstreet).[56] 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

[53] *Wilson's Business Directory of New-York City, 1852-53*.

[54] 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.

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

[56] 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.

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 varies 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; the number reported in the year closest to 1853 was recorded. The reports indicated a partnership's fate as well: a limited partnership could dissolve on or prior to the date specified in its registration, fail, or be renewed; sometimes the partnership continued beyond the date of the final entry in the Dun volume containing 1853 data (in which case there is only a lower bound for the firm's end date). Registrations with specified dissolution dates were not required for ordinary partnerships, making renewal unnecessary, so an ordinary partnership either dissolved or failed (or continued beyond the relevant set of Dun entries). 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.

Dataset of Special Partners

In order to investigate the relationship between firm characteristics and status as a limited partnership, a dataset of special partners and their firms was constructed. To begin, all special partners in limited partnerships created between 1845 and 1853 who lived in New York City or Brooklyn were identified from the limited-partnership certificates. There were 247 such individuals. In order to identify the firms in which these individuals might have been general partners, directories of partnerships from

1849-50 and 1853-54 that listed all partners' names were used to link these individuals to firms.[57] Once a firm name was obtained, that firm was looked up in the Dun records, and data on its members and finances were 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.[58] 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 either the partnership directories, commercial directories, city directories, or the Dun reports. For another 39, their names turned up in connection to a partnership firm, but the firm could not be found in the Dun reports. Thus the sample consists of the firms of 178 individuals for which data could be found. For each firm in this dataset, a comparable set of information was obtained as what was collected for the firms in the cross-sectional dataset.

5 Empirical Analysis: Cross-Sectional Comparisons

We begin by asking: what did New York's limited partnerships do? And were the industries of the limited partnerships different than those of the ordinary partnerships? Table 3 presents comparisons of the industries of the ordinary partnerships and limited partnerships in the cross-sectional sample. The top part of the table, which classifies the partnerships into broad industry categories, indicates that both types of firms were principally engaged in mercantile activities, but also that the distributions of the two types of firms were quite different. About 44% of the ordinary partnerships were mercantile businesses, compared to 76% of the limited partnerships. The ordinary partnerships were much more equally

[57] *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.

[58] 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.

distributed among the various categories, with 40% in manufacturing, 9% in personal services, and 7% in the professions, compared to 24% manufacturing, 0% personal services, and 0.5% professions for the limited partnerships. The differences for all of these categories are highly statistically significant.

The lower panel of the table presents additional detail on the activities of the mercantile and manufacturing businesses in the sample. The data clearly indicate that the limited partnerships were much more likely to be engaged in the buying and selling of dry goods and "fancy goods," which included things like combs, silks, and "furnishings," with 38% in this industry, compared to only 13% of the ordinary partnerships. The limited partnerships were also much more likely to list themselves as general "commission merchants," "importers," or "jobbers," which we classified as unspecified trade, compared to the ordinary partnerships. In the manufacturing sectors, the ordinary partnerships engaged in each subcategory of manufacturing at a substantially higher rate than the limited partnerships, with the exception of shoe and garment manufacturing, which was roughly equal between the two types of firms.

The first column of the table lists the average capital of all partnerships (both limited and ordinary) within each industry group. On average, mercantile partnerships had more than twice the capital of their counterparts in manufacturing, the professions, or personal services. 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, such as dry goods merchants or commission merchants not focused on any particular good or commodity ("unspecified trade"), and at lower rates than ordinary partnerships in industries with low average capital. The one important exception is bankers and brokers, the category with the highest average capital by far ($415,000), which was quite uncommon for both ordinary and limited partnerships.

The data obtained from the Dun reports on the firms includes a lot of detail on their finances, and on their membership. However, as noted above, the rates at which these firms appeared in the Dun ledgers were quite different, with 86% of the limited partnerships appearing in their reports, compared to only 44% of the ordinary partnerships. Since the Dun & Co. reports were intended for creditors, and were therefore likely to include the larger and more economically active firms, this suggests that comparisons

between the two types of firms based on data obtained from the Dun reports would test the difference between nearly all of the limited partnerships and a highly selected group of the ordinary partnerships. We will, nonetheless, present these comparisons, but it is important to bear this in mind.

Before proceeding with these comparisons, regressions were performed with inclusion in the Dun records as the dependent variable, and status as a limited partnership as an independent variable, with industry dummies and location dummies included as covariates. The location dummies, which indicate the political "ward" within which the firm was located, might capture any differences within industries correlated with geography, and might also be important if the Dun agents were more likely to visit firms in prominent or convenient locations.[59] If presence in the Dun reports reflects the extent to which a firm was large or economically active, then these regressions present a clear comparison of the degree of economic activity of the ordinary partnerships and the limited partnerships. Moreover, as the Dun reports are frequently used to construct samples of firms for analysis, these regressions, which investigate the determinants of inclusion in those records, are of some independent interest.

The results of these regressions are presented in Table 4. The main result from the regressions is that even controlling for industry and for location, the limited partnerships in the sample were much more likely to be included in the Dun records than were the ordinary partnerships; the estimated effect is that they were about 40% more likely to be included, and this coefficient is highly significant (column 4). In order to differentiate between longer-lived firms and newer firms, an 1846 partnership directory was searched for all of the firms in the dataset, and an indicator variable equal to one for firms that existed in that year also has a large effect on the likelihood that a firm was included in the Dun ledgers.[60] The results also indicate that both industry and geography matter; many of the industrial categories have large

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[59] 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 dataset were located in the first three wards (the very lowest part of Manhattan). The location dummies may also 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.

[60] For the limited partnerships, the exact duration of their existence can be computed from their registration certificates, but no comparable information is available for ordinary partnerships, especially those not included in the Dun records. The 1846 directory used was that year's edition of *Doggett's New-York City Co-partnership Directory*.

and significant negative effects on inclusion in the Dun records relative to the excluded category, trade in dry goods and fancy goods. A few of New York's wards also have significant negative effects (not reported in the table); firms in the city's notorious seventh ward, for example, appear to have been visited only rarely (if ever) by the Dun correspondents. Overall, the results have the interpretation that any comparison of firms based on data obtained from the Dun records needs to be interpreted carefully, since the ordinary partnerships in the comparison were likely to have been positively selected.

The data obtained from the Dun records indicate that in many respects, the limited partnerships were different from the ordinary partnerships. Table 5a presents the composition 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, meaning that there were about three partners in the limited partnerships, compared to two in the ordinary partnerships. The lower part of the table presents the average ages of the partners in each type of firm.[61] 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 46 years old, making them on average ten years older than the general partners in their firms, a difference that is highly statistically significant. Finally, the data indicate that the general partners in limited partnerships were worth considerably less than the general partners in ordinary partnerships.[62]

Did the limited partnerships actually have more capital than the ordinary partnerships? Table 5b 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 represented estimates provided by the Dun agents, and are likely quite imprecise and noisy.[63] In terms of

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

[62] As the special partners' wealth could not be pursued by the creditors of the firms, the Dun agents rarely recorded their net worth. The dataset 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.

[63] 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. Similarly there were 13 firms whose capital was reported as \$100,000, with none between \$90,000 and \$100,000, and only one between \$100,000 and \$110,000.

means, the limited partnerships had about 15% more capital, with about 47% 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 capital for the ordinary partnerships ($20,000), and this difference is highly significant. The limited partnerships did, however, have one more partner than the ordinary partnerships. The bottom row in Table 5b compares median capital per partner for the two types of firms, and the data indicate that the limited partnerships had about 27% 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 6 presents median regressions for firm capital, with a limited-partnership dummy as an independent variable, and geography and industry dummies as additional controls, along with a dummy variable indicating whether or not the firm existed in 1846. 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 earned by the firms, except in a few cases of spectacular success. However, the records very carefully report on any failures of the firms—essentially, bankruptcies.[64] 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

[64] 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 even 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 (Dun NY vol. 198: 119,127).

the firm. In general, the failure of a firm (conditional on its industry and capital) might be interpreted as evidence of excessive risk taking or generally poor management. Therefore, in Table 7, 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 our 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.[65] For the 281 firms in the resulting dataset, 9.4% of the ordinary partnerships failed within 1853-54, compared to 4.9% of the limited partnerships, a difference which is substantial but not statistically significant. Columns (2) through (4) of Table 7 present 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% and standard deviation of 25.8%. 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 what capacity), and whether or not they were related. Table 8 presents summary statistics for data describing the personal connections among the partners in the firms

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[65] 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.

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 partner (for example, for a limited partnership, the variable "partners together in prior firm" is coded as equal to one if at least two general partners had been partners together, a general and a special partner had been partners together, or two special partners had been partners together). These variables are not mutually exclusive, and in theory could all be equal to one for a given firm.[66]

The data in the table clearly indicate that the personal connections forming the origins of the partnerships in the sample 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% vs. 29.6%). 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 another 12.0% of the time. The special partners were related to the general partners 21.2% of the time.[67]

These results are somewhat difficult to interpret, in light of the fact that the limited partnerships were so different from the ordinary partnerships in so many other respects. The limited partnerships were often elite mercantile firms with more capital, which operated in different industries, and which were founded by wealthier and more successful merchants, compared to the ordinary partnerships. As a result, the differences in the personal connections among the partners might be due to these other characteristics,

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[66] 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 dataset, and therefore understates the rates reported in the table. The use of a stricter standard for coding the zeros among these variables, namely to record a zero for a variable only if the Dun agents provided information relative to one of the other relationship variables, results in substantially higher means for all of the variables, but none of the relative comparisons across firm types change in important ways.

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

rather than the fact that the limited-partnership form was chosen. For example, if wealthy or successful merchants formed partnerships with people other than their relatives because they were better connected and did not need to rely on relatives, then the fact that the members of limited partnerships tended not to be related to one another could simply have been due to their status as elite or successful merchants. These issues will be explored in much greater depth using the second dataset collected for this paper, the panel dataset of special partners.

6 Empirical Analysis: Special Partners and Their Firms

In order to investigate the differences within the ordinary partnerships and limited partnerships of individual merchants, and thereby address the selection issues raised above, a dataset of the partnerships (both limited and ordinary) of special partners in limited partnerships created between 1845 and 1853 was collected. The dataset contains the 178 special partners who resided in New York and Brooklyn and for whom data on another enterprise in which they were a member could be obtained, whether a sole proprietorship, partnership, or corporation. For each special partner, the other enterprises (besides the limited partnerships) included in the dataset are those in which they were involved at the same time as their investment in a limited partnership. The dataset contains 91 ordinary partnership firms in which the special partners were members while they held investments in limited partnerships, along with 179 limited partnerships.

Data on the occupation and wealth of the special partners, obtained from the Dun reports, are presented in Table 9. The data indicate that about 56% of the special partners for whom data could be found were general partners in an ordinary partnership at the time of their investments, while about 18% were retired merchants, 15% were independent merchants (in business alone), about 4% were officers of corporations, and 3% were professionals in business alone, mainly lawyers. Another 5% of the special partners were listed in directories as residing in New York City, but without any occupation. Among those listed by the Dun agents as “retired merchants,” it is probably the case that many of them in fact

remained active in the business world; many New York merchants with large fortunes never seemed to fully retire in the modern sense. Finally, the table reports the average net worth of the special partners, $190,000, which is far higher than the average net worth of the general partners. Most of the special partners were therefore active in New York City's mercantile community, and their high net worth suggests that they were probably among its more successful and wealthy members.

The detailed data available from the Dun reports make it possible to document the connections (if any) between the special partners and their limited partnerships in great detail. Table 10 presents these data, and compares them to the relationships between the special partners and their own ordinary partnerships. Comparisons across the two firm types are instructive, because the same highly selected group of individuals was involved in both. The data in the table indicate that for 46% of the special partners' investments in limited partnerships, at least one of the general partners was their former employee or partner.[68] For those special partners who were also members of an ordinary partnership, the industry of their ordinary partnership was the same as that of their limited partnership 53% 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. Finally, the special partner was related (by marriage or consanguinity) to at least one general partner in the limited partnership only 19% of the time, compared to 54% of the time for the ordinary partnerships, a dramatic contrast that is quite similar to the difference observed across the two firm types in the comparisons presented in Table 8 above.[69] This indicates that the firms in this sample are representative of the population.

Table 10 also presents data on the finances of the two types of partnerships. The ordinary partnerships had much more capital than the limited partnerships, and the stakes held in ordinary partnerships were larger by an even greater proportion compared to the stakes held in limited

[68] Note that this number is not directly comparable to the data in Table 8, since those data include connections among all partners, not just those between a special partner and a general partner.

[69] In Table 8, 29.6% 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%, which is quite similar to the 18.8% reported in Table 10.

partnerships.[70] On average, the stakes in limited partnerships were equivalent to about 17% 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%) of their net worth.

Although the data in Table 10 present a clear indication that there were systematic differences across firm types, these data do not completely rule out a role for selection. The data for limited partnerships are computed from all special partners in the dataset, not just those involved simultaneously in ordinary partnerships. The merchants involved in ordinary partnerships may themselves be a selected group, for example, active in particular industries, or with a stronger tendency to operate family businesses. In order to completely address the issue of selection, Table 11 presents the regression-adjusted correlations between family connections and status as a limited partnership as calculated from an individual-fixed-effects framework. That is, for partner i in firm j, the relationship

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

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 144 different special partners in the sample. The coefficient β is estimated from the variation within each individual merchant's partnerships. The ordinary partnerships included in the dataset are 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 11 indicates that the merchants in the dataset were about 47% 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

[70] The stakes in ordinary partnerships are defined as the partner's net worth minus the value of their stake in their limited partnership.

networks, and their limited partnerships with businessmen with whom they had no kinship ties. Regressions for firm capital presented in columns (3) and (4) of Table 11 indicate a similarly strong distinction in the capital of the two types of firms, although the estimates are far less precise. These latter results imply that even though limited partnerships had more capital than the average ordinary partnership, they had far less capital than the ordinary partnerships of their special partners.

There are several possible interpretations of the stark distinctions in the extent of kinship ties between the special partners and the other partners in the two types of firms. The first is that these merchants believed that they knew their relatives better, or they felt they could trust them better, compared to the people they knew only from contact in the business world. This interpretation would imply that the protection of limited liability enabled the special partners to invest with merchants whom they did not know as well as their partners in their ordinary partnerships. Although it is quite likely that this motive was responsible for some part of the limited partnerships formed, the fact that the special partners often invested with their former general partners, or their former clerks, suggests that they probably knew these people reasonably well.

Another interpretation is possible, however. If merchants formed partnerships with their relatives because they preferred to work with family members (due to altruistic motives, the obligations that come with family ties, or a genuine preference for family members as coworkers, for example), then the limited partnership enabled them to invest with additional firms when they identified promising opportunities. If kinship ties bound some merchants together in their ordinary partnerships, then the limited partnership enabled some of them to invest with outsiders without severing those relationships. In this sense, the limited partnership likely enabled successful merchants to act something like venture capitalists in their time, perhaps diversifying their holdings among different mercantile enterprises in the process.

Either interpretation is consistent with the conclusion that the limited partnership facilitated investments in firms outside the special partners' kinship networks. Although the rise of the corporate form enabled investors to purchase shares in a wide range of industries—and indeed many of the merchants in the sample held stakes in incorporated banks, railroads, and insurance companies—the

mercantile world was dominated by partnerships. The limited partnership, which created the possibility of holding a stake in a partnership as an outside investor, facilitated investments in these firms.

7 Discussion and Conclusion

This paper has analyzed the use of the limited partnership in early nineteenth-century New York, and found that it played an important role in the city's mercantile community. New York's limited partnerships were not like its ordinary partnerships: they 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 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 is 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 results of this paper suggest that the limited partnership facilitated investments outside kinship networks, and into the hands of talented young merchants who wealthy investors knew through their business dealings.

The importance of the limited partnership in the nineteenth-century United States has long been doubted, and numerous scholars have analyzed the reasons for its infrequent adoption. The results of this paper suggest that it nonetheless played a potentially significant role in the New York City's commercial life. Nearly 800 limited partnerships were formed in the city in the years up to 1853, and the investments made with these firms were often quite large, in the aggregate totaling more than $17.7 million. In the ensuing years, the limited partnership found continued widespread use in the city, 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.[71]

The reason most of the prior scholarship has suggested that the limited partnership was not widely adopted is that there is ample case law indicating that many judges interpreted the statutes authorizing the formation of these firms 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. The results of this paper suggest that the benefits of the limited partnership for the special partners often outweighed this potential cost. The special partners, after all, were usually members of ordinary partnerships and faced unlimited liability for the debts of those firms. The risk of unlimited liability for the debts of their limited partnerships, which were often formed with their former partners and employees, may therefore not have represented an unusual or unacceptable source of danger for the special partners. Moreover, the benefits of status as a special partner extended beyond limited liability: the special partner's arms-length relationship with the operations of the limited partnership may have facilitated simultaneous investments in multiple partnerships, by eliminating the incentive conflicts that would arise in such situations.

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 could hold a stake in a partnership firm, an innovation intended to facilitate new investments and stimulate economic activity. Although the form was used in a relatively narrow set of industries, its use in New York City was nonetheless quite economically important. The question of whether the limited partnership found similar patterns of use in other environments awaits further research.

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[71] 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 very large total of much more than 3,000 over the century.

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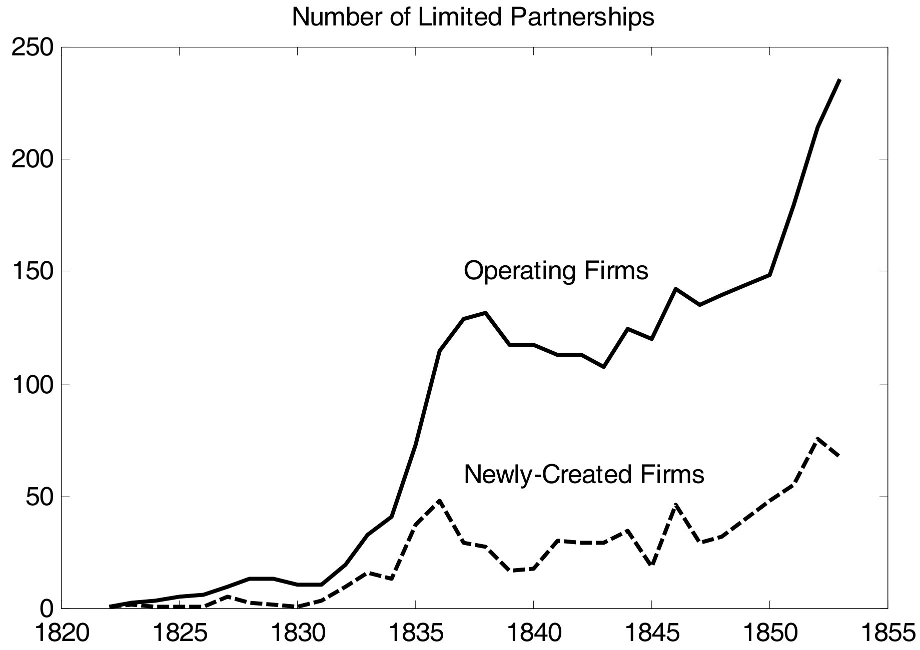
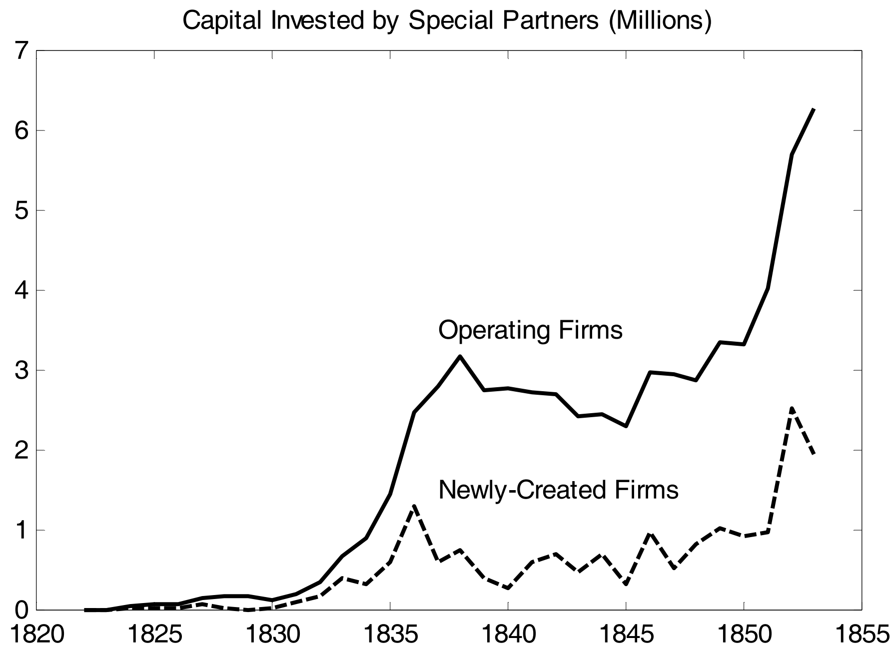
Figure 1: Limited Partnerships in New York City, 1822–1853





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

Table 1: Limited Partnerships: Finances and Partner Data, 1822-1853

	Mean	SD	Min.	Max.
Firm Averages:				
Number of partners:				
Total number of partners	3.06	1.14	2	20
Number of general partners	1.85	0.78	1	5
Number of special partners	1.21	0.76	1	17
Firm finances ($):				
Total capital contributed by special partners	22,900	30,325	50	300,000
Average capital contributed by each special partner	19,395	22,262	50	250,000
Residence of general partners (%):				
New York City	78.90	34.74	0	100
Brooklyn	15.56	31.04	0	100
Other U.S.	5.30	12.20	0	100
Foreign	0.24	2.86	0	50
Residence of special partners (%):				
New York City	60.29	47.96	0	100
Brooklyn	9.52	28.88	0	100
Other U.S.	27.73	32.55	0	100
Foreign	2.46	15.31	0	100
Duration (months):				
Duration on certificate	43.51	19.41	8	242
Actual duration	38.40	22.26	0	242
Special Partner Averages:				
Total number of special partner stakes held	1.31	0.77	1	7
Total value of investments ($)	24,772	42,818	50	500,000

SOURCE: Limited-partnership registrations, dissolutions, and renewals, New York County Clerk's Office. NOTE: 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=773. There were a total of 715 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.

Table 2: Limited Partnerships: Industrial Composition, 1822-1853

Industry	Mean (%)
Professional	0.13
Personal services	0.26
Mercantile	82.81
Manufacturing	16.80

SOURCE: Limited-partnership registrations, New York County Clerk's Office. NOTE: For 5 firms created prior to 1827, when the law was modified, no industry was disclosed; therefore N=768.

Table 3: Industry Comparisons: New York City Partnerships, 1853

Industry	Firm capital, all partnerships Mean ($)	Frequency: Limited partnerships Mean (%)	Frequency: 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
Subcategories:				
Mercantile:				
Trade in dry goods, fancy goods, clothing	68,804	37.79	13.13	0.000
Trade in groceries, provisions, 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:				
Manufacture of garments, shoes	38,875	8.76	7.19	0.508
Manufacture of fancy goods, accessories, jewelry	38,700	1.84	4.69	0.080
Manufacture of ships, carriages, furniture, lumber	13,500	0.92	5.63	0.005
Manufacture of food, drinks, cigars	59,357	1.84	6.25	0.015
Manufacture of machinery, stoves, 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.

Table 4: Regressions:
Inclusion in the R.G. Dun Credit Reports,
New York City Partnerships, 1853

The dependent variable = 1 if the firm is included in the R.G. Dun & Co. credit reports

	(1)	(2)	(3)	(4)
Limited partnership	0.420***	0.373***	0.306***	0.406***
	(0.037)	(0.040)	(0.042)	(0.047)
Existed in 1846				0.372***
				(0.061)
Professional			-0.458***	-0.408***
			(0.102)	(0.101)
Personal services			-0.362***	-0.334***
			(0.096)	(0.086)
Trade in groceries, provisions, commodities			-0.224***	-0.210***
			(0.054)	(0.052)
Other/unspecified trade			-0.210***	-0.237***
			(0.064)	(0.061)
Bankers and brokers			-0.474***	-0.467***
			(0.169)	(0.135)
Manufacture of garments, shoes			-0.222***	-0.192***
			(0.069)	(0.067)
Manufacture of fancy goods, accessories, jewelry			-0.061	-0.046
			(0.104)	(0.103)
Manufacture of ships, carriages, furniture, lumber			-0.144	-0.163
			(0.108)	(0.111)
Manufacture of food, drinks, cigars			-0.383***	-0.372***
			(0.096)	(0.091)
Manufacture of machinery, stoves, metalware			-0.027	-0.053
			(0.148)	(0.133)
Other manufacturing			-0.201**	-0.219***
			(0.080)	(0.078)
Ward fixed effects	No	Yes	Yes	Yes
Observations	537	475	475	475
R-squared	0.178	0.314	0.382	0.434

NOTE: Robust standard errors in parentheses; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. A constant term (not reported) is also included in the regression.

Table 5a: 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	35.67	38.44	0.000
Special partners	46.04	--	--
Finances of partners:			
Net worth of general partners ($)	25,185	59,318	0.007

SOURCE: 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. NOTE: the Dun records rarely record the net worth of special partners. $P > | t |$ denotes the significance level of a two-sided test of differences in means.

Table 5b: Capital Comparisons: New York City Partnerships, 1853

	Limited partnerships	Ordinary partnerships	*p-value of difference*
Mean:			
Total capital ($)	68,953	60,954	0.559
General partners' contribution to firm's capital (%)	46.60	100.00	0.000
Median:			
Total capital ($)	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

SOURCE: R.G. Dun & Co. ledgers, New York City. NOTE: 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.

Table 6: Median Regressions: Firm Capital, New York City Partnerships, 1853

	Total firm capital (000s)			Capital/gen'l 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

NOTE: This table reports the results of median regressions, with bootstrapped standard errors. Standard errors in parentheses; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. In constructing the firm capital variable (the dependent variable), a firm's net worth was used instead of its total capital when capital data was 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.

Table 7: Regressions: Firm Failure, New York City Partnerships, 1853-54

The 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

NOTE: Robust standard errors in parentheses; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. In constructing the firm capital variable, a firm's net worth was used instead of its total capital when capital data was 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.

Table 8: 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

SOURCE: R.G. Dun & Co. ledgers, New York City. NOTE: For the limited partnerships, the calculations include connections between the limited 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.

Table 9: New York Special Partners, 1845-53: 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

SOURCE: R.G. Dun & Co. ledgers, New York City; *Wilson's Business Directory of New York City*, 1849, 1852; *Doggett's New York City Directory*, 1845-52. NOTE: For the occupation variables, N=217; for net worth, N=73.

Table 10: Special Partners and Their Firms, 1845-53

	Limited partnerships	Ordinary partnerships
Ties to firm: Special partner…		
Was a partner or employer in a prior firm with general partner (mean %)	46.41	7.95
Is related to general partner (mean %)	18.78	53.93
Is general partner in a firm in the same industry (mean %)	53.27	--
Firm finances:		
Total firm capital (mean $)	66,742	300,854
Stake in firm (mean $)	23,848	174,208
Stake in firm as % of special partner's net worth (mean)	16.98	85.18

SOURCE: R.G. Dun & Co. ledgers, New York City. NOTE: 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. N=270, except for the last row, where N=157.

Table 11: 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

NOTE: Robust standard errors, adjusted for clustering on individual merchants, reported in parentheses; ***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively. A constant term (not reported) is also included in the regressions.