

VC Funds and Regulation D's Rule 506(c): **Did Permitting General Solicitation Open the Door for Emerging and Underrepresented Managers?**

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OCTOBER 2024



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Executive Summary

This report studies take-up of a new exemption that permitted general solicitation (i.e., public advertising) in private equity issuance.

In the private markets, issuers—including essentially all venture capital (VC) funds—avoid the Securities Act’s requirement to register securities with the SEC by making use of an exemption. The longstanding most commonly used exemption, Regulation D’s Rule 506(b), bars issuers from publicly advertising, often requiring them to have pre-existing substantive relationships with their investors. In 2013, a new exemption—506(c)—became available that permitted issuers to publicly advertise if they take reasonable steps to verify investor accreditation.

This report, which draws from Howell et al. (2024), studies the implications for VC fund managers of the 506(c) exemption. As a first step, we conduct a survey that confirms the importance of personal networks in fundraising. Among fund managers who only use 506(b), almost 90% of respondents report using their personal network to raise funds. In contrast, 40% of 506(c) users report that they use 506(c) because they lacked a personal network.

To formally study 506(c) take-up, we use a carefully matched sample of Regulation D filings and Pitchbook data, alongside LinkedIn data and other information. Take-up of 506(c) has been relatively low, averaging 8.4% of VC funds since 2013. However, take-up is not homogeneous across groups. We show that female, Black or Hispanic, and first-time managers, as well as managers who did not graduate from an elite school, are more likely to use 506(c). These groups are traditionally underrepresented among fund managers and are less likely to have strong personal networks. Although their shares have grown dramatically, they remain below supply benchmarks; for example, the Black/Hispanic share of managers increased from about 3% in the four years before 2013 to about 6% in the most recent five years, far below their 26% share among college graduates.

We present three channels that help to explain why 506(c) has not been widely used:

- **Track record paradox:** The ability to publicly advertise in 506(c) reduces reliance on personal networks, but arm’s length fundraising requires a track record. This creates a paradox: Few people have strong track records yet did not develop strong personal networks along the way.
- **Access to the crowd:** We show that a 100-investor cap for 3(c)(1) private funds creates a regulatory barrier to 506(c) managers’ access to small-time retail investors.
- **Investor verification costs:** While in principle not onerous, we show that perceived costs and their accompanying signaling problems play a role in helping to explain low take-up of 506(c).

Overall, this report offers two insights that are broadly relevant to securities regulation and to financial intermediation:

- Efforts to protect investors from fraud can come at the expense of higher barriers to entry for issuers;
- Track record matters at arm’s length while strong networks matter in relationship financing, so public advertising on its own is only helpful to the small fraction of prospective issuers with a strong track record but weak personal networks.

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1 Introduction

There is a tension in securities regulation between enabling broad capital formation and protecting investors. This tension is particularly acute in private capital markets, where there is limited disclosure. U.S. securities regulation has relied on two main tools to protect investors in private markets: (a) enforcing relationship-based fundraising by prohibiting public advertisement (also called “general solicitation”); and (b) restricting the eligible investor base to sophisticated or wealthy individuals and financial institutions. These tools depart from the main approach to regulating public markets, which is mandated disclosure.

In the private markets, issuers can avoid the Securities Act’s requirement to register securities with the SEC (essentially, undergoing the regulatory costs of an IPO) by using an exemption, such as those available under “Regulation D”. This exemption has in recent years accounted for substantially more fundraising than all public equity and debt offerings combined in the U.S. (Bauguess et al., 2018).¹ The longstanding most commonly used exemption under Regulation D, 506(b), bars issuers from publicly advertising, requiring them to have pre-existing substantive relationships with their investors. In other words, the law traditionally enforced reliance on personal networks.

Recent policies in the U.S. and abroad aim to increase access to the burgeoning private capital markets, either by permitting general solicitation or by expanding the eligible investor base (Kiernan, 2019). The U.S. Congress legislated a new exemption that took effect in 2013. As an example of Congress’ motivation, a letter from Congress to the SEC emphasized that the Senate believed general solicitation “provide opportunities to raise capital from investors that can afford to take risk” (McHenry and Garrett, 2013). This addition to Regulation D—506(c)—permitted issuers to publicly advertise. Generally, both 506(b) and (c) require investors to have a certain degree of wealth or financial sophistication through “accreditation” requirements. They differ only in that 506(c) permits public advertising but requires the issuer to take reasonable steps to verify accreditation. Under 506(b), issuers need a reasonable belief that the investors are accredited.

In this report, we examine how these rules affect private fundraising, and in particular whether they create barriers to entry for underrepresented private fund managers, who tend to have weaker personal networks with which to reach eligible investors. Our data and analysis draw heavily from Howell et al. (2024). We focus on venture capital (VC) fundraising, where VCs make use of Reg D when they obtain equity capital from Limited Partners (LPs). VC managers (i.e., General Partners or GPs) are the gatekeepers determining which innovations move forward and are commercialized in the economy; VC-backed startups are perhaps the most important source of innovation, productivity growth, and job creation in the post-WWII U.S. (Kortum and Lerner, 2000; Gornall and Strebulaev, 2021). We are interested in investment funds rather than direct issuers because they have a far larger volume of capital, their managers are even less diverse than portfolio company executives (Wang et al., 2023), and they are relatively understudied. While investment in startups is known to rely on personal trust, face-to-face due diligence, and reputation (Bernstein et al.,

¹More broadly, between 2012 and 2022, the global growth in private capital was more than 2.5 times larger the growth of public equity and fixed income assets, leading to a total of \$14.7 trillion in private capital funds (Schwartz et al., 2024).

2016; Howell and Nanda, 2019; Hu and Ma, 2021), less is known about the GP-LP relationship. Exceptions include Goyal et al. (2021), Abuzov et al. (2022), and Goyal et al. (2023), who find mixed evidence that personal networks and privacy matter.

We construct a novel dataset of U.S. VC funds by linking Pitchbook to funds' regulatory filings on Form D, which allows us to observe their exemption type (i.e., 506(b) or (c)). Essentially all VC funds that raise capital in the U.S. use Regulation D, which requires them to file a Form D within 15 days of the first securities sale.² The Pitchbook data are supplemented with information collected from managers' LinkedIn pages and with surveys of VCs and lawyers who provide counsel to VC funds.

We document that take-up of 506(c) has been relatively low, averaging 8.4% of VC funds across the 10 years since its introduction. In the early years after adoption of the rule, take-up was *de minimis*, but has recently accelerated. 506(c) funds tend to be smaller than their 506(b) counterparts. They are also three times more likely to use an intermediary in fundraising, consistent with arm's length relationships.

In VC markets, the high uncertainty of startup outcomes and skewed returns makes it difficult to assess quality, both of fund managers and of the portfolio companies they fund. In other words, there is often information asymmetry about quality, which forces participants to rely on imperfect signals. One important source of information about quality is personal and often local relationship networks (Hochberg et al., 2007, 2010; Chen et al., 2010; Howell, 2020; Garfinkel et al., 2021). We first confirm the importance of personal networks in a survey of fund managers and their lawyers. Among fund managers who have only used 506(b), almost 90% of respondents report sometimes or frequently using their personal network to raise funds. In contrast, 40% of 506(c) users report that they use 506(c) because they lacked a personal network.

While personal networks reduce information asymmetry, they have a "taste-based" dimension, driven by homophily and biases, which may present a barrier to prospective managers from underrepresented backgrounds. Existing research documents that VCs are overwhelmingly White, male, and graduates of elite schools, and that this composition affects which innovations get funded (Ewens and Townsend, 2020; Calder-Wang and Gompers, 2021; Cassel et al., 2022). Rising concentration of fundraising at a few prestigious VC firms and among a narrow pool of financiers may disadvantage startups that are not in the right location or lack the right connections (Lerner and Nanda, 2020; Ewens, 2023). There is growing interest among government and private stakeholders in how securities regulation may affect entry barriers and the participation of traditionally underrepresented groups in the capital markets.³

We show that fund managers who are less likely to have strong personal networks are more likely to use 506(c), conditional on successfully raising a fund. After including state-year fixed effects, which help

²We focus on funds that appear in Pitchbook, because this is the closest proxy to a universe of legitimate, economically relevant VC funds that have raised a meaningful amount of capital.

³For example, one 2020 SEC request for comment on Regulation D asked: "Would the proposed changes positively impact access to capital by counterbalancing social network effects for underrepresented founders, such as women, minorities, and entrepreneurs in rural areas?" In Senate Hearing 113-178 "The JOBS Act At a Year and a Half", policy makers state that women and minorities could benefit from crowdfunding/general solicitation. See SEC (2020a), SEC (2020b), SEC (2023), Chang (2024), and 113th Congress (2013).

to control for dynamic and geographic trends, we find that the share of first-time managers is 27% higher in 506(c) funds than in 506(b). The share of female managers is 39% higher and the share of Black or Hispanic managers is 95% higher, relative to the mean. 506(c) fund managers are 8% less likely to have graduated from elite schools than 506(b) managers. They are also 30% more likely to be in a non-top 3 city and 47% more likely to be in a non-top 10 city (in models with only year fixed effects). Variation extends to portfolio company characteristics. 506(c) managers are more likely to fund startups with first-time, female, and non-elite school entrepreneurs. These descriptive results suggest underrepresented managers have weaker personal networks and so make more use of the option to publicly advertise. When it comes to returns to investors, 506(c) funds if anything perform better than 506(b) funds, pointing away from the differential take-up reflecting adverse selection.

Although the share of underrepresented managers has increased relative to the early 2010s, from a levels perspective, their shares remain far below supply benchmarks. The overall “needle” has not moved much because 506(c) take-up has been low as a share of all Regulation D use and these groups remain underrepresented even within 506(c).⁴ For example, the share of Black and Hispanic managers in our overall Regulation D data increased from about 3% in the four years before the rule change in 2013 to about 6% in the five years ending in 2023, far below their 26% share among college graduates. Although we cannot fully rule out supply-side constraints, minority funds do not perform worse than majority funds. These results suggest that minority managers continue to face entry barriers despite the availability of general solicitation, and that their take-up of 506(c) could have been higher without a decline in quality.

The overall low take-up of 506(c) may seem surprising. All else equal, having the *option* to publicly solicit funding should be weakly better than not. Why don’t more fund managers, especially those that are network-constrained, use 506(c)? We identify three non-mutually exclusive mechanisms for low take-up of 506(c): a track record paradox, regulatory barriers to accessing the crowd, and investor verification costs. However, it is important to emphasize that there are other barriers facing underrepresented GPs in the entrepreneurial finance ecosystem, such as deal sourcing and discrimination.

The ability to publicly advertise in 506(c) eliminates the need for a personal network, but fundraising at arm’s length requires hard information to signal quality, especially evidence of past success. This creates a paradox: There are few individuals with strong track records who did not develop strong personal networks along the way. We hypothesize that the opportunity to fundraise at arm’s length in private markets will be most valuable for managers with weaker networks, yet may not be widely used or enable inclusive entry because only people with established track records can convey quality at a distance. We show that the two phenomena of (a) needing to signal quality in arm’s length financing; and (b) a co-dependence between personal networks and a track record together constrain 506(c) take-up by underrepresented managers.

The second challenge is accessing the “crowd.” General solicitation is best suited to fundraising from

⁴Although Regulation D also contains Rule 504, this study focuses on Rule 506(b) and (c) and all data references to “Regulation D” in this study include offerings conducted under Rule 506(b) and (c). Rule 504 excludes investment companies and is not frequently used by companies; see pages 14 and 16 in SEC (2023).

individuals outside one’s own network, and more specifically from a large number of small-time investors who lack connections to traditional VC funds. Accessing retail investors is especially important for GPs without connections to institutions, family offices, or very wealthy individuals. However, there is a regulatory barrier in the form of a 100-investor cap for 3(c)(1) private funds. We use a new fund exemption that raised the cap to 250 investors for very small funds to show that the cap seems to be binding, and is one lever policymakers could adjust to increase participation.

As mentioned at the outset, one way that securities law tries to limit the social harm of scams and high-risk investing is to require investors be wealthy or sophisticated. In 506(b), some issuers obtain investor representations about their accredited investor status to meet the accreditation requirements for investing in Regulation D offerings. Since 506(c) would involve more arm’s length retail investors, the law required the issuer to take “reasonable steps” to verify accreditation. The available steps are not especially onerous, but they do add some cost to 506(c), which in turn could lead to negative signaling. Using a survey, we show that verification costs and their accompanying signaling problems play a role in helping to explain low take-up of general solicitation by funds.

This paper offers two insights that are broadly relevant to securities regulation and to financial intermediation. First, efforts to protect investors from fraud—for example, by capping investors in some private funds or installing verification requirements—can come at the expense of higher barriers to entry for issuers. Second, track record matters at arms’ length while strong networks matter in relationship financing, so public advertising on its own is only helpful to the small fraction of prospective issuers with a strong track record but weak personal networks. As policymakers seek to increase access to private markets, this paper informs regulatory design, in particular the trade-off between investor protection and broader capital formation. To our knowledge, this paper is the first to study the implications of securities regulation for diversity in capital markets. (For a comprehensive review of related academic literature, see Howell et al. (2024).)

2 Regulatory Context and Background on 506(c)

Information asymmetry creates regulatory pressure to protect investors from fraud and conflicts of interest, for example between sales intermediaries and their clients (Bolton et al., 2007; Bergstresser et al., 2008; Inderst and Ottaviani, 2009). U.S. securities laws have long struggled with the need to balance protecting retail investors with supporting capital formation. On the one hand, giving retail investors access to a wider scope of opportunities may expose them to deception or excessive risks. On the other hand, the ability to make investments in risky enterprises or alternative assets is both core to the U.S. economic engine and an important source of wealth creation, especially since the U.S. tax structure favors capital gains. In this section, we describe the regulatory infrastructure that has grown over time in face of this trade-off.

Securities regulation in the U.S. primarily takes the form of mandating disclosure of material information, especially of financial positions. It is widely believed that left to their own devices, issuers will suboptimally disclose and deception-plagued markets will be illiquid and inefficient (Admati and Pfleiderer,

2000). Securities regulation helps to resolve commitment, agency, self-dealing, and other problems that arise naturally in the private market (Zingales, 2009). Requiring substantial disclosure, alongside other private and public enforcement regimes, has been shown to be central to the success of U.S. capital markets, which in turn is tied to financial development and economic growth (Rajan and Zingales, 1998; Reese Jr and Weisbach, 2002; La Porta et al., 2002; Shleifer and Wolfenzon, 2002; La Porta et al., 2006; Jackson and Roe, 2009; Christensen et al., 2016). Most empirical literature finds positive effects of mandatory disclosure, such as Greenstone et al. (2006) and Christensen et al. (2016).

However, these same regulations can also create burdensome costs for issuers, a point emphasized following new disclosure mandates in the 2002 Sarbanes-Oxley Act (Chhaochharia and Grinstein, 2007; Doidge et al., 2009; Hochberg et al., 2009; Iliev, 2010; Ewens et al., 2024). A dimmer view of securities regulation—going back to Stigler (1964)—emphasizes the costs and special interests that are often behind particular rules (Posner, 1974; Easterbrook and Fischel, 1984; Mulherin, 2007). For example, Mahoney (2003) explores the origins of state blue-sky laws, the earliest form of securities regulation in the U.S., and shows that they were primarily motivated by small banks which sought to erect barriers to competition.

Context for Regulation D. The longstanding compromise in private capital markets—codified in the Securities Act of 1933—has been to require that any offer or sale of a security must either be registered with the SEC or rely on an exemption.⁵ Registering securities involves a large amount of regular disclosure, obligations to investors, and legal costs. Private capital markets, by definition, avoid this type and extent of disclosure and its accompanying costs by relying on various exemptions. The relevant exemption from the 1933 Act is Section 4(a)(2), which allows issuers to conduct small, non-public offerings.⁶ The law does not define these terms, which initially left private placements using this exemption to rely on convoluted suggestions from case law. To address the regulatory uncertainty and encourage small business capital formation, the SEC adopted Regulation D in 1982.⁷

The Baseline Exemption under Regulation D: Rule 506(b). Regulation D’s key element is paragraph (or Rule) 506(b), which offers a “safe harbor” under Section 4(a)(2) for private securities to be sold with no limit on the offering amount or the number of investors, so long as three conditions are met. First, there can be no general solicitation (i.e., public advertising, which we discuss further below). Second, resale of the securities is restricted. Unlike registered equity such as publicly traded stocks, an investor cannot easily resell securities purchased under the Regulation D exemption.⁸ Third, there is a restriction on who may

⁵While there is some debate about the scope of “security”, for our purposes selling ownership in a VC fund certainly qualifies.

⁶VC funds also comply with the Investment Company Act of 1940 either by registering as investment advisors or, more commonly, by making use of the Act’s exemptions 3(c)(1) or 3(c)(7), which are carveouts for VC and PE funds that exempt them if they meet certain conditions.

⁷SEC Adoption of final rules, rule amendments, and form, and rescission of rules and forms: Revision of Certain Exemptions from Registration for Transactions Involving Limited Offers and Sales, Release No. 33-6389, 47 FR 11251, March 16, 1982.

⁸Resales of securities also need to be registered or have an exemption. Many resales rely on Section 4(a)(1) of the Securities Act or the safe harbor under Rule 144, which requires among other things that resale has to meet certain requirements such as volume limitations and a minimum holding period.

invest. Limiting eligible investors departs from most securities regulation in the U.S., which seeks to protect investors by mandating disclosure. It stems from a Supreme Court interpretation of the law decreeing that investors who can “fend for themselves” do not need the protection of mandated disclosure through registered securities.⁹ Generally, the SEC rules therefore restrict exempt Rule 506(b) offerings to:

“certain sophisticated or ‘accredited’ investors that are presumed to possess sufficient financial sophistication and ability to sustain the risk of loss of their investment or to fend for themselves to render the protections of the Securities Act’s registration process unnecessary” (SEC, 2019).

In an offering that is exempt under 506(b), investors must be accredited (except for a maximum of 35 unaccredited investors in any 90 day calendar period). Accredited investors may qualify based on either the individual or entity criteria. Generally, individuals can qualify by: (a) having income of at least \$200,000 or joint income (with spouse or partner) of at least \$300,000 in each of the last two years who reasonably expect to meet this income threshold in the current year; (b) having net a worth of at least \$1 million outside their primary residence; or (c) meeting the investment professional requirements. Generally, entities can qualify by: (a) owning more than \$5 million in investments or (b) certain entities having more than \$5 million in assets. The thresholds for individual accreditation are not especially high. According to one estimate using data from the Federal Reserve’s Survey of Consumer Finances, in 2023 about 15% of Americans were eligible, or about 20 million people, a 40% increase from a similar exercise four years earlier and double the 2013 number.¹⁰ Issuers need a “reasonable belief” that investors meet accreditation standards. If issuers have a reasonable belief that the investor is an accredited investor, but that investor does not actually meet one of the criteria, the issuer is not liable.

In 1996, Rule 506 preempted state registration requirements, allowing issuers to file a single form in order to comply with federal and any state securities regulations (i.e., blue sky laws) (Ewens and Farre-Mensa, 2020).¹¹ Once Rule 506 of Regulation D preempted state securities laws, it became the dominant exemption. Regulation D requires that issuers file a Form D with the SEC within 15 calendar days of the date of the first sale (Rule 503). The Form D is not a disclosure document. It notifies the SEC that the offering is occurring, who is conducting it for what general purpose (e.g., to raise a VC fund), and when. Separate investment adviser, anti-fraud and other obligations require them to furnish investors with some sort of disclosure, which commonly for a VC fund will include a private placement memorandum and fund subscription document, but this is not provided to the SEC and is typically far less comprehensive than for a registered offering. Issuers do not always comply with the requirement to file a Form D, in part because the Form Ds are publicly available.¹² This comes with some risk, however, as under Rule 507 (in its modern form), issuers who fail to file Form D could lose their Regulation D rights in the future.¹³

⁹SEC v. Ralston Purina; 346 U.S. 119 (1953)

¹⁰See PK (2023).

¹¹The 1996 change was part of the National Securities Markets Improvement Act (NSMIA), which also created a new category of private funds under Section 3(c)7 of the Investment Company Act that may exceed the 100-investor limit if all investors are “qualified purchasers” (natural persons who own at least \$5 million in investments or institutions that own at least \$25 million). See Appendix A.2 for details.

¹²See page 13 in Ewens and Malenko (2020).

¹³See CFR (1989)

Regulation D is today the basis for the enormous private capital industry; the asset classes of PE, VC, real estate, and hedge funds rely on it, as do many large companies, startups, and small businesses.¹⁴ To raise a fund from U.S. investors that does not rely on Regulation D, the manager and her investors must typically all reside in the same state, in which case they can comply only with that state’s securities laws (a Section 3(a)(11) offering). Because of the onerous costs of complying with state securities laws and restriction on fundraising locations, nearly all VC funds choose Regulation D. The amount raised through Regulation D offerings substantially exceeds combined U.S. public equity and debt offerings (Bauguess et al., 2018). The disparity between public and private markets has grown over time, as public equity fundraising has modestly declined and public debt has not grown as fast as private capital. Moreover, nearly all Regulation D capital is raised by investment vehicles such as VC, PE, and hedge funds. By our own calculations, investment vehicles raised \$1.38 trillion in 2023, compared to \$88 billion for non-financial issuers.

Allowing General Solicitation: Rule 506(c). The focus of this paper is an amendment to Rule 506 that allowed issuers to generally solicit their offering (i.e., publicly advertise). General solicitation includes activities such as posting on a public website, making a statement at an event where strangers are present, or reaching out to someone with whom the manager does not already have a personal relationship. One way to avoid generally soliciting is for the manager to have a pre-existing, substantive relationship with the prospective investor. Therefore, 506(b) generally requires pre-existing personal networks, and is likely to entrench well-networked incumbents, creating a barrier to emerging and less well-networked types of managers.

The JOBS Act of 2012 created Rule 506(c) precisely to reduce this incumbency benefit and expand capital formation to support more small businesses. (SEC, 2013; Zeidel, 2016) Other than general solicitation, Congress made the new exemption the same as 506(b) except for two restrictions. First, issuers could only raise from accredited investors, while 506(b) permits a maximum of 35 unaccredited investors in any 90 calendar day period. Second, issuers using 506(c) would need to “take reasonable steps to verify that purchasers of the securities are accredited investors, using such methods as determined by the Commission.” (112th Congress, 2012) This contrasts with the reasonable belief standard under the ongoing 506(b).

Based on this legislation, the SEC developed Rule 506(c). It was effective on September 23, 2013, at which point the pre-existing exemption that had been termed 506 became 506(b). The full text of Rule 506 is in Appendix A.1. The additional verification burden imposed by 506(c) on issuers is not *prima facie* very high (Harrison, 2022). The issuer need not represent that the investor is actually accredited. If the investor turns out not to be, any test would focus on whether the issuer’s verification passed the “reasonable steps”

¹⁴There are several exemptions besides Rule 506 of Regulation D, but they exclude investment companies, and therefore are not relevant to VC funds. For example, both Rule 504 under Section 3(b) of the Securities Act as well as Regulation A allow companies to raise up to \$10 million and \$75 million, respectively, within a 12-month period if they meet certain requirements, which include not being an investment company. Another example is 3(a)(11), which requires all issuers and investors to be in the same state and to comply with that state’s securities laws. The JOBS Act also created Regulation Crowdfunding, effective starting in May 2016, which allows non-investment companies to raise up to \$5 million through an SEC-registered crowdfunding intermediary. In addition, Regulation S is used by companies and funds to raise investment capital outside the U.S..

standard.¹⁵ The SEC offers a list of “reasonable steps”, which can take the form of one of their “safe harbors” or reflect a “principles-based” method. The safe harbors for verifying income or net worth can rely on written confirmation from a broker-dealer, investment adviser, licensed attorney, certified public accountant, or previously verified investor. (SEC, 2013) For example, if the manager obtains an email from an accredited investor confirming that the verified investor continues to remain accredited, the manager is in the clear from a legal perspective. The “principles-based” method is vague, but can range from inferences about wealth based on past personal interactions to asking for tax filings.

It is useful to note that general solicitation in fundraising is related to but distinct from the rise of marketplace financing, or “crowdfunding.” While general solicitation is a necessary condition for crowdfunding, it encompasses a much broader range, including, for example, simply announcing to a small gathering of institutional investors that one is fundraising. The literature on crowdfunding, such as Agrawal et al. (2015) and Xu (2019), has not addressed financial intermediaries raising capital. Nevertheless, our findings are relevant for designing policies for marketplace financing.

2.1 Could the SEC Have Known? Ex-Ante Comments

We will show below that 506(c) failed to gain traction despite the apparent benefits of general solicitation for relatively less well-networked managers, reflecting a nuanced set of mechanisms. Looking forward to implications for this policy and future rulemaking, it is relevant to ask whether the SEC could have anticipated any problems. Did industry stakeholders foresee issues?

To assess this, we conduct a textual analysis of public comments submitted to the SEC as part of its rulemaking process. Like many regulatory agencies, when the SEC proposes a new rule, it offers the general public a chance to comment. The comment period is important and taken seriously by interested stakeholders on all sides.¹⁶ We collected the text of all 209 comments regarding the 506(c) rule from the SEC website.¹⁷ We classified each submitter as one of the following: Entrepreneur, Fund Manager, General Public, Legal Professional, Other Financial Professional (which includes lobbying organizations for the financial services industry), and Politician. Among the comments, 6% are by Fund Managers and 23% are from legal professionals.

We first consider general agreement with the 506(c) proposed rule.¹⁸ The comments from the private

¹⁵See CDI 260.06 here: <https://www.sec.gov/corpfin/securities-act-rules>

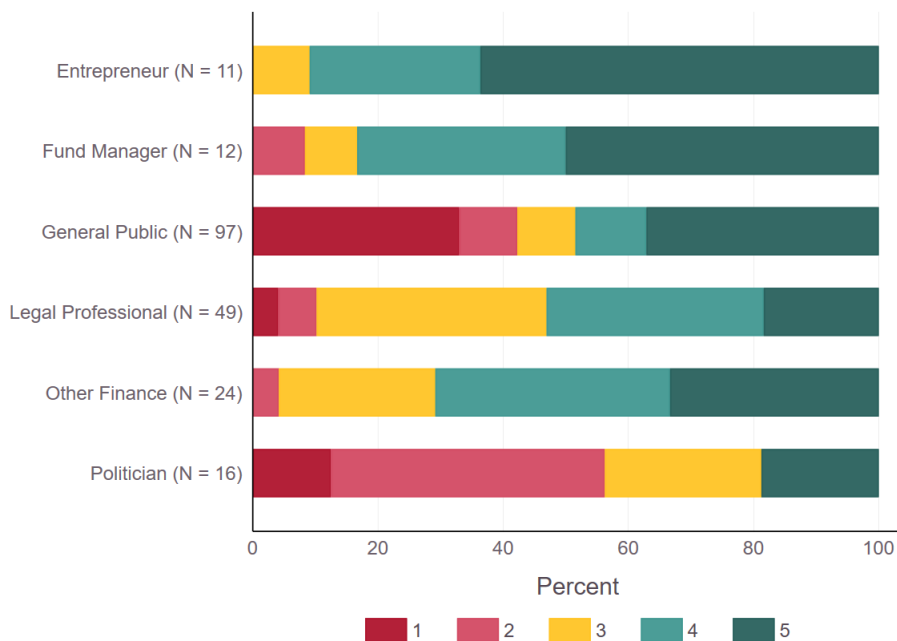
¹⁶See, for example, this SIFMA statement about the importance of comment periods: <https://www.sifma.org/resources/submissions/importance-of-appropriate-length-of-comment-periods/>.

¹⁷These are available here: <https://www.sec.gov/comments/jobs-title-ii/jobs-title-ii.shtml> and here: <https://www.sec.gov/comments/s7-07-12/s70712.shtml>. These comments reflect attitudes to the proposed rules immediately prior to the final rule release (the last comment received was July 4, 2013, while the final rule was released on July 10, 2013). We exclude a small number of subsequent comments by the same individual and entirely irrelevant comments.

¹⁸We manually identified the sentiment of each comment in terms of its general agreement with the proposal, with a score of 1 being strong disagreement and 5 being strong agreement. For example, the comment by Richard Dunn (<https://www.sec.gov/comments/s7-07-12/s70712-18.htm>) only mentions the negatives of the proposal and so is rated a 1, while Chris Barnard (<https://www.sec.gov/comments/s7-07-12/s70712-71.pdf>) fully supports the rules as written and encourages implementation and so is rated a 5.

sector, most relevantly from fund managers, were highly positive. We document this in Figure 1. There was almost no negativity on the part of entrepreneurs, fund managers, legal professionals, and the financial lobby (i.e. industry associations). In contrast, politicians and the general public tended to be more negative.

Figure 1: Comment Agreement with Proposed Rule

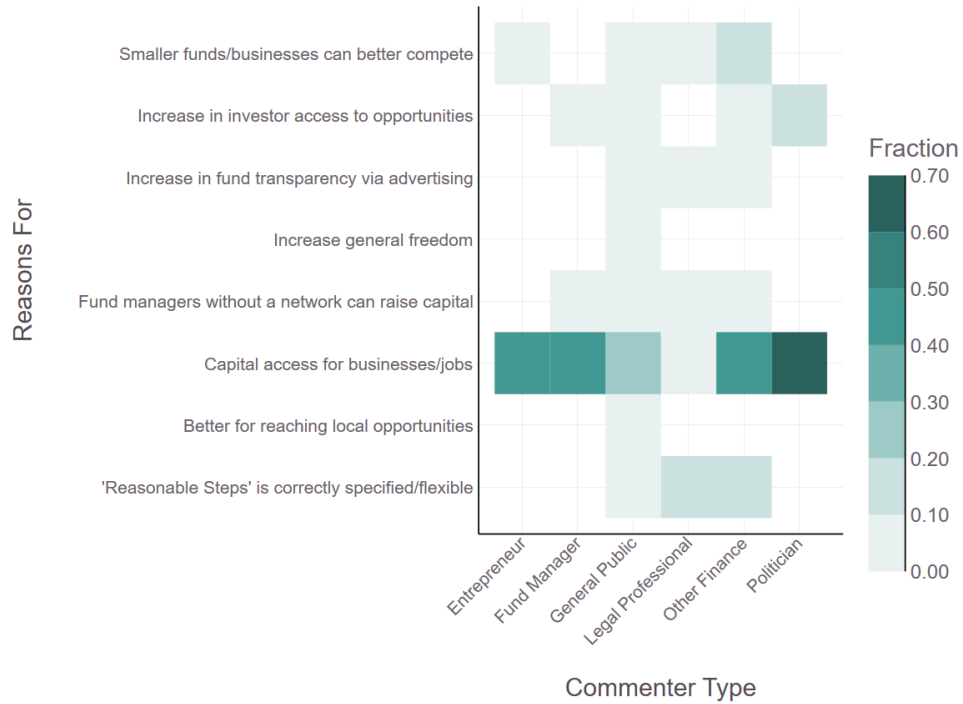


Note: The figure shows the distribution of agreement among different groups of commenters. Each comment was manually read and assigned a score of 1 to 5, with 1 being strong opposition and 5 being strong agreement.

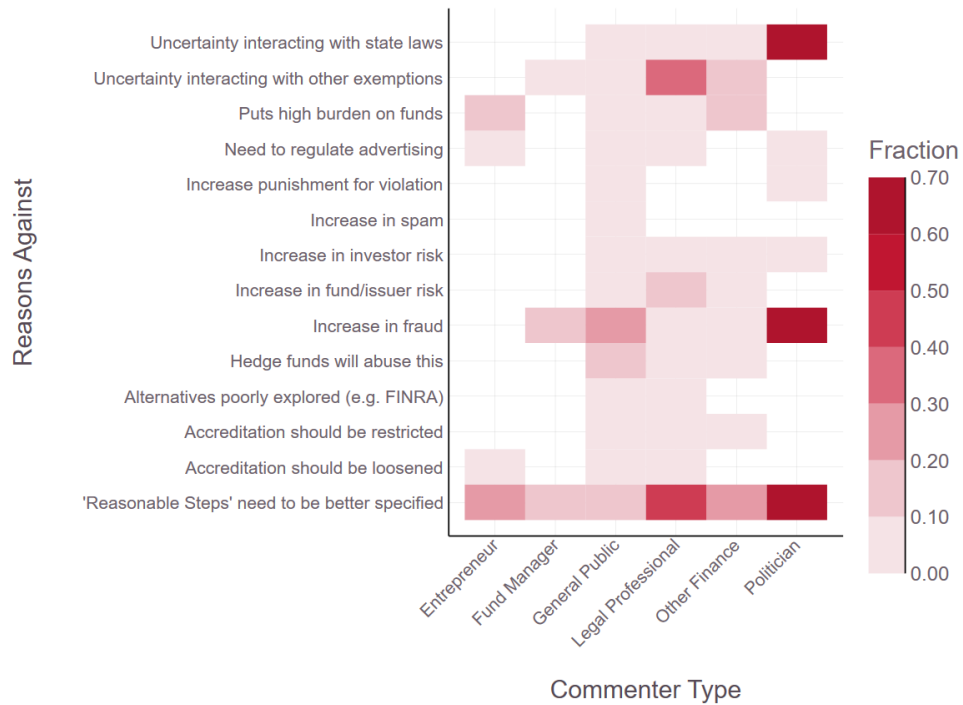
Figure 2 examines the reasons for support or opposition of the proposed rule. We manually identified common reasons, of which eight are supportive and 14 are oppositional. We count an occurrence if a comment references the reason at all, and allow a comment to reference multiple reasons for or against the reform. Concerns—described in a heat map in Panel A—tended to relate to fraud and the need for regulatory clarity about verifying accreditation. In contrast, comments supporting the 506(c) proposal focused on its potential to increase access to capital for firms, especially smaller ones. There was little concern about the verification requirements, in particular from the stakeholders in the finance profession. In sum, the comments imply that general solicitation would be broadly useful and did not raise significant red flags. The SEC adopted 506(c) as originally proposed. The implication for policy is that it may be very difficult to foresee unintended consequences of regulatory burden.

Figure 2: Comments For and Against

(a) Comments For



(b) Comments Against



Note: This figure shows the reasons mentioned by each group for either supporting (Panel A) or opposing (Panel B) the proposal. Each comment was manually read and determined if a particular reason was mentioned.

3 Data Sources

In this section, we describe the core data and variables used in this paper. Other more ancillary sources are introduced where they are used in analysis.

Form D Data. All Regulation D filings (Form D) since 2008 are publicly available.¹⁹ We obtained filings under the 506(b) and (c) exemptions in which the filer has identified themselves as a Venture Capital fund, which is one option within the pooled investment fund category. We drop amendments, retaining only initial filings. This leaves a dataset of about 37,000 Regulation D filings between 2008 and 2022.

Fund Data. To capture the universe of legitimate angel and VC funds, we restrict analysis to Form D funds that we can match to Pitchbook. This is also practically necessary since Form D contains very little about the fund or its managers. Pitchbook is the leading commercial provider of data on private capital markets, and we believe it offers the most comprehensive venture universe, including funds that raise from individual investors. Indeed, existing on Pitchbook is an important credibility signal for future fundraising and deal sourcing. This incentivizes fund managers to report basic information.

In Table 1 we describe the matching process. We can match 9,005 unique funds to Pitchbook’s VC universe, which includes angel funds, venture general, venture early stage, and venture later stage. Nearly all the unmatched filings are in various categories that make them irrelevant to our analysis, such as those matching other PB deal types, duplicate funds, funds that are not based in the U.S., roll up vehicles, or REITs.²⁰ After excluding these, as shown in Table 1, there are 4,862 funds that we do not match, most of which likely have not successfully raised funding. Below, we test whether underrepresented groups are more prevalent in these unmatched funds.

We collect from Pitchbook information on fund characteristics, LPs, and managers. For a subset of the funds, Pitchbook provides returns data in the form of Internal Rate of Return (IRR) and Total Value to Paid-In (TVPI, or multiple). We also collect information about portfolio company characteristics, which we aggregate to the fund level. We also identify the top five industries and top ten cities across all portfolio companies in our data.²¹

¹⁹They can be accessed here: <https://www.sec.gov/dera/data/form-d>

²⁰Roll up vehicles were introduced in 2021. They are direct financing vehicles for startups without the involvement of any GPs or fund managers. RUVs are used by founders to raise money from a single entity (RUV), that pools money from a number of LPs. There are no GPs or fund managers involved other than the entity, who helps set up the vehicle. The main benefit of RUV is that it offers a clean, easier-to-manage cap table. There is also no need to chase signatures and reconcile wirings from dozens of LPs. Instead, startup deals with the RUV directly and have a single RUV on cap table. Because these are not intermediated financing, we remove them from our sample.

²¹The industries are Software, Commercial Services, Pharma and Biotech, Media, and Healthcare Tech. The cities are San Francisco, New York City, Boston, Los Angeles, Chicago, Austin, Denver, Seattle, DC, and Atlanta (Appendix Table A.1).

Table 1: Matching Between Form D Filings and Pitchbook

	# of Funds
Reg D 506(b)/(c) VC Funds Matched to PB	9,005
Final Unmatched Reg D 506(b)/(c) VC Funds	4,862
Maching Process Waterfall:	
All Reg D 506(b)/(c) VC Funds	37,869
Unmatched 506(b)/(c) Filings	28,864
- Less Matched to other PB Fund Types	27,057
- Less Matched to duplicates of PB Funds	24,770
- Less Multiple Filings of Same Fund	14,981
- Less Funds with Address Outside US	14,150
- Less Funds with Cayman Islands in Name	14,140
- Less Other International Funds	14,067
- Less Parallel Funds	14,045
- Less Sidecar Funds	14,023
- Less Feeder Funds	13,997
- Less Rollup Funds	5,495
- Less REITs	5,491
- Less Blocker Funds	5,487
- Less Co-Invest Funds	5,295
- Less Microventure Funds	5,282
- Less Belltower Rollup Funds	5,095
- Less Fundersclub Funds	4,862

Note: This table summarizes the numbers in the matching process between Form D filings and PitchBook between 2009 and 2023. The matching process follows three steps. First, we acquire the CIK numbers for funds listed in PitchBook. Second, we match based on CIK to the Form D filings. In the case of multiple filings per CIK, we default to the earliest one ordered by accession number and file number. Third, if there is no CIK match, we try a text-based matching between cleaned versions of the fund name. Again, in the case of multiple matches, we default to the earliest one. Among the matched sample, 94% are matched based on the CIK code. The upper panel shows the final matched sample number and how many funds remain unmatched from Form D following a paring process. This process is shown in the lower panel, in which we show how many filings survive an iterative process of removing filings that are either duplicates of matched filings or filings outside the scope of U.S. VC funds.

Demographic Variables. We are interested in proxies for being less well-networked and traditionally underrepresented. We focus on gender, race, education, and being a first-time fund manager. To identify gender, we use the first name and the publicly available Gender package in R. To identify education, we use data from Pitchbook and LinkedIn. We classify the top 10 U.S. universities that LPs in Pitchbook attended as the most relevant for manager networks, and call them “elite schools.”²² To identify race, we take multiple steps. First, we use surname distributions to identify Hispanic and East Asian managers. Second, we use LinkedIn pictures to identify Black managers, since surname and geography-based algorithms perform

²²These are: University of California, Berkeley, University of Chicago, Columbia University, Cornell University, Harvard University, University of Michigan, New York University, University of Pennsylvania, Stanford University, Yale University.

especially poorly in this group (Greenwald et al., 2024).²³

4 The Importance of Personal Networks

There is widespread belief that VCs rely on personal networks, and concern that this may privilege well-connected investors and startup founders in ways that are not necessarily correlated with quality and disadvantage traditionally underrepresented groups. For example, Gompers et al. (2016) show that VCs who share affinity characteristics in terms of school, ethnicity, and gender are more likely to syndicate together on deals, yet this leads to worse performance due to poor post-investment decision-making.

To gather direct evidence on the role of networks in LP fundraising and to help understand managers choices between 506(b) and 506(c) take-up more broadly, we conducted two surveys. The first targets VC fund managers who appear in our sample (the complete survey is in Appendix B.1). After a common first page, the survey branches to ask different questions depending on whether the respondent indicated that their funds have used 506(b), (c), or both. We asked 506(b)-only users to explain why they did not use 506(c) in an open-ended question and then using nine non-mutually exclusive possible reasons. We also asked them how they sourced investors and to provide their opinion about a series of statements concerning 506(c). We asked 506(c) users some of the same questions, but further explored the geographies they targeted and who handled verification.

The second survey was targeted at lawyers who support VC funds (Appendix B.2). Many funds rely on lawyers to determine which exemption to use; indeed, some managers told us that they did not know which exemption they used and advised us to ask their counsel. In addition to being experts in securities law, lawyers usually work for many VC firms and thus have a broader understanding of the market. We asked lawyers the same opinion question as the fund managers (question 2). We also asked them about what kinds of funds 506(c) is appropriate for and whether 506(c) requires more work (i.e. billable hours) than 506(b).

We sent 4,112 emails to VC fund managers that did not bounce, and obtained responses from 103 unique funds, for a response rate of 2.5%.²⁴ Similarly, we sent 2,335 emails to lawyers that did not bounce, and obtained 49 responses, for a response rate of 2.1%. As we did not wish to unduly spam, we sent no reminders. Therefore, these response rates are reasonable relative to existing survey literature where much more effort was made to obtain responses (e.g., Graham and Harvey (2001) at 8.9% for CFOs, and Da Rin and Phalippou (2017) at 13.8% for LPs). Appendix Table A.14 compares survey respondents to the overall emailed sample, and shows that fund manager respondents are equally likely to be female, more likely to come from elite universities, and tend to have smaller funds (though the difference is driven by outlier large funds in the larger sample). The lawyer respondents come from largely the same set of top law firms as the

²³An American handcoded each picture as Black or not Black. For portfolio company leadership, we only use gender as there were too many individuals to handcode pictures.

²⁴The emails were sent by Sabrina Howell and are shown in Appendix B.3. This survey did not require IRB approval because it was directed at funds and firms.

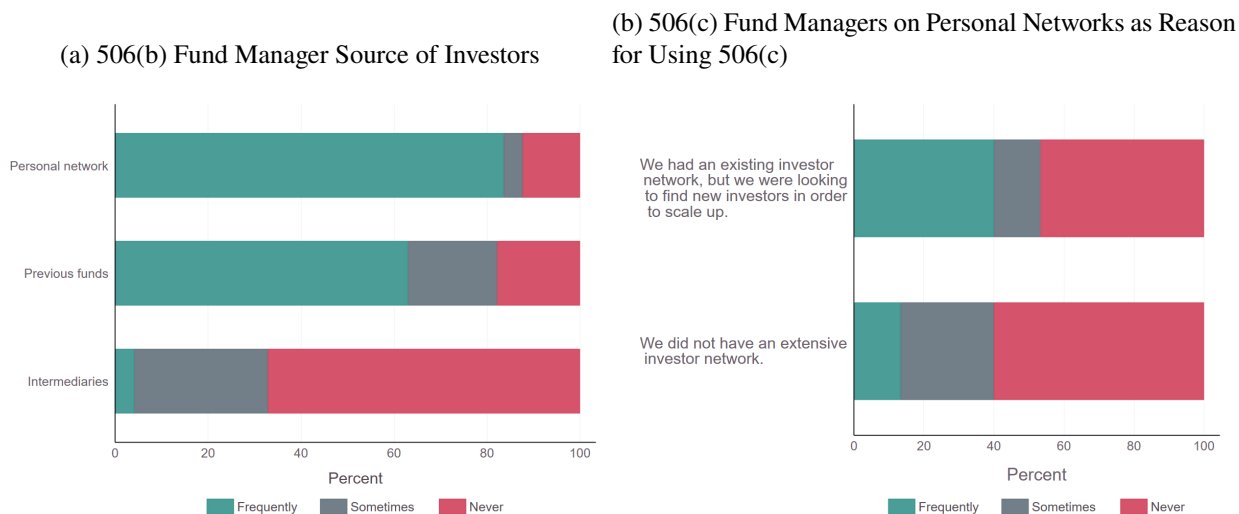
overall emailed sample.

We ask users of 506(b) how they source LP investors. The answer is through personal networks; Figure 3 Panel A shows that almost 90% of respondents report sometimes or frequently using their personal network to raise funds, and over 80% report that investors in their previous funds are a source. In contrast, Figure 3 Panel B shows that 40% of managers report frequently or sometimes using 506(c) because they lacked a personal network, and 55% have some network but are using 506(c) to find new investors. This suggests that personal networks are generally crucial to private fundraising, but that 506(c) is serving an important role for managers who lack or seek to expand their network.

5 Take-Up Across Time and Fund Characteristics

In this section, we examine take-up of general solicitation—i.e., 506(c)—in private fundraising and how it relates to measures of diversity and strength of personal networks. The key message is that take-up has been low but is higher among managers who are likely to have weaker personal networks.

Figure 3: Survey Evidence on Role of Personal Networks in Fundraising



Note: These figures describe survey responses. Panel A shows responses to Question 4 among fund managers who have used only 506(b). They were asked how they have sourced investors in general across the funds in which they have been involved in fundraising, and given three non-mutually exclusive options. Panel B shows responses to Question 2 within the set of fund managers who have ever used 506(c). They were asked whether or not having an existing investor network influenced their choice to use 506(c). There were two options and the investors could choose how much influence each had. One option was that they did not have an extensive personal network. The other option was that they had a network but were looking for new investors to scale up. 506(b) $N = 73$, 506(c) $N = 30$.

Take-up of General Solicitation The first stylized fact we present is that use of the 506(c) exemption is relatively low, and the pre-existing 506(b) has remained the overwhelmingly dominant exemption for VC funds. This is somewhat surprising, since one might expect that the option to publicly advertise—which

includes, for example, the ability to mention fundraising at a conference—ought to be valuable, and a careful reading of the rule suggests that the additional investor verification requirement need not be very costly. Between the rule’s effective date in late 2013 and the end of 2023, 506(c) has accounted for 8.4% of all VC funds in our sample in terms of count, and 11% weighted by fund size (Table 2 Panel A; note the dollar values in this panel sum across all filings in each category).²⁵

²⁵Fund size is from Pitchbook. In Appendix Table A.2 we show that this pattern also holds in the complete Regulation D VC universe, not only in the Pitchbook-matched sample. Similarly, Appendix Figure A.1 shows that the number of total VC funds in Pitchbook (including those not matched to Regulation D filings) track our matched set (Panel A), and the 506(c) share dynamics in the full Regulation D data are similar to the matched set (Panel B).

Table 2: Comparison of 506(b) vs 506(c) Funds, 2014-2023

Panel A. Total Counts and Volumes			
	506(b)	506(c)	506(c) Share
Count of Filings	7440	685	0.084
Offering Amount (Bill \$)	574.335	45.109	0.073
Amount Sold, Initial (Bill \$)	257.010	22.783	0.081
Amount Sold, with Amendments (Bill \$)	377.264	53.665	0.125
Fund Volume (Pitchbook, Bill \$)	832.681	98.290	0.106

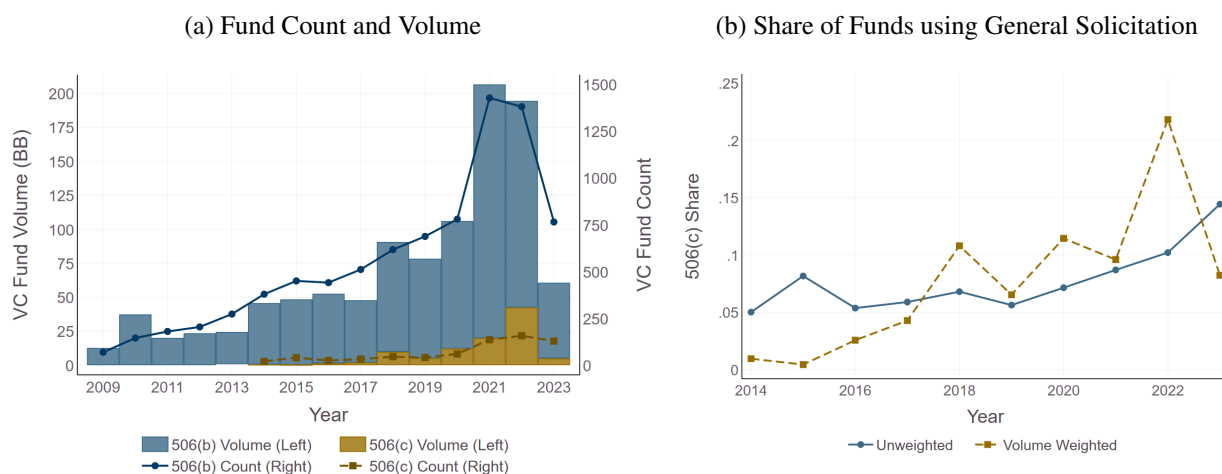
Panel B. Characteristics				
Fund	506(b)	506(c)	506(c) - 506(b)	N
Mean Fund Size (Mill \$)	120.486	158.788	38.302	7530
Median Fund Size (Mill \$)	29.697	8.659	-21.038***	7530
Non-Top 10 City Fund	0.312	0.469	0.157***	8125
Non-Top 3 City Fund	0.500	0.658	0.158***	8125
First Fund of VC Firm	0.256	0.289	0.033*	8125
Commission & Broker	0.004	0.142	0.137***	8125
DEI Target	0.014	0.029	0.015**	8125
ESG Target	0.013	0.034	0.021***	8125
Mean Number Prior Funds	5.252	30.482	25.229***	8125
Mean Number Prior Large Exits	3.826	7.053	3.226**	8120
Fund LP				
Non-Pension Share	0.671	0.739	0.068**	2248
Individual Share	0.092	0.168	0.076***	2248
Fund Return				
Mean IRR	15.961	21.949	5.988	880
Mean TVPI	1.720	1.580	-0.140	946
Fund Manager				
Female Share	0.144	0.169	0.024	4155
Black/Hispanic Share	0.058	0.088	0.031**	4156
Black Share (Picture)	0.015	0.039	0.024**	4155
Hispanic Share (Name)	0.043	0.053	0.010	4155
Elite School Share	0.466	0.470	0.004	3987
First Time Share	0.395	0.417	0.021	4156
Finance Experience Share	0.176	0.458	0.282***	4155
Portfolio Company				
Non-Top 5 Industry Share	0.355	0.384	0.029**	4889
Same City as Fund Share	0.135	0.087	-0.048***	4890
Same State as Fund Share	0.356	0.248	-0.108***	4890
Company Filed 506(c) Share	0.011	0.013	0.003	4817
Portfolio Company Leadership				
Has First Time CEO Share	0.831	0.854	0.023**	4755
Has Female CEO Share	0.143	0.170	0.027**	4755
Has Elite School CEO Share	0.317	0.298	-0.019	4465

Note: This table provides summary statistics about the VC funds in our main analysis sample of Regulation D filings matched to Pitchbook between 2014 to 2023 (i.e., post 506(c) implementation). Panel A shows total filing counts and measures of total fundraising volume. The first two columns show the total for each exemption type, and the third column shows the 506(c) share. Panel B compares various characteristics across 506(b) and 506(c) funds. Panel B uses robust standard errors in conducting a t-test of the sample mean differences between 506(b) and 506(c), except for comparing the medians, which uses a quantile regression. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level. All \$ are 2017 US\$.

This paper focuses on VC fundraising, but it is notable that 506(c) has also not achieved widespread use among direct issuers either. In Appendix Figure A.2, we show that the share of 506(c) among companies in the Regulation D data matched to VC-backed startups on Pitchbook is about 6%, even lower than the overall share among funds. We also show the share for all non-investment companies (which includes many non-operating vehicles and real estate entities) is about 10%.

The left chart in Figure 4 highlights how the overall VC industry has grown dramatically as an asset class since the Financial Crisis. It also shows that in the first few years following the introduction of 506(c), there was little take-up (Panel A), with the share at about 5% on a count basis and around 2% on a volume-weighted basis (Panel B). During the Covid-19 pandemic, the 506(c) share expanded substantially, and remained elevated amid the broader market downturn in 2023. Over the past five years, 506(c) has accounted for a little over 9% of funds on a count basis and about 14% on a volume-weighted basis. In sum, 506(c) has not yet made significant inroads into the VC industry. This is one motivation for the analyses in the remainder of this paper.

Figure 4: VC Funds by Vintage Year and Exemption

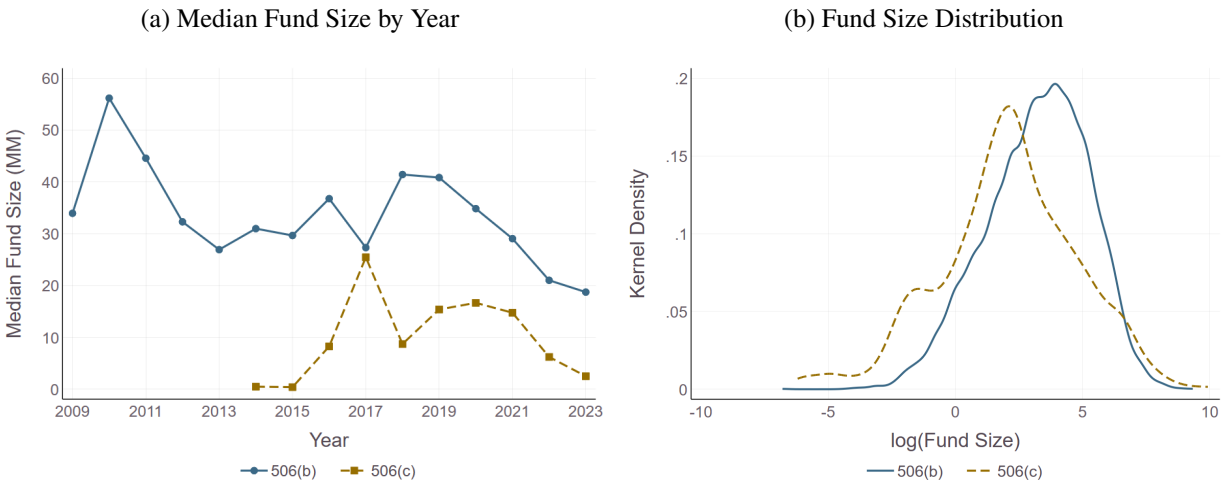


Note: This figure describes VC fundraising over time, separated into the 506(c) exemption (permitting general solicitation) and the conventional 506(b) exemption (which often requires managers to fundraise only via pre-existing personal relationships). Panel A shows the number and total volume (in 2017 US\$) of VC funds that used 506(b) or 506(c) exemptions. Panel B shows the share of VC funds using 506(c), in terms of the number of funds or dollar volume. The sample include all VC funds in the Form D data that can be matched to PitchBook.

Fund Characteristics We next explore how 506(c) funds are differentiated in terms of size, returns, and LPs, among other characteristics. Figure 5 shows that 506(b) funds tend to be larger than 506(c) funds, both over time (using median fund size in each year, Panel A) and across the distribution (Panel B).²⁶ The median 506(b) fund size in our sample is almost \$30 million, compared to \$8.7 million for 506(c) funds (Table 2

²⁶We use Pitchbook data to measure fund size. In practice, the raised amounts in Form D filings are almost always lower than those in Pitchbook, because the former reflect the amount raised as of the filing, rather than final fund size. This suggests that using Form D filings to summarize private capital raising (e.g., Bauguess et al. (2018)) may suffer from downward bias.

Figure 5: Share and Size of VC Funds



Note: Panel A shows the median fund size by year. Panel B shows the kernel density distribution of fund size for all years post 2014.

Panel B). The mean fund size is similar for 506(b) and (c), consistent with 506(c) funds having a fatter right tail in size.

The VC industry is sensitive to macroeconomic trends and clusters in a small set of cities. To study take-up of 506(c) after partially controlling for these factors, we use regressions that condition on state-year fixed effects (for geographic outcomes, we condition on year fixed effects only). The first set of results are in Table 3. Column 1 of Panel A shows that with these controls, 506(c) funds are about 49% smaller.²⁷ 506(c) funds are 47% more likely to be outside a top-10 city, and 30% more likely to be outside the top-3 hub cities (i.e., SF, NYC, Boston) (Columns 2 and 3). Figure 6 presents the overall geographic distribution of the matched funds in our sample. Larger circles indicate higher volumes while darker blue indicates higher 506(c) share. As expected, offerings under both exemptions are generally concentrated in the major hubs. However, 506(c) exhibits some exceptions, such as a few locations in the Midwest, Deep South, as well as Manchester, New Hampshire, where a large 506(c) issuer is located. Table 4 displays the top 10 cities and states among each exemption type, which reinforces the conclusion from the map that 506(c) is more likely to be outside the major hubs.

²⁷As the outcome is logged, this percent change represents $e^{-0.68}$.

Table 3: 506(b) vs 506(c): Fund Characteristics

Panel A. Fund Characteristics									
Dependent Variable:	Fund	Fund Indicator						% LPs	
	Ln(Size)	Non-Top 10 City	Non-Top 3 City	First Fund	Commission & Broker	DEI Target	ESG Target	Non-Pension	Individual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$\mathbb{1}(506(c))$	-0.680*** (0.086)	0.153*** (0.021)	0.154*** (0.016)	0.094*** (0.020)	0.060* (0.035)	0.024*** (0.006)	0.026*** (0.006)	0.095** (0.043)	0.083** (0.034)
Year FE	No	Yes	Yes	No	No	No	No	No	No
State \times Year FE	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
N	7445	8125	8125	8041	8041	8041	8041	2176	2176
R^2	0.145	0.011	0.009	0.062	0.409	0.063	0.046	0.113	0.094
Outcome Mean	3.138	0.325	0.513	0.258	0.016	0.015	0.015	0.669	0.094

Panel B. Fund Return Characteristics				
Dependent Variable:	Continuous		Above 75th Percentile	
	IRR	TVPI	IRR	TVPI
	(1)	(2)	(3)	(4)
$\mathbb{1}(506(c))$	9.910 (6.267)	0.259 (0.156)	0.259*** (0.050)	0.240*** (0.063)
State \times Year FE	Yes	Yes	Yes	Yes
N	807	876	807	876
R^2	0.265	0.310	0.135	0.119
Outcome Mean	16.694	1.726	0.238	0.243

Note: This table uses descriptive regressions to compare 506(b) and 506(c) VC funds. Panel A regresses fund characteristics on an indicator for using the 506(c) exemption as opposed to 506(b). Panel B regresses fund return variables on the same indicator. The dependent variable in columns 3 and 4 is an indicator for the fund's return being in the top quartile for its vintage. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table 4: Top 10 Cities and States By Exemption Type

Rank	506(b)				506(c)			
	City	Percent	State	Percent	City	Percent	State	Percent
1	San Francisco	28.6	CA	42.1	Manchester	19.4	CA	30.1
2	New York	16.5	NY	17.0	San Francisco	18.3	NH	19.6
3	Los Angeles	7.2	MA	6.6	New York	13.6	NY	13.6
4	Boston	5.6	TX	4.8	Los Angeles	7.6	TX	5.1
5	Chicago	3.0	IL	3.3	Seattle	2.9	WA	3.5
6	Austin	2.6	FL	3.2	Austin	2.6	CO	2.9
7	Seattle	1.7	CO	2.2	Boston	2.6	FL	2.6
8	Denver	1.6	WA	2.0	Denver	2.5	MA	2.6
9	Washington	1.5	VA	1.6	Chicago	1.8	IL	2.3
10	Miami	1.1	UT	1.5	Washington	1.5	OH	1.8
...	Other	30.9	Other	15.7	Other	27.3	Other	15.9

Note: This table shows the top 10 cities and states for each exemption type in terms of number of filings from 2014-2023. The last row represents all other locations outside the top 10.

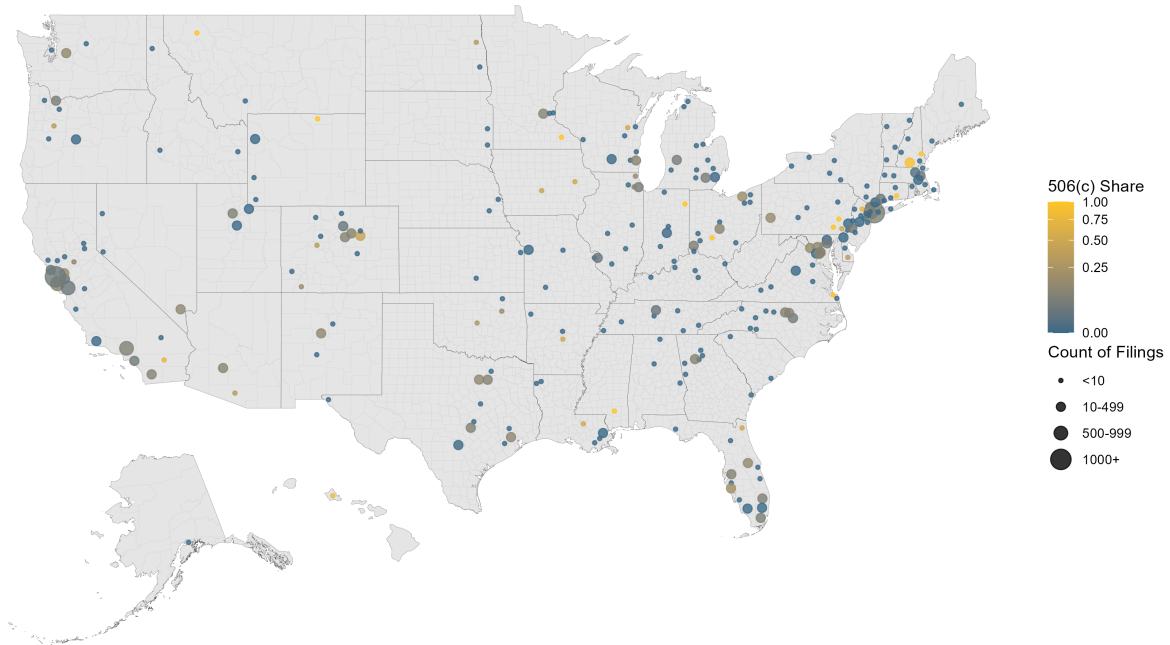
We further observe in Table 3 Panel A that 506(c) funds are 36% more likely to be a VC firm's first fund (Column 4). They are more than three times more likely to use an intermediary in fundraising (Column 5), consistent with arm's length relationship. 506(c) funds are also more likely to have a DEI objective (i.e., investing in women and minority-owned businesses), as well as an ESG objective (Columns 6 and 7). Their investor base is also different. Pension funds are the traditional stalwart source of capital for the VC industry, and typically raising large funds depends on some institutional LPs. Within the subset of Pitchbook funds with LP information, 506(c) funds have 14% more non-pension LPs and 88% more individual LPs (Columns 8-9).

We observe financial returns for a subset of the VC funds. Figure 7 shows that using both Pitchbook-reported IRR and TVPI, the distribution of returns in 506(c) funds is right-shifted. Table 3 Panel B finds that 506(c) funds are significantly more likely to be top-quartile, using both Pitchbook-reported IRR and TVPI (Columns 3-4). These facts suggest that 506(c) funds tend to perform better. Reflecting the skewed nature of returns in the industry, we do not see a significant effect using continuous measures, both in Columns 1-2 and in the raw data in Table 2.

6 Take-Up by Manager Demographics

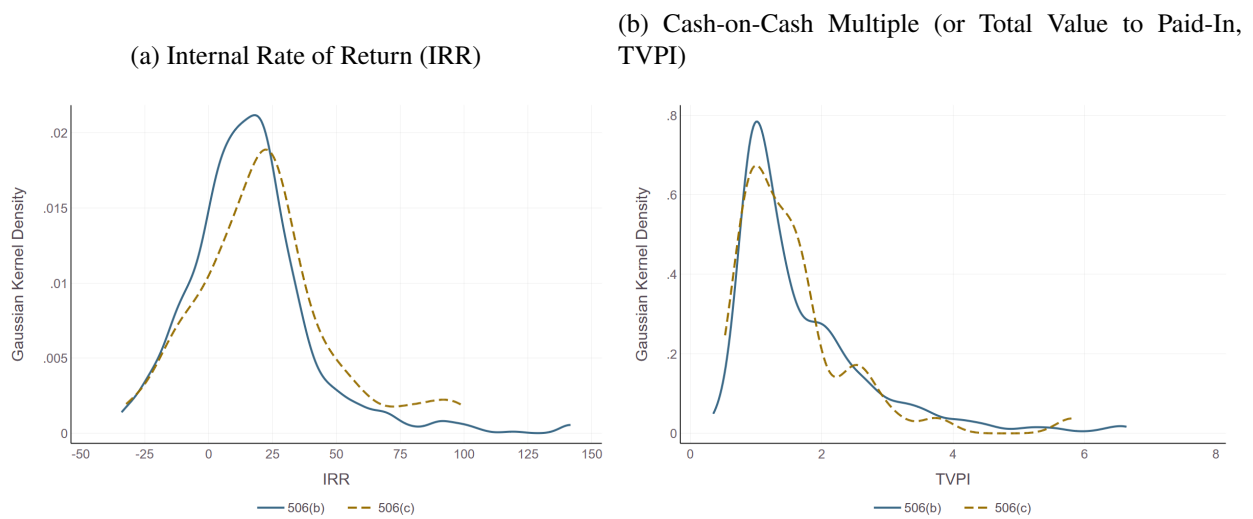
There is growing attention to diversity in private capital markets (Ewens, 2023). Much of this work has focused on minority- and women-owned small businesses and startups, and has shown that they face greater challenges raising both debt and equity capital (Howell and Nanda, 2019; Ewens and Townsend, 2020; Fairlie et al., 2022; Cook et al., 2022; Hebert, 2023; Howell et al., 2024). For example, Gompers and Wang (2017)

Figure 6: Geographic Distribution of VC Funds



Note: This figure shows the geographic distribution of VC funds in the whole analysis sample (which includes 2014-2023). We aggregate fund location to the county level. The color represents the 506(c) share and the size indicates number of filings.

Figure 7: Distribution of Fund Returns



Note: This figure shows the distribution of fund returns for each exemption type.

document that women compose less than 9% of VCs active between 2010 and 2015, contrasting with their almost even share in the overall labor force and 34% share among investment bankers. They also find that Black and Hispanic managers are highly underrepresented, at 1% and 2% of GPs during the same period, respectively, with each group accounting for more than 10% of the overall labor force. Lerner and Nanda (2020) show that among top VC GPs, 91% are men and 75% attended an Ivy League+ school. Cassel et al. (2022) show that Black and Hispanic fund managers struggle to enter the private fund market.

Motivated by this literature, we consider a set of manager characteristics that we expect to be associated with underrepresentation and relatively lower access to traditional LPs via personal networks: whether the manager is a woman, is Black or Hispanic, has an elite school education, and is raising their first fund. To identify a fund as being managed by individuals from a particular group, we use the majority so that large funds do not contaminate the statistics. For example, we define a fund as “Female” if the majority of the GPs are female. In the raw data, we see a significant difference for Black and Hispanic and elite school fund managers, though all the groups that we expect to be less well-networked have higher means in 506(c) (Table 2). Tables A.3 to A.6 compare the networked and non-networked groups sequentially using the same format as Table 2. We find that female and Black/Hispanic funds tend to be smaller and have a weaker track record, relative to their counterpart groups. They are also more likely to raise from non-pension or individual LPs, suggesting a greater reliance on the “crowd.” Finally, female and Black/Hispanic funds are more likely to have DEI impact targets, and tend to invest in a more diverse set of portfolio companies in terms of industry (less likely to be in top-5 industries), location (less likely to be local), and leadership (more female and first-time CEOs).

In the regression models, there are more striking results. In Table 5, we use two types of outcome variables: continuous share of the fund team (Panel A) and an indicator for the majority of the fund team having a certain characteristic (Panel B).²⁸ The estimates show that 506(c) funds have a 5.7 p.p. higher share of female managers and a 5.8 p.p. higher share of minority (i.e. Black or Hispanic) managers, representing 39% and 95% of their respective means (Panel A Columns 1-2). 506(c) funds also have a lower share of managers from elite schools (8% of mean) and first-time managers (27% of mean). These results persist using the majority indicator (Panel B). Notably, the estimates for Black managers are very large, at more than 200% of the mean in both panels (Column 3). These results are not driven by angel funds, as they are similar when angel funds are excluded (Appendix Table A.8).

²⁸We also report similar results in specifications using individual fund managers in Panel A of Appendix Table A.10.

Table 5: 506(b) vs 506(c): Fund Manager Characteristics

Panel A. Share of Fund Team						
Dependent Variable:	Share of Fund Team					
	Female (1)	Black/Hispanic (2)	Black (3)	Hispanic (4)	Elite School (5)	First Time (6)
$\mathbb{1}(506(c))$	0.057* (0.031)	0.058*** (0.018)	0.034*** (0.005)	0.029 (0.018)	-0.038* (0.023)	0.108*** (0.040)
State \times Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4067	4068	4067	4067	3897	4068
R^2	0.068	0.068	0.074	0.057	0.122	0.098
Outcome Mean	0.146	0.061	0.017	0.044	0.471	0.396

Panel B. Indicator for Majority of Fund Team						
Dependent Variable:	Majority of Fund Team					
	Female (1)	Black/Hispanic (2)	Black (3)	Hispanic (4)	Elite School (5)	First Time (6)
$\mathbb{1}(506(c))$	0.051** (0.022)	0.047*** (0.014)	0.031*** (0.005)	0.021* (0.012)	-0.021 (0.029)	0.107** (0.051)
State \times Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4067	4068	4067	4067	3897	4068
R^2	0.067	0.060	0.069	0.049	0.102	0.094
Outcome Mean	0.075	0.029	0.010	0.019	0.405	0.341

Note: This table uses descriptive regressions to compare 506(b) and 506(c) VC funds. It focuses on fund manager characteristics. Panel A regresses the share of fund managers in each category on an indicator for using the 506(c) exemption. Panel B regresses an indicator for the given group representing at least half of the fund team on the same indicator. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

We next conduct two supplementary analyses. First, we document that underrepresented demographic groups tend to have weaker networks using LinkedIn connections as a proxy for network. Our LinkedIn connections data have two limitations: they are right-censored at 500, and they are as of late 2023. Therefore, we use a Tobit regression specified for the censorship and restrict analysis to funds launched in 2022-3, because otherwise the networks would endogenously reflect the fund outcome. In Appendix Table A.11, we follow the fund-level approach that we use in the rest of our analysis. The outcome variable is the number of connections averaged across managers. The key results are for our underrepresented demographic groups: female and Black/Hispanic. Shifting from zero to 100% female managers is associated with 73 fewer connections, which is 26% of the mean of 275 connections (column 1). The parallel result for Black/Hispanic is 21% fewer connections (column 2). We also consider other fund characteristics. The elite school share is associated

with 51% more connections (column 3). As we would expect, there is also a large negative relationship for first-time managers (column 4). Overall, these results are strongly consistent with our assumption that underrepresented groups tend to be less well-networked.²⁹

The second supplementary analysis asks whether our main relationships reflect the Pitchbook match. Recall that there are funds in the Regulation D data that we are not able to match to Pitchbook or rule out as irrelevant to VC. While we think Pitchbook captures the universe of meaningful VC and plays an important certification role in the industry, we test whether underrepresented groups are more prevalent in the unmatched funds. Appendix Table A.12 shows that the female share of related individuals (usually the fund partners) in the unmatched funds is actually smaller than in the matched funds. While we cannot do this for race as we do not have the LinkedIn websites for these unmatched individuals, the result for gender offers comforting evidence that unmatched funds are not a reservoir of underrepresented managers.

7 Implications for Portfolio Companies

The differences in take-up extend to portfolio company characteristics. Table 6 shows that 506(c) funds are 11% more likely to fund startups outside the top industries (Column 1). They are 16% more likely to invest outside of their own city and 7% more likely to invest outside their own state (Columns 2-3). Appendix Figure A.3 shows the location of portfolio companies according to the fund exemption. Iowa has a notable concentration of 506(c) investments.³⁰

Startups invested by 506(c) funds are more likely to have first-time or female entrepreneurs (columns 5-6) (we did not collect race for portfolio company leaders). Finally, 506(c) funds are also more likely to meet their portfolio companies through the latter's general solicitation (column 4). These relationships also appear in the raw means shown at the bottom of Table 2. These results suggest that general solicitation may have implications for real outcomes, potentially making capital deployment more inclusive.

8 Has General Solicitation Moved the Needle?

Thus far, we have discussed how 506(c)—by enabling arm's length fundraising—leads to differential take-up. However, it is unclear whether these cross-sectional results matter in the aggregate. A key policy objective of securities regulations is to enable broad and inclusive capital formation. To what extent has general solicitation achieved this? In this section, we evaluate whether the introduction of general solicitation has moved the needle for private funds in the dimensions of demographic and geographic diversity.

²⁹There is no relationship for non-hub city funds, suggesting that this variable is not a proxy for being personally less well-networked (column 5). The quality of connections also matters; unfortunately, we cannot observe the identities of a person's LinkedIn connections.

³⁰Appendix Table A.7 reports the top ten cities and industries in which portfolio companies operate for each exemption type.

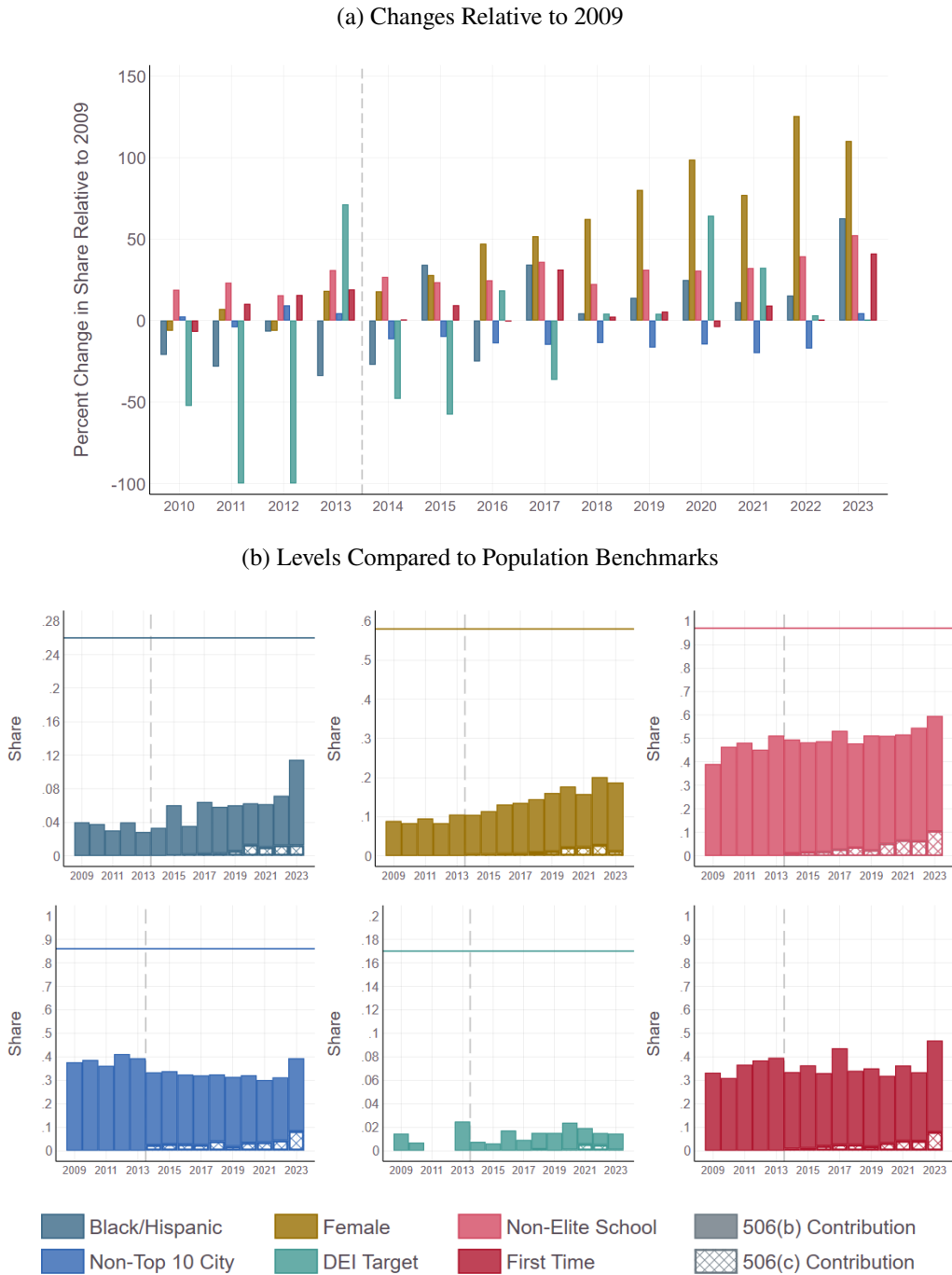
Table 6: 506(b) vs 506(c): Fund Portfolio Company Characteristics

Dependent Variable:	% not in top	% in same		% filed	% Has CEO that is		
	5 Industry (1)	City (2)	State (3)	506(c) (4)	First time (5)	Female (6)	Elite School (7)
$\mathbb{1}(506(c))$	0.041*** (0.010)	-0.021** (0.009)	-0.023* (0.013)	0.006** (0.003)	0.026** (0.009)	0.023* (0.012)	-0.013 (0.009)
State \times Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	4802	4803	4803	4731	4667	4667	4374
R^2	0.081	0.116	0.256	0.073	0.066	0.081	0.080
Outcome Mean	0.357	0.132	0.349	0.011	0.832	0.145	0.318

Note: This table uses descriptive regressions to compare portfolio companies of 506(b) and 506(c) VC funds. Each column regresses the share of portfolio companies of a given fund on an indicator for using the 506(c) exemption. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Demographics Our results so far indicate that general solicitation has been disproportionately used by underrepresented managers. To what extent has general solicitation improved entry by underrepresented managers since its introduction in 2013? Figure 8 shows how the shares of managers in different demographic categories have changed since the start of our data in 2009. When viewed as a percent change relative to 2009, there has been substantial growth in all categories, with for example the Black/Hispanic share rising 60%, and the female share rising about 100% (Panel A). The non-elite school share also increased by 50% from 2009. While the data do not permit an event study with causal interpretation, it is clear that this growth began mainly after the implementation of 506(c) in late 2013.

Figure 8: Fund Manager Characteristics Over Time and Compared to Benchmarks



Note: This figure describes the dynamics of fund manager demographics and key characteristics, with the vertical dashed line representing 506(c) implementation. Panel A shows the percent change in the share of fund managers with each characteristic among all filers in a year relative to 2009. Panel B shows the level of the share for each year and includes horizontal lines representing a relevant benchmark for potential supply. The benchmarks (described in more detail in Section 8) are the shares of: university graduates for Black/Hispanic and Female, non-elite graduates relative to total graduates, the share of non-top 10 city new firms, and the share of VC-backed founders who are female or Black/Hispanic.

When viewed as levels in Figure 8 Panel B, however, we see that 506(c) has not enabled significant entry of new managers and the disproportionate use of 506(c) by traditionally underrepresented groups is not meaningfully contributing to a shift toward parity. For example, while Black/Hispanic fund managers have increased from 0.4% in 2009 to 9% in the two years of 2022 and 2023, this is still far from their 26% share among college graduates in recent years (indicated by the horizontal line), or their share among MBA graduates (18%). As a share of all VC fund managers, 506(c) Black/Hispanic managers were just 0.1% during 2022-23. Similarly, female managers have increased from 9% in 2009 to 19% in 2022/2023, yet the female share among recent college and MBA graduates is 58% and 43%, respectively. Non-elite school managers have increased from 40% to 60%, while 96% of recent college graduates are from non-elite schools.³¹

We do not observe the pipeline of individuals who would wish to become VCs but do not successfully raise a fund, but these results point to remaining entry barriers for underrepresented managers. Consistent with this, we do not see that fund returns for these groups lags that of their majority counterparts, which is what we would expect if supply were the explanation (Appendix Tables A.3, A.4, and A.13). What might constrain entry for underrepresented managers? They may face frictions not addressed by general solicitation, such as discrimination. Within our context, the overall low takeup of 506(c) can help explain the limited progress. Recall that 506(c) represents only 8.4% of all funds. Furthermore, despite a higher share of underrepresented managers than in 506(b), the share remains low. For example, Panel B of Table 2 shows that the Black/Hispanic share in 506(c) is only 9%. Appendix Figure A.4 shows that within in 506(c), there is a similar pattern to Figure 8 Panel B for all manager types. Based on Column 2 of Table 5 Panel A, if we extrapolated the takeup rates and supposed that 100% of funds used 506(c), the Black/Hispanic share would still be only 11.9%, far from the supply benchmarks.

Geography Venture capital and high-growth entrepreneurship are much more geographically concentrated than other economic activity (Glaeser et al., 2010; Chen et al., 2010). Focusing on our setting of VC, in 2022 the three states of California, New York, and Massachusetts accounted for over 85% of all U.S. fundraising (NVCA, 2023).³² The returns to investors are also concentrated, leading to ever-increasing buildup of wealth in a few areas; investment in Northern California has traditionally been more lucrative than other regions (Woodward and Hall, 2004). This filters down to technological innovation; Kalyani et al. (2023) show that California and the Northeast Corridor are responsible for more than half of major new technologies, which in turn leads to more high-quality jobs down the road. Motivated by these economic benefits of local VC and the perceived challenges facing high-potential firms born outside the hub cities—which often are pressured to move to VC hubs (Chen and Ewens, 2021)—many policies try to encourage VC activity in traditionally underserved areas. However, this is challenging to accomplish. For example, Denes et al. (2023) find no

³¹Black/Hispanic and female shares among college graduates are from National Center for Education Statistics (NCES) based on 2019-2021 data. Their shares among MBA graduates are from Graduate Management Admission Council (GMAC). The non-elite school share is from various university alumni pages and total degree holders from the U.S Census.

³²The same is true globally, with the top 10 urban areas accounting for 62% of global venture investment (Florida and Hathaway, 2018).

impact of state-level angel investment tax credits on local entrepreneurial activity.

By removing the need for personal relationships with investors and opening up to arm's length, nationwide fundraising, general solicitation may reduce the geographic clustering of funds. Figure 8 Panel A shows that in relative terms, the share of funds in non-top 10 cities increased by 60% between 2009 and 2023, with the increase concentrated in the post-2015 period. However, in levels, this increase has not meaningfully shifted the spatial distribution closer to the benchmark we use, which is the distribution of new firms. In 2023, the non-top 10 city share among VC funds was only 38%, far from the 87% non-top 10 share among new firms. This large gap is due to both the low overall take-up of 506(c) funds, as well as the modest non-top 10 city share within 506(c), which was 49% in 2023.³³ These results suggest that there remain important place-based frictions constraining the geography of fund formation.

9 Understanding the Limits on 506(c) Take-up

Thus far we have shown that 506(c) did not meaningfully move the needle on participation by underrepresented managers, despite being relatively more intensively used by these groups. We offer three mechanisms that help to explain the relatively low use of 506(c), all of which are relevant to securities regulation broadly and are particularly important for whether emerging or underrepresented managers can enter a market. These are:

- The paradox presented by the benefits of a track record in 506(c).
- Regulatory barriers some private funds face in accessing “the crowd” in 506(c).
- Investor verification costs in 506(c).

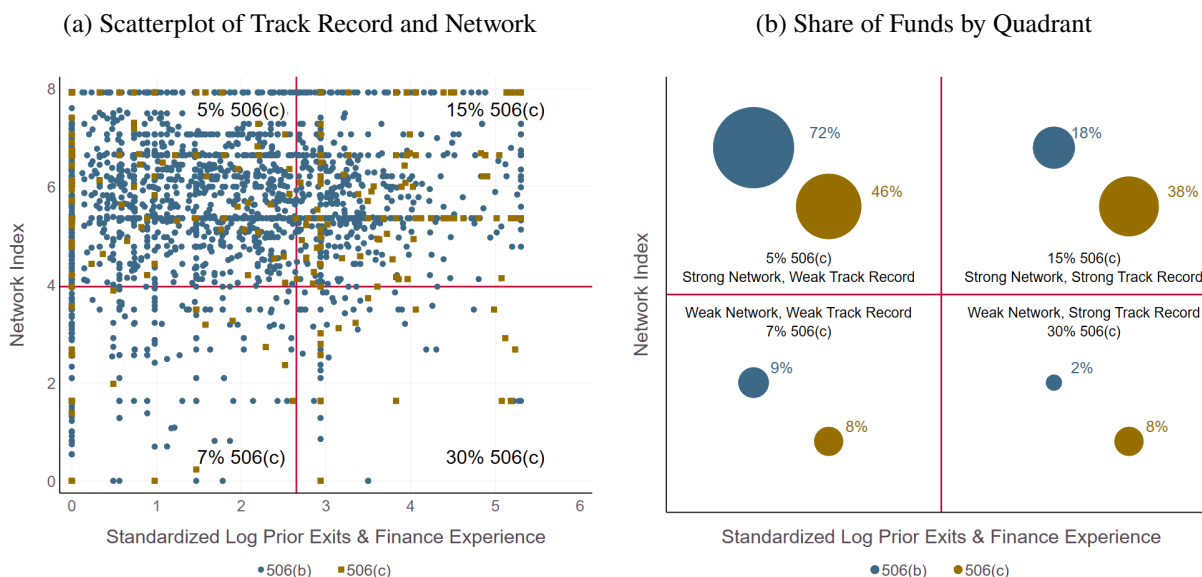
9.1 The Track Record Paradox

Arms' length financing makes information asymmetry between prospective fund managers and their targeted investors a greater challenge. In the absence of soft information and the benefits of personal networks, investors must rely on hard information. The most relevant hard information is the firm's and manager's track record. Since the primary benefit of 506(c)—public advertising—is arm's length financing, we expect that success in 506(c) should depend more on a strong track record. In turn, this could explain why it is not widely taken up by emerging managers and why it does not help to meaningfully move the needle for underrepresented managers: *When a person develops a track record, they typically develop a personal network at the same time.* To the degree success in 506(c) requires a track record, it will primarily be available to managers who could alternatively use 506(b) through their network. As we will show below, 506(b) is less costly and avoids a signaling problem, leading managers who do not need 506(c) to avoid it.

³³We find similar patterns with non-top 3 city shares.

The two phenomena of (a) needing to signal quality in arm’s length financing; and (b) a co-dependence between personal networks and a track record together create what we call the “track record paradox” constraining 506(c) take-up by underrepresented managers. To document this in the data, we plot funds according to proxies for personal network and track record. The personal network index, on the y-axis, is the sum of the fractions of the team being male, White, and elite school graduates. We also create a track record index that is the sum of prior exits plus the fraction of team with finance experience.³⁴ We plot red lines at the midpoint of each index, creating four quadrants. Panel A of Figure 9 contains a scatterplot of the funds in this space, with orange dots indicating 506(c) funds and blue dots 506(b) funds. We also note the fraction of 506(c) funds within each quadrant. Panel B aggregates the funds by quadrant. The orange bubble size and percent represent the share of all 506(c) funds in each quadrant, and similarly for 506(b) in blue.

Figure 9: Joint Distribution of Track Record and Network



Note: These figures show the location of funds in the distribution of network and track record strength, with red lines at the midpoints of each. Panel A plots each fund as a point. We report the fraction of funds within each quadrant that are 506(c). Panel B aggregates the funds by quadrant. The orange bubble size and orange percent represent each quadrant’s share among all 506(c) funds (similarly for 506(b) in blue.)

It is clear from the figures that funds tend to cluster around and above the 45-degree line; they concentrate in the top-left quadrant and are most sparse in the bottom-right quadrant. In other words, few funds have a strong track record but a weak network. Consistent with arm’s length financing requiring a track record, the distribution of 506(c) users is more weighted towards strong track records than that of 506(b) users. 506(c) funds also tend to have lower values of our network proxy, as we showed earlier. The absence of funds in the bottom-right indicates that there are few managers with the characteristics we expect who are most suitable for 506(c): people who lack the demographics associated with a strong network but who do have a strong

³⁴To facilitate comparison, we standardize each component before summing them up and shift the minimum to zero. Each index is winsorized at the 1% level.

track record.

Indeed, we see that 506(c) take-up is highest in the bottom-right quadrant. Within this quadrant, 33% of all funds are 506(c) (Panel A). The share of all 506(c) funds that are in this quadrant is 4%, while just 1% of all 506(b) funds are in this quadrant (Panel B). This is consistent with 506(c) being most appealing to the small group of people with weak networks but who possess, typically via their firm, a track record strong enough to overcome information asymmetry in arm's length financing. In contrast, those with a strong network but a weak track record raise through personal relationships via 506(b) (top left). In sum, these figures offer evidence for the track record paradox as an explanation for low 506(c) take-up.

The track record paradox leads to two predictions. First, success in raising 506(c) funds should be more sensitive to track record than 506(b) funds. Second, underrepresented groups (who tend to have relatively weaker personal networks) using 506(c) should have strong firm and personal track records relative to 506(b) users, yet few funds will fall in both categories (low network but high track record), helping to explain overall low take-up.

To test these hypotheses, we develop measures of track record and fundraising success. We use three track record measures, all of which are observed as of the time the focal fund is raised: 1) the firm's number of prior successful portfolio company exits; 2) the firm's number of prior funds; and 3) the share of the fund team with past work experience in finance.³⁵ For past VC activity, we use the firm level because it is the most important vector of signaling (and also recall that 506(c) managers are more likely to be first-time from Table 5). We measure fundraising success as the ultimate fund size, controlling for initially targeted size.³⁶

The results are in Table 7. Column 1 shows that one standard deviation increase in prior exit is associated with a 4.3% increase in the amount raised conditioning on target amount (i.e. success) in 506(b), but a 8.9% increase in 506(c)—or 2.1 times more. The difference is 2.3 times when measured by the number of prior funds (Column 2). The next column uses prior finance experience as the measure. We find that fund teams with one standard deviation more finance experience is associated with 9.1% higher raised amount relative to target for 506(c), while there is no significant relationship for 506(b). These results show that fundraising success is significantly more sensitive to track records for 506(c) funds than for 506(b) funds.³⁷ Since female and Black/Hispanic fund managers on average have weaker track records than their majority counterparts (Tables A.3 and A.4), this may deter 506(c) entry among prospective underrepresented managers.

If track record matters more for the fundraising success of 506(c) than 506(b), then conditional on launching a fund, 506(c) fund managers should have (or be at firms with) better track records. We confirm

³⁵We define exits as acquisitions or IPOs valued at more than \$200 million. We define finance as including PE, investment banking, asset management, etc. This information is from LinkedIn, while the firm-level measures are from Pitchbook. Between (1) and (2), our preferred measure is exits because it also captures the success of funds. We do not use returns as fund success measure as return data are sparse.

³⁶Note that this analysis examines intensive margin variation in fundraising success, because we not observe funds that failed to launch. Both targeted and actual fund size are from Pitchbook.

³⁷We find similarly positive but noisier (statistically insignificant) results if we measure prior exits and funds at the manager level. This seems to reflect underrepresented managers generally having weaker track records at the manager level compared to the firm level.

Table 7: The Role of Track Record in 506(c) Take-up

Dependent Variable:	Ln(Fund Size)		
	(1)	(2)	(3)
Prior Exits	0.043*** (0.012)		
Prior Exits \times $\mathbb{1}(506(c))$	0.046*** (0.011)		
Prior Funds		0.045*** (0.012)	
Prior Funds \times $\mathbb{1}(506(c))$		0.059** (0.023)	
Finance Experience Share			-0.002 (0.014)
Finance Experience Share \times $\mathbb{1}(506(c))$			0.091* (0.048)
$\mathbb{1}(506(c))$	-0.530*** (0.071)	-0.532*** (0.071)	-0.304** (0.138)
Ln(Fund Target Size)	0.979*** (0.018)	0.982*** (0.017)	0.992*** (0.011)
State \times Year FE	Yes	Yes	Yes
N	5713	5713	3183
R^2	0.831	0.831	0.850
Outcome Mean	3.246	3.246	3.781

Note: This table shows how the sensitivity of fundraising success to track record differs by exemption type. The dependent variable is log fund size. The coefficient of interest is the interaction between using the 506(c) exemption and track record, represented by prior successful portfolio company exits, prior funds, or past finance experience, each standardized. We control for log fundraising target size. Standard errors are clustered by state and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

this in Panel B of Table 7 (columns 1, 3, and 5). Consistent with the second prediction, this difference is much larger for underrepresented managers (columns 2, 4, and 6). We define “underrepresented” as a fund team with at least one female, Black, or Hispanic manager. For example, column 4 suggests that being underrepresented and using 506(c) is associated with 7.6 more prior funds, which is more than 100% of the outcome mean (which is 5.7 prior funds). In other words, when underrepresented managers do successfully use 506(c), they tend to possess a stronger track record than both majority 506(c) managers and underrepresented 506(b) managers. We find positive but much weaker (statistically insignificant) results in Panel B if we measure prior exits and funds at the manager level. This seems to reflect underrepresented

managers generally having weaker track records at the manager level compared to the firm level, as seen in Table 8.

Table 8: Underrepresented Track Records, VC Firm vs Manager Level

	Underrepresented			Majority		
	VC Firm	Manager	Manager - VC-Firm	VC Firm	Manager	Manager - VC-Firm
Prior Exits	10.24	7.05	-3.19***	4.95	6.27	1.32**
Prior Funds	5.17	1.89	-3.28***	5.89	2.14	-3.75***

Note: The first two columns in each section are sample means of each experience type. The third column uses robust standard errors in conducting a t-test of the sample mean differences between the VC Firm and Manager columns. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

When do underrepresented managers escape the track record paradox? Some do, of course, have strong networks. On average, however, the literature and our results thus far indicate they have weaker networks, which is what matters for whether 506(c) might enable broader and more inclusive entry. Specifically, we find that underrepresented managers tend to have smaller networks on LinkedIn (see Appendix Table A.11). Underrepresented managers who lack a network are more likely to choose 506(c), yielding our results from Table 5. By virtue of using 506(c), they were able to overcome information asymmetry at arm’s length. One way they may accomplish this is through impact objectives, which can be transmitted across space, and may exploit investors’ non-pecuniary preferences. Table 9 shows that the stated investment preference of underrepresented 506(c) managers is more likely to include identity-based targeting than other managers. Specifically, they are 2.7 times more likely to target women and minority owned businesses relative to the mean. The effect is insignificant for ESG targeting, suggesting a signaling advantage in targeting through manager-founder homophily (i.e., more credible signals).

Table 9: Fund Impact Target Comparison

Dependent Variable:	ℙ(DEI Target)		ℙ(ESG Target)	
	(1)	(2)	(3)	(4)
ℙ(506(c))	0.024*** (0.006)	-0.002 (0.010)	0.026*** (0.006)	0.030*** (0.008)
ℙ(Underrepresented)		0.037*** (0.011)		0.007* (0.004)
ℙ(506(c)) × ℙ(Underrepresented)		0.061* (0.031)		0.017 (0.031)
State × Year FE	Yes	Yes	Yes	Yes
N	8041	4067	8041	4067
R ²	0.063	0.123	0.046	0.065
Outcome Mean	0.015	0.023	0.015	0.020

Note: This table compares the likelihood of a fund being a targeted fund by exemption type and manager type. A targeted fund is one identified by Pitchbook as describing itself as targeting DEI, i.e., minority-women business enterprises (MWBE), and/or ESG investments. Underrepresented is an indicator for the fund team having at least one female, Black, or Hispanic manager. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

9.2 Accessing the Crowd

By virtue of depending on public advertising, 506(c) is thought to be most useful for managers seeking to raise from a large number of small-time retail investors.³⁸ Access to the “crowd” is especially important for less well-networked GPs who lack connections with institutional LPs, family offices, and very wealthy individuals. They would benefit from the opportunity to raise small amounts from many small-time but accredited retail investors. Indeed, 506(c) funds appear more dependent on the crowd than 506(b) funds. Both Table 2 as well as Table 3 show that 506(c) funds tend to have more LPs and more individual LPs, and are more likely to have non-pension fund investors (note that Pitchbook has poor coverage of non-institutional LPs). This pattern holds even after controlling for fund size (Appendix Table A.9). Lawyers for VC funds also told us that institutional and very wealthy LPs are almost always directly solicited and generally do not look for public advertisements. This leaves the accredited retail investor as the most obvious audience for 506(c) fundraising.

However, the Investment Company Act of 1940 restricts 3(c)(1) funds, which most smaller VCs fall under, to no more than 100 investors. This could constrain use of 506(c). On May 25, 2018, the SEC raised the cap from 100 investors to 250 investors for VC funds with less than \$10 million assets, while keeping

³⁸For example, one law firm explains that “Rule 506 c offerings can allow you to collect small sums from a huge number of investors, which add up to a larger capital raise.” (Moschetti, 2023; Turbine, 2023) This point is also based on author conversations with practitioners, including investors and lawyers.

the cap unchanged at 100 for VC funds larger than \$10 million.³⁹ The goal was to allow small funds without access to institutional or very wealthy LPs to raise from many smaller investors. In Howell et al. (2024), we examine the impact of the 2018 investor cap increase on 506(c) take-up using an event study design. We show that after the 2018 new exemption, smaller VC funds below the \$10m regulatory cutoff are much more likely to use 506(c) relative to funds larger than \$10m. The investor cap is likely more constraining for larger funds because they tend to have more investors.⁴⁰ Furthermore, we show that the cap raise disproportionately benefited underrepresented managers. We expect they will depend more on the crowd, as they tend to have more LPs (Appendix Table A.15) and have higher fractions of individual or non-pension LPs (Appendix Tables A.3 and A.4).

It might also be the case that 506(c) is constrained in accessing the crowd because there are insufficient accredited investors. In Howell et al. (2024), we use an SEC rule amendment that expanded the definition of accredited investors to include those with professional experience or qualifications, in addition to the traditional income/net worth-based definition. The rules were effective in December 2020. If the supply of accredited investors is a constraint in general solicitation, we should observe higher take-up of 506(c) after the amendments. However, we do not see any change around the time period when the amendments went into place, suggesting that low 506(c) take-up is not driven by low supply of accredited investors.

9.3 Verification Costs and Negative Signaling

If the 506(c) rule permitted general solicitation with no additional requirements and there were no signaling effects, we should expect broad take-up as the new policy would offer a free option. Of course, this is not the case. 506(c) required the issuer to take “reasonable steps” to verify investor accreditation, instead of the “reasonable belief” standard in 506(b). A positive view is that the additional burden on issuers is not very high. For example, “reasonable steps” to verify accreditation includes an email from an attorney or previously verified accredited investor confirming that the verified investor continues to remain accredited. A more negative view is that the requirement might create substantial new paperwork costs, legal liability risk if investors are in fact not accredited, and awkwardness in asking investors for intimate financial information. Legal uncertainty could have a chilling effect, especially in the absence of a body of existing case law.

³⁹See Appendix A.2 for definition of venture capital fund by the SEC.

⁴⁰In the Pitchbook data, the number of LPs and log fund size have a correlation coefficient of 0.395 with a significance at the sub 1% level.

Figure 10: Fund Manager and Lawyer Opinions about 506(c)

(a) VC Fund Managers



(b) VC Lawyers



Note: These figures describe survey responses, with VC fund managers in Panel A and lawyers to VC firms in Panel B. Respondents were asked whether they agreed with a series of statements about 506(c), which are summarized on the y-axis. The statements, in order, are: The 506(c) exemption sends a negative signal about quality/ability; The 506(c) investor accreditation verification requirements create legal risks for the GP; It is burdensome to verify investor accreditation status for 506(c); In principle, the 506(c) exemption should be useful for new fund managers who do not have a pre-existing network of investors (i.e. LPs.); The 506(c) investor accreditation verification requirements are unclear; The 506(c) exemption is underutilized. See Section 3 for a description of the survey and responses. In Panel A, 506(b) $N = 73$, 506(c) $N = 30$. In Panel B, 506(b) $N = 22$, 506(c) $N = 27$

Our survey results are extremely useful for understanding whether, in practice, the verification costs are relevant. Figure 10, Panel A indicates that the majority of fund managers, especially those who do not use 506(c), agree that investor verification is burdensome and creates risks. There is also some agreement about verification rules being unclear. We observe similar opinions from VC lawyers (Panel B). Figure 11 shows that, when asked about why they do not use 506(c), nearly 80% of fund managers cited the time and money required to verify investor's accreditation status as having major or some influence on their decision. Legal risk was the second-most. Supporting this, Figure A.6 shows that the majority of VC fund lawyers report that 506(c) takes more legal work than 506(b), and that this is due to more complex compliance and greater legal risks of 506(c).

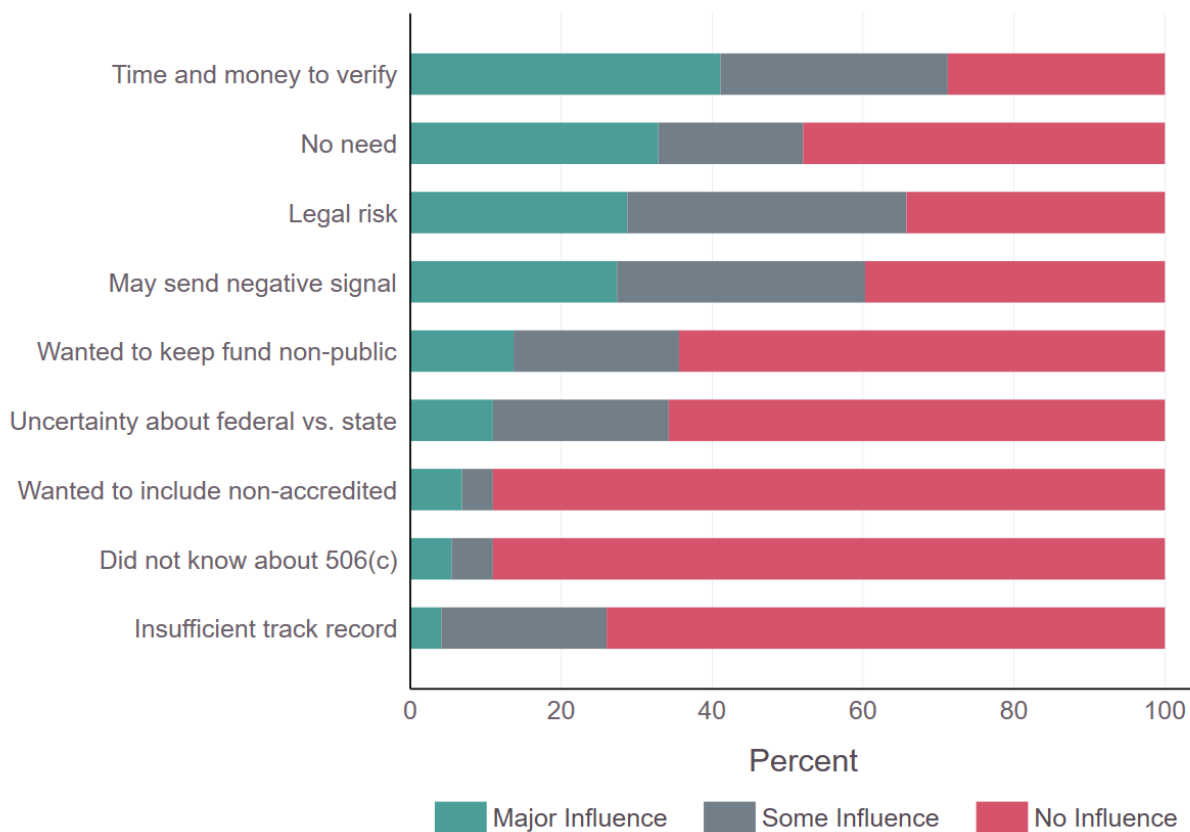
Because there is a non-negligible additional cost to 506(c), using 506(c) to fundraise could send a negative signal to investors. The most direct way is that using 506(c) could signal that a GP does not have the requisite personal network to fundraise without general solicitation. More broadly, there is likely status quo bias, where experienced VCs default to the option they have used in the past (Samuelson and Zeckhauser, 1988). If most well-reputed VCs use 506(b) and there is adverse selection into 506(c), managers may pool on 506(b) (Spence, 1973). Alternatively, a separating equilibrium could emerge in which low-quality managers use 506(c) and generally solicit, recruiting unsophisticated retail accredited investors, while high-quality managers use 506(b) and recruit sophisticated institutional and very wealthy investors through personal networks. This predicts that generally solicited investments will underperform. Our earlier result that 506(c) funds do not underperform 506(b) in returns speaks against a separating equilibrium. Instead, the low take-up of 506(c) is consistent with many managers who would have benefited from 506(c) pooling into 506(b) to avoid negative signaling.

The fund managers in our survey generally agreed with the proposition that 506(c) sends a negative signal. Notably, this opinion is strongest among managers who do not use 506(c) and their lawyers, with the majority agreeing about the statement of negative signaling (Figure 10). Furthermore, Figure 11 shows that more than 70% of 506(b) users chose not to use 506(c) in part because it sends a negative signal. One VC fund lawyer wrote to us:

“At a high level, I don't think the underutilization of 506(c) is due to policy/rule construction, but rather selection bias that going out to smaller/potentially less sophisticated investors (the lower end of the market), sends a bad signal to the market (and in turn might impact their ability to line-up desirable portco investments).”

There are demographic differences in these concerns about verification. Female managers are more concerned about verification costs and legal risks than male managers, while Black/Hispanic managers are more concerned about verification costs and negative signaling than White managers (Figure A.5). Overall, these survey results point to substantial costs of investor verification and the concomitant negative signaling, and suggest these that the costs, including negative signaling, may be higher among underrepresented managers.

Figure 11: 506(b) Fund Managers' Reasons for Not Using 506(c)



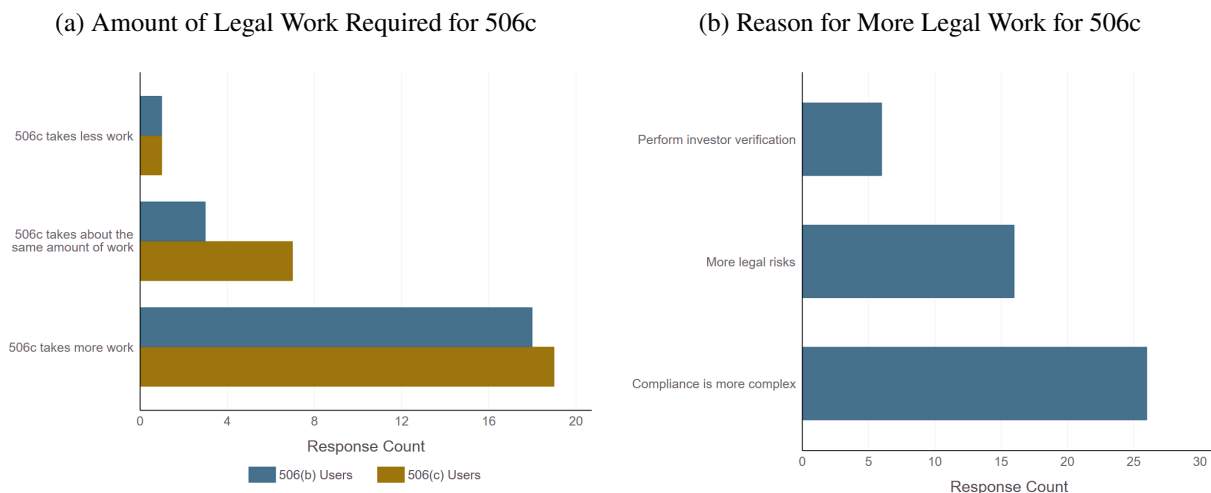
Note: This figure describes survey responses within the set of fund managers who have used only 506(b). Fund managers were asked whether any of the non-mutually exclusive options listed on the y-axes had no influence, some influence, or major influence on their choice to not use 506(c). $N = 73$.

10 Conclusion and Policy Discussion

With over \$13 trillion in private capital assets under management, the issue of who can be a manager and how they can fundraise is economically important (McKinsey, 2024). As the private capital markets have matured, fund sizes have increased and the benefits of incumbency, track records, and pre-existing networks with institutional and high-net worth LPs have grown stronger (Carmean et al., 2024). This is especially true in VC, where information asymmetry between GPs and LPs is acute.

In theory, permitting general solicitation can help level the playing field for traditionally underrepresented managers, who are less well-networked. This policy—implemented in the U.S. in 2013—sought to address the barriers to entry imposed by the traditional exemption to securities registration, which requires

Figure 12: Investor Verification Burden for 506c (Lawyer Responses)



Note: This figure employs data from the lawyer survey about the amount of legal work (i.e. billable hours) required to verify that investors are accredited. Lawyers were first asked if 506(c) required more work. If they said it did, then they were asked why.

managers in private capital markets fundraise using personal relationships. In this paper, we study an important instance of the how the fundamental tension facing securities regulation—enabling broad and inclusive capital formation while protecting investors—makes it difficult to meaningfully lower barriers for new and underrepresented managers.

We show that general solicitation (506(c)) is disproportionately used by female, Black/Hispanic, first time, and non-elite school managers, all groups we expect to have weaker networks, which we verify with LinkedIn connections data. We present three, non-mutually exclusive mechanisms that help to explain the relatively low use of 506(c), and why the rule did not dramatically increase the ranks of underrepresented managers. These mechanisms may apply to securities regulation beyond Regulation D. The first is the paradox presented by the benefits of a track record, which derives from the important role for personal networks; in the absence of personal networks, investors rely on track record, but managers who establish a track record typically build a network along the way, leaving only a relatively small segment with one resource (track record) but not the other (a personal network with which to raise using 506(b)). The second mechanism is regulatory barriers to accessing “the crowd” in public solicitation, imposed by a ceiling on the number of investors who may participate. The third mechanism is the presence of verification costs, which are perceived by regulators as necessary at arm’s length but deter participation and lead to a negative signaling equilibrium.

Our results have implications for policy. It may be that restricting the type of investor who may participate—via the accreditation requirement—is more challenging and creates more frictions than the conventional SEC regulation applied to public firms, which focuses on requiring disclosure. The opinions summarized in Figure 10 suggest that there is broad agreement in the survey that 506(c) is underutilized. To the extent that 506(c) managers do not perform worse than 506(b) and their fundraising success is more

sensitive to track record, adverse selection seems to be limited, or at least outweighed by the benefits of removing frictions previously constraining emerging managers. As such, the SEC may be over-protecting investors at the expense of democratizing the private fund space. To improve policy design and 506(c) take-up, the SEC could shift some of the compliance burden from GPs to investors by, for example, letting investors use the reasonable belief standard that is currently in Rule 506(b); it could also allow greater flexibility to switch between 506(b) and 506(c) as managers learn about investor demand and the costs and benefits of general solicitation.

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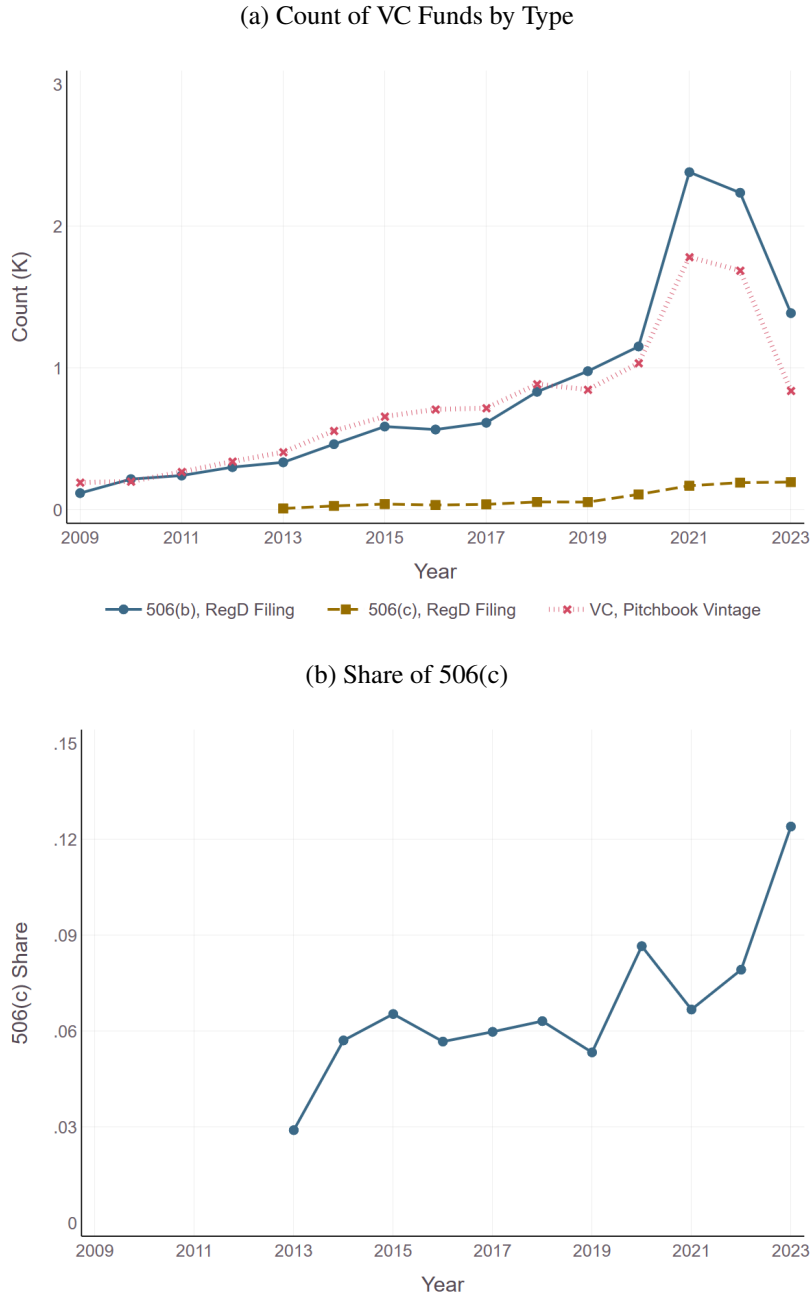
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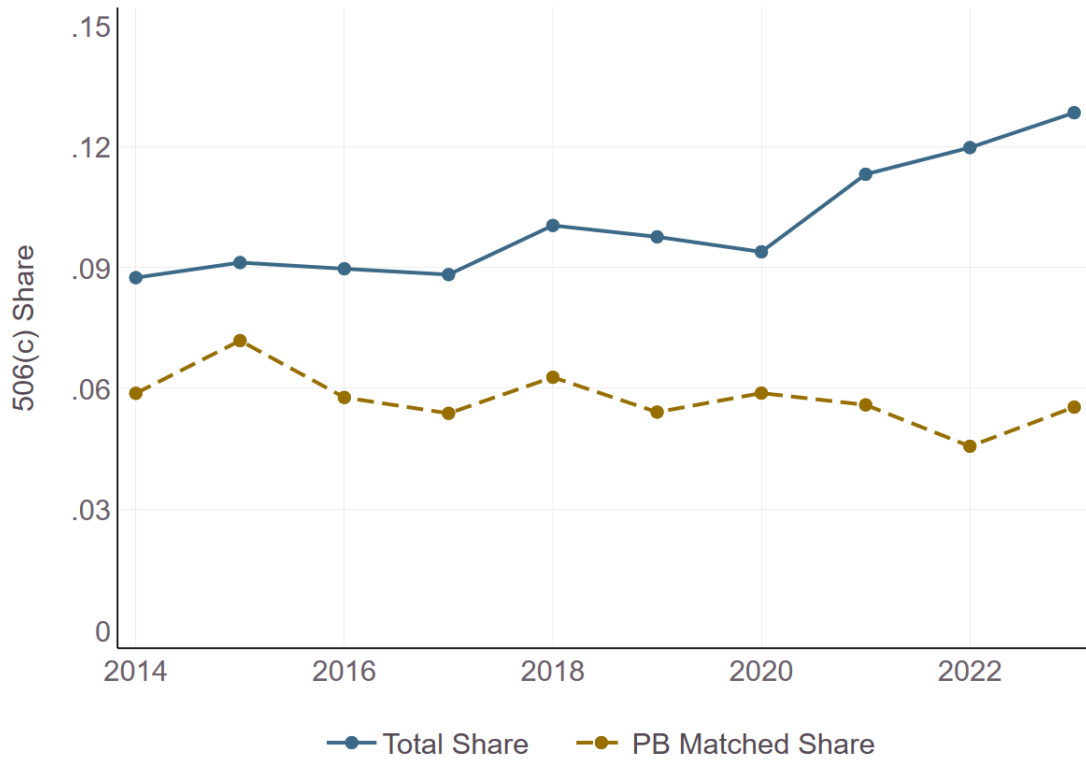
Appendix Figures and Tables

Figure A.1: Count and 506(c) Share of all Regulation D and Pitchbook Funds Identified as VC



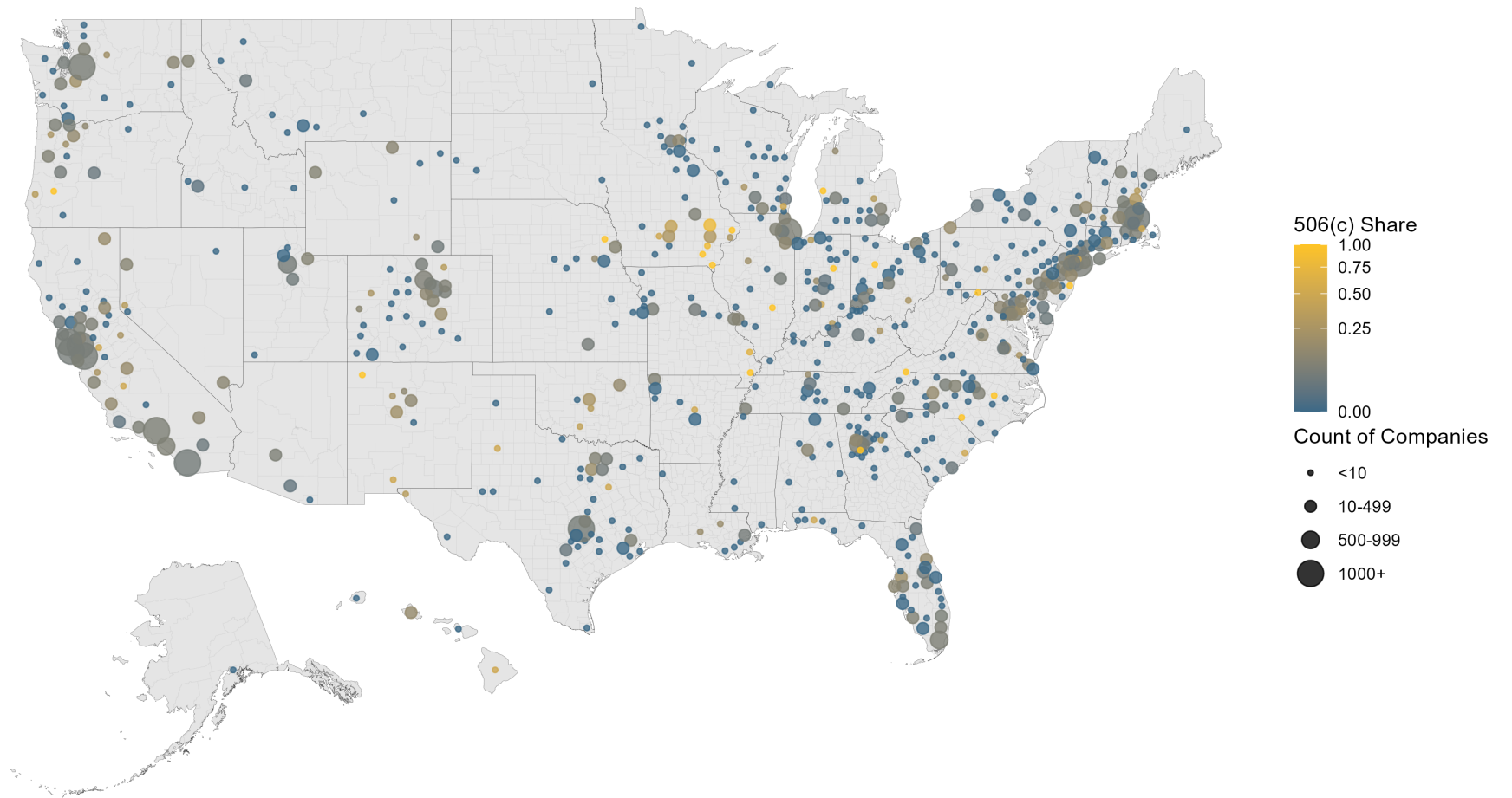
Note: These figures use data from all Form D filings and Pitchbook Funds, rather than only those that match between the two datasets (which is the sample used in the main text). Panel A shows the count of VC funds in Form D using 506(b) and 506(c) by year, as well as the number of Pitchbook VC funds of that vintage. Panel B shows the share of 506(c) funds in Form D data in terms of count relative to the total number of funds (not restricted to the Pitchbook match).

Figure A.2: Share of 506(c) Among Non-Investment Companies



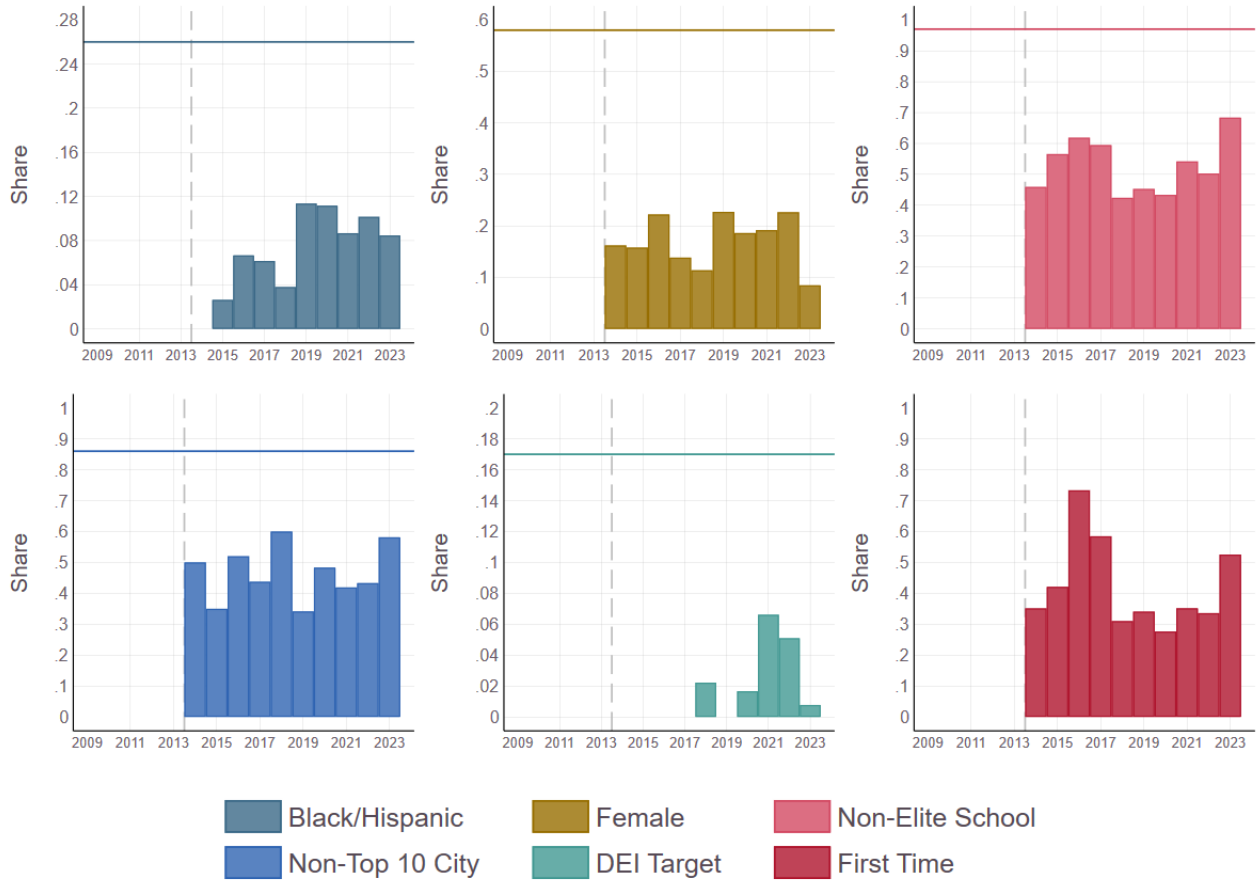
Note: This figure shows the share of 506(c) among non-investment companies in overall Form D filings and among those companies we can match to companies in Pitchbook. From raw filings, we perform basic cleaning to isolate companies by removing any filings with an investment fund type listed, as well as filings where the entity name contains terms related to investments.

Figure A.3: Geographic Distribution of Portfolio Companies



Note: This figure shows the geographic distribution of portfolio companies in the whole analysis sample (which includes 2014-2023). We aggregate company location to the county level. The color represents the 506(c) share of these investments and the size indicates number of companies.

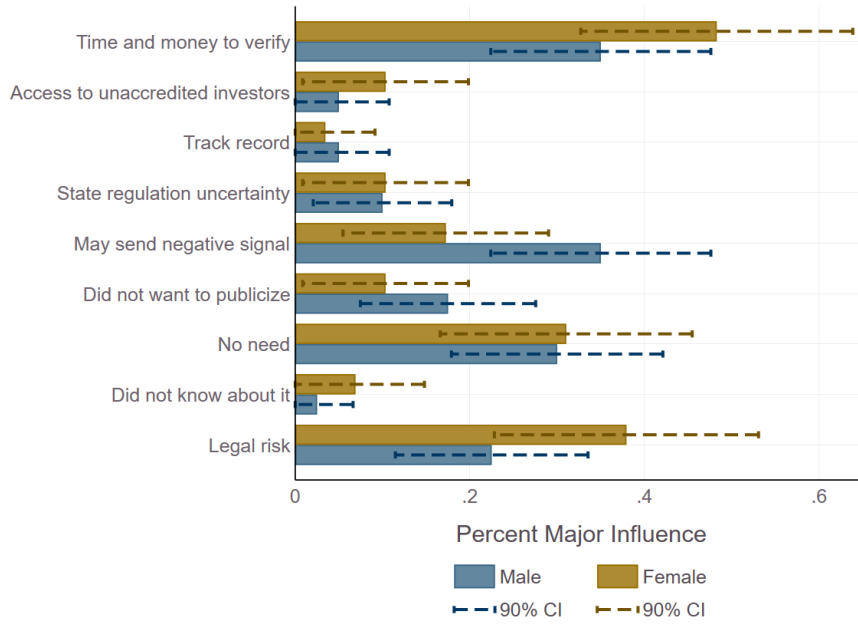
Figure A.4: Levels Compared to Population Benchmarks, 506(c) Only



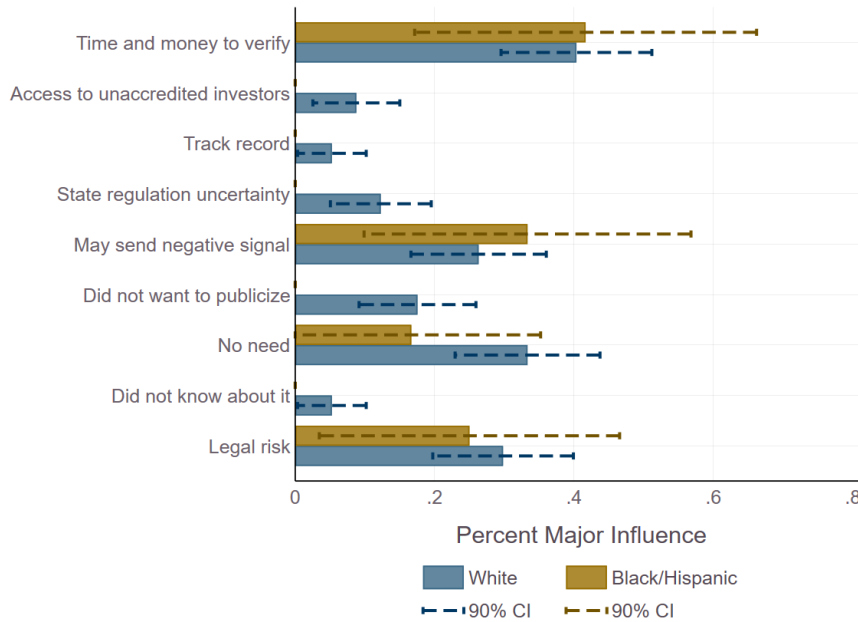
Note: This figure shows the share of fund managers of each type within 506(c) filings in each year, with the vertical dashed line representing 506(c) implementation. The horizontal lines represent a relevant benchmark for potential supply. The benchmarks (described in more detail in Section 8) are the shares of: university graduates for Black/Hispanic and Female, non-elite graduates relative to total graduates, the share of non-top 10 city new firms, and the share of VC-backed founders who are female or Black/Hispanic.

Figure A.5: 506(b) Fund Manager Reasons for not using 506(c) Across Demographics

(a) Male vs. Female



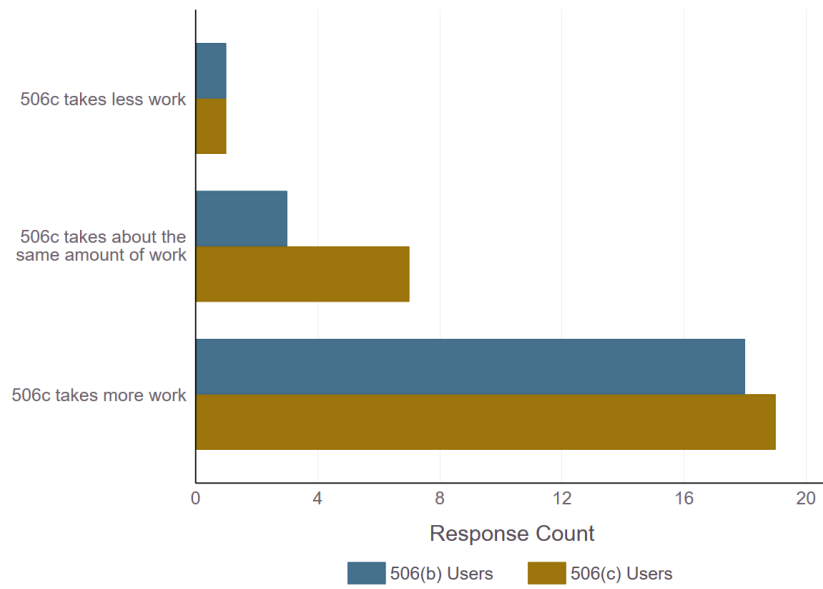
(b) White vs. Black/Hispanic



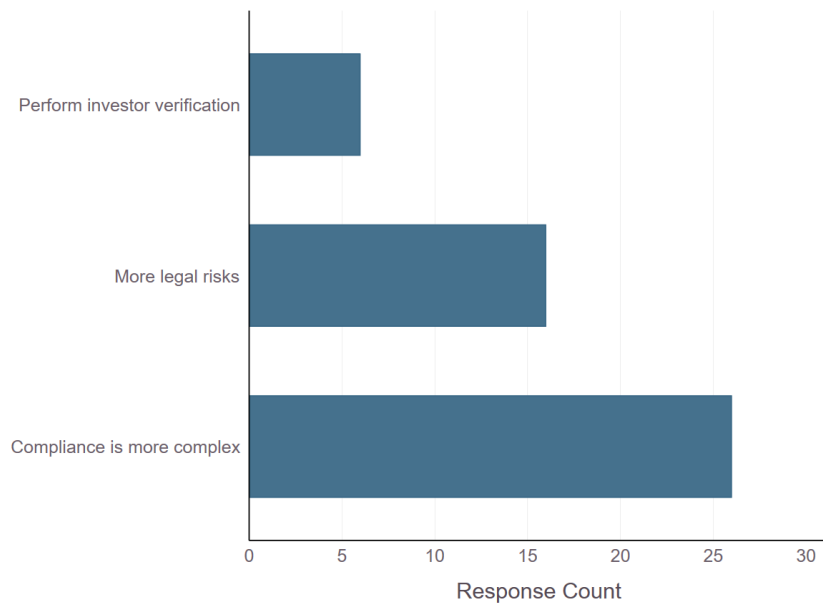
Note: These figures shows the responses of page 2, question 3 of the fund manager survey. The responses show how often fund managers reference various reasons for avoiding using 506(c) split by the characteristics of their fund. For Panel A, Male $N = 45$, Female $N = 28$. For Panel B, White $N = 62$, Black/Hispanic $N = 11$. For Panel C, Elite School $N = 34$, Non-Elite School $N = 39$.

Figure A.6: Investor Verification Burden for 506(c) (Lawyer Responses)

(a) Amount of Legal Work Required for 506(c)



(b) Reason for More Legal Work for 506(c)



Note: This figure employs data from the lawyer survey about the amount of legal work (i.e. billable hours) required to verify that investors are accredited. Lawyers were first asked if 506(c) required more work. If they said it did, then they were asked why.

Table A.1: Hub City and Industry

Rank	City	Industry
1	San Francisco, CA	Software
2	New York, NY	Commercial Services
3	Boston, MA	Pharmaceuticals and Biotechnology
4	Los Angeles, CA	Media
5	Chicago, IL	Healthcare Technology Systems
6	Austin, TX	
7	Denver, CO	
8	Seattle, WA	
9	Washington, DC	
10	Atlanta, GA	

Note: This table shows the list of fund hub cities and portfolio company top industries used in the main body tables.

Table A.2: Fundraising Volume of 506(b) and 506(c), All Filings, 2014-2023

	506(b)	506(c)	506(c) Share
Count of Filings	11314	923	0.075
Offering Amount (Bill \$)	619.154	38.728	0.059
Amount Sold, Initial (Bill \$)	277.600	17.545	0.059
Amount Sold, with Amendments (Bill \$)	397.685	49.075	0.110

Note: This table shows total filing counts and measures of total fundraising volume in the period 2014 to 2023 across 506(b) and 506(c) based on all Form D filings (removed of filings deemed erroneous as shown in Table 1). All dollar volumes are in terms of 2017 US Dollars.

Table A.4: Comparison of Black/Hispanic vs White Funds

Fund	White	Black/Hispanic	Black/Hispanic - White	N
Mean Fund Size (Mill \$)	157.426	88.333	-69.093*	4001
Median Fund Size (Mill \$)	29.697	8.659	-21.038***	4001
Non-Top 10 City Fund	0.311	0.311	-0	4156
Non-Top 3 City Fund	0.498	0.538	0.040	4156
First Fund of VC Firm	0.280	0.429	0.149***	4156
Commission & Broker	0.015	0.000	-0.015***	4156
DEI Target	0.020	0.109	0.089***	4156
ESG Target	0.020	0.008	-0.012	4156
Mean Number Prior Funds	5.694	2.210	-3.484***	4156
Mean Number Prior Large Exits	7.310	0.832	-6.478***	4156
Fund LP				
Number of LPs	3.832	3.676	-0.157	1654
Non-Pension Share	0.691	0.983	0.292***	1654
Individual Share	0.093	0.156	0.063	1654
Fund Return				
Mean IRR	18.771	14.543	-4.228	707
Mean TVPI	1.829	2.134	0.305	730
Fund Manager				
Female Share	0.144	0.229	0.085**	4155
Black/Hispanic Share	0.033	0.964	0.931***	4156
Black Share (Picture)	0.007	0.342	0.335***	4155
Hispanic Share (Name)	0.026	0.637	0.610***	4155
Elite School Share	0.468	0.429	-0.039	3987
First Time Share	0.391	0.613	0.222***	4156
Finance Experience Share	0.198	0.192	-0.005	4155
Portfolio Company				
Non-Top 5 Industry Share	0.351	0.426	0.075**	3953
Same City as Fund Share	0.132	0.099	-0.033**	3954
Same State as Fund Share	0.356	0.328	-0.028	3954
Company Filed 506(c) Share	0.011	0.016	0.005	3921
Portfolio Company Leadership				
Has First Time CEO Share	0.828	0.863	0.035*	3893
Has Female CEO Share	0.144	0.219	0.075***	3893
Has Elite School CEO Share	0.313	0.322	0.009	3764

Note: This table compares various characteristics across Black/Hispanic and white led funds. Black/Hispanic is an indicator for whether the fund had a majority of Black or Hispanic managers involved with the fund at the time of filing. Fund size is in terms of 2017 US Dollars. The third column uses robust standard errors in conducting a t-test of the sample mean differences between 506(b) and 506(c), except for comparing the medians, which uses a quantile regression. The last column shows the observation count for each variable. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.3: Comparison of Female vs Male Funds

Fund	Male	Female	Female - Male	N
Mean Fund Size (Mill \$)	159.970	100.344	-59.625***	4000
Median Fund Size (Mill \$)	29.697	8.659	-21.038***	4000
Non-Top 10 City Fund	0.314	0.272	-0.043	4155
Non-Top 3 City Fund	0.501	0.473	-0.028	4155
First Fund of VC Firm	0.272	0.431	0.159***	4155
Commission & Broker	0.015	0.010	-0.005	4155
DEI Target	0.011	0.163	0.152***	4155
ESG Target	0.019	0.032	0.013	4155
Mean Number Prior Funds	5.738	3.843	-1.894*	4155
Mean Number Prior Large Exits	7.434	3.355	-4.079***	4155
Fund LP				
Number of LPs	3.873	3.338	-0.535*	1654
Non-Pension Share	0.688	0.802	0.115***	1654
Individual Share	0.090	0.149	0.059**	1654
Fund Return				
Mean IRR	18.828	16.757	-2.071	707
Mean TVPI	1.844	1.638	-0.205	730
Fund Manager				
Female Share	0.083	0.928	0.845***	4155
Black/Hispanic Share	0.056	0.112	0.057***	4155
Black Share (Picture)	0.015	0.044	0.029***	4155
Hispanic Share (Name)	0.041	0.069	0.028**	4155
Elite School Share	0.463	0.518	0.056**	3987
First Time Share	0.388	0.501	0.113***	4155
Finance Experience Share	0.199	0.177	-0.022	4155
Portfolio Company				
Non-Top 5 Industry Share	0.349	0.407	0.058***	3953
Same City as Fund Share	0.131	0.138	0.007	3954
Same State as Fund Share	0.357	0.332	-0.025	3954
Company Filed 506(c) Share	0.011	0.009	-0.003	3921
Portfolio Company Leadership				
Has First Time CEO Share	0.827	0.857	0.030***	3893
Has Female CEO Share	0.130	0.343	0.213***	3893
Has Elite School CEO Share	0.312	0.324	0.012	3764

Note: This table compares various characteristics across female and male led funds. Female is an indicator for whether the fund had a majority of female managers at the time of filing. Fund size is in terms of 2017 US Dollars. The third column uses robust standard errors in conducting a t-test of the sample mean differences between 506(b) and 506(c), except for comparing the medians, which uses a quantile regression. The last column shows the observation count for each variable. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.5: Comparison of Elite School vs Non-Elite School Funds

Fund	Non-Elite	Elite	Elite - Non-Elite	N
Mean Fund Size (Mill \$)	123.034	213.709	90.675***	3843
Median Fund Size (Mill \$)	29.697	8.659	-21.038***	3843
Non-Top 10 City Fund	0.364	0.228	-0.136***	3987
Non-Top 3 City Fund	0.563	0.400	-0.163***	3987
First Fund of VC Firm	0.302	0.227	-0.075***	3987
Commission & Broker	0.013	0.018	0.005	3987
DEI Target	0.025	0.014	-0.011**	3987
ESG Target	0.022	0.017	-0.005	3987
Mean Number Prior Funds	4.647	7.357	2.710***	3987
Mean Number Prior Large Exits	4.247	11.890	7.643***	3987
Fund LP				
Number of LPs	3.398	4.389	0.991***	1623
Non-Pension Share	0.742	0.643	-0.099***	1623
Individual Share	0.105	0.075	-0.030**	1623
Fund Return				
Mean IRR	19.584	17.580	-2.004	702
Mean TVPI	1.832	1.840	0.008	725
Fund Manager				
Female Share	0.138	0.154	0.016*	3987
Black/Hispanic Share	0.059	0.060	0.001	3987
Black Share (Picture)	0.018	0.016	-0.002	3987
Hispanic Share (Name)	0.042	0.044	0.001	3987
Elite School Share	0.191	0.881	0.690***	3987
First Time Share	0.426	0.319	-0.107***	3987
Finance Experience Share	0.197	0.210	0.013	3987
Portfolio Company				
Non-Top 5 Industry Share	0.359	0.337	-0.022***	3805
Same City as Fund Share	0.135	0.124	-0.011*	3806
Same State as Fund Share	0.351	0.361	0.010	3806
Company Filed 506(c) Share	0.012	0.009	-0.003*	3775
Portfolio Company Leadership				
Has First Time CEO Share	0.827	0.830	0.003	3749
Has Female CEO Share	0.142	0.144	0.003	3749
Has Elite School CEO Share	0.279	0.363	0.084***	3636

Note: This table compares various characteristics across elite school and non-elite school led funds. Elite School is an indicator for whether the fund had a majority of elite school educated managers (as defined in the main text) at the time of filing. Fund size is in terms of 2017 US Dollars. The third column uses robust standard errors in conducting a t-test of the sample mean differences between 506(b) and 506(c), except for comparing the medians, which uses a quantile regression. The last column shows the observation count for each variable. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.6: Comparison of First Time vs Non-First Time Funds

Fund	Non-FT	FT	FT - Non-FT	N
Mean Fund Size (Mill \$)	198.686	71.101	-127.585***	4001
Median Fund Size (Mill \$)	29.697	8.659	-21.038***	4001
Non-Top 10 City Fund	0.284	0.364	0.080***	4156
Non-Top 3 City Fund	0.467	0.561	0.094***	4156
First Fund of VC Firm	0.080	0.679	0.598***	4156
Commission & Broker	0.019	0.005	-0.014***	4156
DEI Target	0.014	0.039	0.025***	4156
ESG Target	0.016	0.028	0.012**	4156
Mean Number Prior Funds	7.792	1.340	-6.452***	4156
Mean Number Prior Large Exits	10.674	0.256	-10.418***	4156
Fund LP				
Number of LPs	4.130	2.857	-1.273***	1654
Non-Pension Share	0.649	0.854	0.206***	1654
Individual Share	0.071	0.173	0.103***	1654
Fund Return				
Mean IRR	16.180	29.431	13.251***	707
Mean TVPI	1.739	2.254	0.515***	730
Fund Manager				
Female Share	0.135	0.167	0.032***	4155
Black/Hispanic Share	0.048	0.083	0.035***	4156
Black Share (Picture)	0.011	0.029	0.019***	4155
Hispanic Share (Name)	0.038	0.055	0.018***	4155
Elite School Share	0.502	0.392	-0.110***	3987
First Time Share	0.114	0.945	0.830***	4156
Finance Experience Share	0.215	0.163	-0.052***	4155
Portfolio Company				
Non-Top 5 Industry Share	0.332	0.395	0.064***	3953
Same City as Fund Share	0.128	0.137	0.009	3954
Same State as Fund Share	0.359	0.346	-0.013	3954
Company Filed 506(c) Share	0.010	0.014	0.004**	3921
Portfolio Company Leadership				
Has First Time CEO Share	0.823	0.841	0.018***	3893
Has Female CEO Share	0.133	0.171	0.037***	3893
Has Elite School CEO Share	0.321	0.297	-0.024***	3764

Note: This table compares various characteristics across first time and non-first time led funds. First time (FT) is an indicator for whether the fund had a majority of first time fund managers (with no prior funds) at the time of filing. Fund size is in terms of 2017 US Dollars. The third column uses robust standard errors in conducting a t-test of the sample mean differences between 506(b) and 506(c), except for comparing the medians, which uses a quantile regression. The last column shows the observation count for each variable. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.7: Top 10 Portfolio Companies and Industries By Exemption Type

Rank	506(b)				506(c)			
	City	Percent	Industry	Percent	City	Percent	Industry	Percent
1	San Francisco	26.7	Software	37.5	San Francisco	24.4	Software	36.5
2	New York	14.2	Comm. Services	16.2	New York	14.0	Comm. Serv.	15.1
3	Los Angeles	6.2	Other Fin. Serv.	6.1	Los Angeles	6.9	Other Fin. Serv.	6.9
4	Boston	4.2	Biotech	6.0	Boston	3.6	Media	4.0
5	Austin	2.8	Health Serv.	3.6	Chicago	2.5	Biotech	3.6
6	Seattle	2.2	Media	3.5	Austin	2.4	Non-Fin. Serv.	3.5
7	Chicago	2.1	Non-Fin. Serv.	3.3	Seattle	2.2	Health Serv.	3.4
8	Denver	1.9	Health Tech.	3.2	Denver	1.7	Cons. Non-Durab.	3.0
9	San Diego	1.4	Cons. Non-Durab.	3.1	San Jose	1.4	Health Tech.	3.0
10	San Jose	1.4	Health Devices	2.3	Washington	1.4	Health Devices	3.0
...	Other	46.9	Other	15.3	Other	39.6	Other	18.1

Note: This table shows the top 10 cities and industries in which VC-invested portfolio companies are located for each exemption type between 2014-2023. The last row represents the remaining locations and industries outside the top 10.

Table A.8: 506(b) vs 506(c): Fund Manager Characteristics, Excluding Angel Funds

Panel A. Share of Fund Team						
Dependent Variable:	Share of Fund Team					
	Female (1)	Black/Hispanic (2)	Black (3)	Hispanic (4)	Elite School (5)	First Time (6)
1(506(c))	0.057* (0.031)	0.058*** (0.018)	0.034*** (0.005)	0.029 (0.018)	-0.038* (0.023)	0.108*** (0.040)
State × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4042	4043	4042	4042	3874	4043
R ²	0.065	0.068	0.074	0.058	0.121	0.098
Outcome Mean	0.146	0.061	0.017	0.044	0.472	0.396

Panel B. Indicator for Majority of Fund Team						
Dependent Variable:	Majority of Fund Team					
	Female (1)	Black/Hispanic (2)	Black (3)	Hispanic (4)	Elite School (5)	First Time (6)
1(506(c))	0.052** (0.022)	0.048*** (0.014)	0.031*** (0.005)	0.021* (0.012)	-0.022 (0.029)	0.107** (0.050)
State × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	4042	4043	4042	4042	3874	4043
R ²	0.066	0.061	0.069	0.050	0.102	0.094
Outcome Mean	0.075	0.029	0.010	0.019	0.406	0.340

Note: This table compares fund variables concerning manager characteristics in a regression context excluding angel funds. Panel A regresses the share of fund managers in levels against an indicator for if the filing used 506(c). Panel B regresses an indicator for if the given group represents at least half of the fund team for a given filing against the same indicator. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.9: 506(b) vs 506(c): Fund Characteristics with Size Controls

Panel A. Fund Characteristics								
Dependent Variable:	Fund Indicator						% LPs	
	Non-Top 10 City (1)	Non-Top 3 City (2)	Firm's First (3)	Commission & Broker (4)	DEI Target (5)	ESG Target (6)	Non-Pension (7)	Individual (8)
1(506(c))	0.103*** (0.021)	0.088*** (0.025)	0.064*** (0.022)	0.057* (0.034)	0.021*** (0.007)	0.029*** (0.006)	0.083** (0.034)	0.079** (0.033)
Mean Log Fund Size	-0.042*** (0.004)	-0.055*** (0.004)	-0.035*** (0.005)	-0.000 (0.001)	-0.001 (0.001)	0.002*** (0.001)	-0.075*** (0.010)	-0.040*** (0.004)
Year FE	Yes	Yes	No	No	No	No	No	No
State × Year FE	No	No	Yes	Yes	Yes	Yes	Yes	Yes
N	7530	7530	7445	7445	7445	7445	2119	2119
R ²	0.045	0.059	0.086	0.412	0.067	0.051	0.189	0.148
Outcome Mean	0.324	0.517	0.257	0.015	0.016	0.015	0.670	0.094

Panel B. Fund Return Characteristics				
Dependent Variable:	Continuous		Above 75th Percentile	
	IRR (1)	TVPI (2)	IRR (3)	TVPI (4)
1(506(c))	9.258 (5.552)	0.256* (0.144)	0.248*** (0.043)	0.237*** (0.061)
Mean Log Fund Size	-2.602*** (0.564)	-0.064** (0.026)	-0.041*** (0.013)	-0.032 (0.019)
Year FE	No	No	No	No
State × Year FE	Yes	Yes	Yes	Yes
N	803	868	803	868
R ²	0.285	0.316	0.152	0.128
Outcome Mean	16.715	1.727	0.238	0.242

Note: This table compares fund characteristics across 506(b) and 506(c) in a regression context controlling for fund size. Fund size is in terms of 2017 US Dollars. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.10: 506(b) vs 506(c): Fund Manager Characteristics, Individual Fund Manager Specification

Panel A. Individual Indicator						
Dependent Variable:	Individual Indicator					
	Female (1)	Black/Hispanic (2)	Black (3)	Hispanic (4)	Elite School (5)	First Time (6)
$\mathbb{1}(506(c))$	0.036 (0.025)	0.035** (0.014)	0.005** (0.002)	0.031* (0.016)	-0.035** (0.014)	0.045 (0.056)
State \times Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	13829	13831	13829	13829	12696	13831
R^2	0.033	0.031	0.034	0.027	0.074	0.076
Outcome Mean	0.148	0.058	0.014	0.044	0.491	0.355

Panel B. Individual Indicator with Elite School					
Dependent Variable:	Individual Indicator + Elite School				
	Female (1)	Black/Hispanic (2)	Black (3)	Hispanic (4)	First Time (5)
$\mathbb{1}(506(c))$	0.038** (0.015)	0.017*** (0.006)	-0.001 (0.004)	0.018** (0.008)	-0.009 (0.020)
State \times Year FE	Yes	Yes	Yes	Yes	Yes
N	12696	12696	12696	12696	12696
R^2	0.026	0.019	0.023	0.016	0.041
Outcome Mean	0.079	0.030	0.008	0.023	0.135

Note: This table compares fund variables concerning manager characteristics in a regression context without summarizing to the fund level. Panel A regresses the an indicator for if a given manager is of the given group against an indicator for if the filing used 506(c). Panel B interacts the dependent variable with if the manager attended an elite college. Standard errors are clustered at the state level and are reported in parentheses. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.11: Correlation between Network and Underrepresentation Measures

Dependent Variable:	# LinkedIn Connections				
	(1)	(2)	(3)	(4)	(5)
Female Share	-73.465** (37.081)				
Black/Hispanic Share		-58.587** (23.638)			
Elite School Share			147.924*** (31.628)		
First Time Share				-301.933*** (28.832)	
1(Non-Hub Fund)					0.885 (47.914)
N	577	577	530	577	577
Outcome Mean	275.25	275.25	287.79	275.25	275.25

Note: This table shows the correlations between fund manager demographics and network on LinkedIn measured by number of connections. The dependent variable is the average number of LinkedIn connections among the fund managers. We use a right-censored Tobit model since the LinkedIn connection count is censored at 500 due to privacy restrictions. Because our LinkedIn connection data is as of late 2023, we restrict to recently launched funds to minimize measurement errors; specifically, we focus on funds launched in 2022-2023. Standard errors are reported in parentheses and are clustered by fund state. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.12: Female Share within Form D VC Filings

	Executive Officer	Director	Promoter
1(506(b))	0.117	0.125	0.128
1(506(c))	0.071	0.092	0.146
N	21576	12232	4265

Note: This table shows the share of women among associated persons of Form D filings for both 506(b) and 506(c). Each person is identified as female by a first name matching.

Table A.13: Fund Returns by Manager Characteristics

Dependent Variable:	IRR				TVPI			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1(Majority Female)	3.496 (3.228)				-0.095 (0.153)			
1(Majority Black/Hispanic)		-6.515 (3.950)				0.639* (0.330)		
1(Majority Non-Elite School)			-1.511 (1.221)				-0.040 (0.117)	
1(Majority First Time)				9.124*** (1.427)				0.334*** (0.101)
Log Fund Size	-3.373*** (0.381)	-3.440*** (0.384)	-3.179*** (0.359)	-2.522*** (0.393)	-0.089** (0.032)	-0.082** (0.032)	-0.088** (0.032)	-0.061* (0.029)
State × Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	630	630	625	630	652	652	647	652
R ²	0.275	0.275	0.272	0.290	0.256	0.259	0.255	0.264
Outcome Mean	19.170	19.170	19.064	19.170	1.845	1.845	1.849	1.845

Note: This table compares the fund returns (IRR and TVPI listed by Pitchbook) by whether a fund has a majority of their management team led by each group. Standard errors are clustered at the state level and are reported in parentheses. Fund size is in terms of 2017 US Dollars. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

Table A.14: Survey Respondent GPs and Law Firms Compared to Population

Panel A: VC Firms				
Variable		Population	Respondents	
Fund Size (MM)		122.19	57.95	
Pct Female Fund Managers		0.12	0.12	
Pct Minority Fund Managers		0.07	0.03	
Pct Elite University Fund Managers		0.32	0.47	

Panel B: Law Firms				
Rank	Population		Respondents	
	Firm	Count	Firm	Count
1	DLA Piper	287	Cooley	9
2	Kirkland & Ellis	281	Latham & Watkins	5
3	Goodwin Procter	250	Gunderson Dettmer	4
4	Latham & Watkins	249	DLA Piper	3
5	Sidley Austin	183	Perkins Coie	3
6	King & Spalding	168	Sidley Austin	3
7	Gottlieb Steen & Hamilton	157	Foley&Lardner	2
8	Cooley	156	Goodwin Procter	2
9	Ropes & Gray	144	K&L Gates	2
10	Hogan Lovells	123	Kirkland & Ellis	2

Note: This table compares the makeup of survey respondents to the overall population in Pitchbook. Panel A shows characteristics of the population of VC Firms and respondent VC Firms. Panel B shows the top 10 names of law firms in the population and among the respondents.

Table A.15: Number of LPs by Groups

Dependent Variable:	Number of LPs			
	(1)	(2)	(3)	(4)
1(Majority Female)	0.919*** (0.229)			
1(Majority Black/Hispanic)		2.122*** (0.293)		
1(Majority Non-Elite School)			0.400** (0.175)	
1(Majority First Time)				0.103 (0.241)
Log Fund Size	1.297*** (0.153)	1.299*** (0.149)	1.291*** (0.150)	1.271*** (0.144)
State \times Year FE	Yes	Yes	Yes	Yes
N	1537	1537	1508	1537
R^2	0.278	0.280	0.281	0.275
Outcome Mean	3.893	3.893	3.922	3.893

Note: This table compares the number of LPs listed by Pitchbook by whether a fund has a majority of their management team led by each group. Standard errors are clustered at the state level and are reported in parentheses. Fund size is in terms of 2017 US Dollars. * indicates statistical significance at the 10% level, ** at the 5% level, and *** at the 1% level.

A Appendix: Regulations and Institutional Details

A.1 Complete Rule 506 Text

Below, we copy the entire Rule 506 from the Code of Federal Regulations.⁴¹ We omit the “bad actor” disqualification material at the end, which essentially bars an issuer or another relevant person that have experienced a disqualifying event, such as a conviction, from relying on the exemptions identified in Rule 506.

§230.506 Exemption for limited offers and sales without regard to dollar amount of offering.

(a) Exemption. Offers and sales of securities by an issuer that satisfy the conditions in paragraph (b) or (c) of this section shall be deemed to be transactions not involving any public offering within the meaning of section 4(a)(2) of the Act.

(b) Conditions to be met in offerings subject to limitation on manner of offering

(1) General conditions. To qualify for an exemption under this section, offers and sales must satisfy all the terms and conditions of §§230.501 and 230.502.

(2) Specific conditions:

(i) Limitation on number of purchasers. There are no more than, or the issuer reasonably believes that there are no more than, 35 purchasers of securities from the issuer in offerings under this section in any 90-calendar-day period.

Note to paragraph (b)(2)(i): See §230.501(e) for the calculation of the number of purchasers and §230.502(a) for what may or may not constitute an offering under paragraph (b) of this section.

(ii) Nature of purchasers. Each purchaser who is not an accredited investor either alone or with his purchaser representative(s) has such knowledge and experience in financial and business matters that he is capable of evaluating the merits and risks of the prospective investment, or the issuer reasonably believes immediately prior to making any sale that such purchaser comes within this description.

(c) Conditions to be met in offerings not subject to limitation on manner of offering

(1) General conditions. To qualify for exemption under this section, sales must satisfy all the terms and conditions of §§230.501 and 230.502(a) and (d).

(2) Specific conditions:

(i) Nature of purchasers. All purchasers of securities sold in any offering under paragraph (c) of this section are accredited investors.

⁴¹ Available here: <https://www.ecfr.gov/current/title-17/chapter-II/part-230/subject-group-ECFR6e651a4c86c0174>

(ii) Verification of accredited investor status. The issuer shall take reasonable steps to verify that purchasers of securities sold in any offering under paragraph (c) of this section are accredited investors. The issuer shall be deemed to take reasonable steps to verify if the issuer uses, at its option, one of the following non-exclusive and non-mandatory methods of verifying that a natural person who purchases securities in such offering is an accredited investor; provided, however, that the issuer does not have knowledge that such person is not an accredited investor:

(A) In regard to whether the purchaser is an accredited investor on the basis of income, reviewing any Internal Revenue Service form that reports the purchaser's income for the two most recent years (including, but not limited to, Form W-2, Form 1099, Schedule K-1 to Form 1065, and Form 1040) and obtaining a written representation from the purchaser that he or she has a reasonable expectation of reaching the income level necessary to qualify as an accredited investor during the current year;

(B) In regard to whether the purchaser is an accredited investor on the basis of net worth, reviewing one or more of the following types of documentation dated within the prior three months and obtaining a written representation from the purchaser that all liabilities necessary to make a determination of net worth have been disclosed:

(1) With respect to assets: Bank statements, brokerage statements and other statements of securities holdings, certificates of deposit, tax assessments, and appraisal reports issued by independent third parties; and

(2) With respect to liabilities: A consumer report from at least one of the nationwide consumer reporting agencies;

(C) Obtaining a written confirmation from one of the following persons or entities that such person or entity has taken reasonable steps to verify that the purchaser is an accredited investor within the prior three months and has determined that such purchaser is an accredited investor:

(1) A registered broker-dealer;

(2) An investment adviser registered with the Securities and Exchange Commission;

(3) A licensed attorney who is in good standing under the laws of the jurisdictions in which he or she is admitted to practice law; or

(4) A certified public accountant who is duly registered and in good standing under the laws of the place of his or her residence or principal office;

(D) In regard to any person who purchased securities in an issuer's Rule 506(b) offering as an accredited investor prior to September 23, 2013 and continues to hold such securities, for the same issuer's Rule 506(c) offering, obtaining a certification by such person at the time of sale that he or she qualifies as an accredited investor; or

(E) In regard to any person that the issuer previously took reasonable steps to verify as an accredited investor in accordance with this paragraph (c)(2)(ii), so long as the issuer is not aware of information to the contrary, obtaining a written representation from such person at the time of sale that he or she qualifies as an accredited investor. A written representation under this method of verification will satisfy the issuer's obligation to verify the person's accredited investor status for a period of five years from the date the person was previously verified as an accredited investor.

Instructions to paragraph (c)(2)(ii): of this section.

1. The issuer is not required to use any of these methods in verifying the accredited investor status of natural persons who are purchasers. These methods are examples of the types of non-exclusive and non-mandatory methods that satisfy the verification requirement in §230.506(c)(2)(ii).

2. In the case of a person who qualifies as an accredited investor based on joint income with that person's spouse, the issuer would be deemed to satisfy the verification requirement in §230.506(c)(2)(ii)(A) by reviewing copies of Internal Revenue Service forms that report income for the two most recent years in regard to, and obtaining written representations from, both the person and the spouse.

3. In the case of a person who qualifies as an accredited investor based on joint net worth with that person's spouse, the issuer would be deemed to satisfy the verification requirement in §230.506(c)(2)(ii)(B) by reviewing such documentation in regard to, and obtaining written representations from, both the person and the spouse.

A.2 Private Fund Categories under the 1940 Investment Company Act

Private Fund Categories Private funds are not required to be registered or regulated as investment companies under the federal securities laws. Private funds are structured to qualify for one of the following exclusions from the definition of investment company:⁴²

1. Traditional 3(c)(1) funds: Any fund not publicly offered with fewer than 100 beneficial owners who are all accredited investors
2. Qualifying venture capital 3(c)(1) funds: venture capital funds managing less than \$10M with fewer than 250 beneficial owners (fewer than 100 beneficial owners before May, 2018).
3. 3(c)(7) funds: Any fund not publicly offered whose investors are qualified purchasers. The fund is limited to 1,999 investors to avoid SEC registration under the Securities Exchange Act of 1934. Most qualified purchasers are directly solicited by the fund sponsors and thus would fall under 506(b).

A qualified purchaser is an investor that meets certain financial and sophistication standards, as defined

⁴²See <https://www.sec.gov/education/capitalraising/building-blocks/private-fund> for details.

in the Investment Company Act and its rules. For example, an individual may be a qualified purchaser if the investor owns \$5 million or more in investments, and an entity may qualify if it owns and invests on a discretionary basis at least \$25 million in investments. Note that qualified purchase is much higher bar than accredited investors.

Definition of venture capital funds The 1940 Act defines a fund as venture capital fund if it satisfies the following criteria:

1. Does not invest more than 20% of the fund's committed capital in non-qualifying investments, such as debt, secondaries, public issuances, fund-of-fund investments, or digital assets.
2. Restricts borrowing and all other leverage to 15% of the fund size, and repays any leveraged debts within 120 days.
3. Limits LP redemption rights (their ability to cash out of the fund) to "extraordinary circumstances".
4. Represents to investors and potential investors that it pursues a venture capital strategy.

B Appendix: Surveys

B.1 Fund Manager Survey

B.1.1 Common First Page

Survey on Private Fund Use of the Reg D 506c Exemption

Introduction

We are studying use of the Rule 506(c) exemption under Regulation D. Our aim is to learn about challenges to private capital market fundraising. In particular, we wish to better understand why Rule 506(c) is used far less frequently than Rule 506(b).

As you may know, fundraising in private capital markets traditionally made use of the 506(b) exemption from securities registration. Under 506(b), public solicitation (e.g., posting information about a raise on an unrestricted website) is not allowed. The 506(c) exemption, which was introduced in 2013, permits GPs to publicly solicit investments from accredited investors. However, the GP must also take reasonable steps to verify that investors are accredited, and non-accredited investors cannot participate.

This research is academic in nature and will include an analysis of Form D filings, cross-referenced with other databases, as well as feedback obtained in this survey. We will not be sharing any non-aggregated data from this survey with anyone outside of our research team.

* 1. Your Name:

* 2. Your Firm's Name:

* 3. Considering all of the funds you have been involved in raising, which of the following exemptions were used?

- 506(b) only
- 506(c) only
- Both 506(b) and 506(c)

B.1.2 Remainder of Survey for 506(b)-Only Users

* 1. Have your funds ever considered using the 506(c) exemption?

Yes

No

* 2. In cases where 506(c) was not chosen, why not? Please write your response below:

* 3. Consider the most recent fund that you were involved in raising. Did any of the following reasons influence the decision not to use 506(c)? (Select one option for each reason.)

	No Influence	Some Influence	Major Influence
Verification of investors' accreditation status would have taken additional time and money.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was potential legal risk in verifying investor accreditation status.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
There was uncertainty about federal vs. state regulations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We wanted to include unaccredited investors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We didn't have an adequate track record for public solicitation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Since we already had plenty of incoming investor demand, the fund didn't need public solicitation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We did not know about the 506(c) exemption when fundraising.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We do not want to publicize our fundraising (i.e., want to stay in stealth mode)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using 506(c) may send a negative signal about our fund's quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 4. In general, for the funds in which you have been involved in fundraising, how were potential investors sourced?

	Never	Sometimes	Frequently
Our personal network.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Through intermediaries, such as investment banks or placement agents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contacting investors from the firm's previous funds.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify if you believe none of the above were relevant):

* 5. Please indicate an opinion about the following statements:

	Disagree Completely	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree Completely
In principle, the 506(c) exemption should be useful for new fund managers who do not have a pre-existing network of investors (i.e. LPs).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements are unclear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements create legal risks for the GP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is burdensome to verify investor accreditation status for 506(c).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption is underutilized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption sends a negative signal about quality/ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 6. In general, what are the biggest challenges facing new or emerging fund managers? Please write your response below:

B.1.3 Remainder of Survey for 506(c)-Only Users

* 1. Why did the funds you were involved in raising use 506(c) instead of 506(b)?

* 2. Did the following influence the decision to choose 506(c) rather than 506(b)?
Select one option for each reason:

	No Influence	Some Influence	Major Influence
We did not have an extensive investor network.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We had an existing investor network, but we were looking to find new investors in order to scale up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 3. When the fund publicly advertised, what geographic region was targeted?
Check all that apply:

- Local area (i.e., city)
- Local state
- The key "hubs" of Silicon Valley, Boston, New York City, etc.
- The whole U.S.
- Global

* 4. Who handled investor accreditation verification and related paperwork for the 506(c) fund(s)? Select all that apply:

- Placement agent/financing advisor
- Fund administrator
- Fund custodian
- Accounting firm/auditor
- Lawyer/law firm
- In-house department/Self
- Other (please specify):

* 5. Please indicate an opinion about the following statements:

	Disagree Completely	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree Completely
The funds I was involved in that used 506(c) wouldn't have launched or raised as much money if they had used 506(b).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In principle, the 506(c) exemption should be useful for new fund managers who do not have a pre-existing network of investors (i.e. LPs).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements are unclear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements create legal risks for the GP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is burdensome to verify investor accreditation status for 506(c).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption is underutilized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption sends a negative signal about quality/ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 6. For future fundraising that you may be involved with, which exemption will the fund(s) use?

- 506(b)
- 506(c)
- Depends

* 7. Why? Please write your response below:

* 8. In general, what are the biggest challenges facing new or emerging fund managers? Please write your response below:

B.1.4 Remainder of Survey for both 506(b) & 506(c) Users

* 1. In cases where 506(c) was used, why was it used as opposed to 506(b)?

* 2. Did the following influence the decision to choose 506(c) rather than 506(b)?
Select one option for each reason:

	No Influence	Some Influence	Major Influence
We did not have an extensive investor network.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
We had an existing investor network, but we were looking to find new investors in order to scale up.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 3. When the fund publicly advertised, what geographic region was targeted?
Check all that apply:

- Local area (i.e., city)
- Local state
- The key "hubs" of Silicon Valley, Boston, New York City, etc.
- The whole U.S.
- Global

* 4. Who handled investor accreditation verification and related paperwork for the 506(c) fund(s)? Select all that apply:

- Placement agent/financing advisor
- Fund administrator
- Fund custodian
- Accounting firm/auditor
- Lawyer/law firm
- In-house department/Self
- Other (please specify):

* 5. Please indicate an opinion about the following statements:

	Disagree Completely	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree Completely
The funds I was involved in that used 506(c) wouldn't have launched or raised as much money if they had used 506(b).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In principle, the 506(c) exemption should be useful for new fund managers who do not have a pre-existing network of investors (i.e. LPs).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements are unclear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements create legal risks for the GP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is burdensome to verify investor accreditation status for 506(c).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption is underutilized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption sends a negative signal about quality/ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 6. What type of funds most suit 506(b), and what type of funds most suit 506(c)? Please write your response below:

* 7. For future fundraising that you may be involved with, which exemption will the fund(s) use?

- 506(b)
- 506(c)
- Depends

* 8. Why? Please write your response below:

* 9. In general, what are the biggest challenges facing new or emerging fund managers? Please write your response below:

B.2 Lawyer Survey

Legal Counsel Survey on Private Fund Use of the Reg D 506c Exemption Introduction

We are studying use of the Rule 506(c) exemption under Regulation D. Our aim is to learn about challenges to private capital market fundraising. In particular, we wish to better understand why Rule 506(c) is used far less frequently than Rule 506(b). We understand that companies often rely on their legal counsel to choose an exemption, and so in this survey we are hoping to get your opinions on the matter.

As you may know, fundraising in private capital markets traditionally made use of the 506(b) exemption from securities registration. Under 506(b), public solicitation (e.g., posting information about a raise on an unrestricted website) is not allowed. The 506(c) exemption, which was introduced in 2013, permits GPs to publicly solicit investments from accredited investors. However, the GP must also take reasonable steps to verify that investors are accredited, and non-accredited investors cannot participate.

This research is academic in nature and will include an analysis of Form D filings, cross-referenced with other databases, as well as feedback obtained in this survey. We will not be sharing any non-aggregated data from this survey with anyone outside of our research team.

* 1. Considering all of the VC funds you have been involved with as legal counsel, which of the following exemptions were used?

- 506(b) only
- 506(c) only
- Both 506(b) and 506(c)

* 2. Please indicate an opinion about the following statements:

	Disagree Completely	Disagree Somewhat	Neither Agree nor Disagree	Agree Somewhat	Agree Completely
In principle, the 506(c) exemption should be useful for new fund managers who do not have a pre-existing network of investors (i.e. LPs).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements are unclear.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) investor accreditation verification requirements create legal risks for the GP.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is burdensome to verify investor accreditation status for 506(c).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption is underutilized.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The 506(c) exemption sends a negative signal about quality/ability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* 3. Is there a fund size for which you think 506(c) as opposed to 506(b) is most appropriate?

- Small funds (<\$25 mill)
- Medium funds
- Big funds (>\$1 bill)
- Fund size doesn't matter for the choice of 506(c) vs. 506(b)

* 4. What kind of investment track record is needed to effectively use 506(c)?

- A strong track record
- Track record doesn't matter for the choice of 506(c) vs. 506(b)

* 5. Is there a policy change that you think would increase takeup of 506(c)?

* 6. Do you do investor verification for 506(c) funds?

Yes

No

* 7. Holding all else equal, does using 506(c) require more legal work (i.e., more billable hours)?

It requires more work.

It requires about the same amount of work.

It requires less work.

* 1. If you answered that it requires more work in the previous question, why did you choose that answer?

We do investor verification for 506(c) funds.

506(c) funds have more legal risks.

506(c) fund compliance is more complex.

Other reason (please specify):

B.3 Emails Requesting Survey Participation

1. Email to VC Fund Managers:



Sabrina Howell <sth7@nyu.edu>

Mon, Jan 29, 3:42 PM



to [REDACTED]

Dear [REDACTED]

I'm a Professor at NYU Stern researching use of the Rule 506(c) exemption under Regulation D, which allows for public solicitation in fundraising.

I'd really like your perspective on this based on the funds you've raised in the past, regardless of which exemption (if any) those funds employed. If you could take a few minutes to fill out this survey, I would be extremely grateful.

<https://www.surveymonkey.com/r/G9WPRZZ>.

As we explain in the survey, this research is academic in nature. All published material based on the survey will be aggregated and anonymous. We will not be sharing any non-aggregated data from this survey with anyone outside of our research team.

Please feel free to write back with any questions about the research. If you complete the survey, we will send you a copy of the research paper when it is ready.

Thanks very much for your time.

Best,
Sabrina

Sabrina T. Howell
Associate Professor of Finance
NYU Stern School of Business & NBER
Phone: 212-998-0719
Email: sabrina.howell@nyu.edu
Website: www.sabrina-howell.com

2. Email to Lawyers:



Sabrina Howell <sth7@stern.nyu.edu>
to [REDACTED]

Tue, May 7, 11:11AM ☆ ↶ ⋮

Dear [REDACTED]

I'm a Professor at NYU Stern researching use of the Rule 506(c) exemption under Regulation D, which allows for public solicitation in fundraising.

I'd really like your perspective on this based on your past work providing legal counsel to venture capital funds, regardless of which exemption (if any) those funds employed. If you could take a few minutes to fill out this survey, I would be extremely grateful.

<https://www.surveymonkey.com/r/SXS2N5V?id=1808>

As we explain in the survey, this research is academic in nature. All published material based on the survey will be aggregated and anonymous. We will not be sharing any non-aggregated data from this survey with anyone outside of our research team.

Please feel free to write back with any questions about the research. If you complete the survey, we will send you a copy of the research paper when it is ready.

Thanks very much for your time.

Best,
Sabrina

Sabrina T. Howell
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