From D.C. to VC: Leveraging Government Expertise in Venture Capital

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Abstract

Venture capital firms regularly hire skilled professionals to scout and mentor their portfolio companies. Building a novel dataset that links career transitions, federal award records, and startup outcomes, I document a growing flow of human capital from government agencies into VC organizations. I exploit the 2019 federal government shutdown as an exogenous shock to the supply of skilled officials to identify the causal impact of these hires on portfolio firms' access to government awards and subsequent performance. Startups with former officials in direct roles, as lead partners or VC-appointed directors, secure nearly $1 million more in federal awards and are 8 percentage points more likely to obtain follow-on financing. The evidence points to a skill-based matching mechanism: rather than quid pro quo or reputational motives emphasized in the revolving door literature, multifaceted expertise emerges as the central driver of hiring decisions. These findings uncover a previously unexplored channel through which government-to-private sector mobility supports innovative but resource-constrained firms.

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Innovation funding shapes a nation's ability to sustain long-term economic growth, secure competitive advantage, and enhance national security (Aghion et al., 2013). While, since the 1960s, private sector and venture capital (VC) have grown to become the dominant financiers of early-stage innovation, government policies continue to shape innovation through targeted programs and large defense investments (Gornall and Strebulaev, 2021; Howell, 2024; Fieldhouse and Mertens, 2025; Fleming et al., 2019). Yet we know little about how these public and private spheres interact in the market for human capital.

This paper provides the first evidence that VC firms recognize and strategically exploit government involvement by hiring individuals with government experience. Such hiring represents a previously unexplored channel through which VCs generate value for their portfolio companies and, consequently, their investors. While existing research has documented VCs hiring experts to improve portfolio performance (Gompers et al., 2020; Ewens and Malenko, 2025), the hiring of individuals with government expertise remains unexplored. Potential benefits are high given the uncertainties and low success rates of VC investments (Kerr et al., 2014), especially in contexts where traditional VC financing is less effective (Lerner and Nanda, 2020; Nanda, 2020).

While human capital flows from government to private sector firms, known as the "revolving door" phenomenon, have been extensively studied, existing research has primarily examined movements into large, established firms (Blanes i Vidal et al., 2012; Cen et al., 2024; deHaan et al., 2015). In contrast, little is known about how government-to-private-sector moves affect small, innovative, privately held startups that face financing constraints[1]. Revolving-door laws are designed to mitigate exchanges of favors between regulators and incumbents. In practice, they often take the form of cooling-off periods that bar former officials from representational contact with their "home" agency or component for one or two years[2]. While the stringency of these rules has fluctuated[3], it remains that they interact with complex, agency-specific procurement regimes

[1]For the defense sector, Lipton (2023) documents the increasing presence of former Pentagon officials and retired military personnel in both VC and private equity, reporting that at least two dozen such firms are now managed by or employ these individuals.

[2]As set out in 18 U.S.C. § 207 and implemented through Office of Government Ethics component designations

[3]See for example Executive Order 13989 (January 20, 2021), which required incoming appointees to sign an ethics pledge that expanded post-employment restrictions and was later rescinded on January 20, 2025, at https://www.federalregister.gov/documents/2021/01/25/2021-01762/

that already disadvantage new entrants, thus can disproportionately burden small, innovative firms that rely on government as funder, customer, and regulator.

This paper examines the prevalence and financial consequences of former U.S. officials moving into active senior roles at VC firms and investigates whether, and through which channels, these hires affect portfolio companies' access to federal awards and subsequent performance. The impact of such hires is ambiguous. On the one hand, former officials may deliver procedural know-how and access that help startups navigate procurement, secure public funding, and ultimately improve growth and exit prospects. On the other hand, greater reliance on government could foster dependence, and in the worst case such hires could reflect quid-pro-quo arrangements that distort competition and reduce procurement efficiency rather than genuine human-capital matching improvement. In addition, estimating their causal impact is particularly challenging due to two key endogeneity challenges: first, former officials may sort into stronger VCs and startups already poised to succeed with agencies. Second, VCs may time these hires precisely when a portfolio company approaches procurement or regulatory milestones. To address these concerns, I exploit the 2019 U.S. federal government shutdown as a plausibly exogenous supply-side shock that expanded the pool of officials available to the private sector (Resh et al., 2023). I construct a shift-share instrument (Borusyak et al., 2024) that maps each firm's pre-shutdown exposure to specific government agencies with agencies' heterogeneous exposure to the shutdown. I also investigate the rationale for these hiring decisions, in particular whether VCs regard government not only as a customer and funder of innovation, but also as a source of specialized human capital. I analyze the skill composition of former officials hired by VCs to distinguish between motives consistent with firm-specific human capital acquisition (Lazear, 2009) and those consistent with quid-pro-quo or reputation-building strategies. Answering these questions is important because multi-skilled former officials can supply complementary expertise that young firms often lack. Consequently, broad revolving-door bans could cut off this talent channel, with adverse consequences for innovative but constrained firms.

To conduct this analysis, I construct a novel dataset linking individual-level career trajectories

`ethics-commitments-by-executive-branch-personnel`.

and skills with startup-level financing, innovation, and government contracting outcomes. Precisely, I identify former U.S. government employees who join VC firms and then take active, direct roles as lead partners or board members representing VCs within portfolio companies. I compile each individual's profile using detailed biographical data and match these with information on startups' funding rounds, patents, and federal government awards.

As a first step, I document that former U.S. government officials transitioning into venture capital is both widespread across government agencies and increasingly common over recent years. My dataset comprises over 400 individuals who have moved from public-sector roles, spanning various seniority levels, into active positions at VC firms[4]. Nearly all of the ten largest VC firms have employed at least one former government official, with an even greater concentration among specialized funds operating in government-regulated sectors. Prominent agencies supplying talent to the venture industry include innovation-oriented entities such as the Advanced Research Projects Agency-Energy (ARPA-E), the Department of Defense, and government-affiliated venture capital entities like In-Q-Tel, the Central Intelligence Agency's venture capital arm.

I next investigate how startups' access to government contracts change following the hiring of an ex-government official, using a supply shock to skilled former officials generated by the 2019 U.S. government shutdown. I find that startups with a former official secure roughly one additional million dollars in cumulative federal awards over the five years after the deal. Relative to the sample mean of $0.26 million, this effect is large, amounting to three to four times the average award. To gauge the intensity of government support relative to private capital raised, I scale outcomes by deal size. I find that the presence of a former official increases federal obligations by roughly 50% of the amount of private capital raised in the round. This indicates that government support expands not only in absolute terms but also in intensity, providing awards that are large relative to the scale of private financing.

The increase in government awards would be problematic if it represents quid pro quo ar-

[4]Prominent examples include Nick Sinai, formerly Deputy Chief Technology Officer under the Obama administration, who joined Insight Partners as senior advisor and subsequently served on the boards of three portfolio startups collectively securing $62 million in U.S. government contracts; and Dr. Rachel Slaybaugh, formerly a Program Director at ARPA-E, now a partner at DCVC, a deep-tech-focused VC firm.

rangements that reward favorable treatment received in government, or if they are aimed mainly at building reputational capital or political influence without adding operational value. A more benign explanation is that these hires satisfy demand from constrained firms for individuals with multiple specialized skills, where government experience is incidental to other capabilities that enhance operational performance.

To distinguish between the quid-pro-quo mechanism and the alternative explanation that ex-government officials provide unique human capital and connections, I conduct an event study analysis following Emery and Faccio (2025). Specifically, I measure within-firm changes in the amount of government awards startups receive before and after hiring former government officials as board members or lead partners. I find limited evidence of increased awards in the pre-hiring period, which would have indicated compensation for prior favorable treatment. Instead, I observe a significant increase in government awards primarily in the post-hiring period. Notably, this increase is concentrated within the same parent government organization where the hired officials previously served. These results suggest that the primary benefit of hiring ex-government personnel is related to leveraging their specific expertise rather than rewarding past favors.

Having established that startups backed by VC teams with former officials secure markedly larger federal awards, I next examine how these hires create value. I begin by separating bureaucratic know-how from privileged access. U.S. government post-employment rules impose a one-year ban on representational contact with an official's "home" agency/component but allow contact with other components in the same parent and with other parents. I treat this cooling-off period as a wedge that shuts off direct access to one clearly defined unit while leaving knowledge portable. Using a duration design on the time to a portfolio company's first award after the hire, and classifying awards as Own (home component), Same-parent, or Cross-parent, I find that arrivals from Own are essentially absent during the ban and begin only after it expires, whereas Same-parent and Cross-parent awards arrive even during the ban. Because procurement processes are harmonized within parents, the selective post-expiry jump at Own is diagnostic of an access channel in addition to know-how.

I then distinguish selection from mentoring at the portfolio level. Comparing (i) deals funded

before the hire but observed before the hire (placebo), (ii) deals funded before the hire but observed after the hire (mentoring only), and (iii) deals funded and observed after the hire (selection and mentoring), only the last group exhibits large and reliable gains in government obligations. Point estimates imply \$0.82–\$2.47 million higher awards for startups added after the official joins the VC, while mentoring-only effects for pre-existing portfolio companies are small and statistically indistinguishable from zero; an F-test rejects equality of these coefficients. This pattern indicates that the primary channel is improved screening and portfolio composition, rather than mentoring of incumbents.

Finally, I assess whether former officials are hired mainly to signal reputation to investors and regulators, or to import multi-dimensional skills. Drawing on LinkedIn-based career histories and text similarity between individual bios and startup technologies, I code deal-making and subject-matter expertise. I find that very few appointees are "pure government" hires; most combine policy experience with either venture deal-making (often via In-Q-Tel or finance backgrounds) or technology expertise aligned with the startup. This multi-skill profile is consistent with a skill-weights view (Lazear, 2009) in which generalists are especially valuable for resource-constrained startups (Kaplan and Strömberg, 2001; Ewens and Malenko, 2025), and it contrasts with the procurement-officer/lobbyist hires documented for large incumbents. Together with the absence of pre-hire award spikes in the event study, these facts point away from quid-pro-quo or purely reputational boards (e.g., the highly visible but operationally thin cases discussed in the literature) and toward constructive human-capital acquisition as the dominant motive.

Venture-backed startups may pursue government awards for two distinct reasons. The first is a certification mechanism, in which awards act as credible quality signals that reduce information asymmetries and facilitate the raising of private capital (Howell, 2017). The second is a risk-hedging mechanism, in which government agencies serve as large and stable customers capable of awarding contracts for innovative but unproven products (Cioaca, 2024). In this case, government contracts can replace more volatile private funding, although reliance on these revenues may also weaken incentives for innovation (Cohen and Malloy, 2016). I assess the relative importance of these mechanisms by studying the timing and size of follow-on private funding rounds after an

award. Among startups outside defense, aerospace, and infrastructure, government awards are followed by shorter intervals to the next private round and an increase of about USD 1 million in follow-on capital, consistent with certification. In sectors where the government is a primary customer, awards are associated with longer intervals to the next round, approximately 15 months, and larger follow-on rounds of about USD 0.6 million, consistent with both certification and risk-hedging.

I finally examine whether hiring former government officials improves startup performance, providing a channel for VCs to create value. For common outcomes such as securing follow-on funding, I find that startups equipped with former officials are significantly more likely to obtain subsequent private investment, an effect that goes beyond what can be explained by securing government awards. In contrast, I find little evidence that these hires influence the likelihood of major success, defined as an IPO or acquisition at a valuation exceeding total venture capital investment.

Taken together, my findings show that the flow of government officials represents a novel and economically meaningful channel through which VCs hire valuable skills for their portfolio companies. I find that this hiring provides innovative startups with specialized skills, that benefit portfolio companies via both certification effects and revenue insurance. Beyond the implications of these results for the VC industry, and although my analysis cannot fully quantify costs to taxpayers associated with these movements, I provide evidence against the traditional quid-pro-quo narrative documented in the revolving-door literature for large incumbent firms. Thus, policymakers should carefully account for these positive spillovers on innovation outcomes when designing revolving-door regulations, especially as governments scale up R&D and defense-related investments.

Related Literature First, my paper contributes to the literature examining the mechanisms through which VCs create value, particularly emphasizing their active involvement on portfolio companies' boards. Lerner (1995) highlights that VC investments commonly include direct participation on boards, enabling VCs to influence critical strategic decisions. Amornsiripanitch

et al. (2019) find that VCs play an essential role in constructing effective boards, showing that the presence of VC directors significantly facilitates recruitment from their professional networks and relationship-based acquisitions. More generally, Kaplan and Strömberg (2001) and Gompers et al. (2020) underscore the critical role VCs play as matchmakers, successfully connecting entrepreneurs with innovative ideas to investors searching for profitable investment opportunities. To the best of my knowledge, my paper is the first to demonstrate that this matchmaking role of VCs extends beyond purely private-sector interactions, as they also leverage relevant government expertise and facilitate access to public funding for their portfolio firms.

Second, my paper contributes to the literature on the "revolving door," which examines the movement of government officials into private-sector firms. Prior research has documented these movements across various regulatory settings, including banking (Lucca et al., 2014), insurance (Tenekedjieva, 2021), agriculture (Katic and Kim, 2024), patents (Tabakovic and Wollmann, 2018), and trade policy (Cen et al., 2024). A core question within this literature, articulated by Bertrand et al. (2014) in the context of Congress lobbying, centers on firms' motivations for hiring former government officials. Two primary rationales emerge: firms either seek direct influence through established political connections or aim to leverage officials' specialized policy knowledge and expertise. Recent research further highlights broader societal concerns linked to these movements, particularly regarding declining public trust in contexts such as FDA drug approvals (Karas, 2023). Beyond the regulatory role of the government, prior studies also document another important channel through which firms benefit from revolving-door hires: government procurement contracts and public funding allocation (Duchin and Sosyura, 2012; Emery and Faccio, 2025). Conversely, Bertrand et al. (2018) emphasize possible inefficiencies associated with these connections, notably suboptimal employment decisions during election cycles.

In contrast to these prior studies, which primarily examine publicly traded or large private firms, my paper explicitly focuses on private, innovative startups. Such entrepreneurial ventures face significant resource constraints, substantial uncertainty, and limited access to government resources. My study is the first to examine whether hiring former government personnel benefits

innovative startups by facilitating access to government expertise and public funding opportunities. In this context, my paper closely relates to Kempf (2020), who documents performance improvements associated with employees' enhanced career incentives.

Finally, my paper contributes to the literature examining the role of government as both a funder and consumer of innovation. A substantial body of research highlights the importance of government support for innovation. Gross and Sampat (2023) document the formative impact of large-scale U.S. government-funded R&D initiatives during World War II, emphasizing their lasting effects in creating technological clusters fundamental to the American innovation system. While the share of total R&D performed directly by governments has significantly declined since the 1960s ({National Science Foundation}, 2025), public funding remains critical, as shown by the rising proportion of government-funded patents (Fleming et al., 2019). Governments continue to invest heavily in sectors critically dependent on innovation, such as defense (Howell et al., 2024), and sectors where market-driven financing is particularly challenging due to high uncertainty, such as energy (Howell, 2017; Nanda, 2020). My paper shows that VC firms recognize this important dual role of government, especially for startups whose characteristics do not fully align with the traditional VC investment model. Consequently, VCs actively facilitate the integration of relevant government expertise into their portfolio firms, strategically leveraging public funding to generate value for their investors.

I. Institutional Background

I first illustrate the institutional context with Radiant, a nuclear-energy startup in my sample. Founded in 2019 by a former SpaceX engineer, Radiant is developing a portable micro-reactor intended as a cleaner and more reliable substitute for diesel generators. The company faces three binding constraints that shape its trajectory: (i) hard to access customers, (ii) scarcity of capital, and (iii) slow and uncertain regulatory approval.[5]

In March 2022, Radiant raised a $12.6M Series A round, led in part by Dr. Rachel Slay-

[5]See remarks by Radiant's CEO in John Coogan's interview: https://www.youtube.com/watch?v=uT86vtI7hEw.

baugh, a nuclear scientist who that year joined the deep-technology venture firm DCVC after serving as Program Director at the Department of Energy's (DOE) Advanced Research Projects Agency–Energy (ARPA-E). Slaybaugh first engaged with Radiant during her tenure at ARPA-E, where she designed a research program in which the startup participated. [6]

Prior to the Series A, Radiant had secured a small Department of Defense (DoD) award, precisely a USD 50'000 R&D services contract from the Air Force (see Figure A.2 for an exhaustive timeline). Government support scaled after the Series A, coinciding with the entry of ex-government officials on the board of the startup. In 2023, Radiant received two awards of roughly $1.3M each: a DoD (Air Force) R&D services contract and a DOE grant enabling testing at Idaho National Laboratory, the U.S.'s primary reactor testing facility.

Private capital scaled alongside these awards: a $40.7M Series B (2023) and a $165M Series C (2025) were raised. In parallel, interactions with the federal government diversified: Radiant entered an Other Transaction Agreement (OTA) with the Defense Innovation Unit to advance micro-reactor technologies for military installations (July 2025).[7] In the same year, the Department of Energy selected Radiant to receive nuclear fuel for reactor testing, directly addressing a key bottleneck in the sector: access to fuel. While still facing challenges ahead of the planned 2026 prototype, Radiant has continued to expand, notably deepening its human capital in specialized roles, by hiring Dr. Rita Baranwal (former Assistant Secretary for Nuclear Energy) as Chief Nuclear Officer.

Taken together, the Radiant case illustrates how, under financing frictions, demand uncertainty, and regulatory risk, former government officials can create value by facilitating access to the government in its multiple roles, as early customer, capital provider, regulator, including here as allocator of critical complements such as nuclear fuel.

Radiant is representative of the diversity of U.S. government funding instruments, which fall into three broad categories that differ in their deliverable expectations and in how financial risk is

[6] See Ignition interview with Rachel Slaybaugh: https://ignition-news.com/a-qa-with-dcvcs-rachel-slaybaugh/.

[7] See American Nuclear Society News (2025): https://www.ans.org/news/2025-04-14/article-6931/us-advances-microreactor-program-for-military-sites/.

allocated between the government and the recipient. Grants, competitively awarded on technical merit and innovation potential, typically finance early-stage R&D, do not require delivery of market-ready products, and generally do not involve profit-sharing or repayment if projects fail (Howell, 2017). By contrast, R&D service contracts, such as Radiant's agreements with the Air Force, fund clearly defined research tasks, are often structured as cost-reimbursable (cost-plus) arrangements that cover allowable costs plus a fee, and condition payment on completion of specified milestones rather than commercialization, thereby sharing cost risk while imposing deliverable discipline. Product (procurement) contracts, often the largest category in dollar terms, explicitly require delivery of specified goods or services and shift substantial performance and delivery risk to the contractor. Procurement contracts, i.e., R&D services and product contracts, are governed by the Federal Acquisition Regulation (FAR) and agency supplements such as the Defense Federal Acquisition Regulation Supplement (DFARS), whereas grants are administered under a uniform rule (Uniform Guidance, codified as 2 CFR Part 200). Compliance across these regimes is complex and experience-intensive, creating sizable entry barriers for startups and tending to favor large incumbents (GAO, 2021; Carril and Duggan, 2020).

Recognizing that the U.S. procurement system often under-serves innovative startups, particularly amid intensifying technological competition with China (GAO, 2021), the federal government has introduced mechanisms to lower contracting frictions and broaden participation. Two developments are particularly important in the context of this paper.

First, the share of government R&D funding explicitly startup-facing has increased. Set-asides for small-business R&D have risen over time, expanding the slice of federal R&D explicitly reserved for small firms. In FY2022, agencies obligated $4.4 billion to small businesses through SBIR, compared to roughly $2.0 billion in 2010, more than doubling over the period. [8] At the same time, flexible procurement instruments suited to young firms have scaled sharply. Other Transaction Agreements (OTAs), which are intended to attract nontraditional vendors and are not bound by many FAR requirements, grew from $1.8 billion in FY2016 to more than $18 billion

[8] SBIR obligations to small businesses rose from about $2.0 billion to $4.4 billion, which is a 120 percent nominal increase. Even after adjusting for cumulative CPI inflation, the real increase is on the order of 60–70 percent, so the expansion reflects a genuine increase in the share of federal R&D funding directed to small firms.

in FY2024 (GAO, 2020). Taken together, these changes indicate that the pool of federal R&D capital available to startups today is both larger and more flexible than it was two decades ago (Howell et al., 2024).

A second margin is institutional: dedicated innovation agencies, exemplified by ARPA-E, or its equivalent in the Defense Department, DARPA, for advanced research, and In-Q-Tel for strategic equity investments, deploy tools that target high-risk technologies and engage directly with early-stage firms and venture investors. The continuing growth of this architecture expands the government's innovation-oriented human capital and increases the likelihood of human-capital flows between government and startups.

As the pool of startup-facing federal R&D capital expands and innovation agencies deepen the government's stock of technical talent, the returns to engagement between startups and the federal government rise. Mobility across this boundary, however, is governed by post-employment restrictions that bind all former U.S. government employees. These rules embody a clear trade-off: they curb the scope for undue influence by limiting the use of personal ties, yet they raise the opportunity cost of public service and may tilt selection toward officials with stronger non-pecuniary motives (Fisman et al., 2025). They are distinct from lobbying statutes, which regulate conduct based on activity rather than prior public status.

Specifically, post-employment restrictions, codified at 18 U.S.C. § 207, limit communications and other representational activities after public service. They create one- and two-year agency-specific cooling-off periods whose horizons depend on seniority and on involvement in particular matters. A former official is barred from representational contact with the official's home component for a fixed period, while contact with other components in the same parent agency and with other parent agencies remains permitted. In the paper, I exploit this structure to separate an access channel, which should activate only once the ban expires at the home component, from a know-how channel. In contrast to the access channel, know-how entails procedural expertise that is portable, and can be used to advise portfolio companies on program priorities, procurement pathways, and regulatory strategy.

II. Hypotheses Development

In some sectors where venture capitalists invest, such as defense, health, and energy, the government is a critical customer and regulator. Startups in these markets face procurement complexity and regulatory oversight that can shape their growth trajectories. Former government officials may affect venture outcomes through several distinct channels. In the selection stage, they can help investors identify startups with stronger prospects in government-facing markets. In the post-investment stage, they can create value by opening networks, transferring procedural expertise, or enhancing the perceived legitimacy of the firm among key stakeholders. A central trade-off in recruiting former officials is that while it may allow to transfer government-specific human capital and relational ties, it may also deepen reliance on public procurement and reduce exposure to private-market discipline. Ex ante, the net effect on overall startup performance is therefore ambiguous.

Hypothesis 1: Government Contracting Performance Startups that appoint former government officials are more likely to obtain government contracts, and to receive larger or more frequent awards, than comparable startups without such appointments. Officials' prior experience and relationships are expected to improve firms' ability to identify opportunities, prepare bids, and navigate the procurement process.

If this hypothesis is correct, regression estimates of contracting outcomes on the presence of former officials should reveal positive and statistically significant effects. Startups with such appointments should have a higher probability of winning contracts, receive awards of greater value, or secure them more frequently relative to otherwise similar firms.

An alternative hypothesis is that the appointment of former government officials reflects rewards for prior connections or services rendered while in office. Under this interpretation, improvements in contracting outcomes are not the result of officials' expertise or networks being deployed ex post, but rather a manifestation of pre-existing ties between the firm and the government. In this case, the increase in award performance should materialize prior to the official's

appointment, consistent with a favor-exchange or reward for past favors mechanism.

Hypothesis 2: Mechanisms of Value Creation The contribution of former officials may arise through different mechanisms. At the selection stage, venture capitalists may rely on their insights to identify startups with stronger potential in government-facing markets. The association with prominent officials may also serve as a certification device, attracting higher-quality startups to VC firms that employ them. After investment, value may be generated through network access - where officials leverage personal and institutional ties to open contracting opportunities - through bureaucratic expertise that enables firms to navigate procurement across agencies, or through certification effects that enhance the startup's legitimacy with customers, investors, and regulators.

These mechanisms yield distinct empirical patterns. If appointments primarily reflect selection, improvements in contracting outcomes should accrue only to firms that enter a venture capital firm's portfolio after the official has been appointed, with no corresponding gains for firms already in the portfolio. If appointments provide network access, gains should be concentrated in the official's former agency, and only appear after the expiry of the former official's cooling off period. If bureaucratic expertise is central, improvements should extend across agencies and persist. If certification dominates, effects should be visible in downstream outcomes, such as follow-on venture funding, even when contracting outcomes do not change substantially.

Hypothesis 3: Overall Startup Performance Should VCs hire former officials and steer toward public demand? Even if former officials increase the probability of obtaining government contracts, the net effect on overall startup performance remains uncertain. On the one hand, contracts can stabilize revenue and provide credible signals to private investors. On the other hand, reliance on government demand may reduce strategic flexibility and limit growth in private markets. As a result, the overall impact of such appointments on venture funding outcomes and exit performance may be weak or non-linear.

To evaluate this hypothesis, one can examine whether startups with former officials, and the

contracting activity they generate, translate into improved venture funding outcomes such as higher valuations, larger syndicates, or shorter times to the next round. In addition, assessing IPO exits allows a test of whether government contracting advantages persist into later stages. Strong positive effects would indicate that contracting success carries over into broader measures of startup performance; weak or negative effects would be consistent with dependency concerns.

III. Data and Summary Statistics

A. Data Sources

I construct my dataset from four sources. The first is PitchBook, which reports deal-level information on venture investors and investment rounds. PitchBook identifies lead partners on each deal and the VC-appointed board member, together with their appointment dates. These fields enable me to link individual decision-makers to specific startups and to focus on senior actors: lead partners, who represent the VC firm in the transaction, and VC-appointed board members, who join the startup's board following the investment. I focus on these senior individuals because they are directly exposed to the success of the investment, typically holding equity in the portfolio company.

To identify senior investors with previous experience in the U.S. federal government, I parse biographies available on PitchBook. Using an exhaustive list of U.S. federal agencies (as detailed in Appendix Table A.1), I detect references to prior government employment within individual biographies. To ensure accurate classification, I manually review and validate each biography, verifying that references to government-related terms reflect genuine employment within a federal agency.[9] Since the coverage of investor biographies in PitchBook is incomplete, particularly for some senior investors, I supplement my data with additional information from public announcements and news articles.

To further enrich career histories, I integrate two external datasets based on LinkedIn profiles:

[9]This validation process explicitly excludes spurious mentions, for example, instances where an individual only interacted with the Food and Drug Administration as an external stakeholder.

ProxyCurl and Revelio Labs. These datasets allow me to reconstruct comprehensive career trajectories for each senior investor, including the precise timing, job titles, and employers for all positions held.

From PitchBook, I also obtain detailed information on startup funding rounds, including company descriptions, industry classifications, founding year, and geographic location. Investment data include the names of investors, fund identifiers, and round characteristics. Following prior VC research, I restrict attention to completed equity investments made by venture capital firms. I focus on funding rounds that took place between 2012 and 2023, a period characterized by high-quality data coverage in PitchBook (Retterath and Braun, 2020), which also aligns with the rise in ex-government hiring observed in the data (see Figure 1, Panel A).

For the outcome analysis, I focus on investments made by 2023 and track startup outcomes through 2025, allowing at least a two-year window for outcome realization. I define treatment at the startup level: a startup is considered treated if it receives funding involving an ex-government hire from the investing VC firm acting either as lead partner or board member. Finally, I restrict the sample to startups with at least one office located in the United States, ensuring that exposure to federal contracting opportunities remains relevant for all treated companies.

Second, I use administrative data from *USASpending.gov* to measure startup access to government awards. I focus on the top six awarding federal agencies by procurement volume: the Department of Defense (DoD), Health and Human Services (HHS), Veterans Affairs (VA), the Department of Energy (DoE), NASA, and the Department of Homeland Security (DHS). I also include awards from the National Science Foundation (NSF) and the Small Business Administration (SBA), which are central to R&D and startup financing policies.

These federal awards include both government contracts and grant funding. For each award, I observe detailed transaction-level data, including obligated dollar amounts, the total number of transactions, the awarding federal agency and sub-agency, and procurement rationale. For contracts specifically, I also collect product classification codes, enabling differentiation between R&D contracts and product sales. To avoid double-counting, and throughout my analysis, I focus

on the first occurrence of each award. Finally, I link these federal awards to startups using entity names.

Innovation Outcomes I measure innovation using patent-level data from PatentsView, which compiles records from the U.S. Patent and Trademark Office (USPTO). For each startup, I examine patent application dates, technology classes, and assignees, and I analyze patent titles and abstracts to assess how well a founder's prior expertise aligns with the startup's technological domain (Hoberg and Phillips, 2010).

Investment Outcomes I construct two primary measures of startup performance: (i) relatively frequent follow-on funding, and (ii) relatively rare major success, such as an IPO or a profitable acquisition. Specifically, I define the dummy variable "Follow-on Round" equal to one if a startup remains active and successfully raises additional VC funding by 2025, and zero otherwise. Receiving follow-on funding is a widely used early indicator of startup success (Kerr et al., 2014).

To capture the less frequent outcome of significant exits, I define a "Major Success" dummy variable, which equals one if a startup either undergoes an IPO or is acquired by 2025 at a valuation exceeding the total amount of venture capital raised.

Advantages and Limitations My data collection strategy presents several key advantages. First, it enables me to directly link venture capital investments to specific additions of human capital made by VC firms, allowing me to trace the relationship between government expertise and subsequent public funding and private-sector outcomes. Second, my focus on senior individuals identified as lead partners or board members is consistent with prior research highlighting these individuals as the primary locus of strategic influence (Ewens and Malenko, 2025). Finally, my focus on agents occupying decision-making positions aligns with the revolving door literature (Tabakovic and Wollmann, 2018; Cen et al., 2024).

One important limitation of this approach is that PitchBook's coverage, while very fine-grained, is not comprehensive. As discussed by Ewens and Malenko (2025), the dataset may omit

certain senior individuals, which implies that my measure likely constitutes a lower bound on the true number of senior professionals with prior government experience.

B. Descriptive Statistics

My dataset comprises 416 individuals who transitioned from government roles into VC firms (Panel A of Table 1). These individuals joined a total of 340 distinct VC firms. Within these firms, individuals assume direct senior roles in 1,057 distinct startups, which constitutes my primary sample. On average, these professionals had 4.26 years of government experience at the time of their initial transition into the VC industry. Consistent with existing literature (Emery and Faccio, 2025), the majority of transitions occur within 2 years of leaving the government. Panel A of Figure 1 illustrates the broad range of prior government agency affiliations represented in my sample, with the most prominent being innovation and defense-related agencies, as well as the Executive Office of the President. For example, a substantial number of individuals transitioned from In-Q-Tel, the Central Intelligence Agency's venture capital arm, thereby bringing direct (government) VC deal-making expertise into their new roles[10].

In contrast to patterns found in the revolving door literature (Duchin et al., 2024), Panel B of Figure 1 demonstrates little cyclicality in the timing of transitions in my sample, indicating that these movements are mostly independent of political cycles. Instead, one can observe a marked increase in such transitions since 2014. Firm-level descriptive statistics for startups with VC-appointed former government officials are summarized in Panel B of Table 1. These firms are, on average, nine years old at the time of investment, with 33% of observations involving early-stage investments (i.e. in pre-seed, seed, or Series A rounds). DeepTech sectors, represent 18% of these firms. Sectoral distribution (Figure 2) shows a dominance of software firms, but also includes aerospace, defense, energy, and biotech companies. Only 5% of firms with former government employees operate in primary industries such as aerospace, defense, and energy infrastructure, i.e. in sectors which primarily serve government customers.

[10]Others come from institutions such as ARPA-E and National Laboratories, suggesting highly specialized scientific and technological expertise.

Startups in this sample not only receive government grants (Panel A, Figure 3) but also government R&D service contracts and product contracts, notably with the Department of Defense, the largest government spender on R&D. Government awards can be sizable; for example, DNANexus, a biomedical informatics startup, secured around USD 30 million from the Department of Health and Human Services, representing about 5% of its total VC funds raised (USD 600 million), a ratio reflective of the average across firms in my sample (Panel B, Table 1). Nonetheless, these amounts are modest compared to total awards granted to major contractors such as Lockheed Martin over the same period.

IV. Government Contracting Performance

Do former officials improve startups' contracting performance, or are they rewarded for favors provided while in office? Under a post-hire influence channel, award incidence and value should rise only after the official joins, consistent with knowledge transfer or access. Under a reward-for-past-favors channel, award performance should already be higher in the pre-hire period, particularly with the official's former agency. The analysis below first documents post-hire contracting gains and then tests for pre-hire advantages that would indicate a reward mechanism.

A. Government Award Outcomes

Descriptive Results Figure 4 presents the distribution of the ratio between the total amount of government awards received by a startup and the size of its associated VC funding deal. This ratio serves as a proxy for the intensity of government support relative to private capital raised. The figure displays this distribution across two dimensions: (i) before and after the first VC investment, and (ii) conditional on whether the deal involves a former government official (ExGovHire), either as a lead partner on this deal or as a board member appointed by the VC.

$$\text{Amount-to-Deal Size}_i^{g,t} = \frac{\sum_{t \in \{Pre, Post\}} \text{Government Awards}_{i,t}}{\text{Deal Size}_i},$$

$$\text{with } g \in \{\text{ExGovHire}, \text{No ExGovHire}\}.$$

Precisely:

- For firms with a former government official joining as lead partner or VC-appointed board member (ExGovHire = 1): the reference deal is the firm's first deal directly associated with the former official.
- Otherwise (ExGovHire = 0): the reference deal is the firm's first deal in which one of the participating VCs has already hired or appointed the former official, but *without* the official's direct involvement on that deal.

In both cases, outcomes are measured over a symmetric five-year window around the reference deal date.

Two key patterns emerge from this figure. First, in the pre-deal period, the median ratio is stable across groups: around 3% regardless of whether the VC deal involves an ExGovHire or not. This suggests that prior to VC involvement, most startups receive modest government support relative to their private capital base, and there are no apparent differences between firms that later attract ex-government hires and those that do not.

Second, in the post-deal period, the median ratio increases, indicating that VC involvement is generally associated with greater access to government awards. For deals that do not involve ex-government officials, the median ratio increases from 3% to approximately 4.5%. However, the increase is considerably more pronounced for deals involving former officials. In this group, the median ratio rises from 3.3% in the pre-deal period to 10% in the post-deal period, a more than threefold increase, or a 200% jump in the median. This stark differential suggests that ex-government hires are associated with a significant amplification of a firm's ability to attract public funding.

While these patterns do not establish causality, the sharp increase in the award ratio conditional on an ex-government hire involvement may reflect two distinct channels. The first is a skills channel: former government officials may have specialized knowledge of how to apply for and secure awards, as well as privileged access to relevant decision-makers. The second is a selection channel: VCs may strategically assign former public servants to deals that are ex ante more likely

to benefit from government support, either due to industry characteristics (e.g., clean-tech, health) or firm quality.

Endogeneity Concerns The main challenge to establishing causality arises from selection bias. Former public officials who enter VCs may disproportionately join those that back high-quality startups. If these individuals possess superior private information about a firm's potential, including its alignment with government priorities, their decision to join reflects latent quality rather than serving as a causal driver of subsequent public funding. In this case, the higher post-deal government awards I document would capture an equilibrium matching process: high-quality startups attract both well-connected VCs and ExGov hires, who then appear to "cause" the increase in awards when they are merely co-moving with underlying firm quality. Without addressing this channel, estimates risk conflating the returns to pre-existing quality with the incremental effect of the government expertise these hires bring.

A second concern involves reverse causality through hire timing. Venture capitalists may recruit former government professionals precisely when a portfolio company reaches a stage where government awards become critical for startup scaling or survival. In such cases, the observed increase in public funding could reflect the firm's evolving needs rather than the hire itself. Addressing these temporal dynamics requires a design that uses plausibly exogenous variation in the availability of former government talent, allowing me to estimate the incremental impact of political expertise separately from the endogenous decision to deploy it.

Instrumental Variable I leverage a quasi-natural experiment: the 2018-2019 U.S. federal government shutdown, which began on December 22, 2018 and lasted 35 days, making it the longest in U.S. history. The shutdown resulted from a political impasse between Congress and the Trump Administration over $5.7 billion in funding for a U.S.-Mexico border wall. Importantly, the dispute was unrelated to innovation policy, such as public R&D budgets, and it occurred midterm, two years after the presidential election, thereby avoiding confounding political-cycle effects. Prior work on the (16-day) 2013 shutdown shows that such events operate as liquidity shocks,

disrupting household finances (Gelman et al., 2020). Due to its length and severity, the 2019 episode likely had even stronger effects, prompting some employees to seek opportunities outside government service (Resh et al., 2023)[11]. Evidence from the {Partnership for Public Service} (2019) further indicates that the shutdown contributed to elevated attrition across agencies, raising lasting concerns about recruitment and retention. I exploit this plausibly exogenous attrition shock to construct a Bartik-style instrument based on the resulting variation in the supply of skilled former government officials across agencies.

This design addresses the two endogeneity concerns discussed above. First, it mitigates selection bias: variation in the hiring of former government officials arises from an externally imposed shock to the supply of personnel, rather than from firms or investors selectively targeting high-quality startups. The fact that the shutdown stemmed from a dispute over immigration policy, rather than innovation policy, further supports its orthogonality to unobserved determinants of startup quality. Second, it reduces concerns about reverse causality: the timing of the personnel shock was determined by federal budget negotiations, not by the evolving operational needs of individual startups. As a result, the observed variation in the hiring of ex-officials is unlikely to reflect a VC's endogenous decision to recruit political expertise precisely when a portfolio firm faces government funding or regulatory hurdles.

The shutdown disrupted operations in nine federal departments[12]. Roughly 800,000 federal employees were either furloughed or required to work without pay, missing two consecutive pay periods. To identify which agencies were affected, I rely on the detailed list compiled by Resh et al. (2023) through Freedom of Information Act requests. This sudden and temporary income shock constitutes the core of my identification strategy: for households with attractive outside opportunities, the missed paychecks plausibly triggered voluntary exits from public service, par-

[11] According to Labor Department figures, the number of federal employees filing for unemployment rose from 10,500 in early January 2019 to 25,000 the following week, compared with 1,700 in the same period a year earlier. See *The Guardian*, January 26, 2019, available at https://www.theguardian.com/us-news/2019[...]shattered-trust. For evidence on the lasting effects of the shutdown on federal recruitment and retention, see *Government Executive*, September 26, 2019, available at https://www.govexec.com/pay-benefits/[...]/160185.

[12] Agriculture, Commerce, Justice, Homeland Security, Housing and Urban Development, Interior, State, Transportation, and Treasury, along with several smaller agencies such as NASA.

ticularly among senior officials with high-value private-sector options, thereby creating exogenous variation in the supply of skilled former government employees across agencies.

Using the Office of Personnel Management's Federal Workforce Database (*FedScope*), I track quarterly terminations of white-collar employees by agency, which measure the outflow of skilled government personnel. To construct the instrument, I interact the agency-level increase in terminations following the shutdown with each firm's pre-shutdown exposure to that agency. The result is a Bartik-style measure of the firm-specific shock to the supply of relevant former government talent. Because agencies experienced the shutdown with differing severity, and more severe disruptions led to greater separations of personnel (Resh et al., 2023), the instrument produces cross-sectional variation in the intensity of the shock across firms.

Precisely, I first measure each startup's pre-shutdown exposure to federal agencies based on its primary industry. For each agency a and NAICS three-digit sector s, I compute the share of the agency's 2018 contracting activity allocated to that sector:

$$w_{as} = \frac{\text{Contracts}_{as,2018}}{\sum_{s'} \text{Contracts}_{as',2018}},$$

where $\text{Contracts}_{as,2018}$ is the total dollar value of contracts awarded by agency a in sector s in 2018, and the denominator sums across all three-digit sectors s'. These weights capture the share of an agency's contracting activity accounted for by each sector.

Because most PitchBook firms are not directly coded by NAICS, I construct a mapping between PitchBook's proprietary industry categories and NAICS three-digit sectors. To do so, I rely on the textual descriptions of PitchBook industries[13] and match them to the closest NAICS categories based on the 2022 Census Bureau definitions[14].

I then assign each startup i to a NAICS three-digit sector $s(i)$ according to its primary PitchBook industry classification. Startup-agency exposure is then defined as the agency weight

[13]List of PitchBook Industries available at: https://my.pitchbook.com/industryDefinitions.do?action=load

[14]NAICS Descriptions from: https://www.census.gov/naics/?48967

in the startup's mapped sector:

$$\text{Exposure}_{ia} = w_{a,s(i)}.$$

Next, I combine this exposure measure with the agency-specific shock to skilled separations induced by the shutdown. Let $\Delta\text{Sep}_{a,2019Q1}$ denote the number of unexpected white-collar separations in agency a in 2019Q1, measured as the difference between actual separations and the average over the same quarter in the three preceding years:

$$\Delta\text{Sep}_{a,2019Q1} = \text{Sep}_{a,2019Q1} - \frac{1}{3}\sum_{t=2016}^{2018} \text{Sep}_{a,tQ1}.$$

The Bartik-style instrument for startup i is then:

$$Z_i = \sum_a \text{Exposure}_{ia} \times \Delta\text{Sep}_{a,2019Q1}.$$

This measure captures the shock to a startup's access to former government officials that arises from shutdown-induced separations. The intensity of the shock is proportional to the firm's exposure to agencies with higher-than-normal separation rates.

Using this instrument, I estimate a two-stage least squares (2SLS) specification. In the first stage, I relate the hiring of a former government official to the Bartik-style instrument Z_i described above. Let Hire_{id} be an indicator equal to one if startup i, in deal d, hires at least one former government official in the period following the deal. The first-stage equation is:

$$\text{ExGovHire}_{id} = \alpha + \beta Z_i + \gamma\,\text{DealSize}_{id} + \delta_{\text{VC Round}} + \delta_{\text{Primary Industry Sector}} + \varepsilon_{id}, \tag{1}$$

where DealSize_{id} is the size of deal d, δ_{Round} are VC round fixed effects, and δ_{Industry} are primary industry fixed effects.

I include deal size to proxy for a startup's capacity to contract for outside expertise. Round fixed effects account for systematic differences across financing stages (e.g., seed vs. later), and

industry fixed effects absorb persistent cross-sector demand for government expertise. I do not use year fixed effects because all deals fall within a twelve-month window around the shutdown. The first-stage coefficient of interest, β, captures the change in the probability a startup hires a former government official induced by the exogenous, agency-specific shock to the supply of such personnel.

In the second stage, I estimate the causal effect of hiring a former government official on two outcomes measured over the five years following the deal: (i) the total dollar amount of government awards received and (ii) the ratio of awards to deal size. The estimating equation is:

$$Y_{id} = \alpha + \rho \, \widehat{\text{ExGovHire}}_{id} + \gamma \, \text{DealSize}_{id} + \delta_{\text{VC Round}} + \delta_{\text{Primary Industry Sector}} + u_{id}, \tag{2}$$

where Y_{id} denotes either outcome, and $\widehat{\text{ExGovHire}}_{id}$ is the predicted value from the first stage. The parameter of interest, ρ, measures the causal effect of hiring a former government official on the outcome.

Sample Restriction This identification strategy is attractive because the shutdown was driven by political conflict over immigration policy rather than by factors related to startup performance, venture capital demand, or innovation policy. The instrument therefore provides plausibly exogenous variation in the likelihood of hiring former government officials, orthogonal to unobserved startup quality or the timing of funding needs. The main limitation concerns external validity. To avoid weak-instrument concerns, the analysis is restricted to deals that occur within 12 months after the shutdown began, when separations were concentrated and the increase in the supply of former officials was most pronounced.

Instrumental Variable Estimates Table 2 reports 2SLS estimates of the effect of having a former U.S. government official on the lead investor team or the board at the time of a venture capital deal on subsequent federal contracting outcomes over the next five years. As detailed in the previous paragraph, I treat the *Former Official as Lead/Board* indicator as endogenous and

instrument for it. To address weak instrument concerns, I restrict the estimation sample to rounds that take place within twelve months of the shutdown's onset. All specifications control for deal size. Columns (2) and (5) include VC round fixed effects, while Columns (3) and (6) include both VC round and primary industry sector fixed effects. Standard errors are clustered at the sector-year level.

In Columns (1) to (3), the dependent variable is the total dollar amount of federal obligations awarded within five years of the deal. I find that the presence of a former official is associated with an increase in awards of between \$0.802 and \$1.090 million, with all coefficients significant at the one percent level. These estimates are economically large relative to the sample mean amount awarded of \$0.26 million. In the fully saturated specification in Column (3), the coefficient of 0.965 implies an effect equal to nearly four times the mean. The results therefore suggest that adding a former official raises expected award levels from about \$0.26 million to between \$1.06 and \$1.35 million. First-stage F statistics range from 13.76 to 28.74, alleviating concerns about weak instruments.

In Columns (4) to (6), I scale obligations by deal size. Here the coefficients range from 0.34 to 0.49, with the estimates in Columns (5) and (6) marginally significant at the ten percent level. These effects correspond to an increase of roughly 48 percentage points in obligations relative to deal size. Although the precision is lower, the magnitudes remain economically meaningful.

Taken together, the evidence indicates that startups backed by investors or boards with former officials obtain substantially larger post-deal federal awards, both in levels and relative to the size of their financing rounds.

B. Reward for Past Favors?

A central concern in the revolving-door literature is that firms may hire former government officials to compensate them for favorable treatment received while in office. Such arrangements can distort allocation and impose significant costs on taxpayers. To test this "reward-for-past-favors" channel, I study within-firm variation in outcomes around the arrival of an ex-government hire. The event of interest is the year in which the official joins the firm, and I track how the

firm's contracting activity with the official's former agency evolves before and after this date. By focusing on changes within the same firm-agency relationship, I abstract from cross-sectional heterogeneity and use the timing of contracts to distinguish whether benefits accrued prior to the hire, consistent with ex post rewards, or only afterward, consistent with knowledge transfer or influence.

Following Emery and Faccio (2025), I implement the following event-study specification:

$$Y_{it} = \sum_{k=-2}^{+3} \beta_k \cdot \mathbb{1}(t = t_0 + k) + \text{Firm} \times \text{Agency FEs} + \varepsilon_{it},$$

where t_0 = represents the year in which a former government official joins startup i.

Table 3 shows little evidence of a "reward-for-past-favors" channel. The coefficients on the two pre-hire years ($k = -2$ and $k = -1$) are small and statistically insignificant across all specifications, indicating no unusual contracting activity before the arrival of the ex-government hire. By contrast, awards increase sharply from the hire year ($k = 0$) and remain elevated through $k = 3$. In the full sample, the annual amount awarded rises by about \$0.218 million in the post-hire period ($k = 1$ to $k = 3$), while the probability of receiving at least one award increases by 23 to 38 percentage points (Column (1)).

I then examine whether this post-hire increase stems from the official's former workplace. Columns (3) and (4) show that 58 % of the increase in award value in the year after the hire comes from the same cabinet-level agency where the hire previously served. Columns (5) and (6) show that 40% of the increase can be traced specifically to the same subagency. These patterns indicate that the benefits are highly localized rather than diffuse across the public sector. While the concentration is consistent with hires leveraging knowledge or relationships from their prior position, differences in procurement rules, priorities, and budgets across agencies prevent me from disentangling whether the mechanism is primarily "whom they know" or "what they know".

V. Mechanisms of Value Creation

There are multiple channels through which ex-officials may generate value: they may improve selection by helping investors identify more promising startups ex ante, provide mentoring that enhances performance ex post, supply network access or transfer bureaucratic expertise that enables firms to navigate procurement more effectively.

This section investigates these mechanisms. First, I distinguish between selection and mentoring effects by exploiting the relative timing of hires and investments within venture portfolios. Second, I test whether former officials' influence derives primarily from network access or from bureaucratic expertise, leveraging the cooling-off rules that restrict agency-specific contact. Finally, I broaden the lens to consider whether ex-officials bring multifaceted expertise that make them especially well suited to the needs of startups.

A. Selection versus Mentoring

The benefits of ex-government hires may reach beyond the startups where they take direct roles, extending to other portfolio companies backed by the same VC. Venture capital theory points to two channels through which these hires may add value at the portfolio level: improved selection, by helping VCs identify higher quality startups, and mentoring, by improving portfolio performance after investment (Kaplan and Strömberg, 2001; Hellmann and Puri, 2002).

To separate these effects, I classify investments into three groups based on the relative timing of the deal and the hire. The placebo measure (Post-Deal, Pre-Hire) captures outcomes for startups funded before the hire but observed between the deal date and the hiring date; by construction, these outcomes reflect neither selection nor mentoring and provide a benchmark. The Mentoring-Only measure covers startups funded before the hire but observed after the official joins, isolating mentoring effects since selection could not have been influenced. The Selection + Mentoring measure includes startups funded and observed entirely after the hire, capturing both channels. Comparing outcomes across these groups allows me to assess whether ex-government hires contribute mainly through selection, mentoring, or both.

Formally, I estimate:

$$\begin{aligned}\text{Total Obligated Amount}_{i,t} = \alpha &+ \beta_0 \cdot \textit{Post-Deal, Pre-Hire (Placebo)}_{i,t} \\ &+ \beta_1 \cdot \textit{Pre-Hire: Mentoring Only}_{i,t} \\ &+ \beta_2 \cdot \textit{Post-Hire: Selection + Mentoring}_{i,t} \\ &+ \text{Sector x Year FEs} + \varepsilon_{i,t}\end{aligned}$$

The results in Table 4 indicate that the primary source of value creation from ex-government hires arises from selection rather than post-investment mentoring. Startups funded after the hire (*Selection + Mentoring*) secure substantially larger government awards. Across specifications, the estimated effect ranges from about $0.82 million to $2.47 million in additional awards, with the strongest effect observed when including both sector and year fixed effects ($t = 6.32$). By contrast, startups already in the portfolio when the hire joins (*Mentoring Only*) display no systematic gains: the coefficients are small in magnitude (0.74 to 0.86 million) and statistically indistinguishable from zero. The placebo group (*Post-Deal, Pre-Hire*) yields negative or null coefficients, with point estimates as low as -$1.79 million, reinforcing that the post-hire selection gains are not mechanical.

An F-test rejects equality of the mentoring and selection coefficients, underscoring that the selection channel dominates mentoring ($t = 1.77$, one-sided p-value = 0.04). Taken together, these findings suggest that ex-government hires improve VC outcomes mainly by helping investors identify higher-quality startups ex ante, rather than by improving the post-investment performance of existing portfolio companies.

B. Network versus Bureaucratic Expertise

How do former officials exert influence for their portfolio firms? Past literature highlights that influence can operate along two margins. One view holds that intermediaries are valuable because they supply issue-specific information that helps principals process complex choices. The alternative view is that the scarce asset is "access", that secures attention from decision-makers.

Bertrand et al. (2014) show that, in the lobbying context, both channels are active, but the return to connections is larger: when politicians move, lobbyists follow, and revenue premia are more consistently tied to connections than to issue specialization. In my context, this matters because federal procurement is a high-friction environment: awards are difficult to obtain and the federal acquisition regulation makes navigation skill-intensive.

In earlier analysis, I showed that firms hiring former officials secure larger government awards. At a minimum, this pattern is consistent with hires importing know-how, or procedural fluency and program insight. The central question, however, is whether there is also an access component. If former officials' advantage derives from their ability to approach specific decision-makers, the mechanism is less benign from a taxpayer's perspective than pure knowledge transfer. In order to assess whether access is also an important channel, I use the wedge created by the cooling-off rule, described in Section I.. Precisely, I use the fact that Under 18 U.S.C. § 207(c) and the Office of Government Ethics component designations (Appendix B to 5 C.F.R. Part 2641), a former senior employee is barred for one year from representational contacts with the agency or designated component where they served. For alumni of a designated component (e.g., Army, DARPA, FDA), the bar binds only on that component; communication with other designated components in the same parent (e.g., DoD) is permitted. For alumni who served at the parent level, the bar binds on the parent and any non-designated parts, but not on other designated components. The law therefore switches off access to one clearly defined "home" unit for a fixed horizon while leaving (i) the rest of the parent and (ii) other parents open. Know-how, by contrast, travels everywhere.

Empirical Design. I study the time to the first government award received by firm i after it hires former official p, an absorbing outcome well suited to duration analysis. Let e_p be official p's government exit date and define the *ban-expiry* date as

$$b_p \equiv e_p + 365 \text{ days},$$

the date implied by the one-year cooling-off restriction in 18 U.S.C. §207(c). I index event time in days by

$$\tau \equiv t - b_p,$$

so that $\tau = 0$ at ban expiry and $\tau < 0$ ($\tau > 0$) denotes months before (after) the ban lifts. For each official p, I classify the awarding unit for firm i's first award using the statutory component map:

- **Own**: the official's origin component (or, for parent-level alumni, the parent/non-designated side);
- **Same-parent**: other designated components within the same parent agency;
- **Cross-parent**: agencies under different parents.

Assuming compliance with the statute, the wedge is sharp: during the cooling-off year, representational access is barred only for Own; communication with Same-parent and Cross-parent remains permitted. Know-how (procedural and technical expertise) is not restricted by the statute.

The absorbing indicator is defined as:

$$Y_{ip}(\tau) \equiv \mathbf{1}\{T_{ip} - b_p \leq \tau\},$$

where T_{ip} is the calendar time of firm i's first award associated with official p. For group $g \in \{\text{Own}, \text{Same-parent}, \text{Cross-parent}\}$, the group-time CDF is

$$F_g(\tau) \equiv \mathbb{E}[\, Y_{ip}(\tau) \mid g \,], \qquad S_g(\tau) \equiv 1 - F_g(\tau).$$

Results. Figure 6 plots the empirical CDFs $F_g(\tau)$ and the time–average hazards $\overline{H}_g(\tau)$ for Own, Same-parent, and Cross-parent awards. Three facts stand out. First, the Own component is flat during the ban: the CDF shows no mass accumulating and the hazard is indistinguishable from zero, consistent with the legal prohibition on representational contacts to one's home unit. Second, Same-parent and Cross-parent components accumulate awards even during the ban, with positive hazards throughout; this reflects the portability of know-how. Third, the Own component turns

on after expiry: its hazard rises and the CDF begins to step up once access is legally restored. Because procurement processes are harmonized within parents (e.g., FAR/DFARS across DoD components), the selective post-expiry rise in Own relative to Same-parent is diagnostic of an access channel. Taken together, the figure shows that access matters: firms only win awards from the home unit once the statutory restriction is lifted.

C. The Role of Multi-Skilled Individuals

Having found little empirical support for the quid-pro-quo hypothesis, I now turn to the alternative view emphasized in the revolving door literature, namely that such hires occur primarily for their bureaucratic expertise. I ask whether this explanation is sufficient in the context of startups. In particular, I consider whether framing these hires solely as carriers of bureaucratic know-how overlooks other dimensions of human capital that are especially valuable in resource-constrained ventures.

The underlying question is how venture capitalists view government institutions in relation to innovation. Startups can benefit from these institutions along two margins. First, as shown in the previous section, governments provide critical financing, acting both as funders and as early customers of new technologies. Second, governments cultivate specialized human capital, training individuals with unique experience in emerging technologies and nascent industries.[15]

This broader perspective on human capital is particularly relevant for startups facing financial and organizational constraints. Because such firms cannot afford to hire narrowly specialized personnel for each function, they benefit disproportionately from individuals who can perform multiple roles. Prior research shows that multi-skilled hires reduce both hiring and coordination costs while providing greater strategic flexibility (Kaplan and Strömberg, 2001; Ewens and Malenko, 2025).

To study whether ex-government hires bring these broader capabilities, I draw on detailed

[15]One example is Rachel Slaybaugh, Ph.D., partner at the deep-tech VC firm DCVC. Dr. Slaybaugh previously served as Program Director at the Department of Energy's ARPA-E, where she created its nuclear fission program, and before that was a Professor of Nuclear Engineering. She now serves on the board of startups such as Radiant, which builds portable nuclear microreactors.

career data extracted from LinkedIn profiles and supplemented with biographies generated by large language models. I focus on two additional dimensions of human capital beyond bureaucratic expertise:

- **Deal-making expertise**, including skills in sourcing, evaluating, structuring, and negotiating investments. These skills may stem from government roles in initiatives such as In-Q-Tel or from experience in private financial institutions.
- **Subject expertise**, i.e. knowledge of the startup's technological domain. To quantify this alignment, I use Sentence-BERT (SBERT) to compute semantic similarity scores between individuals' career histories (from LinkedIn and LLM-generated biographies) and the startup's technological descriptions, including its description and its patents' titles and abstracts.

Figure 7 illustrates the distribution of skills among ex-government hires. Each data point represents one deal in which an ex-government official joins a startup, mapped according to the individual's loading on government expertise, and either subject expertise or deal-making capabilities. Two patterns emerge. First, few hires bring only government experience; most also display strong subject-specific or financial expertise. Second, a large share combine multiple competencies, consistent with the idea that VCs seek individuals who can cover several functions simultaneously. This evidence supports the hypothesis that ex-government officials are hired not only for their ties to government, but as multi-skilled human capital particularly well suited to the needs of startups (Lazear, 2009).

Overall, I find that these hires not only bring government-specific expertise, but also technical capabilities that are particularly valuable in the resource-constrained startup environment. By shaping which ventures are backed rather than how they are subsequently mentored, ex-government hires also emerge as a mechanism through which government expertise may facilitate capital allocation to innovative firms.

VI. Overall Startup Performance

A. What role(s) do these contracts play?

Government awards can influence a startup's financing path through two distinct channels. The first is revenue insurance: government awards relax short-run liquidity constraints, allowing founders to postpone returning to the market and to rely less on external equity when they do. The second is certification: an award, together with the due diligence required to obtain it, signals quality, execution capacity, and compliance to outside investors. This reduces investor uncertainty and can shorten the time to the next round while increasing the size of that round. These mechanisms are not mutually exclusive. The same award can both provide a financial buffer and signal quality. However, their empirical predictions differ. Revenue insurance should lengthen the time to the next round and reduce its size, while certification should shorten the interval and increase the amount raised.

Table 5 presents evidence, which is mainly consistent with certification being the predominant mechanism. In the full sample, larger government awards are associated with shorter intervals to the next funding round and with larger follow-on rounds. The point estimates imply that a one standard deviation increase in award value accelerates the next round by roughly 0.5-1% of the mean waiting time (approximately 21 months), and increases the size of follow-on rounds by about 1-1.5% relative to the sample mean (approximately $65 million). While these results are consistent with certification, they do not fully rule out alternative explanations: startups may delay their next round simply because they lack immediate growth prospects, rather than because awards substitute for external financing.

The revenue insurance channel becomes more salient in settings where the government is effectively the sole or main buyer. In these cases, the timing effect reverses: conditional on receiving a contract, firms take longer to raise their next round—extending runway by about 1% per standard deviation of award value—consistent with procurement income substituting for external finance. At the same time, certification effects remain evident: when such firms eventually raise follow-on funding, the rounds are about 1-2% larger than those of otherwise comparable

startups. Taken together, these findings suggest that government awards operate through a mix of certification and revenue insurance, with the relative importance of each channel depending on the nature of the buyer relationship.

Overall, the results suggest that government awards play a nuanced role in entrepreneurial finance. For most startups they complement private capital by accelerating the next round and increasing its size, which is consistent with certification. For firms serving exclusively government markets, awards partly substitute for the timing of private capital, consistent with revenue insurance, while still enhancing the credibility and eventual scale of subsequent raises.

B. Follow-on Funding and Major Success

An important question is whether the involvement of former government officials translates into improved startup performance, since venture capitalists ultimately need to generate value for their limited partners. Table 6 shows that the presence of former government officials is associated with important differences in startups' financing trajectories. Columns (1) and (2) indicate that having a former official as lead investor or board member is associated with an 8 percentage point higher probability of securing a follow-on funding round, a result that is both statistically and economically significant. Because follow-on investment is typically necessary for continued operations, this finding also suggests that startups with former officials are more likely to survive in the years immediately after their initial VC round. By contrast, Columns (3) and (4) show no systematic association between such appointments and the probability of achieving a major success, with coefficients that are statistically indistinguishable from zero. Overall, these results indicate that former officials are associated with sustained access to financing and greater survival prospects, rather than with higher rates of breakthrough success. The absence of evidence on major successes may, however, partly reflect the longer maturation period of DeepTech startups, which often take more time to reach exit events such as IPOs or acquisitions (Ewens et al., 2018).

VII. Conclusion

In this paper, I show that the hiring of former public officials by venture investors materially improves portfolio startups' access to government resources and strengthens their financing trajectories. Using a new dataset linking 416 officials' transitions into 340 VC firms and 1057 startup board appointments with award and performance records, and exploiting the 2019 federal shutdown as an exogenous shift in supply, I focus on startups where ex-government officials assume active senior roles as lead investors or VC-appointed board members. I find that such startups secure roughly $1 million more in cumulative federal awards within five years and are 8 percentage points more likely to raise a follow-on round. These effects arise primarily on the selection margin: awards increase after the hire and are concentrated in the official's former parent agency and even sub-agency. Examining the timing of follow-on rounds further reveals two mechanisms: certification in markets where government is not the main customer, and revenue insurance in government-facing sectors. Taken together, the evidence points away from quid-pro-quo explanations and instead highlights a channel through which multi-skilled ex-officials enhance VC screening and help startups navigate procurement and policy complexity.

Government expertise flows, often referred to as the "revolving door", can benefit small, innovative private firms by expanding their access to public resources and sustaining their early financing trajectories. These findings broaden our understanding of how human-capital flows between the public and private sectors shape innovation finance and carry clear implications for policymakers designing revolving-door rules. Overly broad bans risk closing off a channel that expands award access and sustains follow-on financing for constrained innovators. For small, capital-intensive firms in particular, maintaining a link to government support can be crucial in bridging early financing gaps and sustaining long-term innovation efforts.

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Table 1. Summary Statistics

This table reports summary statistics for the key variables used in the paper. Panel A presents overall statistics for the full sample, as well as individual-level statistics for former U.S. government employees at the time of their first transition into senior roles at VC firms. Panel B presents firm-level statistics for treated firms, defined as companies whose VC investors appoint former government employees to senior positions. Deal size refers to the deal associated with the first appointment of a former government employee, while amounts awarded are calculated over the five-year period preceding that deal.

Panel A: Former Government Employees Flows to Senior Direct Roles at VCs

A.1: Counts

Number of people	416
Number of VCs	340
Number of startups	1057

A.2: Characteristics

	Number of Obs.	Mean	Sd	5%	25%	Median	75%	95%
Cumulative Time in Gov. (in years)	416	4.26	5.74	0.08	0.92	2.17	5.00	17.18
Time Since Last Gov. Job (in years)	416	3.47	4.23	0.00	0.00	1.83	6.31	11.69
Length in Gov. Most Recent (in years)	416	3.95	5.58	0.08	0.83	2.00	4.34	15.61

Panel B: Characteristics of Startups with VC-Appointed Former Government Officials

	Number of Obs.	Mean	Sd	5%	25%	Median	75%	95%
Deal Size (in USD mln)	998	25.81	71.09	0.25	3.00	8.64	22.65	100.00
Amount Awarded (in USD mln)	1057	0.26	3.26	0.00	0.00	0.00	0.00	1.02
Amount Awarded to Raised Amount	998	0.06	0.84	0.00	0.00	0.00	0.00	0.05
Number of Awards	1057	0.32	1.37	0.00	0.00	0.00	0.00	2.00
Company Age (in years)	1047	9.10	5.71	3.00	6.00	8.00	11.00	16.00
Early Stage	1057	0.33	0.47	0.00	0.00	0.00	1.00	1.00
First-round	1057	0.37	0.48	0.00	0.00	0.00	1.00	1.00
Follow-on	1057	0.50	0.50	0.00	0.00	0.00	1.00	1.00
Major Success	1057	0.04	0.19	0.00	0.00	0.00	0.00	0.00
IPO	1057	0.02	0.14	0.00	0.00	0.00	0.00	0.00
Acquired	1057	0.14	0.35	0.00	0.00	0.00	0.00	1.00
IPO or Acquired	1057	0.16	0.36	0.00	0.00	0.00	0.00	1.00
Faces Government Monopsony Power	1057	0.05	0.23	0.00	0.00	0.00	0.00	1.00
DeepTech	1057	0.18	0.39	0.00	0.00	0.00	0.00	1.00

Table 2. Impact of Former Officials on Government Contracting Outcomes

This table presents instrumental variables (2SLS) estimates of how the presence of former government officials on a startup's lead investor team or board relates to subsequent government award outcomes. The dependent variable in columns (1) to (3) is *Total Amount Awarded*, defined as the cumulative value of U.S. government obligations received (in USD million) within five years after the venture capital deal. The dependent variable in columns (4) to (6) is *Total Amount to Deal Size*, defined as the ratio of obligations received within five years after the deal to the deal size. *Former Official as Lead or Board* equals one if at least one lead investor or board member is a former U.S. government official and zero otherwise, and is treated as endogenous. Estimates are obtained using the 2019 Government Shutdown Exposure as the instrument; to mitigate weak-instrument concerns, the estimation sample is restricted to funding rounds within the twelve-month period following the shutdown's onset. All specifications control for deal size. Columns (2) and (5) add VC Round fixed effects, while columns (3) and (6) add both VC Round and Primary Industry Sector fixed effects. Standard errors are clustered at the sector-year level, and t-statistics are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is denoted by ***, **, and *, respectively.

	Total Amount Awarded			Total Amount to Deal Size		
	(1)	(2)	(3)	(4)	(5)	(6)
Former Official as Lead/Board (0/1)	1.090***	0.802***	0.965***	0.337	0.488*	0.482*
	(2.80)	(6.14)	(3.63)	(1.18)	(1.65)	(1.71)
Observations	601	601	601	601	601	601
VC Round FE		Y	Y		Y	Y
Sector FE			Y			Y
First-stage F	13.76	14.86	28.74	13.76	14.86	28.74

Table 3. Government Awards Incidence and Value Around Ex-Government Hires

This table reports event-study regressions of government contracting outcomes on the appointment of former government employees. Columns (1) to (2) use the firm × year as the unit of observation, aggregating awards across all federal agencies. Columns (3) and (4) use the firm × parent-agency × year, summing awards across subagencies within the parent department from which the hire originated. Columns (5) to (6) use the firm × subagency × year, restricting awards to the subagency from which the hire originated. Hires with prior service in the intelligence community are mapped to the Department of Defense, since contracts funded by intelligence appropriations are not disclosed on *USASpending.gov*. The dependent variable in odd-numbered columns is an indicator equal to one if the firm receives at least one award in a given year. The dependent variable in even-numbered columns is the total value of awards received (in millions), excluding Paycheck Protection Program (PPP) loans. Even-numbered columns are estimated using Poisson pseudo-maximum likelihood (PPML). Event Year = t denotes the number of calendar years relative to the hire. Standard errors clustered at the firm level are reported in parentheses. Statistical significance at the 1%, 5%, and 10% levels is denoted by ***, **, and *, respectively.

	Overall		Within Same Parent Org.		Within Same Subagency	
	(1) Any Award	(2) Total Amount Awarded	(3) Any Award	(4) Total Amount Awarded	(5) Any Award	(6) Total Amount Awarded
Event Year = -2	0.098**	0.720*	0.042	0.637	0.009	0.462
	(2.17)	(1.83)	(1.28)	(1.61)	(0.30)	(1.10)
Event Year = -1	0.074	0.345	0.054	0.134	0.027	0.013
	(1.61)	(0.79)	(1.60)	(0.28)	(0.98)	(0.03)
Event Year = 0	0.168***	0.909*	0.106**	0.798	0.051	0.729
	(2.74)	(1.87)	(2.28)	(1.56)	(1.30)	(1.38)
Event Year = 1	0.286***	1.836***	0.168***	1.725***	0.137***	1.654***
	(4.60)	(3.74)	(3.50)	(3.59)	(3.29)	(3.33)
Event Year = 2	0.189***	1.599***	0.121**	1.438***	0.097**	1.292**
	(2.90)	(3.16)	(2.52)	(2.78)	(2.26)	(2.48)
Event Year = 3	0.174**	1.594***	0.111**	1.700***	0.084*	1.652***
	(2.50)	(3.08)	(2.11)	(3.11)	(1.86)	(2.80)
Observations	973	898	1620	1220	2222	1392
R-squared	0.120		0.203		0.255	
Adj. R-squared	0.099		0.119		0.114	
Pseudo R-squared		0.041		0.048		0.048
Mean dep. var.	0.36	0.77	0.24	0.57	0.19	0.48
Year FE	Y	Y				
Agency-Year FE			Y	Y	Y	Y

Table 4. Mentoring versus Selection

This table reports Poisson pseudo-maximum likelihood (PPML) regressions of the dependent variable Total Amount Awarded (in USD million) on event-time indicators interacted with the timing of an ex-government hire. The baseline category is startups funded before the hire and observed before both the hire and the deal. Reported coefficients correspond to (i) *Post-Deal, Pre-Hire (Placebo)* — funded before the hire and observed after the deal but before the hire; (ii) *Mentoring Only (Deal Pre-Hire)* — funded before the hire and observed after the hire; and (iii) *Selection + Mentoring (Deal Post-Hire)* — funded after the hire and observed after the hire. Specifications include fixed effects as indicated (Year; Sector; or Sector × Year). *t*-statistics, based on standard errors clustered at the startup level, are reported in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% levels, respectively.

	Total Amount Awarded		
	(1)	(2)	(3)
Mentoring Only (Pre-Hire Deal)	-1.339*	0.858	0.736
	(-1.85)	(1.01)	(1.04)
Selection + Mentoring (Post-Hire Deal)	0.820*	2.467***	1.533**
	(1.89)	(6.32)	(2.54)
Post-Deal, Pre-Hire (Placebo)	-1.786***	-0.741	0.063
	(-3.96)	(-1.36)	(0.10)
Observations	61777	10278	2986
Pseudo R^2	0.031	0.174	0.032
Mean dep. var.	9.06	54.44	113.68
Year FE	Y		
Sector FE		Y	
Sector × Year FE			Y

Table 5. Government Awards and Subsequent Venture Funding Outcomes

This table reports how U.S. government award funding relates to the timing and size of startups' subsequent venture capital rounds. The unit of observation is a VC deal. The dependent variable in columns (1) and (2) is the time from the focal deal to the next follow-on round (in months), and in columns (3) and (4) is the size of that follow-on round (in USD million). Total Amount Awarded is the cumulative value of U.S. government awards received within five years after the startup's first VC deal. Government as Sole or Lead Consumer equals one for startups in Defense, Aerospace, or Energy Infrastructure industries, and zero otherwise. All regressions include Sector × Deal Year fixed effects and VC Round fixed effects. Standard errors are clustered at the startup level, with t-statistics in parentheses. Statistical significance at the 1%, 5%, and 10% levels is denoted by ***, **, and *, respectively.

	Time to Follow-on Round		Size of Follow-on Round	
	(1)	(2)	(3)	(4)
Total Amount Awarded (in USD mln)	-0.050	-0.090***	1.082***	0.883***
	(-1.03)	(-4.62)	(4.39)	(6.61)
Deal Size (in USD mln)	-0.004*	-0.004*	1.122***	1.122***
	(-1.82)	(-1.82)	(7.79)	(7.79)
Government is Sole or Lead Buyer (0/1)		1.236		30.808***
		(0.65)		(2.66)
Government is Sole or Lead Buyer (0/1) × Total Amount Awarded (in USD mln)		0.159***		0.563***
		(5.28)		(3.39)
Observations	9999	9999	9648	9648
R-squared	0.12	0.12	0.61	0.61
Adj. R-squared	0.11	0.11	0.60	0.60
Mean dep. var.	20.91	–	64.85	–
Sector × Deal Year FE	Y	Y	Y	Y
VC Round FE	Y	Y	Y	Y

Table 6. Government Officials and Startup Performance

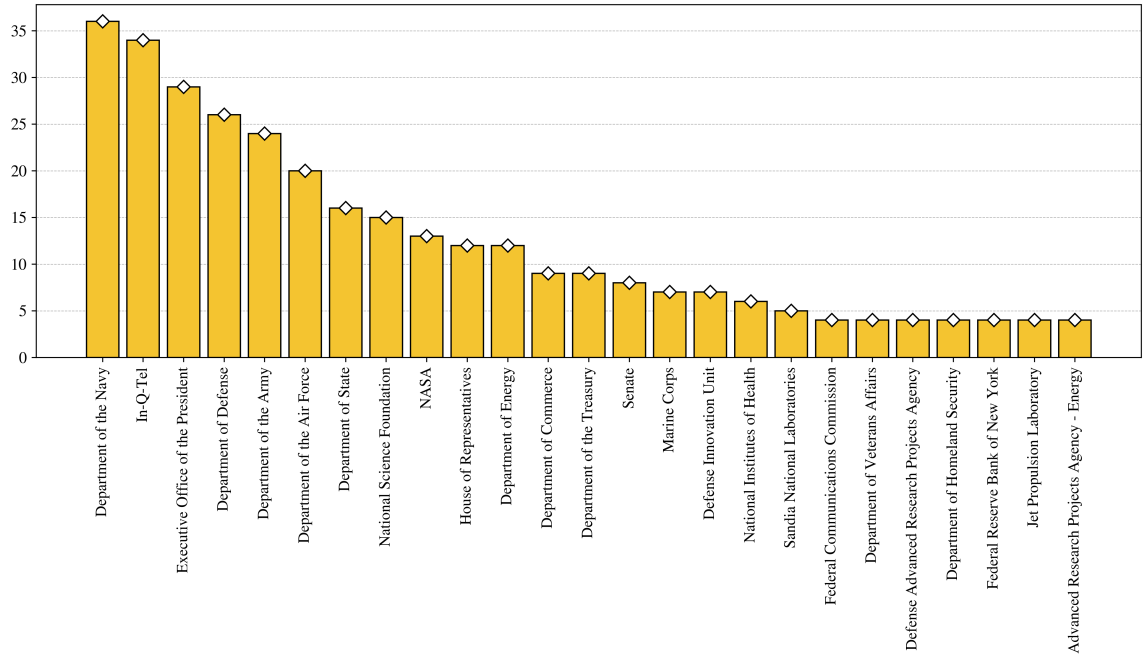
This table reports regressions of startup investment outcomes on the presence of former government officials as lead investors or board members. The dependent variable in columns (1) and (2) is an indicator equal to one if the startup subsequently receives a follow-on VC round, and in columns (3) and (4) is an indicator equal to one if the startup achieves a major success. *Former Official as Lead/Board* equals one if a former U.S. government official serves as lead investor or joins the startup's board at the time of the deal. *Deal Size* is the amount raised in the round (in USD million). *Total Amount Awarded* is the cumulative value of U.S. government awards received up to the time of the deal. All regressions include fund fixed effects, sector × deal year fixed effects, and VC round fixed effects. Standard errors are clustered at the startup level, with *t*-statistics in parentheses. Statistical significance at the 1%, 5%, and 10% levels is denoted by ***, **, and *, respectively.

	Follow-on		Major Success	
	(1)	(2)	(3)	(4)
Former Official as Lead/Board (0/1)	0.086***	0.085***	-0.011	-0.011
	(3.81)	(3.77)	(-0.86)	(-0.86)
Deal Size (in USD mln)	0.000	0.000	0.000***	0.000***
	(1.35)	(1.31)	(2.76)	(2.75)
Total Amount Awarded (in USD mln)		0.003***		-0.000
		(2.97)		(-0.13)
Observations	6647	6647	6647	6647
R-squared	0.173	0.173	0.204	0.204
Adj. R-squared	0.140	0.140	0.173	0.173
Sector x Deal Year FE	Y	Y	Y	Y
VC Round FE	Y	Y	Y	Y

Figure 1. Evolution of Revolvers Over Time and Agencies

This figure provides an overview of individuals transitioning from U.S. government positions into active senior roles at VC firms. Panel A shows the top 25 U.S. government agencies by the number of individuals who subsequently take on these roles. Panel B plots the number of individuals entering VC firms each year from 2000 to 2024. Vertical lines indicate U.S. presidential election years; solid lines represent years in which control of the presidency changed between political parties (i.e., from Democrat to Republican or vice versa).

Panel A. Prior Government Agency Affiliation



Panel B. Year of Transition to Venture Capital Firm

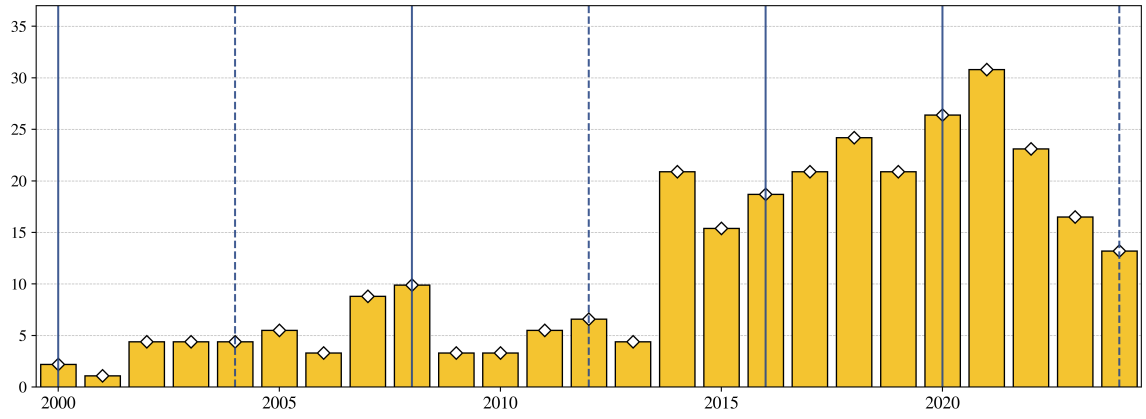


Figure 2. Top Primary Industries of Startups with Ex-Government VC Appointees

This figure displays the 15 primary industries with the highest number of firms backed by venture capital (VC) firms that appointed a former government official to a senior role. Each dot represents a primary industry, with dot size indicating the average amount of capital raised by firms in that industry. Industries shown in blue include at least one firm classified as DeepTech, based on the broader "All Industries" classification rather than the primary industry label.

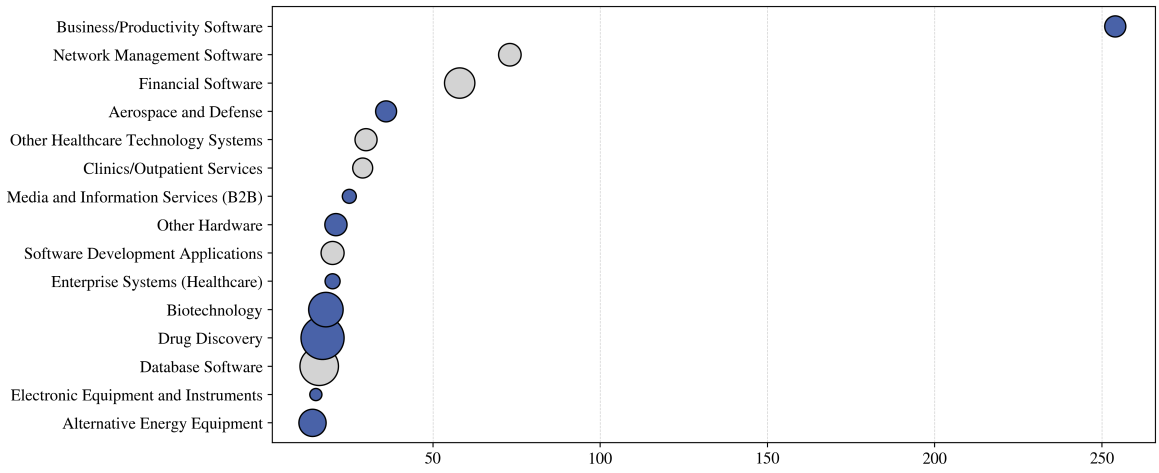
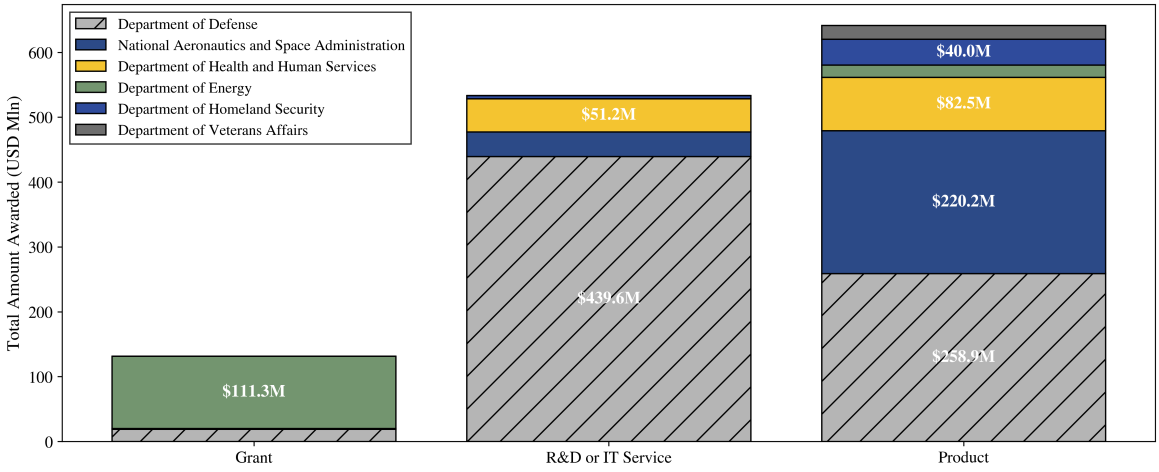


Figure 3. Government Awards: Composition and Leading Recipients

This figure summarizes the size and composition of U.S. government contract awards to firms in the sample. Panel A reports the total amount awarded over fiscal years 2014-2024, broken down by contracting agency and by contract type, ranging from grants to product contracts. Panel B compares the total value of contract awards to the top ten recipients in the sample, with those awarded to Lockheed Martin. The panels illustrate both the diversity of contracting activity and the scale of the federal government as a purchaser and funder of innovation.

Panel A.



Panel B. Top 10 Award Recipients versus Lockheed Martin

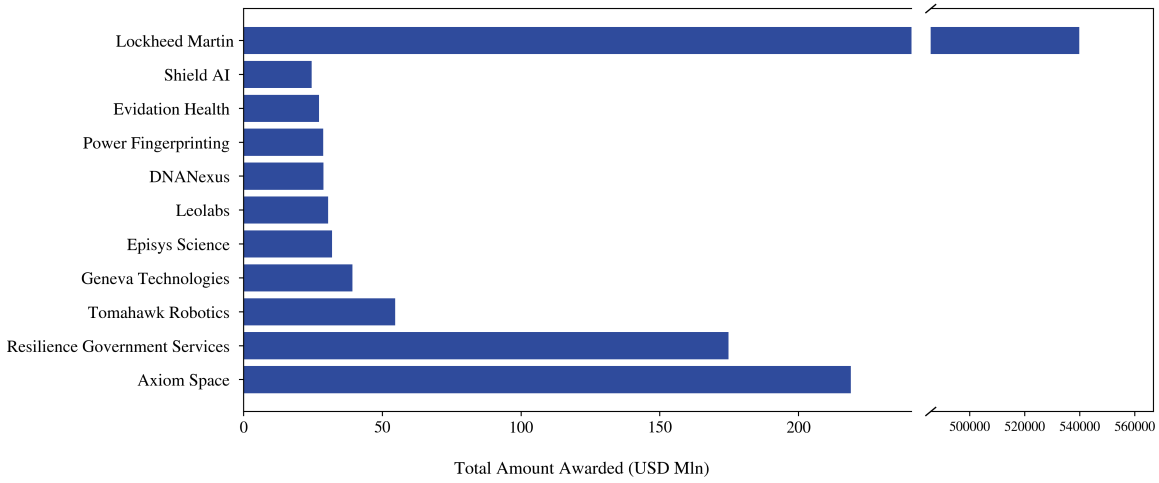


Figure 4. Amount Awarded-to-Deal Size Ratios by Presence of Ex-Government Official

This figure shows the distribution of the ratio of the total amount awarded to deal size for VC-backed companies over the five years before (blue) and after (yellow) a deal. The sample is split based on whether an ex-government official takes an active senior role, either as a VC-appointed board member or lead partner. The y-axis is shown in logarithmic scale to account for skewness in the distribution of award sizes. Annotations show changes in median ratios across periods.

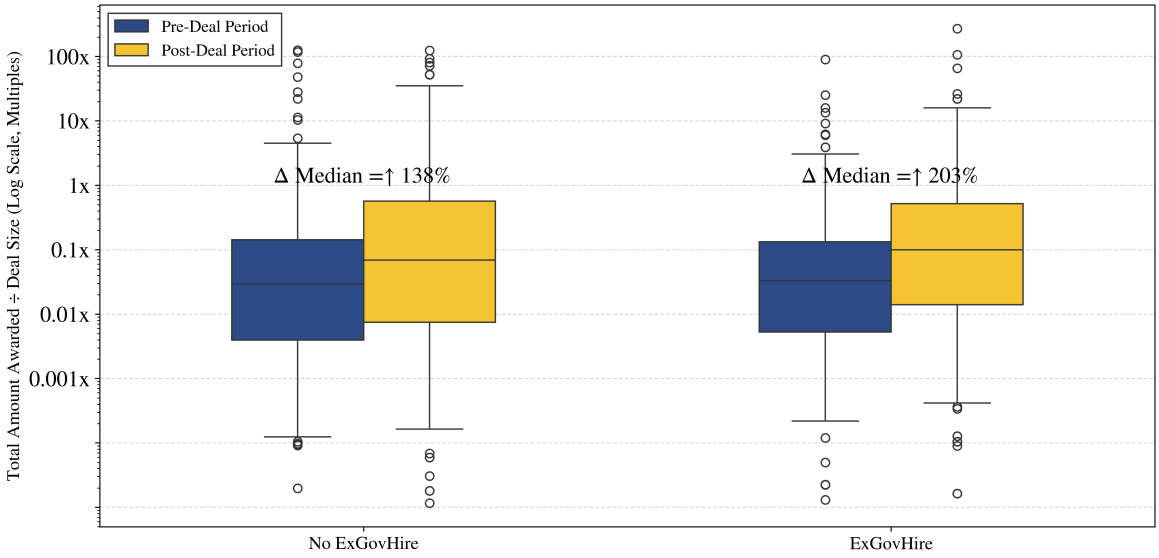


Figure 5. Total White-Collar Separations by 2019 Shutdown Status

This figure describes the total number of white-collar employee separations, summed across all federal agencies and split by whether agencies were shut down during the 2019 federal government shutdown. Numbers are from OPM *FedScope*. Lines present annual totals, and shaded ribbons indicate bootstrap 50% confidence intervals for those sums. The vertical grey band marks the 2019 shutdown period: it lasted 35 days, from December 22, 2018 to January 25, 2019. The 2019 markers also report the year-over-year percentage change relative to FY2018. The list of shutdown agencies follows Resh et al. (2023), which is based on a report by the Permanent Subcommittee on Investigations and FOIA requests.

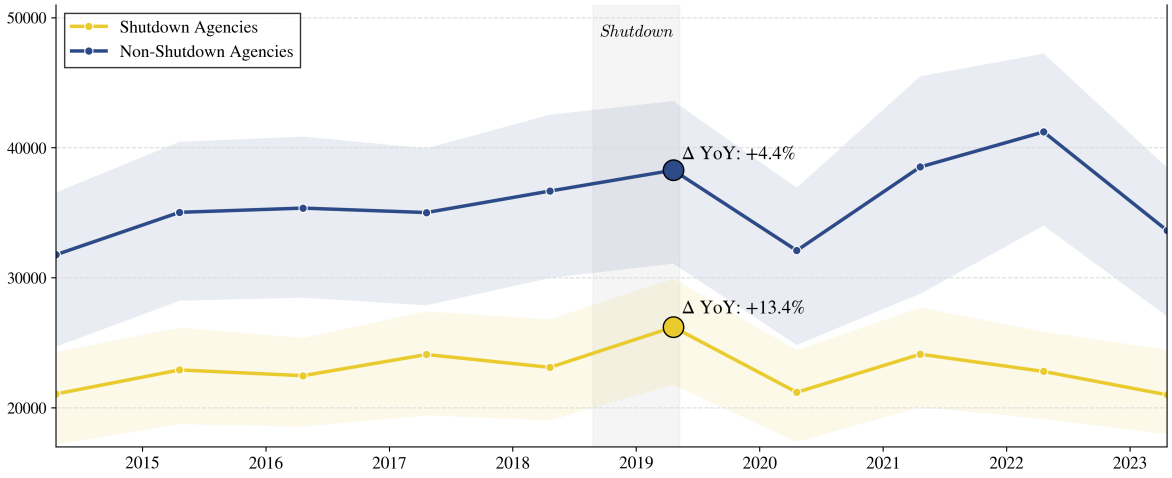


Figure 6. Network versus Bureaucratic Expertise

This figure plots cumulative distribution functions (top panel) and time-average hazards (bottom panel) for the time to a firm's first government award following the hire of an ex-government official. Event time τ is measured in months relative to the expiry of the official's one-year post-employment ban under 18U.S.C.§207(c); the vertical dashed line marks $\tau = 0$. Awards are classified into three mutually exclusive categories based on the official's prior affiliation: Own denotes awards from the official's origin component (or the parent / non-designated side for parent-level alumni); Same-parent denotes awards from other designated components within the same parent agency; Cross-parent denotes awards from agencies under different parents. During the ban ($\tau < 0$), the Own hazard is flat and the CDF shows no arrivals, consistent with the statutory prohibition on representational access. By contrast, Same-parent and Cross-parent hazards are positive throughout the ban period, reflecting the portability of know-how. After expiry ($\tau > 0$), the Own hazard rises and the CDF begins to step up, indicating that access also matters.

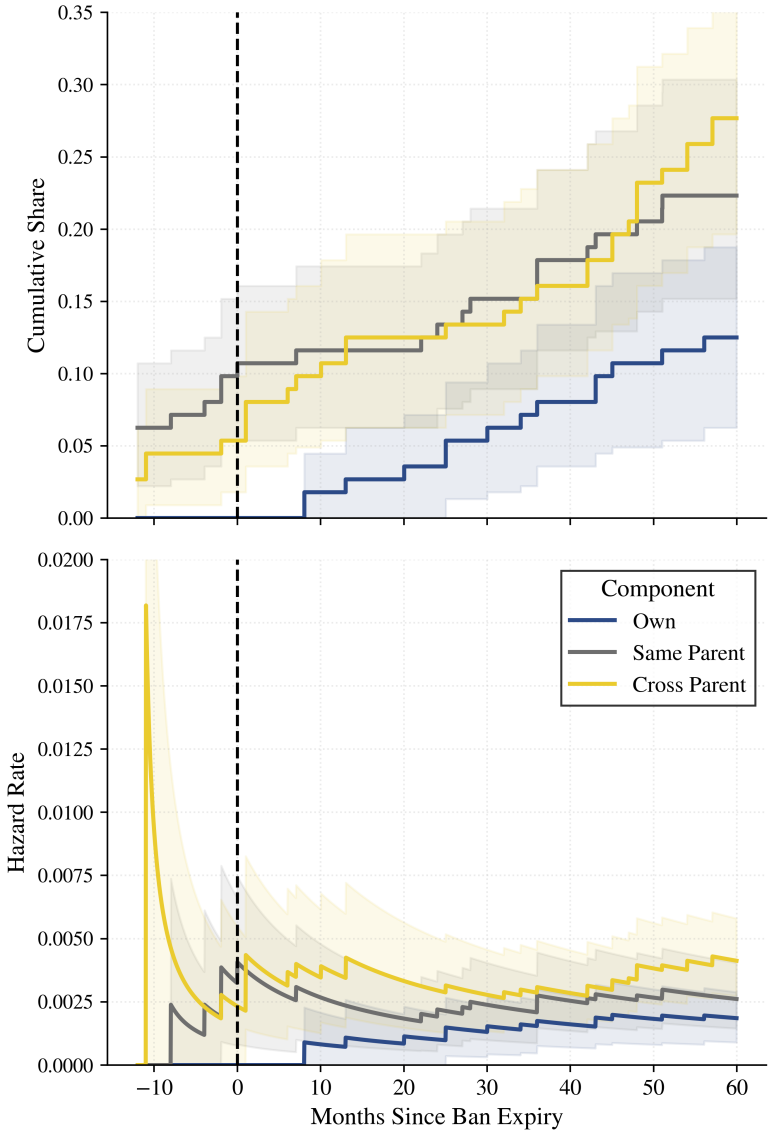
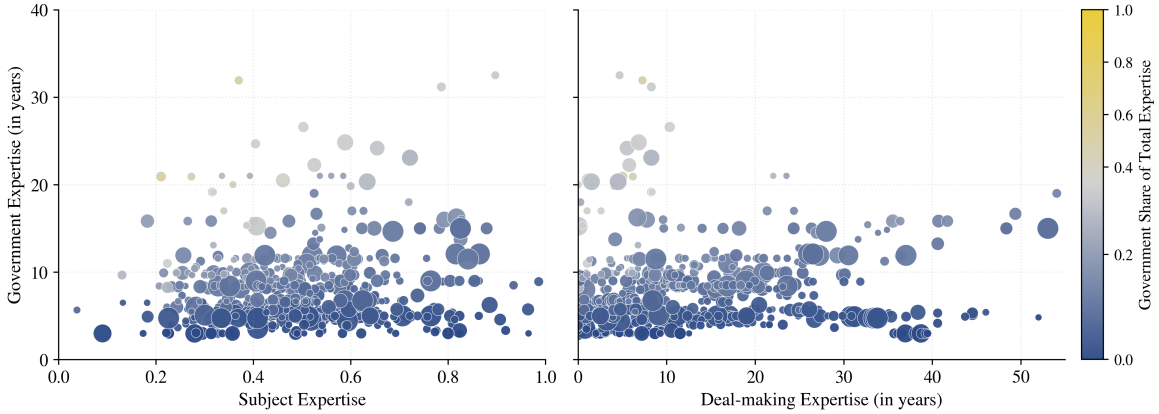


Figure 7. Government Expertise versus Subject and Deal-making Expertise

This figure plots individual-level measures of government expertise against either subject expertise (left-hand panel) or deal-making expertise (right-hand panel). Each dot represents one deal in which an ex-government official joins a startup. Government expertise and deal-making expertise are measured in years; subject expertise is a normalized score between zero and one. Dot size is proportional to deal size. Dot color represents the share of government expertise in an individual's total expertise portfolio, computed after scaling each component to the $[0, 1]$ range to ensure comparability across dimensions. Yellow indicates a greater concentration in government expertise, darker blue indicates a greater concentration in non-government expertise, and grey corresponds to a balanced mix. The panels show that relatively few deals lie near the "pure government" axis: most involve individuals with substantial subject or deal-making expertise in addition to government experience.



Online Appendix for "From D.C. to VC"

Alice Eliet-Doillet

August 2025

A Data Sources and Construction

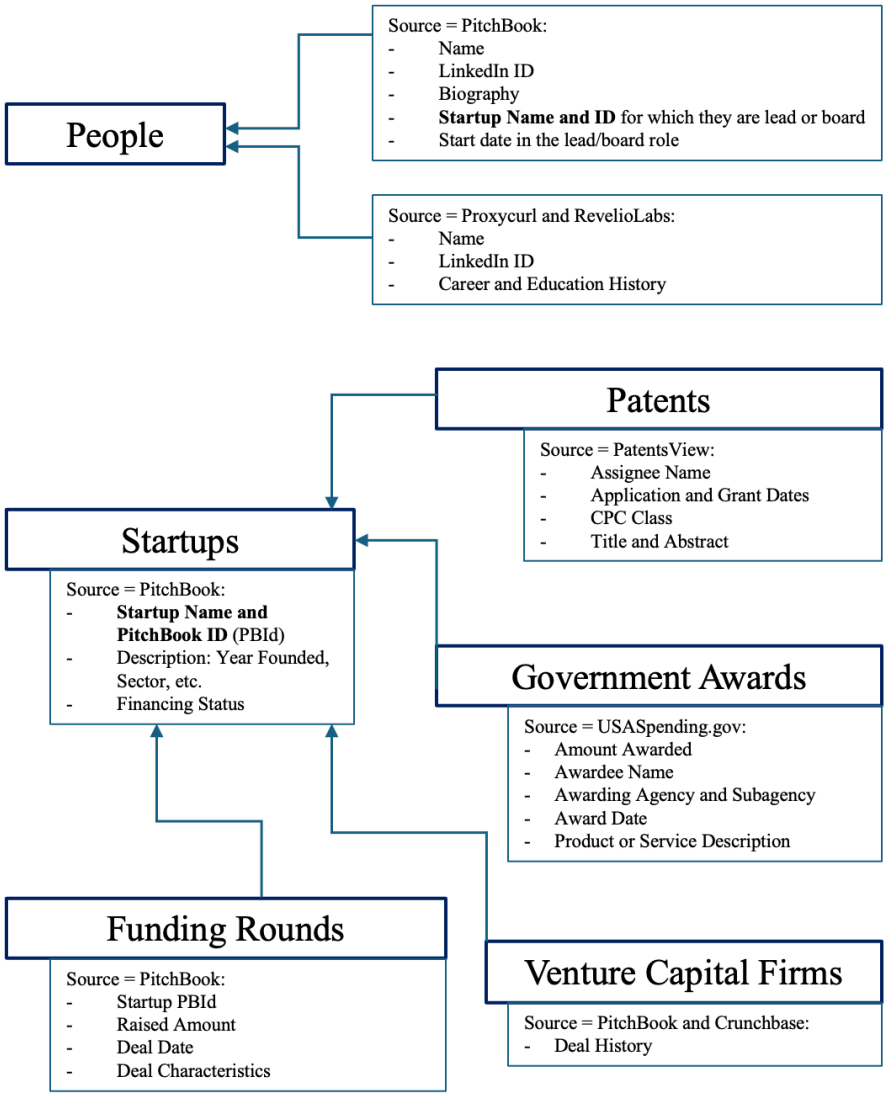


Figure A.1. Data Sources and Key Variables

Category	Agency Name	Abbreviations / Aliases
Military	Department of Defense	DoD
	Army	USA
	Navy	USN
	Air Force	USAF
	Marine Corps	USMC
	Space Force	USSF
	U.S. Cyber Command	CYBERCOM
	Defense Advanced Research Projects Agency	DARPA
	Defense Innovation Unit	DIU
	Defense Logistics Agency	DLA
	Defense Threat Reduction Agency	DTRA
	National Security Agency	NSA
	Central Intelligence Agency	CIA
	National Geospatial-Intelligence Agency	NGA
	Office of the Secretary of Defense	OSD
Congress	U.S. Senate	Senate
	U.S. House of Representatives	House
	Congress	—
Executive Office	White House	Executive Office of the President (EOP)
	Office of Management and Budget	OMB
	Council of Economic Advisers	CEA
	National Economic Council	NEC
	Office of Science and Technology Policy	OSTP
Finance	Department of the Treasury	Treasury
	Federal Reserve	Fed
	Securities and Exchange Commission	SEC
	Federal Deposit Insurance Corporation	FDIC
	Office of the Comptroller of the Currency	OCC
	Office of Financial Research	OFR
	Fannie Mae	FNMA
	Freddie Mac	FHLMC
Development & Aid	International Development Finance Corporation	DFC
	U.S. Agency for International Development	USAID
	Export-Import Bank of the United States	EXIM
	Small Business Administration	SBA
Health & Science	Department of Health and Human Services	HHS
	National Institutes of Health	NIH
	Centers for Disease Control and Prevention	CDC
	Food and Drug Administration	FDA
	Biomedical Advanced Research and Development Authority	BARDA
	National Science Foundation	NSF
	National Institute of Standards and Technology	NIST
	Department of Energy	DoE
	Sandia National Laboratories	SNL
	Los Alamos National Laboratory	LANL
	Argonne National Laboratory	ANL
	Oak Ridge National Laboratory	ORNL
	Jet Propulsion Laboratory	JPL
	National Aeronautics and Space Administration	NASA
Other Agencies	Department of State	DoS
	Department of Homeland Security	DHS
	Transportation Security Administration	TSA
	Department of Justice	DOJ
	Federal Bureau of Investigation	FBI
	Department of Commerce	DOC
	Department of the Interior	DOI
	Environmental Protection Agency	EPA
	Federal Communications Commission	FCC
	General Services Administration	GSA
	Government Accountability Office	GAO
	Office of the Inspector General	OIG
	In-Q-Tel	IQT

Table A.1. Agency Names and Abbreviations Used to Identify Former Officials

B Additional Tables and Figures

Figure A.2. Radiant: Timeline of Private Financing and Government Awards

This figure accompanies the case study and plots all identified funding events for Radiant (2019–2025). Amounts are nominal USD millions at the event date. Private financing rounds, namely Accelerator/Incubator ($0.65M), Series A ($12.62M), Series B ($40.71M), and Series C ($165.00M), rounds are shown as bars. Government awards, Department of Defense/Air Force (R&D Services) ($0.05M and $1.30M) and Department of Energy grant ($1.30M), are shown as diamonds at award dates. A vertical lines flags the moment when a former senior government official joined.