Silicon Valley Everywhere? Startup Accelerators and the Geography of Entrepreneurship

Freda Fang* Mohaddeseh Heydari Nejad†

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Abstract

Startup accelerators and incubators serve as intermediaries between entrepreneurs and investors and have become central to regional economic development policy. This paper examines their general equilibrium impact: do they expand entrepreneurial activity or merely reallocate it across firms and industries? We study the staggered rollout of the Creative Destruction Lab (CDL), which launched 27 industry-specific streams in 10 cities between 2012 and 2021, and link program entry to Crunchbase data on firm formation and venture financing. To address concerns about endogenous targeting, we use OpenAlex data and construct a novel instrument based on academic connectivity to CDL's founding institution, the University of Toronto. Our estimates show that CDL entry increases firm formation both in targeted industries and at the aggregate city level, consistent with an expansion in entrepreneurial supply. By contrast, we find little evidence of increased aggregate venture financing, except in Canada where CDL has a larger presence. We also document reallocation of entrepreneurs toward targeted industries within cities, without a corresponding reallocation of capital. Taken together, the results suggest that accelerators expand the supply of new ventures but not the supply of capital, intensifying competition for scarce financing. By boosting local entrepreneurship and affecting industry composition, accelerators play a key role in shaping place-based innovation policy.

JEL: L26, O38, O31, R11, R58, L53, G24
Keywords: Innovation policy; Accelerators; Entrepreneurship; Regional economic development

*Rotman School of Management, University of Toronto. Email: freda.fang@rotman.utoronto.ca
†Kelley School of Business, Indiana University. Email: mheydari@iu.edu .

1 Introduction

What happens when regions attempt to replicate Silicon Valley's model through accelerators? Startup accelerators and incubators have rapidly become a cornerstone of regional innovation policy. Governments and universities around the world sponsor these intermediaries to spark entrepreneurship, attract venture capital, and stimulate local economic growth. By providing mentorship, structured access to investors, and integration into entrepreneurial networks, accelerators promise to lower barriers for new firms and connect cities to the global startup ecosystem.

Accelerators offer a unique lens into the broader question of how institutions and intermediaries shape the allocation of entrepreneurial talent and capital. The literature has largely focused on direct benefits to participating firms of incubators or accelerators, but much less is known about the general equilibrium consequences of these programs for local entrepreneurial ecosystems. Addressing this gap is essential to understanding how startup–investor intermediaries shape the broader "market for ideas."

This distinction is central to both policy and academic debates. For policymakers, accelerators represent a substantial investment in place-based economic development. If they generate firm creation and capital inflows, accelerators can serve as an effective tool for innovation and long-term growth. If accelerators primarily improve matching between existing entrepreneurs and investors, helping better projects get funded while displacing weaker ones, their social value will be positive but more limited. Alternatively, if they expand entrepreneurial entry by providing essential resources unavailable elsewhere, they could generate substantial economic value by bringing new ideas into existence. Understanding which mechanism dominates is crucial for evaluating the efficiency of these programs and designing optimal innovation policies.

Our study addresses this question using the expansion of the Creative Destruction Lab (CDL), a global accelerator that launched industry-specific streams in 10 cities between 2012 and 2021. Unlike most accelerators, which operate as general-purpose programs, CDL targets sectors such as artificial intelligence, health, energy, or oceans in different years and locations. This staggered, sector-specific design allows us to examine whether accelerators expand entrepreneurship overall, reallocate activity across industries, and affect regional risky capital flows.

We provide causal evidence on these broader effects. We study the staggered expansion of the Creative Destruction Lab (CDL), a global accelerator that launched industry-specific streams across cities from 2012 to 2021. CDL's structure, distinct industry programs within each city hosted by a business school, creates within-city, cross-industry variation that allows us to control for city-time shocks while identifying industry-specific effects. The main challenge for causal estimation is that accelerators endogenously locate in regions with strong entrepreneurial prospects, confounding

causal effects with preexisting local advantages. Moreover, the types of streams launched depend on local conditions. For example, CDL introduced an "ocean" stream in Halifax, a city by the Atlantic Ocean, but not in landlocked Calgary. We address these concerns using an event-study design that exploits the staggered and exogenous timing of CDL launches.

To further alleviate this issue, we examined CDL's expansion process through conversations with program staff. The decision to open a stream depends mainly on the willingness of a local business school to host the program, a process that takes months to years and is not tied to short-run entrepreneurial conditions. Consistent with this setting, we observe flat pre-trends in our outcomes within the event-study setting. We estimate effects using three complementary strategies: (i) difference-in-differences (DiD) across industries within cities, (ii) triple-differences incorporating untreated cities, and (iii) city-level regressions testing whether CDL entry expands overall entrepreneurial activity or reallocates it across industries.

To mitigate concerns about endogenous targeting of city–industry pairs, we develop a novel instrumental variable based on whether CDL founders maintain pre-existing networks in another city or institution, which facilitates launching a stream there. We use OpenAlex data to obtain academic publications coauthored by University of Toronto faculty and researchers at institutions in potential host cities, restricted to business and management–related journals.

This measure captures the strength of academic ties between Toronto and prospective sites. These ties are highly predictive of CDL expansion since every new program must be hosted by a local business school, thus this expansion is probably correlated with CDL organizers' networks, that are plausibly orthogonal to short-run entrepreneurial dynamics or industry-specific shocks. The assumption is, while academic connectivity between University of Toronto faculty and institutions in a focal city predicts CDL entry, it should not directly influence contemporaneous firm founding or financing in that city through any channel other than CDL entry. The instrument thus provides a valid source of exogenous variation for identifying the causal impact of accelerator entry on local entrepreneurship and financing.

Our empirical analysis focuses on two outcome measures that characterize local entrepreneurial activities. First, we examine *the number of new start-ups founded*, which directly captures whether intermediaries induce additional entrepreneurial ventures. Second, we analyze *aggregate financing*: the total money invested in all startups within a city or city-industry pair, in a given year, which reflects the amount of resources investors directed to a specific geography or industry around the launch year. Critically, these two measures can diverge in economically meaningful ways. If CDL increases firm entry, but aggregate financing remains constant, this suggests new ventures are competing for a fixed pool of capital, increasing competition among firms within a city, and financing resources are reallocated rather than expanded. Such reallocation creates a tension. On one hand,

competition may channel resources toward stronger ventures with better ideas, management, or growth prospects. On the other hand, marginal or lower-quality entrepreneurs enter not because their ideas are viable, but because they perceive new funding opportunities. In this scenario, the number of firms rises without a corresponding increase in the quality of projects, leading to dilution of the entrepreneurial quality. By contrast, if both entry and financing rise together, this signals a genuine expansion of the local entrepreneurial ecosystem. Yet important questions remain about how resources are distributed across industries, and whether this allocation is efficient and contributes to long-term growth. Lastly, if neither entry nor financing changes, incubators may function primarily as support mechanisms for existing startups, leaving the composition of local industries and the broader entrepreneurial ecosystem largely unchanged.

Using comprehensive data on timing of CDL launches, startup formation, and financing activity from Crunchbase, combined with academic publication records from OpenAlex, we find that accelerator entry raises overall firm entry. To address endogeneity, we use a time-varying measure of academic connectivity as an instrument for CDL launches, defined at the city-year level. Since a city can experience up to six launches, this approach leverages multiple treatment events. Each launch is associated with up to 50 additional startups, representing about a 30% increase compared to never-treated or not-yet-treated cities. The estimates suggest that CDL lowers barriers to entrepreneurship and expands the local entrepreneurial base. We also replicate the test under an event-study framework, and similar results, with only weaker power and magnitude.

We further document a reallocation of entrepreneurs toward targeted industries. Using a city–industry–year panel and an event-study framework with high-dimensional fixed effects, we find that CDL launches substantially increase startup formation in treated industries, after controlling for city–year expansion. On average, treated industries within a city experience about 10 additional startups relative to other local industries—roughly 50% of the conditional mean. These results are robust in a triple-differences specification: the entry gap between treated and untreated industries within a city is about 10 firms larger than the corresponding gap in untreated cities. This reallocation phenomenon diminishes in the long term.

However, we find that accelerators are less likely to affect investors' activities. We find no corresponding increase in aggregate financing inflows to targeted industries or host cities, suggesting that capital supply remains fixed and that targeted sectors simply face greater competition. An important exception arises in Canada: each CDL launch is associated with a 59% increase in city-level financing relative to untreated cities. This highlights a key condition for accelerators to boost capital inflows, local presence and limited competition from other intermediaries. Consistent with this view, the effect diminishes when focusing on US cities, where accelerators face a more crowded landscape.

These findings have direct implications for the design of place-based innovation policies. Accelerators can broaden the entrepreneurial base of cities and shift resources toward strategic industries, but realizing their full benefits may require complementary policies that address capital constraints, such as attracting outside investors or fostering cross-border venture flows. More broadly, our analysis highlights the general equilibrium role of accelerators in entrepreneurial finance: by reshaping the allocation of scarce early-stage capital, they influence both the composition of local industry and the trajectory of regional specialization.

This paper proceeds as follows. Section 2 discusses the related literature. Section 3 describes our data and institutional setting. Section 4 presents our empirical strategy. Section 5 reports results, and section 6 concludes.

2 Related Literature

This paper contributes to several bodies of literature. Our work sits at the intersection of entrepreneurial finance, economic geography, and innovation economics, providing novel causal evidence on how startup accelerators affect local entrepreneurial activity.

A growing body of work studies the geographic clustering of entrepreneurial activity and the factors that drive regional differences in startup formation and success. Pioneering work by Saxenian (1996) documented the importance of regional networks and institutional factors in explaining Silicon Valley's dominance, while Glaeser et al. (2015) provides systematic evidence on the role of human capital, industrial composition, and local amenities in determining entrepreneurial activity across U.S. cities. Lerner (2013) discusses the limits of innovation policy in promoting entrepreneurship, arguing that poorly designed programs risk misallocating resources and failing to generate additional innovation. More recent work by Guzman and Stern (2020) develops comprehensive measures of entrepreneurial quality and performance across regions, revealing substantial heterogeneity in both quantity and quality of entrepreneurial activity.

The role of venture capital in shaping entrepreneurial ecosystems has received considerable attention. Samila and Sorenson (2011) demonstrates that increases in local venture capital supply lead to greater entrepreneurial activity, while Lerner (2000) shows that venture capital is significantly more potent than R&D in stimulating innovation. However, Chen et al. (2009) finds that venture capital's impact depends critically on the pre-existing entrepreneurial infrastructure, suggesting that the effects of new intermediaries may vary across regional contexts.

The rapid increase in the number of startup accelerators has generated increasing academic interest in understanding their role in entrepreneurial ecosystems. Early work by Miller and Bound (2011) documented the growth of "startup factories" globally, while Fehder and Hochberg (2014)

provides the first systematic evidence that accelerator programs increase local entrepreneurial financing. Their analysis of program launches across U.S. metropolitan areas finds positive effects on early-stage funding.

Gonzalez-Uribe and Leatherbee (2018) use a regression discontinuity design around Startup Chile's application cutoffs, showing significant impact on new venture performance. However, these studies focus primarily on direct effects on participating firms rather than ecosystem-wide spillovers. The mechanisms through which accelerators affect startups have also received attention. Hallen et al. (2020) synthesize existing evidence and propose that accelerators work primarily through reducing information asymmetries and providing social capital connections. Dempwolf et al. (2014) emphasizes the role of mentorship and networking. Nejad (2024) develops a structural model to study different mechanisms through which mentorship improves entrepreneurial outcomes in an accelerator setting, and Sariri (2025) examines how advice from angel investors and venture capitalists within an accelerator program affect start-up performance.

Our work also contributes to the extensive literature on venture capital and entrepreneurial finance. Hellmann and Puri (2002) demonstrates that venture capital backing accelerates product development and market entry, and that VC-backed firms grow faster and are more likely to go public. Nanda and Rhodes-Kropf (2013) highlight how fluctuations in capital supply over investment cycles shape the type and innovativeness of startups that enter. Ewens et al. (2018) document and provide a framework to understand the shift in VC investment strategy toward a "spray and pray" approach. They show that this adoption disproportionately favors innovations where information about future potential is revealed quickly and cheaply, reducing relative investment in complex technologies with costly and less informative early signals.

The geographic dimension of venture capital has been explored by Cumming and Dai (2010), who find that local VC presence significantly affects regional entrepreneurial activity. Lerner et al. (2018) document the globalization of angel investing across countries, showing how cross-border capital flows expand entrepreneurial finance but also depend on institutional quality and local ecosystems. Agrawal et al. (2015) analyze geography and social networks in crowdfunding, showing that spatial and social proximity influence early-stage financing and the timing of entrepreneurial investment decisions. Recent work has examined whether venture capital expands or reallocates entrepreneurial resources. Bernstein et al. (2019) studies the impact of an influx of capital into the venture capital industry on the financing of early-stage innovation. Similarly, Howell (2017) uses variation in SBIR grant timing to show that R&D subsidies increase innovation without merely displacing private investment.

Our findings relate to the broader literature on place-based innovation policies and their effectiveness. Glaeser et al. (2010) provides a theoretical framework for evaluating place-based policies,

emphasizing the importance of distinguishing between policies that create value versus those that redistribute economic activity. Kline and Moretti (2014) develop a structured approach to assessing the consequences of place-based policies, highlighting the challenges in identifying net welfare effects. Chatterji et al. (2014) review academic work on the spatial concentration of entrepreneurship and innovation in the United States and discuss the economic consequences of clusters. Wallsten (2000) studies federal R&D subsidies and finds little evidence of additionally, suggesting that such programs primarily crowd out private investment.

Methodologically, our paper contributes to a growing literature seeking to identify causal effects in entrepreneurship research through quasi-experimental designs. The endogenous nature of most entrepreneurial phenomena makes causal identification particularly challenging, as noted by Parker (2005) in his comprehensive review of empirical entrepreneurship research. Kerr (2008) employs industry-specific immigration shocks to study effects on entrepreneurship among different ethnic groups. Our use of staggered policy rollouts follows a growing literature exploiting such variation for causal identification.

This paper makes several contributions to existing literature. First, we provide novel causal evidence on ecosystem-wide effects of startup accelerators, addressing a key limitation of existing studies that focus primarily on direct effects on participating firms. Second, we distinguish between expansion and reallocation effects, contributing to policy debates about the net benefits of entrepreneurship programs. Third, our instrumental variable approach provides a novel identification strategy to alleviate the endogeneity concerns.

3 Data and Sample

3.1 Institutional Setting: Creative Destruction Lab

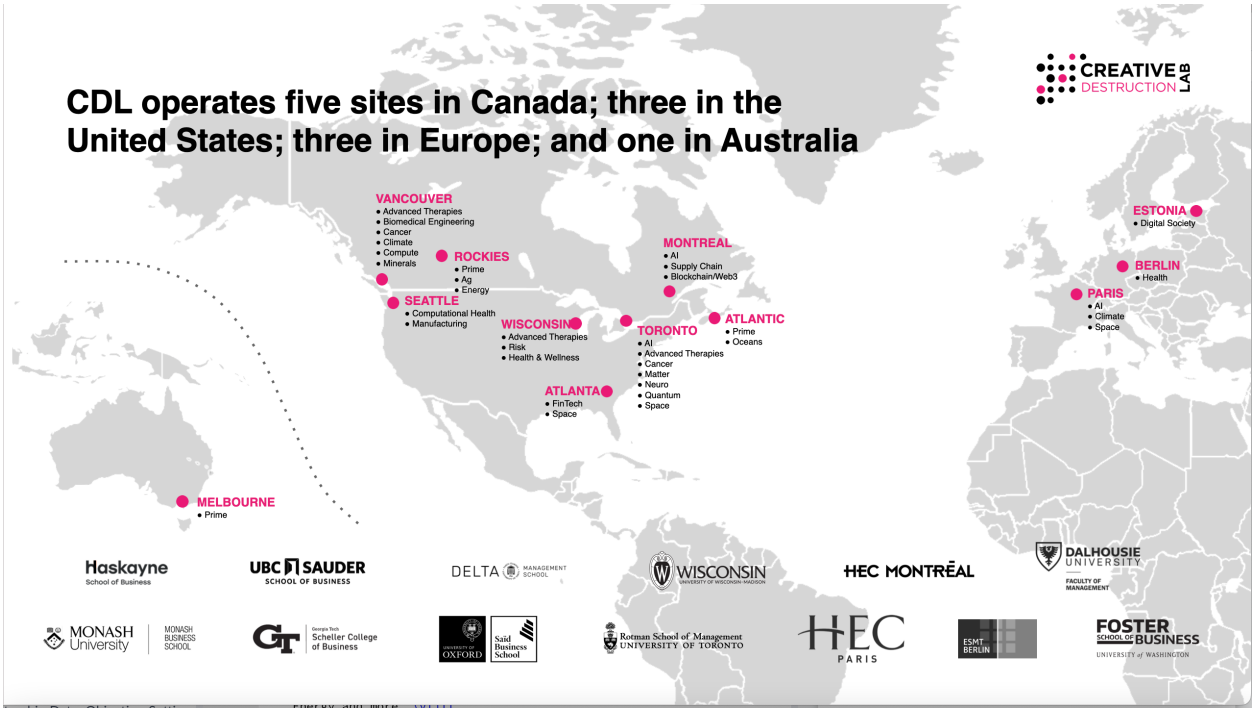
Creative Destruction Lab (CDL) is a global startup accelerator program founded at the University of Toronto's Rotman School of Management in 2012. CDL operates as a non-profit mentoring program specifically designed for early-stage, high-technology ventures. The program's unique structure makes it particularly well-suited for studying the causal effects of startup-VC intermediation on local entrepreneurial ecosystems.

CDL's expansion follows a distinctive pattern that creates the variation we exploit for identification. The program launches industry-specific "streams" (such as artificial intelligence, healthcare, quantum computing, or fintech) in different cities at different times. Each stream is hosted by a business school in the target city and focuses on startups in a particular technological domain. This staggered rollout across both geographic and industry dimensions provides the quasi-experimental

variation necessary to identify causal effects.

Between 2012 and 2021, CDL expanded from its original Toronto location to 10 sites across Canada, the United States, Europe, and Australia, launching 27 specialized technology streams. Each stream operates as a 9-month program featuring structured mentoring sessions where experienced entrepreneurs, venture capitalists, and industry experts provide guidance to participating startups. The program concludes each session with mentor commitments to support specific ventures, creating a direct link between startup participation and access to capital networks. A full description of the CDL dataset is provided in Sariri et al. (2025)

Figure 1: **CDL Map.** This map shows the current map of CDL locations and the streams.



3.2 Data Sources

Our analysis combines three primary data sources that together provide comprehensive coverage of entrepreneurial activity, venture capital flows, and CDL program operations.

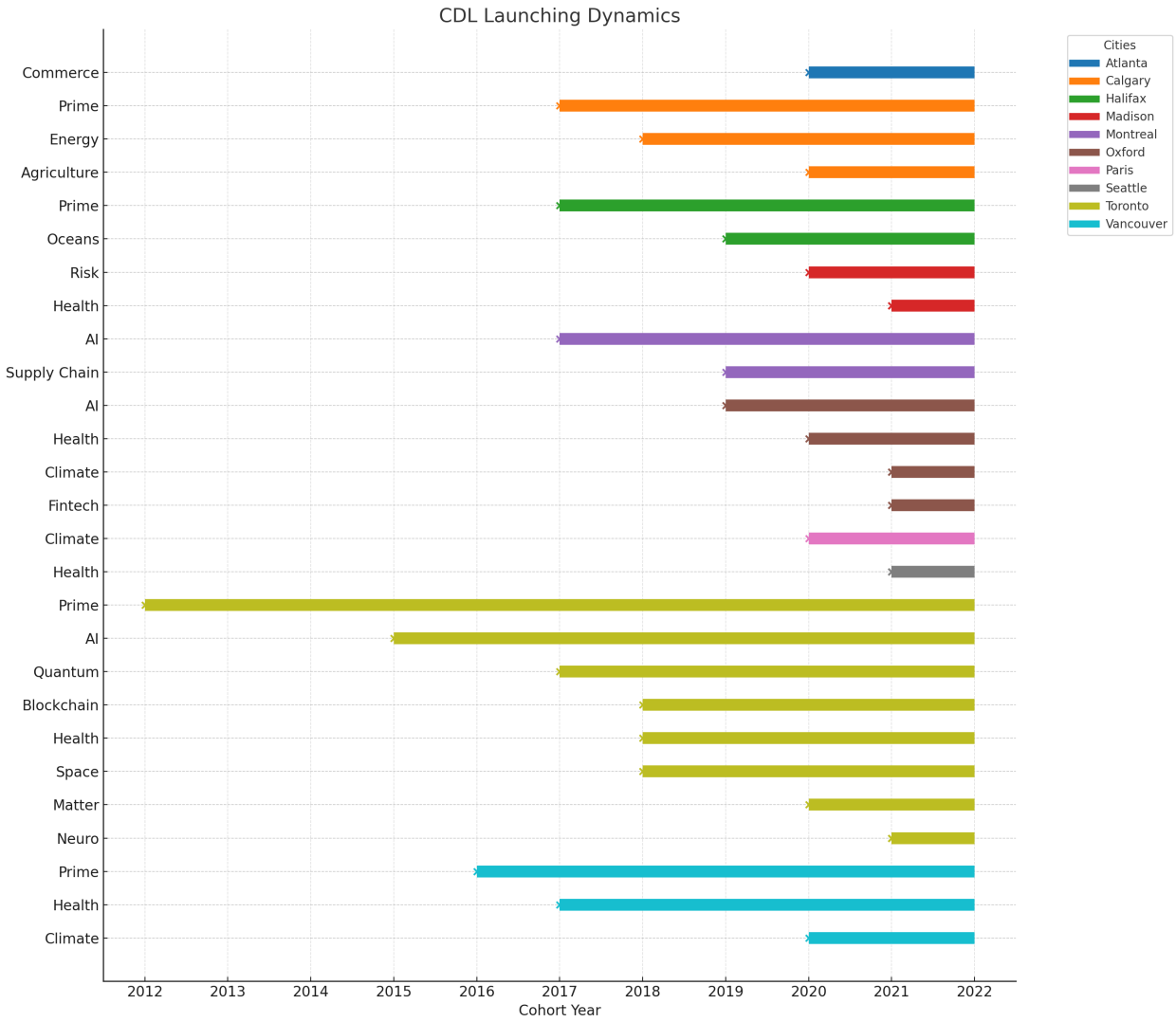
CDL Program Data

We obtain detailed information on CDL stream launches from the program's administrative records. This dataset includes the timing of each stream launch, the host city and business school, the industry focus of each stream, and participation records. The data covers all stream launches from

2012 through 2021, providing us with 27 stream-city entry events across 10 cities. For each stream launch, we record the following:

- Launch Timing: the first year a stream began accepting ventures in a focal city
- Geographic Information: Host city, country, and associated business school
- Industry classification: Focus of each stream (e.g., AI, healthcare, fintech)
- Participation: Applications and admission records for each stream over time.

Figure 2: **CDL Launching Dynamics.** This figure shows the launch timing of each CDL city-stream pair.



To ensure an accurate estimation of the effect of the treatment, we exclude two launches that

lasted only one year before being discontinued: the *Recovery* stream, which aimed at COVID-related recovery solutions, and the *Prime* stream in New York City. Validating the *Recovery* stream shows that this industry specification is extremely rare, with essentially zero entries on average. Similarly, excluding New York City from the sample does not materially affect the results. The utilization of these programs varies depending on whether we employ the city–industry–year panel or the city–year panel, and on the chosen specification, which we explain in more detail in the methodology section.

Crunchbase Data

We complement the CDL data with Crunchbase, a comprehensive database of startup companies and investment activity. Crunchbase provides detailed information on company formation, funding rounds, and business characteristics that allow us to construct measures of local entrepreneurial ecosystems. From Crunchbase, we extract firm-level data, including founding date and geographic location (city, country), industry classification, and financing round details. From geographic location, we construct the distance from a city to the closest CDL site. Then we map Crunchbase industry categories to standardized classifications that align with CDL's stream categories. This mapping allows us to identify which startups would be eligible for specific CDL streams based on their technological focus.

We restrict our sample to firm founding and financing activities from 2000 to 2022 to ensure enough time period pre- and post-treatment. Table 1 Panel A provides the summary statistics on the venture-level sample. 57.6% of the sample comes from countries that have at least one CDL launch by 2022.[1], while 3.1% comes from the exact CDL site cities. 12.5% of the firm has at least one round of positive financing from investors.[2] Overall, firms are more likely to be in the AI and Health streams compared to the other CDL streams.

We then aggregate the firm-level sample to a city-industry-year panel by aggregating the number of firms founded (total amount raised) in a given year. Table 1 Panel B provides the summary statistics. We restrict to city-industry pairs that have at least one firm entry or positive financing in a given year.[3] Overall, both the number of new firms and aggregate financing are extremely right-skewed, with a few cities generating a large amount of entry and attracting capital inflows. Table 1 Panel C provides statistics on only the cities that experienced at least one CDL launch between 2012 and 2021.

[1] They are Canada, UK, France, and the US.

[2] We exclude financing rounds that do not disclose the amount, as well as non-monetary rounds like non-equity assistance.

[3] We've also constructed a balanced panel where we impute all missing values as zero. Whether using a balanced or unbalanced panel does not materially affect our results.

OpenAlex Research Publication Data

To construct our instrumental variable, we use comprehensive academic publication data from OpenAlex API, an open-access bibliographic database covering over 200 million scholarly works across all disciplines. OpenAlex provides structured metadata on publications, authors, institutions, and citation patterns. We focus specifically on publications in economics, business, and management journals to capture the professional networks most relevant to CDL's expansion strategy. We employ a list of 100+ top-tier business journals spanning multiple fields, including general management, economics, finance, marketing, operations, entrepreneurship, and international business.

An advantage of using publications as the primary proxy for academic connectivity is that it alleviates concerns that business research is reacting quickly to industry waves (such as ESG, real estate, or AI). Because there is typically a significant lag between when a study is conducted and when it is published, a paper appearing in 2020 may actually reflect connections formed as early as 2016. This lag helps avoid conflating academic connectivity with contemporaneous shocks occurring in 2020, thereby better satisfying the exclusion restriction.

3.3 Key Variable Construction

Outcome Variables

- *Firm Entry:* The number of new startup companies founded in each city-industry-year or city-year combination, as recorded in Crunchbase
- *Log(Entry):* The logarithm of firm entry
- *Aggregate Financing:* The logarithm of total financing raised by startups within each city-industry-year or city-year pair, measured in USD

Treatment Variables

- *Treated City-Stream* $\times$ *Post:* An indicator equal to one for all periods after the launch of a given stream in a focal city, and zero for city–stream pairs that are not yet treated or never treated. Each city–stream can only be launched once.
- *Treated City* $\times$ *Post:* An indicator equal to one for all periods after the **first** CDL launch in the city, and zero for cities that are not yet treated or never treated.[4]

[4]In a stacked DiD specification, each treatment is grouped into a stack, which allows us to capture the average treatment effect of each launch if a city experienced more than one launch.

- *Treatment Intensity:* An integer capturing the cumulative number of CDL launch events over time, to reflect that many cities experience multiple launches. Treatment intensity increases by one if at least one launch occurs in a given year. For example, Toronto reaches a treatment intensity of six by 2021.

3.4 Instrumental Variables

A primary empirical challenge in identifying the causal effects of startup accelerators on local entrepreneurial ecosystems is the endogenous location of such programs. Accelerators strategically choose cities and timing based on expected returns, local entrepreneurial potential, and pre-existing advantages that may themselves affect startup formation and venture capital flows. This endogeneity threatens the validity of difference-in-differences estimators, as treatment assignment is correlated with unobserved determinants of entrepreneurial outcomes.

To address this challenge, we construct a novel instrumental variable that exploits the institutional structure governing CDL's expansion decisions. Since all CDL programs must be hosted by a business school in the target city, expansion decisions are influenced by the academic networks and collaborative relationships between the University of Toronto, which is CDL's founding institution, and business schools in potential host cities. We leverage this institutional feature to construct instruments based on academic connectivity in business research between Toronto faculty and researchers at institutions in prospective CDL cities.

Academic Connectivity Measures

For each potential CDL host city c and time period t, we construct several measures of academic connectivity between the University of Toronto and institutions in target city c. First, we construct a time-invariant binary connection measure:

$$\text{Has_Academic_Connection}_c = \mathbf{1}[\text{Collaborations}_c > 0]$$

where Collaborations_c represents the count of joint publications between University of Toronto's faculty and researchers at institutions in city c. We also measure the intensity of academic relationships using citation-weighted number of collaborations:

$$\text{Connection_Strength}_c = \sum_{p \in P_c} (1 + \ln(1 + \text{Citations}_p))$$

where P_c denotes the set of collaborative publications between Toronto and city c, and Citations_p is the citation count for paper p. The logarithmic form reduces the influence of extremely highly cited papers. We then construct a time-invariant instrument:

$$\text{Academic_Connectivity_Instrument}_c = \ln\left(\frac{\text{Connection_Strength}_c}{1 + \text{Distance}_c}\right)$$

where Distance_c is the distance between Toronto and city c (in kilometers).

We develop time-varying instruments that capture both cumulative and recent connectivity patterns:

$$\text{Time_Varying_Instrument}_{ct} = \text{Recent_Connection}_{ct} + \alpha \cdot \text{Cumulative_Connection}_{c,t}$$

where:

$$\text{Recent_Connection}_{ct} = \sum_{s=t-3}^{t-1} \sum_{p \in P_{cs}} (1 + \ln(1 + \text{Citations}_p))$$

$$\text{Cumulative_Strength}_{c,t} = \sum_{s=t_0}^{t-4} \sum_{p \in P_{cs}} (1 + \ln(1 + \text{Citations}_p))$$

The parameter $\alpha \in [0, 1]$ is the relative importance of historical collaborations, which we set to 0.5.

The validity of our instrumental variable strategy depends on two key assumptions:

Relevance Condition We use the fact that CDL expansion requires business school partnerships, and academic relationships facilitate these institutional arrangements. Our academic connectivity must predict CDL expansion decisions. We formally test relevance through both a cross-section test that shows how the academic connectivity in business-related subjects, between a focal city and the University of Toronto, is correlated with the likelihood of having a CDL site in the focal city (Table 5) and also the first-stage regressions showing that our time-varying connectivity instrument also strongly predict CDL entry (all F-statistics larger than 10: Table 6).

Exclusion Restriction Academic publication patterns between Toronto and potential host cities are not correlated to the conditions of the regional industry condition, and the relevance is about administrative/institutional capacity, not research content.

4 Methodology

4.1 Reallocation: Event-Study Framework

To identify the causal effects of Creative Destruction Lab (CDL) stream launches, we exploit their staggered rollout across cities. Because our Crunchbase sample ends in 2022, we restrict attention to CDL launches between 2012 and 2019 to ensure sufficient post-treatment observations. The "Prime" stream, which targets firms with general "technology" rather than an industry focus, is typically introduced before any industry-specific stream. We exclude all "Prime" streams from the analysis, as our objective is to study how industry-oriented launches shape local industry composition. This yields all launches from 2015 to 2019.

First, we compare treated and untreated industries within the same city using traditional DiD with two-way fixed effects estimation, by focusing on cities with at least one CDL launch. We further deploy Callaway–Sant'Anna Estimator to pair observations at t0 and t1, as a robustness check. Second, we implement a triple-difference approach that incorporates never-treated cities as additional controls, absorbing both city-year and industry-year shocks, as well as city-industry cross-sectional variations.

Specification 1: Within-City Industry Comparison

Our baseline identification strategy exploits the variation in the timing of CDL stream launches across industries within the same city. We restrict the sample to treated cities that host at least one CDL stream during our observation period, and estimate the following difference-in-differences specification at the city-industry-year level:

$$Y_{cit} = \beta \cdot \text{Treated Industry}_i \times \text{Post}_{cit} + \gamma_{ci} + \tau_{ct} + \varepsilon_{cit} \tag{1}$$

where Y_{cit} represents our outcome variables (firm entry or financing) for city c, industry i, in year t. The variable $\text{TreatedIndustry}_i \times \text{Post}_{cit}$ equals one for all periods after the launch of a given stream targeting the industry in city c after year t. We include city-industry fixed effects (γ_{ci}) to control for time-invariant differences across city-industry pairs, and city-year fixed effects (τ_{ct}) to account for city-specific temporal shocks. Standard errors are clustered at the city-industry level.

The coefficient β captures the change in outcomes for treated industries relative to untreated industries within a city after the launch of the CDL stream. This specification controls for any cross-sectional differences between cities in terms of their industry composition (for example, Halifax has more fishing-related businesses while Calgary does not), as well as city-level shifts in the entrepreneurial environment (for example, city-level startup expansion). With these fixed effects in place, the coefficient likely captures the reallocation of entrepreneurs across industries.

The identifying assumption is that treated and control industries within the same city would have followed parallel trends in the absence of CDL intervention. Figure 3 presents three estimators: Callaway-Sant'Anna, TWFE, and Sun & Abraham, all of which indicate that the parallel trends assumption is satisfied, under both the nominal number of entries and the logarithm of firm entry.

Specification 2: Triple Difference with Control Cities

To address potential concerns about industry-specific trends and shocks that might coincide with CDL launches, we expand our analysis to include cities that never host CDL streams as additional controls. This allows us to implement a triple-difference strategy with high-dimensional fixed effects:

$$Y_{cit} = \beta \cdot \text{Treated City}_c \times \text{Treated Industry}_i \times \text{Post}_{cit} + \gamma_{ci} + \delta_{ct} + \theta_{it} + \varepsilon_{cit} \tag{2}$$

This specification includes city-industry fixed effects (γ_{ci}), city-year fixed effects (δ_{ct}), and industry-year fixed effects (θ_{it}). The coefficient β now represents the DiD estimate for treated versus untreated industries within treated cities, net of the corresponding difference in untreated cities during the same time periods.

This approach accounts for both city-specific temporal shocks (such as local economic cycles or policy changes) and industry-specific temporal trends (such as technological developments or market conditions affecting particular sectors globally). The coefficient captures the extent to which entrepreneurs reallocate towards treated industries within a focal city, using such trends in never-treated cities as a counterfactual.

The identification assumption is that the interaction between city and industry trends would be similar across treated and untreated cities in the absence of CDL intervention. Figure 4 presents two estimators: TWFE and Sun & Abraham, all of which indicate that the parallel trends assumption is satisfied.

4.2 Expansion: Instrumental Variable Approach

Going beyond reallocation, we are interested in whether the CDL launch would expand city-level entrepreneurship activities. To test this hypothesis, instead of focusing on shocks at the city-industry level, we observe multiple shocks (CDL launches) at the city level over time. According to Figure 2, a city can experience from 1 to 6 treatments from 2012 to 2021.

Specification 3: Aggregate City-Level Analysis

To test whether CDL stream launches generate positive spillovers to the broader local entrepreneurial ecosystem or reallocate activity across industries, we aggregate outcomes to the city level and estimate:

$$Y_{ct} = \beta \cdot \text{Treated City}_c \times \text{Post}_{ct} + \gamma_c + \tau_t + \varepsilon_{ct} \tag{3}$$

where Y_{ct} represents total firm entry or aggregate financing across all industries in city c during year t. We include city fixed effects (γ_c) and year fixed effects (τ_t), with standard errors clustered at the city level.

The coefficient β measures whether cities experiencing CDL stream launches see changes in aggregate entrepreneurial activity relative to control cities. A positive and significant β would suggest that CDL creates net positive spillovers to the local ecosystem, while an insignificant coefficient would be consistent with reallocation of entrepreneurial activity across industries without expanding the overall entrepreneurial pie.

To address endogenous program placement, we estimate two-stage least squares models for Specification 3, instrumenting for CDL entry using time-varying academic connectivity between the University of Toronto and potential host cities. Moreover, we deploy two outcome variables: treated $\times$ post and treatment intensity.

5 Results

This section interprets the results of estimating the specifications in equations 1, 2, and 3.

5.1 Within-city industry comparisons (baseline DiD)

We first compare treated and untreated industries *within the same city* around the launch of a CDL stream (equation 1). Figure 3 presents dynamic difference-in-differences (DiD) estimates using

different estimators. The event-study coefficients for *firm entry* show a sharp and persistent post-launch increase, while pre-launch coefficients are statistically indistinguishable from zero, consistent with parallel trends. However, *aggregate financing* within the treated city–industry does not show a positive response after launch. These patterns hold across estimators.

Table 2 shows the results of estimating specification 1 for *firm entry* and *financing* dynamics around CDL stream launch. Column (1) reports the results of the Callaway–Sant'Anna estimator and shows an increase in the number of new firms in treated city–industry pairs relative to untreated ones. The effect remains significant in Column (2) when controlling for city–year fixed effects with the TWFE estimator, suggesting that the result reflects a reallocation of entrepreneurial activity across industries once overall city-level entrepreneurial activity is accounted for. For aggregate financing, the corresponding post-event average is close to zero and not statistically different from zero. Greater startup formation within treated industries, together with no financing reallocation towards the treated industry, speaks to heightened competition within the treated industries and is consistent with an "idea chase capital" narrative.

5.2 Including never-treated cities (triple difference)

We next incorporate never-treated cities and flexibly absorb both city–year and industry–year shocks using the triple-difference specification in equation 2. Figure 4 shows that the post-launch increase in firm entry persists when compared to never-treated cities, while aggregate financing remains near zero on average. Table 3 shows the results of estimating specification 2 for *firm entry* and *financing* dynamics. These results confirm the baseline DiD results in section 5.1: CDL launches shift the composition of local entrepreneurial activity toward the treated industry without clear evidence of an increase in capital supply. Accounting for city–year and industry–year FEs rules out alternative explanations based on local or sectoral cycles. Results confirm our conclusion from the previous specification.

5.3 Aggregate city-level effects

To test whether CDL stream launches expand the *overall* local entrepreneurial pie (as opposed to reallocating activity across industries within the city), we aggregate outcomes to the city–year level and estimate equation 3. Table 4 reports the effect of the CDL launch by comparing differences in city-level firm entry and financing between the treated city and not-yet-treated cities around the stream launch year. We capture multiple instances of treatment using *Treatment_Intensity*, which increases by one if there is at least one stream launch event in a year. We also use stacked diff-in-diff to account for the fact that cities are treated multiple times.

The results demonstrate that CDL stream launches significantly increase overall firm entry at the city level, with estimates ranging from 7% to 15% across different specifications and estimators. However, we find weak evidence on aggregate financing at the city level, despite that all estimators are positive, suggesting that while CDL attracts additional ventures to treated cities, it does not expand the total capital supply available to that local entrepreneurial ecosystem.

5.4 Instrumental Variable Results

Table 5 reports OLS regressions where the dependent variable is an indicator for whether a city hosts a CDL site. The independent variables are three measures of academic connectivity between the University of Toronto and institutions in the focal city: (i) an indicator for any prior collaboration (*Has_Academic_Connection*), (ii) a continuous index based on citation-weighted co-authorship counts (*Connection_Strength*), and (iii) a log-scaled index that adjusts for Toronto–city distance (*Academic_Connectivity_Instrument*). Across specifications without and with country fixed effects, the estimates are positive and statistically significant for all measures. Economically, cities with Toronto ties are more likely to host CDL, and stronger ties predict a higher probability of hosting. This finding aligns with the program's institutional requirement that streams be hosted by a local business school and supports the use of academic connectivity as an instrument of CDL stream launch.

We next address the endogenous timing and placement of CDL streams by estimating two-stage versions of our event study specifications. We instrument the treatment indicator with time-varying academic connectivity between Toronto and potential host cities, constructed from OpenAlex publication ties in business-related fields. Table 6 presents two-stage least squares estimates that use time-varying academic connectivity between the University of Toronto and local business schools as an instrument for CDL entry. The dependent variables in these models are at the city level. Panel A reports results for Canadian cities; Panel B restricts the sample to treated cities only. Across both panels, the first stage shows strong predictive power of academic connectivity for CDL launches, with Kleibergen–Paap Wald statistics well above conventional thresholds, supporting instrument relevance. In Canadian cities (Panel A), a CDL launch increases the number of new firms, and these effects are also reflected in financing outcomes: CDL entry raises aggregate capital in treated cities.

The IV results reinforce our baseline findings on expansion, while suggesting that OLS underestimates the true causal impact of CDL. Accelerator entry induces a substantial expansion in the number of startups, with stronger and more robust effects on entry than on venture capital inflows. This pattern is consistent with the interpretation that CDL lowers barriers to firm formation more directly than it relaxes local financing constraints.

Table 7 reports IV estimates that instrument for CDL entry at the city–industry level, rather than at the aggregate city level as in Table 5. This design exploits within-city variation across industries, comparing treated streams with untreated ones in the same city, while instrumenting treatment with time-varying academic connectivity.

The first-stage regressions confirm instrument strength, with statistically significant coefficients on academic connectivity. The second-stage estimates indicate that CDL entry generates large increases in firm formation within treated industries. Consistent with the previous specification, we find financing increases significantly in treated industries if we restrict the sample to Canadian cities, suggesting that accelerator activity is able to channel external capital if it has a strong local presence and fewer external competitors.

6 Conclusion

This paper provides causal evidence on how startup accelerators shape local entrepreneurial ecosystems. We explore whether new intermediaries expand the frontier of entrepreneurial activity or reallocate resources across firms and industries, and we document evidence of both. Exploiting the staggered rollout of the Creative Destruction Lab (CDL) across cities and industries, and instrumenting for entry using academic connectivity to the CDL founding institution, we identify the impact of accelerators on new firm formation and venture financing. We show that accelerator launches expand the supply of startups but do not increase the aggregate local risky capital supply. After controlling for city-level venture expansion, treated industries experience significantly higher firm entry than untreated ones, indicating a reallocation of entrepreneurs toward targeted industries and, consequently, a shift in local industry composition over time. Consistent with the aggregate results, however, we find no evidence of capital reallocation toward treated industries.

These results have two main implications. First, accelerators expand the entrepreneurial base of host cities, likely through lowering barriers to firm formation, providing mentorship, and providing more opportunities for financing by bridging investors and startups. This expansion rules out a pure reallocation story on the entry margin: the pie of entrepreneurship grows as new entrepreneurs enter.

Second, accelerators appear to influence entrepreneurs far more than investors. We find little evidence of city-level expansion on capital supply or capital reallocation toward focal industries. The only sign of CDL launches spurring investment flows is Canada, where CDL has the strongest presence, similar to Y Combinator in the U.S. This suggests an important lesson for policymakers: to expand the entrepreneurial ecosystem as whole, rather than simply intensify competition among firms, complementary policies may be needed to ease capital constraints, such as attracting outside

investors or encouraging cross-border venture flows.

Our findings contribute to a central debate over whether new intermediaries in the entrepreneurship ecosystem expand the frontier of entrepreneurial activity or simply reallocate resources across firms and industries. On the entry margin, we find clear evidence of expansion: CDL lowers barriers to entrepreneurship and brings new founders into the market. We also document evidence that firm entry is redistributed towards targeted industries, leading to a change in local industry composition. On the financing margin, however, the evidence points to crowding within a fixed pool of capital. The welfare implications, therefore, hinge on whether the startups induced by accelerators are of higher or lower quality than those displaced.

Our results also speak directly to the design of place-based innovation policies. Governments worldwide have invested heavily in incubators and accelerators as a tool for regional development. Our evidence suggests that such programs can successfully broaden the entrepreneurial base but may not expand local financial capacity. This finding underscores the complementarity between accelerator design and capital availability: to realize the full benefits of expanded entry, policies may need to simultaneously relax local financing constraints, for example, by attracting new investors, fostering cross-border venture flows, or linking accelerator-backed ventures to non-local sources of capital.

More broadly, our analysis suggests that accelerators should be viewed not as isolated interventions but as part of a general equilibrium system of entrepreneurial finance. By shifting the allocation of scarce early-stage capital, accelerators can change the composition of local industries and potentially the trajectory of regional specialization. Whether such reallocation improves aggregate welfare depends on whether it pushes resources toward more productive sectors, a direction for future research.

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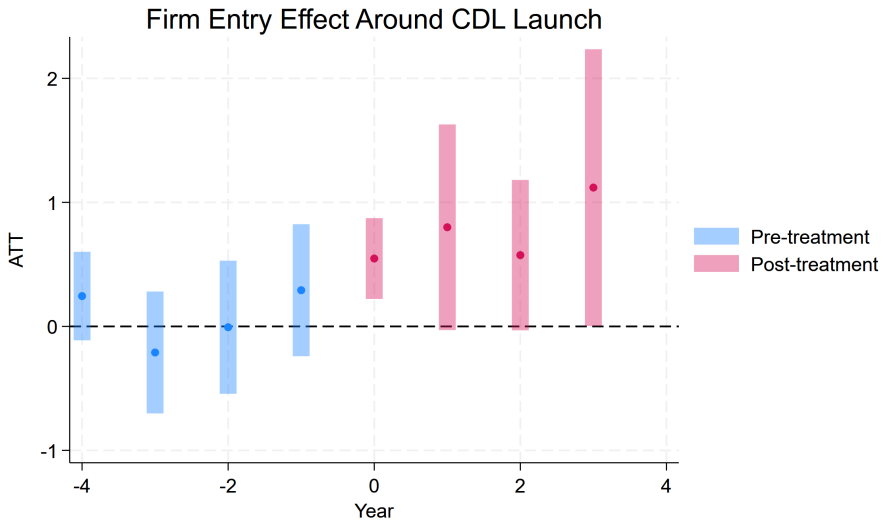
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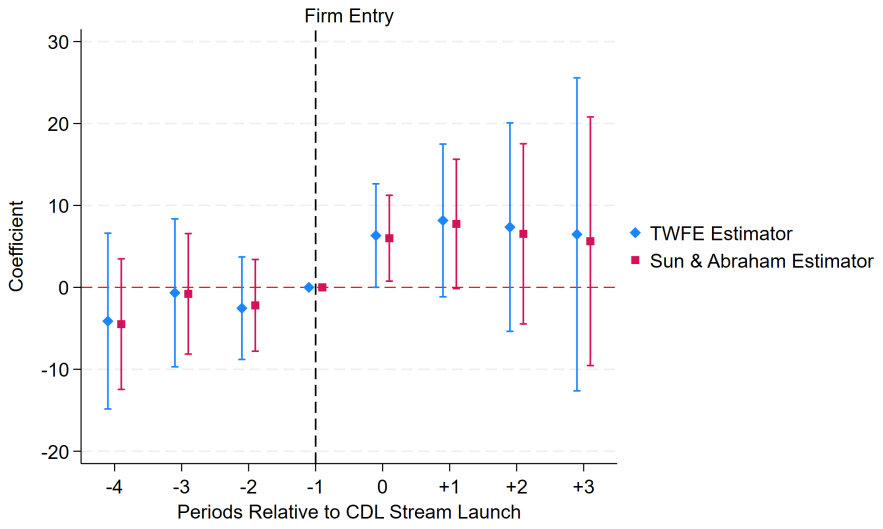
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Figure 3: **City-Industry Market Dynamics Around New CDL Stream Launch: Focal Cities Only.** This figure shows the dynamics of firm entry and the amount of financing attracted around a new stream launch by CDL. We estimate a dynamic DID comparing the treated stream with the non-treated ones within the same city. To allow for an adequate post-period, we restrict our analysis to launches before 2020 and control groups to never-treated or not-yet-treated city-industry pairs. The specification includes city × industry FEs and year FEs. The year before the event is omitted as the base year. Standard errors are clustered by city × industry.

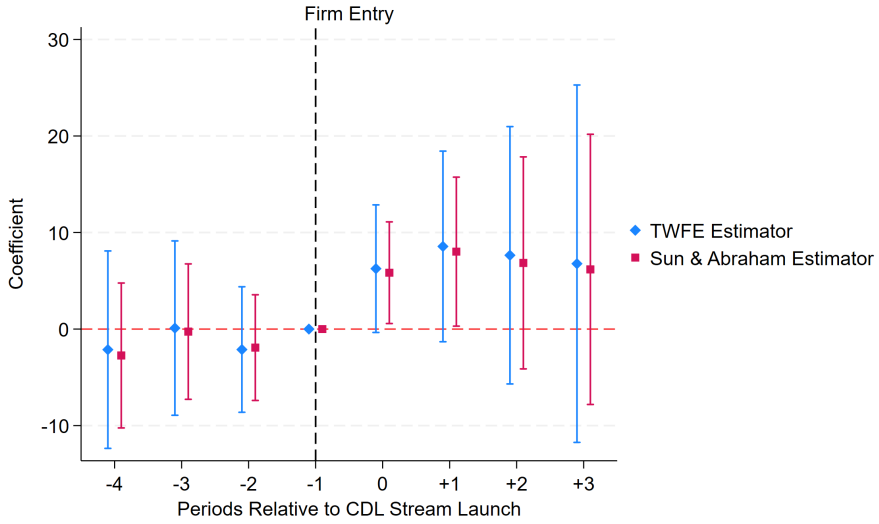


(a) Firm Entry, Callaway–Sant'Anna Estimator

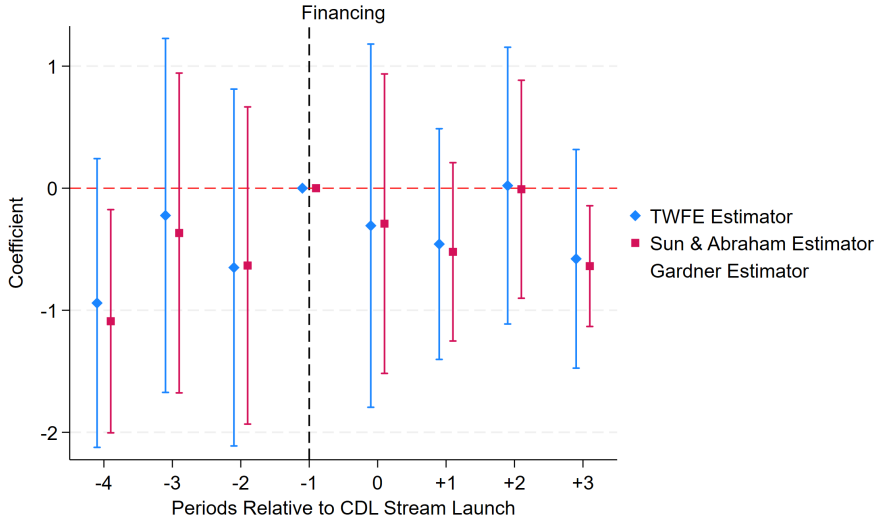


(b) Firm Entry, Other Estimators

Figure 4: **City-Industry Market Dynamics Around New CDL Stream Launch: Including Never Treated Cities.**This figure shows the dynamics of firm entry and the amount of financing attracted around a new stream launch by CDL. We estimate a triple DID with high-level dimension fixed effects to control for potential confounding factors. The estimates compare differences in firm entry and financing between the focal stream and other streams in the focal city with those in other cities around the stream launch year. To allow for an adequate post-period, we restrict our analysis to launches before 2020. The specification includes city × industry FEs and year FEs. The year before the event is omitted as the base year. Standard errors are clustered by city × industry.



(a) Firm Entry



(b) Ln(Agg Financing)

Table 1: **Summary Statistics.** This table provides summary statistics at the venture level and the city-industry level (firm entry and financing).

(a) Venture Level

	count	mean	sd	p5	p50	p95
Founding_Year	1364979	2011.395	5.855	2001	2012	2020
Focal_Country	1364979	0.576	0.494	0	1	1
Focal_City	1364979	0.031	0.172	0	0	0
Closest_CDL_Distance	1364979	2402.350	3387.661	36.683	872.261	10430.143
Has_Financing	1364979	0.125	0.331	0	0	1
AI	1364979	0.098	0.298	0	0	1
Agriculture	1364979	0.008	0.088	0	0	0
Blockchain	1364979	0.010	0.099	0	0	0
Climate	1364979	0.005	0.068	0	0	0
Commerce	1364979	0.030	0.171	0	0	0
Energy	1364979	0.032	0.175	0	0	0
Fintech	1364979	0.064	0.245	0	0	1
Health	1364979	0.123	0.329	0	0	1
Matter	1364979	0.003	0.056	0	0	0
Neuro	1364979	0.012	0.107	0	0	0
Oceans	1364979	0.023	0.149	0	0	0
Other	1364979	0.238	0.426	0	0	1
Other_Hightech	1364979	0.319	0.466	0	0	1
Quantum	1364979	0	0.009	0	0	0
Risk	1364979	0.006	0.078	0	0	0
Space	1364979	0.013	0.115	0	0	0
Supply_Chain	1364979	0.015	0.123	0	0	0

(b) City-Industry Level: Full Sample

	count	mean	sd	p5	p50	p95
Num_New_Firm	474318	2.878	12.240	1	1	8
Founding_Year	474318	2010.631	6.065	2001	2011	2020
Agg_Financing_MilUSD	107676	61.1	527.5	0.05	3	193.9
Announced_Year	107676	2015.348	5.306	2004	2016	2022

(c) City-Industry Level: Treated Cities

	count	mean	sd	p5	p50	p95
Num_New_Firm	2842	19.979	37.790	1	6	94
Founding_Year	2842	2011.309	6.461	2001	2012	2021
Agg_Financing_MilUSD	1974	152.834	433.869	0.286	21.410	741.450
Announced_Year	1974	2013.926	5.971	2002	2015	2022

Table 2: **Firm Entry and Financing Dynamics Around CDL Stream Launch, Within-City Comparison.** Following Specification 1, this table provides the causal estimates of CDL stream launch on firm entry and financing dynamics at a focal city-industry in a given year, by showing average and dynamic treatment effects. The specification includes city × industry FEs and year FEs. Standard errors are clustered by city × industry.

	Number of New Firms		**Log(Number of New Firms)**		**Log(Aggregate Financing)**	
	(1)	(2)	(3)	(4)	(5)	(6)
Average Treatment Effect	14.106**	10.464**	0.690***	0.214	0.102	0.472
	(6.123)	(4.882)	(0.227)	(0.222)	(0.430)	(0.297)
Estimation Method	Callaway–Sant'Anna	DiD	Callaway–Sant'Anna	DiD	Callaway–Sant'Anna	DiD
City × Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	No	Yes	No	Yes	Yes
City × Year FE	No	Yes	No	Yes	No	No
Observations	169	2665	169	2665	653	1069

Table 3: **Firm Entry and Financing Dynamics Around CDL Stream Launch, Triple Difference.** Following Specification 2, this table reports the causal effect of the CDL stream launch by comparing differences in firm entry and financing between the focal stream and other streams in the focal city with those in other cities around the stream launch year. The specification includes city × industry FEs, city × year FEs, and industry × year FEs. Standard errors are clustered by city × industry.

(a) Firm Entry

Number of New Firms (City-Stream Level)			
	Global	Canada, France, UK, US	Global
	(1)	(2)	(3)
Short-term (0-3)	9.447**	9.509**	
	(4.734)	(4.789)	
Mid-term (4-5)	8.346	9.154	
	(9.934)	(9.518)	
pre_3			0.101
			(4.608)
pre_2			-2.119
			(3.317)
post_0			6.257*
			(3.371)
post_1			8.559*
			(5.037)
post_2			7.644
			(6.800)
post_3			6.770
			(9.445)
City×Industry FE	Yes	Yes	Yes
Stream×Year FE	Yes	Yes	Yes
City×Year FE	Yes	Yes	Yes
Observations	301111	181524	301111

(b) Financing

Ln(Amount Raised USD) (City-Stream Level)			
	Global	Canada, France, UK, US	Global
	(1)	(2)	(3)
Short-term (0-3)	0.268	0.240	
	(0.411)	(0.399)	
Mid-term (4-5)	0.224	0.235	
	(0.596)	(0.601)	
pre_3			-0.223
			(0.740)
pre_2			-0.650
			(0.746)
post_0			-0.307
			(0.759)
post_1			-0.458
			(0.482)
post_2			0.021
			(0.578)
post_3			-0.579
			(0.457)
City×Industry FE	Yes	Yes	Yes
Stream×Year FE	Yes	Yes	Yes
City×Year FE	Yes	Yes	Yes
Observations	68324	43442	68324

t statistics in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: **CDL Stream Launch and Aggregate-level of Entrepreneurship and Capital Supply: Baseline Estimators.** We aggregate firm entry and financing to the city level and examine whether this event had an aggregate positive spillover to the overall level of entrepreneurship and capital supply. This table reports the causal effect of the CDL launch by comparing differences in city-level firm entry and financing between the treated city and not-yet-treated cities around the stream launch year. We capture multiple instances of treatment using *Treatment_Intensity*, which increases by one if there is a stream launch event in a year. We also use stacked diff-in-diff to account for the fact that cities are treated multiple times. $Treated \times Post$ equals 1 for all periods after the first treatment. The specification includes city FEs and year FEs. Robust standard errors are clustered by city.

	Number of New Firms			Log(Number of New Firms)			Log(Aggregate Financing)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Treatment_Intensity	34.474***			0.066*			0.147		
	(5.999)			(0.030)			(0.109)		
Treated × Post		70.009***	87.631		0.118***	0.142***		0.161	0.561*
		(15.416)	(73.485)		(0.029)	(0.043)		(0.190)	(0.290)
Estimator	DiD	Stacked DiD	DiD	DiD	Stacked DiD	DiD	DiD	Stacked DiD	DiD
City FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	230	203	230	230	203	230	226	202	226

t statistics in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: **Cross-section Test for Instrument.** This table shows how the academic connectivity in business-related subjects, between a focal city and the University of Toronto, is correlated with the likelihood of having a CDL site in the focal city. This is a cross-sectional test with no time dimension variations. *Has_Academic_Connection* is a dummy variable equal to 1 if there is some academic connectivity and serves as a proxy for the extensive margin. The other two variables measure the strength of the connection and serve as a proxy for the intensive margin. Columns (1)-(3) show results of an OLS with robust standard error, and columns (4)-(5) show OLS with country fixed effect and robust standard error clustered at the country level.

y = Whether a City Has CDL Site						
	(1)	(2)	(3)	(4)	(5)	(6)
Has_Academic_Connection	0.019***			0.019***		
	(0.007)			(0.001)		
Connection_Strength		0.001**			0.001***	
		(0.000)			(0.000)	
Academic_Connectivity_Instrument			0.016**			0.020***
			(0.008)			(0.005)
Country FE	No	No	No	Yes	Yes	Yes
Observations	36599	372	372	36547	352	352

t statistics in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: **Does CDL Stream Launch Spur Aggregate-level of Entrepreneurship and Capital Supply? IV Estimation.** This table uses a time-varying academic connectivity in business-related subjects, between institutions in a focal city and the University of Toronto, as an instrument for a CDL launch in the focal city. We use the instrument for two treatment variables, where *Has_CDL*=1 after the first treatment and *Treatment_Intensity*∈[1,6] accounts for the fact that certain cities have multiple launches over the time period. Each panel reports both the first stage, which tests the relevance condition of the instrument, and the second stage estimator that measures the causal effect of a CDL launch on firm entry dynamics in the focal city. Panel A uses a sample of cities in Canada, while Panel B is restricted to treated cities only. All specifications include City FE and Year FE, with robust standard error clustered at the city level.

Panel A: Canadian Cities

2SLS First Stage	Has_CDL		Treatment Intensity		Has_CDL	Treatment Intensity
time_varying_academic_connectivity	0.004***		0.014***		0.004***	0.015***
	(0.000)		(0.002)		(0.001)	(0.002)
City FE	Yes		Yes		Yes	Yes
Year FE	Yes		Yes		Yes	Yes
Kleibergen-Paap rk Wald F statistic	77.97		53.64		63.00	75.25
Observations	4795		4795		1331	1331
2SLS Second Stage	Number of New Firms	Log(Number of New Firms)	Number of New Firms	Log(Number of New Firms)	Log(Aggregate Financing)	
$\widehat{Post_CDL}$	176.520***	0.890***	51.439***	0.259***	1.670***	0.465**
	(32.880)	(0.197)	(5.166)	(0.094)	(0.506)	(0.145)
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4795	4795	4795	4795	1331	1331

Panel B: Treated Cities

2SLS First Stage	Has_CDL		Treatment Intensity		Has_CDL	Treatment Intensity
time_varying_academic_connectivity	0.001**		0.011***		0.002***	0.007***
	(0.001)		(0.003)		(0.001)	(0.002)
City FE	Yes		Yes		Yes	Yes
Year FE	Yes		Yes		Yes	Yes
Kleibergen-Paap rk Wald F statistic	16.38		16.43		14.46	11.96
Observations	210		210		208	208
2SLS Second Stage	Number of New Firms	Log(Number of New Firms)	Number of New Firms	Log(Number of New Firms)	Log(Aggregate Financing)	
$\widehat{Post_CDL}$	392.720*	0.798*	47.379***	0.096**	-0.552	-0.067
	(234.533)	(0.422)	(15.895)	(0.046)	(1.937)	(0.236)
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	210	210	210	210	208	208

t statistics in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: **Within-City Across Stream Comparison: IV Estimation.** This table uses a time-varying academic connectivity in business-related subjects, between institutions in a focal city and the University of Toronto, as an instrument for a CDL launch within each focal city-industry pair. The endogenous variable we need to instrument is *Has_ CDL*, which equals 1 for post-treatment periods, and zero for not-yet-treated periods and never-treated units. Each panel reports both the first stage, which tests the relevance condition of the instrument, and the second stage estimator that measures the causal effect of a CDL launch on firm entry dynamics in the focal city. Panel A uses a sample of cities in Canada, while Panel B is restricted to treated cities only. All specifications include City FE and Year FE, with robust standard error clustered at the city level.

Panel A: Canadian Cities

2SLS First Stage	Has_CDL		
time_varying_academic_connectivity	0.001**		0.001***
	(0.000)		(0.000)
City × Industry FE	Yes		Yes
Industry × Year FE	Yes		Yes
Kleibergen-Paap rk Wald F statistic	7.87		5.99
Observations	74613		20307
2SLS Second Stage	Number of New Firms	Log(Number of New Firms)	Log(Aggregate Financing)
$\widehat{Post_CDL}$	84.837***	4.021**	9.677**
	(29.071)	(1.558)	(4.224)
City × Industry FE	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes
Observations	74613	11064	3334

Panel B: Treated Cities

2SLS First Stage	Has_CDL		
time_varying_academic_connectivity	0.001**		0.001***
	(0.000)		(0.000)
City × Industry FE	Yes		Yes
Industry × Year FE	Yes		Yes
Kleibergen-Paap rk Wald F statistic	6.70		5.47
Observations	3276		3045
2SLS Second Stage	Number of New Firms	Log(Number of New Firms)	Log(Aggregate Financing)
$\widehat{Post_CDL}$	56.206***	1.608*	2.521
	(21.308)	(0.838)	(2.061)
City × Industry FE	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes
Observations	3276	2404	1707

t statistics in brackets

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$