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RESEARCH

# Knowing when to quit: experience, binding financial constraints, and withdrawal from new venture creation

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**Abstract** Why do people quit the startup process before a business is formed? We treat withdrawal from new venture creation as a test of Evans and Jovanovic's (1989) model of liquidity constraints at the pre-entry margin. In the model, constraints bind when desired capital deployment exceeds what personal finances can support. We test three predictions with Entrepreneurship in the Population (EPOP) Survey data from 2023 to 2025, comparing 3980 responses from continuing nascent entrepreneurs with 6903 responses from people who considered or pursued a business and then stopped. Experienced founders report deploying more than twice the startup capital of novices. The association between pre-existing financial constraints and stopping is stronger for experienced founders. The experience gap in stopping odds is large at one financial constraint, marginal at two, and no longer detectable at three. A further implication, that funding-rationed seekers stop at higher rates, is directionally positive but not robust across years. The results are consistent with liquidity constraints binding at the pre-entry margin and help reconcile weak wealth-entry relationships with evidence that constraints matter.

**Plain English Summary** Most Americans who consider or work toward starting a business stop before the business exists. Using 3 years of a national survey, we ask who stops and why. People who had previously started businesses put more than twice as much money into their attempts as first-timers. Because they put more money in, the same financial weaknesses, thin savings, poor credit, or no banking relationship, weigh on them more heavily. Experienced founders otherwise have much lower odds of stopping than first-timers, but that gap narrows as financial problems stack up, and among people facing all three problems we can no longer detect it. Founders with these problems are especially likely to name money as the main reason they stopped. Aspiring founders should judge financial readiness against the size of the business they want to build. For policymakers, financial capacity matters most for experienced founders, who put in the most money.

**Keywords** Liquidity constraints · Nascent entrepreneurship · Prior startup experience · Financial constraints · Withdrawal · Business creation

**JEL Classification** L26 · M13 · J24 · G51

## 1 Introduction

Each year, millions of Americans consider starting a business or take concrete steps toward one. They

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research markets, talk to potential customers, seek financing, and write business plans (Carter et al., 1996; Reynolds, 1997). Most of them stop before a business is formed (Davidsson & Honig, 2003; Parker & Belghitar, 2006). In the Entrepreneurship in the Population (EPOP) Survey, people who stopped pursuing a business outnumber continuing nascent entrepreneurs by roughly two to one in weighted population terms. Despite the scale of this phenomenon, little is known about why people quit the startup process.

The economics of entrepreneurship offers a natural starting point to explain this. Evans and Jovanovic (1989) model entrepreneurial entry as a choice constrained by personal wealth. In their model, would-be entrepreneurs cannot deploy more capital than their personal finances can support. The constraint only binds when the capital an individual wants to deploy exceeds that ceiling. Later work extends the model and debates where the constraint binds. Åstebro and Bernhardt (2005) show that human capital conditions the magnitude of the credit constraint. Mondragón-Vélez (2009) finds that the transition to entrepreneurship is hump-shaped in wealth within age and education groups. Hurst and Lusardi (2004) find little relationship between wealth and entry for most households. This literature tests the model at the entry margin or the survival margin (Holtz-Eakin et al., 1994). It has not tested the model at the pre-entry margin, where people who have considered or begun the startup process decide whether to keep going.

We treat withdrawal from new venture creation as a test of the Evans and Jovanovic model at that pre-entry margin. The model's binding condition generates a sharp prediction about who should be most sensitive to pre-existing financial constraints. Founders with prior startup experience attempt more capital-intensive ventures than novices. The same constraint ceiling therefore binds experienced founders harder, and it binds hardest where constraints are most severe.

We measure financial constraints with conditions whose content plausibly predates the startup attempt: insufficient savings, poor credit history, and no established banking relationship. These conditions are intended to capture the resource stock the individual brings to the process. The data cannot verify their timing. Savings in particular can be drawn down during pursuit, a point the limitations address.

The model's binding condition yields three predictions. First, founders with prior startup experience deploy more startup capital than novices. Second, the association between pre-existing financial constraints and stopping is stronger for experienced founders than for novices. Third, the experience difference is concentrated where constraints are most severe, so the experience advantage in continuing shrinks as constraints accumulate.

We test these predictions with data from the 2023, 2024, and 2025 years of the EPOP survey, comparing 3980 responses from continuing nascent entrepreneurs with 6903 responses from people who considered or pursued a business and then stopped. We report every key estimate both pooled across years and within each year. All three predictions hold in the pooled data, and the capital premise and the primary-reason evidence hold within every year. Experienced founders report deploying more than twice the startup capital of novices. The constraint association is stronger for experienced founders. The experience gap in stopping odds is large at one pre-existing constraint, marginal at two, and no longer detectable at three. Constrained founders who stopped are also especially likely to name lack of financial resources as their primary reason, in every year. A further implication of the model, that seekers who were denied funding or received less than requested stop at higher rates, is directionally positive but not robust across years. Alternative explanations based on outside job options and depletion find no support in the data.

The paper makes three contributions. First, it extends the liquidity constraints literature to the pre-entry margin using nationally representative data on people inside the startup process. Second, it documents that prior startup experience amplifies rather than buffers the association between financial constraints and stopping, with the clearest difference at severe constraints, consistent with the binding condition. Third, it offers a reconciliation of the liquidity constraints debate: the same constraint binds founders with large capital requirements and lies slack for founders with small ones.

The remainder of the paper proceeds as follows. The next section develops the theoretical argument and derives the three predictions. We then describe the data and methods, present the results, test

alternative explanations, and conclude with implications and limitations.

## 2 Theory and predictions

Evans and Jovanovic (1989) model the decision to become an entrepreneur as an occupational choice under a financing constraint. Each individual has an entrepreneurial ability and a stock of personal wealth. Starting a business requires capital, and more able entrepreneurs operate ventures at a larger scale. The constraint is a ceiling: an individual can deploy no more capital than personal finances can support. The constraint binds when desired capital deployment exceeds the ceiling. When it binds, the individual either operates below the desired scale or does not operate at all. The model's central implication is that financial constraints matter selectively. They are irrelevant to people whose plans fit under the ceiling and decisive for people whose plans do not.

We test this model at the pre-entry margin, where people who have considered or begun the startup process decide whether to continue. The outcome is a stopping decision rather than an entry or survival event. The binding logic carries over directly. A person pursuing a venture whose capital requirement exceeds the financing ceiling faces a choice between shrinking the plan and abandoning it, while a person whose requirement fits under the ceiling faces no such pressure from finances.

Prior startup experience determines desired deployment. Experience raises entrepreneurial ability in the model's sense. People who have started businesses before know how to put capital to productive use, and human capital is productive in self-employment (Åstebro & Bernhardt, 2005). They also set higher thresholds for what makes continuing worthwhile (Gimeno et al., 1997). Human capital can also relax the ceiling through wage income and wealth (Åstebro & Bernhardt, 2005), so the binding argument turns on the gap between requirement and ceiling, and the premise we test is that the requirement side rises with experience. We observe deployed capital, the observable implication of desired deployment, and we return to the distinction when the premise is tested. This yields our first prediction, which is the premise on which the rest of the argument stands.

**Prediction 1.** Founders with prior startup experience deploy more startup capital than founders without prior startup experience.

If experienced founders require more capital, the constraint binds more often. Consider two founders with the same pre-existing financial conditions: the same thin savings, the same credit history, the same absence of a banking relationship. For the novice pursuing a modest venture, the ceiling may sit above the requirement, so the constraint lies slack. For the experienced founder pursuing a larger venture, the same ceiling is more likely to sit below the requirement, so the constraint binds. The same measured constraint therefore predicts stopping more strongly for experienced founders than for novices. This is an amplification prediction, and it runs against the usual expectation that experience buffers adversity.

**Prediction 2.** The positive association between pre-existing financial constraints and the stopping decision is stronger for founders with prior startup experience than for founders without it.

The binding condition also implies a severity pattern. One adverse financial condition lowers the ceiling somewhat. Three adverse conditions lower it a lot. A ceiling that has fallen far enough binds even moderately sized plans, but it binds large plans first. As constraints accumulate, the probability that the ceiling falls below the experienced founder's larger requirement rises faster than the probability that it falls below the novice's smaller one.

**Prediction 3.** The experience difference in the constraint association is concentrated at severe constraints, so the experience advantage in continuing shrinks as constraint severity rises.

The model admits a rival channel that also runs through human capital. Human capital is productive in wage work as well as in self-employment (Åstebro & Bernhardt, 2005; Gimeno et al., 1997). Experienced founders facing constraints might stop not because the constraint binds but because their outside options are better. The alternative explanations section tests this channel directly, along with depletion.

The binding condition has one further observable implication. If constraints bind at the pre-entry margin, the binding should be visible where founders meet the capital market. Lenders ration credit in equilibrium, denying some applicants who look identical to those they fund (Stiglitz & Weiss, 1981), and similar gaps between requested and received funding

arise across noncredit sources. Founders who request outside funding and are denied, or who receive less than requested, should stop at higher rates than seekers who received what they requested. We examine this implication.

## 3 Data and methods

### 3.1 Data

The data come from the EPOP survey, a nationally representative survey of American adults conducted annually since 2022 by NORC at the University of Chicago (Brummet & Johnson, 2022). The analysis uses the 2023, 2024, and 2025 public use data files (NORC, 2024a, b, 2025). The EPOP classifies each respondent into one of seven mutually exclusive groups based on a priority-ordered screening sequence: current business owner, current freelancer, nascent entrepreneur, former business owner, former freelancer, withdrawn entrepreneur, and non-entrepreneur. Only respondents classified into a given group receive the follow-up question battery specific to that group.

The present study uses respondents in two groups. Nascent entrepreneurs are currently taking steps to start a business (hereafter "continuing"). Withdrawn entrepreneurs initiated the process or considered starting a business and then decided to wait or changed their mind (hereafter "withdrew"). Both groups are inside the pre-entry process this paper studies. Neither group has formed an operating business, and both receive the same batteries about steps taken, challenges faced, capital sought and used, and demographic characteristics.

Note that the withdrew group is defined by a stopping decision, not by a business exit. These respondents began considering or pursuing a venture and then stopped, and some of them may resume pursuit later. The continuing group is defined by ongoing pursuit, and some of its members will themselves stop after the survey. The comparison therefore identifies what distinguishes people who have made the stopping decision from people who have not yet made it, observed at a point in time.

The primary analysis pools the 2023, 2024, and 2025 years. The 2022 year is excluded because a change in the screening instrument between 2022 and 2023 altered how respondents were classified into the withdrew group, limiting cross-year comparability. The pooled sample contains 10,883 observations (3980 continuing, 6903 withdrew), and because the same participant can respond to more than 1 year, these are survey responses rather than necessarily unique people.

Therefore, every key estimate is reported both pooled and within each year, and we rest no affirmative claim of support on a result that appears only in the pooled data. Moreover, all models include year fixed effects, and sampling units are defined within years, as described below. Furthermore, we include a sensitivity calculation. If a fraction of the pooled observations were second appearances of the same individuals with perfectly correlated responses, standard errors would inflate by the square root of the effective sample reduction.

Table 1 reports weighted descriptive statistics by group. Table 2 reports the prevalence of pre-existing constraint items by group.

### 3.2 Variables

The dependent variable in the main models is the stopping decision, coded 1 for withdrew respondents and 0 for continuing respondents.

Pre-existing financial constraints (FIN) are a count of three items from the EPOP challenge battery: not having enough savings, poor credit history, and no existing relationship with a bank or lender (range 0 to 3). These items describe resource states whose content plausibly predates the startup attempt, although the survey measures them during or after pursuit. The count is a proxy for how low the financing ceiling sits. It is not a monetary measure of that ceiling. Pre-existing time constraints (TIME) is a count of two items: difficulty balancing work and family life and difficulty finding time (range 0 to 2). For the test of Prediction 3, we replace the linear financial constraint count with three indicator variables for counts of one, two, and three, which allows the association to differ by severity.

Prior startup experience (EXP) is a binary variable indicating whether the respondent had previously started a business.

Capital deployment is the total startup capital the respondent reports having used, from the EPOP capital worksheet. Negative sentinel codes indicating

**Table 1** Descriptive statistics by group

| | Continuing *N* = 3980 | Withdrew *N* = 6903 |
|---|---|---|
| Female (%) | 50.8 | 50.8 |
| ***Age*** | | |
| 18–29 | 25.4 | 25.6 |
| 30–39 | 26.4 | 20.9 |
| 40–49 | 20.2 | 18.1 |
| 50–59 | 19.3 | 23.2 |
| 60 + | 8.7 | 12.2 |
| ***Education*** | | |
| High school or less | 33.6 | 31.2 |
| Some college | 31.6 | 31.9 |
| Bachelor's degree | 21.6 | 23.3 |
| Graduate degree | 13.2 | 13.6 |
| ***Household income*** | | |
| < $30,000 | 20.8 | 15.9 |
| $30,000–$49,999 | 22.2 | 20.5 |
| $50,000–$74,999 | 15.9 | 17.4 |
| $75,000–$99,999 | 13.2 | 12.4 |
| $100,000 + | 27.8 | 33.8 |
| ***Race/ethnicity*** | | |
| White | 39.4 | 57.4 |
| Black | 18.8 | 12.8 |
| Hispanic | 14.5 | 11.4 |
| Other | 27.2 | 18.4 |
| ***Key variables*** | | |
| Employed at start (%) | 70.6 | 76.4 |
| Unmanageable debt (%) | 39.6 | 33.8 |
| Family business background (%) | 25.6 | 16.7 |
| Prior startup experience (%) | 33.0 | 15.2 |
| Prior similar work experience (%) | 33.9 | 29.2 |
| Steps completed (mean) | 6.90 | 4.60 |

EPOP 2023–2025 pooled. Weighted percentages and means using harmonized survey weights; group Ns are unweighted counts. Continuing, currently taking steps to start a business (DOV_GROUP = 3). Withdrew, considered starting but decided to wait or changed mind (DOV_GROUP = 6)

refusal or nonresponse are treated as missing. Deployed capital is the observable implication of desired deployment. Deployment is jointly determined by desired investment and financing access, and prior experience can raise both, so the comparison identifies the observable implication of desired deployment rather than desired deployment itself. We use this variable to test Prediction 1, comparing

**Table 2** Pre-existing resource constraints by group (weighted percentages)

| | Continuing | Withdrew | Diff |
|---|---|---|---|
| ***Panel A: pre-existing financial constraints*** | | | |
| Not enough savings | 46.5 | 50.1 | + 3.7 |
| Poor credit history | 21.1 | 17.2 | − 3.9 |
| No bank/lender relationship | 18.1 | 19.5 | + 1.4 |
| *Financial constraint count (mean)* | 0.86 | 0.87 | + 0.01 |
| ***Panel B: pre-existing time constraints*** | | | |
| Work-life balance | 27.8 | 26.0 | − 1.7 |
| Finding time | 40.3 | 45.4 | + 5.1 |
| *Time constraint count (mean)* | 0.68 | 0.71 | + 0.03 |

Items classified as pre-existing if their content describes resource states that plausibly exist before and independently of the startup process; the survey measures them during or after pursuit. Process-encountered challenges are not included because they are confounded with engagement depth

weighted medians by experience and estimating regressions on the log of one plus capital.

We use several variables to examine the funding-margin implication. Capital seeking and funding rationing are constructed from the EPOP funding batteries. The battery covers business credit cards, personal loans, bank loans, investors, family and friends, grants, and other sources, and its wording is identical across the three survey years.

We use the term funding rationing rather than credit rationing because the batteries span credit and noncredit sources. A respondent is a capital seeker if the respondent requested funding from at least one outside source, either one the respondent used, or one the respondent approached but did not use. Among seekers, a respondent is rationed if at least one source denied the request entirely or provided less than the amount requested. Seekers who received as much as they requested from every source they approached are fully funded.

The coding is defined over sources rather than over the aggregate requirement. A rationed respondent may still have met the full requirement from another source, and a respondent who switched to a substitute source after one denial is coded rationed rather than fully funded.

Process depth (STEPS) is the total number of startup steps endorsed from a battery of 26 items spanning networking, market research, business

development, financing, organizational planning, and legal steps, the organizing activities that mark progress through venture creation (Delmar & Shane, 2004). This variable controls for how far into the process the respondent had progressed.

For the analysis of stop reasons among withdrew respondents, we use binary indicators for whether the respondent endorsed each of five reasons for stopping, drawn from a 13-item battery in which multiple reasons could be endorsed: lack of financial resources, lack of time, lost focus or interest, found a new job, and received a promotion or raise. We also use the follow-up question that asks respondents who endorsed multiple reasons to identify the primary one, from which we construct indicators for naming lack of financial resources as the primary reason and for naming a new job or promotion as the primary reason. The financial and time items assess the construct validity of the constraint measures. The job and promotion items test the outside-options channel in the alternative explanations section.

Controls include gender, age, education, household income, race and ethnicity, region, marital status, unmanageable debt (whether the respondent reports debt that is difficult or impossible to manage), employment status at the time of pursuit, family business background, prior work experience in a field similar to the venture, and year fixed effects.

### 3.3 Analytical approach

All binary-outcome models are survey-weighted logistic regressions, and the capital models are survey-weighted least squares regressions. The EPOP provides harmonized survey weights (WTSURVY for 2023 and 2024, WTPROB for 2025) designed to make each year representative of the US adult population, and we normalize weights to a mean of one within each estimation sample. Standard errors incorporate the full complex survey design through Taylor linearization, with primary sampling units nested within sampling strata and both identifiers made unique within each survey year, so that identically numbered units from different years are never pooled. Strata containing a single PSU (29 of 434) contribute no between-PSU variance under our convention. Re-estimating the headline interaction with singleton strata centered at the grand mean of PSU totals instead leaves the standard error essentially unchanged ($p = .028$ versus $p = .027$). Coefficients are reported as odds ratios, with selected combined coefficients reported with 95% confidence intervals.

Item nonresponse, including refusals and don't-know responses, is treated as missing, and each model uses listwise deletion on the variables it includes, which is why estimation samples differ across models.

The main between-group analysis (Tables 3 and 4) estimates four nested models. Model 1 includes the financial and time constraint counts, process depth, and year fixed effects. Model 2 adds the full set of controls. Model 3 adds the interaction between the financial constraint count and prior startup experience, which tests Prediction 2. Model 4 replaces the count with the three severity indicators and interacts each with experience, which tests whether the interaction grows with severity as Prediction 3 requires. We report a Wald test of whether the three interaction coefficients differ, the combined experience association at each severity level, and versions of Models 3 and 4 that omit the steps control, since steps are an outcome of the same process.

The capital deployment analysis tests Prediction 1. We report weighted median capital by experience group and estimate weighted least squares regressions of log capital on experience with the full control set and an indicator for the stopping decision, with and without process depth. Controlling for the stopping decision matters because spending accumulates while pursuit continues. We also report how capital nonresponse relates to experience, constraints, and stopping. Because this is a premise check rather than a headline result, we report it in the text.

The funding rationing analysis (Table 5) examines the funding-margin implication. The first model is estimated among capital seekers only and regresses the stopping decision on the rationing indicator and the full Model 2 specification from Table 3. We estimate it on the pooled seeker sample and on the 2023 and 2024 years combined, which is the largest seeker sample the data permit outside the small 2025 year. The second model is estimated on the full sample and enters fully funded seeker and rationed seeker as separate categories against the base of non-seekers.

The stop-reason analysis appears in Tables 6 and 7. Table 6 reports descriptive prevalence. Table 7 reports the regressions, estimated among withdrew respondents only, one model per stop reason using

**Table 3** Logistic regressions predicting the stopping decision (odds ratios), Models 1–3

| | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| | OR | *p* | OR | *p* | OR | *p* |
| Financial constraints (FIN) | 1.088 | .095 | 1.162** | .006 | 1.099 | .091 |
| Time constraints (TIME) | 1.166** | .006 | 1.071 | .259 | 1.069 | .273 |
| Startup steps (STEPS) | 0.868*** | <.001 | 0.875*** | <.001 | 0.875*** | <.001 |
| Prior startup experience | | | 0.503*** | <.001 | 0.412*** | <.001 |
| FIN × experience | | | | | 1.274* | .027 |
| Family business | | | 0.666*** | <.001 | 0.660*** | <.001 |
| Employed at start | | | 1.622*** | <.001 | 1.625*** | <.001 |
| Unmanageable debt | | | 0.820* | .015 | 0.832* | .025 |
| Female | | | 1.010 | .902 | 1.014 | .861 |
| *Demographic controls* | No | | Yes | | Yes | |
| *Year fixed effects* | Yes | | Yes | | Yes | |
| *N* | 10,883 | | 9701 | | 9701 | |

*DV* stopping decision (1 = withdrew, 0 = continuing). Survey-weighted logistic regressions with design-based standard errors (Taylor linearization with year-specific strata and PSUs). Model 3 without the steps control gives FIN × experience = 1.236 (95% CI 1.007 to 1.517, $p = .042$). Demographic controls include age, education, household income, race, region, and marital status (categorical dummies) and prior work experience in a similar field. *$p < .05$, **$p < .01$, ***$p < .001$. EPOP 2023–2025 pooled

**Table 4** Model 4: constraint severity × experience (odds ratios)

| | OR | *p* |
|---|---|---|
| One financial constraint (FIN1) | 1.241 | .070 |
| Two financial constraints (FIN2) | 1.224 | .168 |
| Three financial constraints (FIN3) | 1.274 | .183 |
| Prior startup experience | 0.437*** | <.001 |
| FIN1 × experience | 1.086 | .712 |
| FIN2 × experience | 1.500 | .148 |
| FIN3 × experience | 2.416* | .018 |
| Time constraints (TIME) | 1.067 | .286 |
| Startup steps (STEPS) | 0.874*** | <.001 |
| N | 9701 | |

*DV* stopping decision (1 = withdrew, 0 = continuing). Financial constraint indicators replace the count; the reference category is zero constraints. A Wald test does not reject equality of the three interaction coefficients ($p = .105$). Combined experience associations: 0.475 [0.336, 0.671] at one constraint, 0.656 [0.419, 1.025] at two, 1.056 [0.539, 2.071] at three. Without the steps control, FIN3 × experience = 2.086 ($p = .031$). Survey-weighted logistic regression with design-based standard errors. Controls as in Table 3, Model 3, including year fixed effects. *$p < .05$, **$p < .01$, ***$p < .001$. EPOP 2023–2025 pooled

the Model 3 specification with the stop reason as the dependent variable. The financial and time rows assess construct validity. The job and promotion rows test the outside-options channel. Because this analysis estimates many models, we flag which results we treat as suggestive rather than confirmed.

The robustness analysis (Table 8) re-estimates Model 3 on subsamples of the withdrew group defined by prior interest in starting a business, from "not at all interested" to "extremely interested." This tests whether the findings are concentrated among respondents who genuinely wanted to start a business.

The cross-year analysis (Table 9) re-estimates the key results within each survey year separately, using year-specific weights, strata, and PSUs. This is the design response to the pooling disclosure in Sect. 3.1.

During the preparation of this work, the author used Anthropic's Claude, a large language model, to assist with statistical programming, drafting of revisions, and reference checking, under the author's direction. The author reviewed and edited all material and takes full responsibility for the content of the publication.

## 4 Results

Table 1 reports weighted descriptive statistics for the 10,883 observations in the pooled sample (3980 continuing, 6903 withdrew). The two groups are similar

**Table 5** Funding rationing and the stopping decision (odds ratios)

| | Model A: seekers, pooled | | Model A: seekers, 2023–2024 | | Model B: full sample | |
|---|---|---|---|---|---|---|
| | OR | *p* | OR | *p* | OR | *p* |
| Rationed (denied or received less) | 1.757** | .004 | 1.203 | .351 | | |
| Fully funded seeker (vs. non-seeker) | | | | | 0.526** | .002 |
| Rationed seeker (vs. non-seeker) | | | | | 0.833 | .076 |
| Financial constraints (FIN) | 1.137* | .037 | | | | |
| Time constraints (TIME) | 1.225* | .014 | | | | |
| Startup steps (STEPS) | 0.932*** | <.001 | | | | |
| Prior startup experience | 0.495*** | <.001 | | | | |
| N | 3015 | | 2817 | | 9701 | |

*DV* stopping decision (1 = withdrew, 0 = continuing). Model A is estimated among capital seekers, pooled and on the two large years only; the 2023–2024 estimate is small and nonsignificant (1.203, 95% CI 0.816 to 1.774). Within-year estimates appear in Table 9. Model B is estimated on the full sample with non-seekers as the reference category. All models add the funding indicators to the Model 2 specification from Table 3. Survey-weighted logistic regressions with design-based standard errors. *$p$ < .05, **$p$ < .01, ***$p$ < .001. EPOP 2023–2025

**Table 6** Self-reported reasons for stopping

| Reason for stopping | Weighted % | Unweighted *N* |
|---|---|---|
| Lack of time | 36.6 | 2448 |
| Too risky | 34.5 | 2317 |
| Lack of financial resources | 33.2 | 2391 |
| Lost focus or interest | 32.3 | 2099 |
| Lack of support or mentorship | 26.6 | 1799 |
| Major life event | 19.1 | 1276 |
| Needed health insurance | 15.0 | 991 |
| Got a new job | 14.7 | 935 |
| Family not supportive | 9.1 | 698 |
| Received a promotion | 7.0 | 455 |
| Went back to school | 6.7 | 456 |
| Other factor | 5.9 | 405 |
| Difficulty with partners | 5.5 | 447 |

Withdrew respondents only ($N$ = 6903). Respondents could endorse multiple reasons. Weighted percentages using harmonized survey weights. EPOP 2023–2025 pooled

on gender and education but differ on age, income, and employment status. Withdrew respondents are older, report higher household income, and are more likely to have been employed when they began pursuing entrepreneurship. They also completed fewer startup steps on average (4.60 vs. 6.90) and are substantially less likely to report prior startup experience (15.2% vs. 33.0%) or a family business background (16.7% vs. 25.6%).

Table 2 reports the prevalence of pre-existing financial and time constraints by group. The raw differences are small: mean financial constraint counts are 0.87 for withdrew respondents and 0.86 for continuing respondents. This near-parity in unconditional means is what the model implies. A constraint count carries little information on its own because the same count is binding for some founders and slack for others. The multivariate analysis, which conditions on experience and on how far the pursuit progressed, is where the binding pattern should appear.

Prediction 1 holds among respondents who report capital amounts, and it holds in every year. Among the 6060 respondents who report a valid startup capital amount, weighted median capital deployed is $6000 for experienced founders and $2500 for novices. In weighted least squares regressions of log capital on experience that include the full control set and an indicator for the stopping decision, experienced founders deploy approximately 93% more capital ($b$ = 0.660, SE = 0.137, 95% CI 0.392 to 0.928, $p$ < .001, $N$ = 5407). The estimate is similar without the stopping-decision control ($b$ = 0.746, 95% CI 0.477 to 1.015) and remains positive conditional on the number of startup steps completed ($b$ = 0.312, 95% CI 0.051 to 0.573, $p$ = .019), approximately 37% more. The year-specific estimates are 0.758, 0.535, and 0.707, each significant (Table 9). This is the observable implication of the premise on which Predictions 2 and 3 rest.

**Table 7** Predicting stop reasons from pre-existing constraints (odds ratios)

| DV: stop reason | FIN | *p* | TIME | *p* | FIN×Exp | *p* | *N* |
|---|---|---|---|---|---|---|---|
| Lack of financial resources (endorsed) | 2.271*** | <.001 | 1.327*** | <.001 | 1.226 | .097 | 6104 |
| Lack of time (endorsed) | 1.025 | .692 | 2.458*** | <.001 | 0.991 | .944 | 6104 |
| Lost focus or interest (endorsed) | 1.129* | .041 | 1.473*** | <.001 | 0.959 | .729 | 6104 |
| Found a new job (endorsed) | 1.216* | .034 | 1.259* | .037 | 0.732 | .259 | 6104 |
| Promotion or raise (endorsed) | 0.699** | .006 | 1.249* | .047 | 0.910 | .677 | 6104 |
| Lack of financial resources (primary) | 1.856*** | <.001 | 0.955 | .616 | 1.072 | .644 | 6091 |
| New job or promotion (primary) | 0.829 | .319 | 0.962 | .799 | 0.781 | .540 | 6091 |

Withdrew respondents only. Each row is a separate survey-weighted logistic regression with the stop reason as DV. "Endorsed" DVs come from the multi-select reason battery; "primary" DVs come from the follow-up question naming the single primary reason. All models include prior startup experience, STEPS, the full control set, and year fixed effects, with design-based standard errors. Because this analysis estimates many models, individual marginal results should be read as suggestive. *$p<.05$, **$p<.01$, ***$p<.001$. EPOP 2023–2025 pooled

Capital nonresponse is not random. In a model with year fixed effects, withdrew respondents are far more likely to be missing a capital amount (odds ratio 2.471, $p<.001$) and experienced respondents less likely (odds ratio 0.595, $p<.001$). Adding the stopping decision as a covariate conditions on the largest observed correlate of nonresponse, but no covariate adjustment corrects selection into the reporting sample. This is why Prediction 1 is stated as a claim about reporters, with the residual risk discussed in the limitations.

Models 1 and 2 establish the two baseline associations that Prediction 2 says should interact. The financial constraint count is small and marginal in Model 1 (odds ratio 1.088, $p=.095$) and strengthens to approximately 16% per constraint with the full control set ($p=.006$), the conditional association the near-parity in Table 2 implied. Prior startup experience cuts the odds of stopping roughly in half ($p<.001$), the baseline advantage that severe constraints should erode. Employment at the time of pursuit is associated with approximately 62% higher odds ($p<.001$), consistent with the opportunity-cost channel Sect. 5 tests directly.

Experience amplifies rather than buffers the constraint association, as Prediction 2 requires. In Model 3, the interaction between the financial constraint count and experience is positive and significant (odds ratio 1.274, 95% CI 1.027 to 1.580, $p=.027$). The main effect, which now represents novices, is approximately 10% per constraint and marginal ($p=.091$). For experienced founders, the combined association is approximately 40% per constraint. The interaction points the same way within every year but reaches significance only in 2023 (1.490, $p=.001$; 2024: 1.214, $p=.184$; 2025: 1.184, $p=.579$; Table 9).

Because the number of steps completed is itself an outcome of the startup process, we re-estimated Model 3 without the steps control. The interaction is similar (odds ratio 1.236, 95% CI 1.007 to 1.517, $p=.042$), so the amplification does not depend on conditioning on steps.

The experience difference concentrates at severe constraints, as Prediction 3 requires. Model 4 replaces the constraint count with severity indicators and interacts each with experience. The combined experience association tells the story most directly. At one financial constraint, experienced founders have less than half the stopping odds of novices (combined odds ratio 0.475, 95% CI 0.336 to 0.671). At two constraints the advantage shrinks and is marginal (0.656, 95% CI 0.419 to 1.025, $p=.064$). At three constraints, it is no longer detectable (1.056, 95% CI 0.539 to 2.071, $p=.873$). The experience advantage in continuing is no longer detectable where financial constraints are most severe. That is where the model says a falling ceiling should catch large capital requirements first.

The severe-constraint interaction carries the direct evidence. It is positive and significant (2.416, $p=.018$, 95% CI 1.164 to 5.015), survives omitting the steps control (2.086, $p=.031$), and appears in both large years (2023: 4.214, 95% CI 1.772 to 10.023; 2024: 2.776, 95% CI 1.234 to 6.245), while the small

**Table 8** Robustness: Model 3 results by prior interest level (odds ratios)

| | Full sample | | High interest | | Low interest | |
|---|---|---|---|---|---|---|
| | OR | *p* | OR | *p* | OR | *p* |
| Financial constraints (FIN) | 1.099 | .091 | 1.159* | .025 | 1.069 | .417 |
| Time constraints (TIME) | 1.069 | .273 | 1.055 | .502 | 0.983 | .835 |
| Startup steps (STEPS) | 0.875*** | <.001 | 0.930*** | <.001 | 0.799*** | <.001 |
| Prior startup experience | 0.412*** | <.001 | 0.439*** | <.001 | 0.466** | .005 |
| FIN × experience | 1.274* | .027 | 1.315* | .019 | 1.175 | .388 |
| Family business | 0.660*** | <.001 | 0.770* | .024 | 0.576** | .001 |
| *Demographic controls* | Yes | | Yes | | Yes | |
| *Year fixed effects* | Yes | | Yes | | Yes | |
| N | 9701 | | 5846 | | 4984 | |
| *Withdrew N* | 6162 | | 2307 | | 1445 | |

Model 3 specification from Table 3, estimated on subsamples defined by S_INTEREST_2 ("How interested were you in starting your own business?"). High interest = very or extremely interested. Low interest = not at all or slightly interested. All continuing respondents are included in every column, so the columns overlap and cross-column differences are described rather than tested. Survey-weighted logistic regressions with design-based standard errors. *$p$ <.05, **$p$ <.01, ***$p$ <.001. EPOP 2023–2025 pooled

**Table 9** Key estimates, pooled, and within each survey year

| Estimate | Pooled | | 2023 | | 2024 | | 2025 | |
|---|---|---|---|---|---|---|---|---|
| | **Est** | *p* | **Est** | *p* | **Est** | *p* | **Est** | *p* |
| FIN × experience (Model 3, OR) | 1.274* | .027 | 1.490** | .001 | 1.214 | .184 | 1.184 | .579 |
| FIN3 × experience (Model 4, OR) | 2.416* | .018 | 4.214** | .001 | 2.776* | .014 | 0.957 | .970 |
| Experience, log capital (b) | 0.660*** | <.001 | 0.758*** | <.001 | 0.535** | .004 | 0.707* | .038 |
| FIN, financial primary reason (OR) | 1.856*** | <.001 | 2.091*** | <.001 | 1.770*** | <.001 | 1.822*** | <.001 |
| Rationed, seekers (OR) | 1.757** | .004 | 1.255 | .392 | 1.114 | .706 | – | – |

Each year estimated separately with year-specific weights, strata, and PSUs, using the specifications described in Sect. 3.3 without year fixed effects. Model 3 estimation samples: 4090 (2023), 4383 (2024), 1228 (2025). Seeker samples: 1424 (2023), 1393 (2024), 198 (2025); the 2025 seeker sample is too small to yield a stable rationing estimate and is not reported. *$p$ <.05, **$p$ <.01, ***$p$ <.001. EPOP 2023–2025

2025 year yields an uninformative estimate near one (0.957; Table 9). However, a rising gradient across all three severity levels is not established: the interactions at one and two constraints are individually non-significant, and a Wald test does not reject equality of the three coefficients ($p$ =.105).

The binding condition implies that rationed seekers should stop at higher rates. The pooled evidence is consistent with this implication (Table 5): seekers who were denied funding or received less than requested have higher stopping odds (odds ratio 1.757, 95% CI 1.202 to 2.567, $p$ =.004). However, the association is not robust within single years. The estimate is 1.255 in 2023 ($p$ =.392) and 1.114 in 2024 ($p$ =.706); the 2025 seeker sample of 198 is too small for a stable estimate, and the two large years pooled give 1.203 ($p$ =.351).

A binding financial ceiling implies that constrained founders should name money as the reason they stopped. As Table 6 shows, lack of financial resources is one of the top three reasons for stopping. The regressions support the implication. Table 7 shows that pre-existing financial constraints are the strongest correlate of reporting lack of financial resources (odds ratio 2.271, $p$ <.001), while another top-three reason, lack of time, does not correlate ($p$ =.692). Table 7 also shows that financially constrained respondents disproportionately name lack

of financial resources as the primary reason for stopping (odds ratio 1.856 per constraint, 95% CI 1.591 to 2.166, $p<.001$), and Table 9 shows this holds in every year (2.091, 1.770, and 1.822).

If the constraint associations reflect binding constraints rather than weak commitment, they should appear among respondents who genuinely wanted to start a business and fade among those who did not. As Table 8 shows, they do. Among withdrew respondents who were very or extremely interested ($N=2307$), the financial constraint association is approximately 16% per constraint ($p=.025$), and the experience interaction is 1.315 ($p=.019$). Among those not at all or slightly interested ($N=1445$), neither is significant ($p=.417$ and $p=.388$).

## 5 Alternative explanations

The results show that experience amplifies the association between pre-existing financial constraints and stopping and that the amplification appears where constraints are severe, as Evans and Jovanovic (1989) predict. Two alternative explanations for these patterns warrant testing.

The first is the rival channel flagged in the theory section. Human capital is productive in wage work, so experienced founders facing constraints might stop because their outside options are better, not because the constraint binds (Åstebro & Bernhardt, 2005; Gimeno et al., 1997). We test this channel two ways. First, if opportunity cost drives the interaction, employment status interacted with experience should predict stopping, because employed experienced respondents have the strongest outside options. Second, income interacted with financial constraints should absorb the constraint-by-experience interaction if outside resources are what the constraint is capturing.

Neither holds. Employment by experience is not significant when added to Model 3 ($p=.988$). Income by financial constraints is not significant ($p=.905$). Moreover, the constraint-by-experience interaction survives both additions ($p=.027$ in both).

The stop-reason data provide a further test. If constrained experienced founders stop to take better jobs, the constraint-by-experience interaction should predict citing "found a new job" or "received a promotion or raise" as reasons for stopping. It predicts neither ($p=.259$ and $p=.677$). It also does not predict naming either one as the primary reason ($p=.540$). Furthermore, the constraint main effect on citing a promotion runs opposite to the account: constrained founders are significantly less likely to cite a promotion or raise (odds ratio 0.699, $p=.006$).

The second alternative is depletion. This account posits that pursuing a venture without adequate resources wears the founder down, and the interaction reflects exhaustion rather than a binding constraint. Losing focus or interest in the venture is the closest proxy the EPOP contains for depletion. If depletion drove the pattern, constrained experienced founders should disproportionately report it. They do not. The constraint-by-experience interaction on citing lost focus or interest is null (odds ratio 0.959, $p=.729$), against a modest constraint main association (odds ratio 1.129, $p=.041$).

## 6 Discussion

This paper set out to explain why people quit the startup process before a business is formed. It treats the question as a test of Evans and Jovanovic's (1989) liquidity constraints model at the pre-entry margin. Three predictions follow from the model's binding condition once prior startup experience raises desired capital deployment, and all three hold. Experienced founders report deploying more than twice the startup capital of novices. The association between pre-existing financial constraints and stopping is stronger for experienced founders. The experience gap in stopping odds is large at one constraint, marginal at two, and no longer detectable at three. Constrained founders who stopped are especially likely to name lack of financial resources as their primary reason. The associations are detectable among respondents who genuinely wanted to start a business, and tests of outside options and depletion find no support for those alternatives.

The central contribution is to the liquidity constraints literature. That literature contains a long-standing tension. Evans and Jovanovic (1989) and the work that followed find that constraints shape who becomes an entrepreneur, while Hurst and Lusardi (2004) find almost no relationship between wealth and entry across most of the wealth distribution.

Our results suggest why both sides find what they find. A financial constraint is not a treatment applied uniformly to everyone who has it. It is a ceiling that binds only when plans exceed it. In our data, the same constraint count shows near-parity between stoppers and continuers in the raw comparison, a weak association for novices, and a strong association for experienced founders. Once the analysis conditions on experience, which marks who deploys more capital, the constraint association appears. The experience gap in stopping odds narrows across severity levels, which is where the model says a ceiling should bind. Studies that regress outcomes on wealth or constraint measures without conditioning on desired scale should expect weak average relationships even when constraints bind decisively for some, because slack and binding constraints are averaged together.

The second contribution is to research on entrepreneurial human capital. The standard expectation is that experience buffers adversity. Here experience amplifies constraint sensitivity, and the amplification is concentrated at severe constraints. The binding condition produces this pattern mechanically once experience raises the capital requirement, with no assumption about awareness or judgment. The result also fits the threshold logic of Gimeno et al. (1997): founders with higher thresholds for continuing exit underperforming situations sooner, and a venture whose financing has fallen below its requirement is one such situation.

A methodological implication follows from the same structure. Surveys of entrepreneurs routinely ask about challenges encountered, and researchers routinely treat reported challenges as barriers. Our reading of the EPOP data suggests caution. Respondents who report more process-encountered challenges are disproportionately the ones still pursuing ventures, because encountering challenges requires engagement. Constraint measures whose content plausibly predates the attempt behave differently from measures of what the process threw at the respondent, and conflating the two confounds engagement with difficulty.

## 7 Implications

For people considering a startup, the findings say that financial readiness is relative to the plan. The same savings, credit, and banking relationships that comfortably support a modest venture can sit far below what a larger venture requires. Founders with prior experience, who report deploying more capital, are the ones for whom pre-existing financial weakness matters most. Judging readiness against the specific venture being attempted, rather than against a generic standard, is the practical translation of the binding condition.

For educators and advisors, the findings caution against treating persistence as the mark of quality and stopping as failure. In these data, the founders most responsive to severe financial constraints are the experienced ones, and their stopping is what the economics of a binding ceiling predicts. Advising novices to emulate experienced founders' persistence misses that experienced founders' continuation decisions track their financing conditions.

For policymakers, the findings point to financial capacity as the lever, with the caution that the estimates are associations and that funding outcomes and venture quality are jointly determined. The severity results place the experience gap where constraints are most severe. If the associations reflect binding constraints, the margin that matters is the gap between what a venture requires and what the founder can raise, and it is widest for severely constrained founders attempting capital-intensive ventures.

## 8 Limitations and future research

Seven limitations bound the claims. First, the design is a set of repeated cross-sections. We observe classifications at a point in time, not transitions or durations. Continuing respondents may subsequently stop, and the comparison cannot say how long anyone persisted.

Second, the pooled design carries a dependence risk. The same participant can respond more than once, and the public files contain no cross-year identifiers. Because we do not know the potential duplication rate, we picked a large possible rate for a sensitivity test. While the sensitivity calculation in Sect. 3.1 shows the headline interaction survives an assumed twenty percent duplication with perfect correlation, it is possible that the true duplication is higher and dependence is concentrated in exactly the cases that drive an effect.

Third, the withdrew classification combines respondents who may resume with those who have abandoned pursuit, and it includes people who only considered starting. The design cannot distinguish pausing from permanent exit. The screening also assigns anyone currently pursuing a venture to the nascent group, so the withdrew group excludes people who stopped one attempt but have started another. The prior-interest analysis partially addresses the concern by showing the findings are concentrated among respondents who genuinely wanted to start, but it cannot establish what stopping meant to each respondent.

Fourth, the estimates are associations. Constraint conditions, experience, capital deployment, and stopping are jointly determined with unobserved venture quality and individual characteristics. The model's language of binding and ceilings is theoretical vocabulary, not a causal claim about any coefficient.

Fifth, the pre-existing classification rests on item content rather than temporal measurement. The survey asks about these conditions during or after pursuit, so the data cannot verify that the conditions preceded the startup steps, and savings (in particular) can be drawn down by the pursuit itself. The stop-reason measures are retrospective self-reports from the same questionnaire, so the construct validity evidence provides only partial reassurance.

Sixth, the model's primitives are unobserved. We do not measure desired capital, entrepreneurial ability, or the financing ceiling. The predictions are observable implications of the binding condition, and deployed capital is the observable implication of desired deployment. The capital regressions are further limited by nonrandom nonresponse that covariate adjustment does not correct.

Seventh, the funding-margin analysis is underpowered. Fully funded seekers are rare (298 pooled), seeker samples within years are small, and the implication that rationing predicts stopping could not be supported.

## 9 Conclusion

Most Americans who work toward starting a business stop before it exists, and this paper asked who stops and why. We test Evans and Jovanovic's (1989) liquidity constraints model at the pre-entry margin. We find that experienced founders deploy more capital, that pre-existing financial constraints predict stopping more strongly for them, and that the difference concentrates where constraints are most severe. We tested outside options and depletion as alternatives, and neither was supported.

**Author contributions** Scott Shane is the sole author of this article.

**Data availability** The data analysed in this study are publicly available from NORC at the University of Chicago at https://EPOP.norc.org.

**Declarations**

**Competing interests** The author declares no competing interests.

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