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economy and new business formation. Journal
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Presenter: GAO Han

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April 17, 2024

Contents

- 1 Introduction
 - Research motivation
 - Preview of the main findings
 - Contribution of this paper
- 2 The gig economy and new business formation
- 3 Data and Sample
- 4 Empirical Analysis
- 5 Conclusion and Discussion

- The entrepreneurship is full of risk (Traditional view of entrepreneurship and risk).
- Knight (1921) view that potential entrepreneurs consider the returns of alternative employment opportunities when choosing to start new business ventures.
- The emergence of the gig economy and the rise of on-demand platform-based gig opportunities like Uber and Lyft, which have transformed the way individuals work and earn income.
- Then, how does the availability of flexible gig work opportunities impact the decision to start new businesses?
- The gig economy may reduce the perceived risk associated with entrepreneurship by providing a **fallback option** for potential entrepreneurs, thus encouraging more individuals to engage in new business formation.

Main Finding 1

The introduction of gig work opportunities is associated with an approximate 5% increase in the number of new business registrations in the local area, along with a corresponding increase in small business lending to these newly registered businesses.

Main Finding 2

Internet searches for entrepreneurship-related keywords experience a surge of about 7%.

Main Finding 3

These effects are most pronounced in locations with higher levels of economic uncertainty ex ante. The findings suggest that the gig economy introduces fallback opportunities for prospective entrepreneurs, reducing risk and encouraging new business formation.

- It contributes to literature on the factors that drive entry into entrepreneurship.
- * Tolerance for failure is a key driver of entrepreneurial entry; here, the gig opportunities provided by ridehailing platforms arrival provides the safety net that makes experimentation “safe” to explore.
- It contributes to the growing literature on the economics of the gig-economy and, more specifically, ridehailing.
- * There are not only benefits to those who offer services for gig economy on-demand platforms but also for those outside the platforms, as the existence of such opportunities may provide insurance against the uncertainty and risk associated with entry into entrepreneurial activity.

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- 2 The gig economy and new business formation
 - Gig economy and traditional freelance jobs
 - How gig economy affects entrepreneurship
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- On-demand platform companies offer providers the ability to select or refuse jobs, set their hours and level of participation.
- The gig economy can be viewed as an expansion of traditional freelance work (i.e., self-employed workers who generate income through a series of jobs and projects).
- Participation in the gig market is often more transitory than the traditional freelancing markets.

- If entrepreneur fails, at least there exist a choice to be an Uber driver([insurance](#)).It is kept in mind: Uber is always here. 🤪
- The existence of gig opportunities may enable a would-be entrepreneur to launch a business that would not provide sufficient income in the absence of supplemental gig income..
- The “insurance” of gig opportunities provides to a would-be entrepreneur should be more valuable in particular when economic uncertainty is higher.
- Importantly, the ridehailing entry events studied in this paper could be considered shocks to the non-pecuniary benefits to alternative employment—most notably, work flexibility.

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- 2 The gig economy and new business formation
- 3 Data and Sample**
 - Sample and observations
 - Ridehailing launch and driver enrollment intensity
 - Entrepreneurial Measures
 - Measures of economic and entrepreneurial uncertainty
- 4 Empirical Analysis
- 5 Conclusion and Discussion

- Incorporated Places: The sample consists of all incorporated "places" in the continental United States with a population greater than or equal to 10,000 in 2010. These incorporated places include self-governing cities, boroughs, towns, and villages. (Both registration and actual operation information)
- Time Period: The data covers the period from 2000 to 2016. The sample stops in 2016 due to that being the last year of availability in the Startup Cartography Project (SCP) data.
- Observations: The observations are measured at the quarterly level, resulting in 201,212 quarterly observations on 2,959 "places" from 2000 to 2016, among which 1,193 adopted ride-hailing (RH) services prior to 2016.

- Ride-hailing Launch Dates: Data on RH launch dates for each city are obtained directly from Uber and Lyft. This information is merged with the Census Bureau's incorporated place directory in 2010.
- Driver Enrollment Intensity: To measure the intensity of RH adoption, Google search trends for the terms “Uber,” “Lyft,” and “rideshare” are used. The Google Health Trends API provides data on the probability of a search session that includes the corresponding term for a specific region and time period.

- New business launches, measured by location and time period using business registrations from the Startup Cartography Project (SCP).
- The volume of lending under the Small Business Administration's (SBA) 7(a) loan program, matched to business registration records.
- A measure of general interest in entrepreneurial activity, constructed using Google search share for terms related to starting a new business.

- Wage growth volatility, computed from the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW) data.

$$\sigma_p^2 = \sum_i w_i^2 \sigma_i^2 + \sum_{i \neq j} \sum_{i \neq j} w_i w_j \sigma_{ij} \quad (1)$$

- Volatility of zip-level business income, measured from the Internal Revenue Service (IRS) data.
- Business bankruptcy rates, obtained from U.S. Courts, Report F-5A, and normalized by the number of business income filings reported by IRS SOI.

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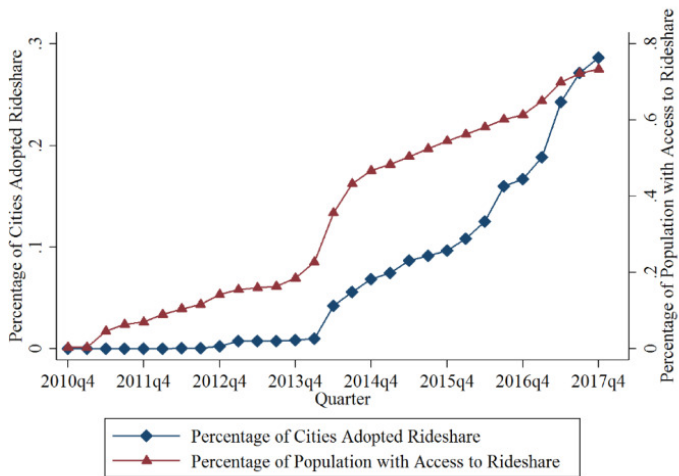
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 - Identification Challenge
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 - The Nature of Entrepreneurial Activity
 - Alternative explanation
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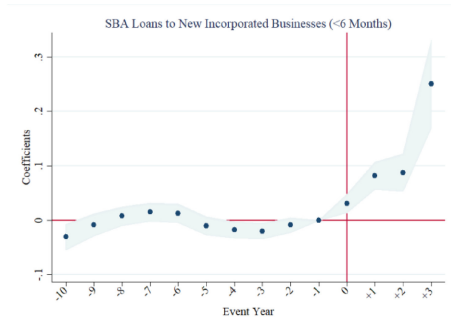
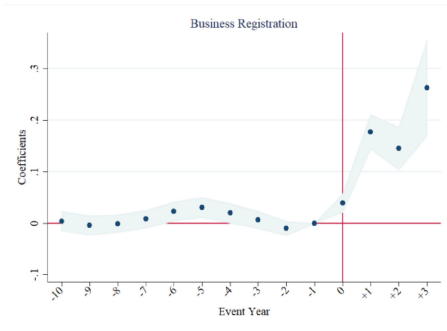
$$\log(1 + \text{outcome}_{t,c}) = \alpha_c + \gamma_t + \beta' X_{t,c} + \theta_c t + \delta \text{POST}_t * \text{TREATED}_c + \varepsilon_{t,c} \quad (2)$$

Table 2

Gig Economy and New Business Registration.

	Log (1+New Business Registration)			
	(1) >2000	(2) >2005	(3) Treat = 1	(4) >2005 & Treat=1
Treat X Post	0.0389*** (0.0112)	0.0676*** (0.0121)	0.0527*** (0.0105)	0.0594*** (0.0108)
Log Pop	0.7358*** (0.0928)	0.3212*** (0.1087)	0.7164*** (0.1189)	0.1987* (0.1094)
Log Income Per Capita (lag)	0.5212*** (0.0572)	0.5094*** (0.0668)	0.2297*** (0.0715)	0.0262 (0.0728)
Unemployment Rate (lag)	0.0004 (0.0018)	-0.0052** (0.0021)	-0.0125*** (0.0021)	-0.0186*** (0.0023)
Observations	195,446	139,225	114,384	81,761
R-squared	0.9590	0.9592	0.9665	0.9683
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes





Intensity of Gig Economy Adoption and New Business Registration.

	Log (1+New Business Registration)			
	(1) >2000	(2) >2005	(3) Treat = 1	(4) >2005 & Treat=1
Treat X Post X Log (Ridehailing-Related Search Share)	0.0772*** (0.0109)	0.0765*** (0.0111)	0.0660*** (0.0111)	0.0664*** (0.0113)
Log Pop	0.4114*** (0.0981)	0.2942*** (0.1087)	0.3274*** (0.1047)	0.1712 (0.1097)
Log Income Per Capita (lag)	0.4415*** (0.0630)	0.4587*** (0.0672)	-0.0303 (0.0702)	-0.0262 (0.0723)
Unemployment Rate (lag)	-0.0000 (0.0021)	-0.0034 (0.0021)	-0.0135*** (0.0023)	-0.0164*** (0.0023)
Observations	151,061	139,225	88,629	81,761
R-squared	0.9598	0.9593	0.9685	0.9684
Lower Order Interaction Terms	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes

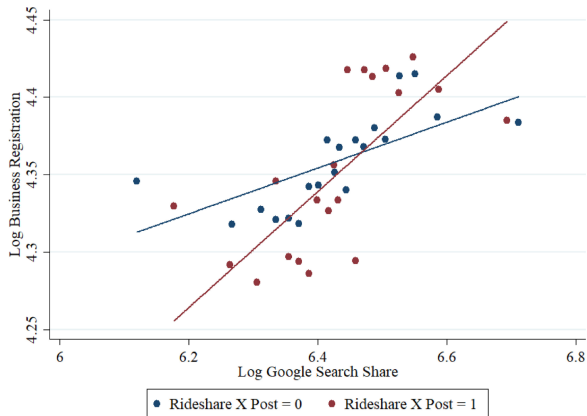


Table 6

Gig Economy and Entrepreneurial Interest (Search Share).

	Log (1+Google Search Share)			
	(1) >2000	(2) >2005	(3) Treat = 1	(4) >2005 & Treat=1
Treat X Post	0.1136*** (0.0121)	0.0677*** (0.0094)	0.1237*** (0.0148)	0.0619*** (0.0108)
Observations	153,853	142,017	89,269	82,401
R-squared	0.6140	0.6663	0.5875	0.6473
Controls	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes

- A natural concern is that ridehailing platforms did not launch in specific cities randomly.
- Using a hazard model approach, it documents that the roll-out timing of ridehailing platforms into cities is, as expected, predicted by percapita income, population size, and unemployment levels.
- However, it appears to not be predicted by the levels of entrepreneurial activity within a city.
- Cox is a semiparametric regression model that simultaneously examines the relationship between multiple factors and the occurrence and timing of event endings, and can be used to study the degree of influence of the independent variable on the dependent variable or to predict probabilities.

Modeling Ridehail Adoption: Cox Proportional Hazard Model.

	(1) All Cities	(2) Rideshare Cities	(3) All Cities	(4) Rideshare Cities
Annual% Change in Business Registration	0.9961 (0.0056)	0.9941 (0.0056)		
Annual% Change in Business Registration Per Capita			0.9961 (0.0056)	0.9942 (0.0056)
Annual% Change in Pop	1.1977*** (0.0430)	0.9191 (0.0566)	1.1976*** (0.0430)	0.9189 (0.0566)
Annual% Change in Income	1.2015*** (0.0483)	1.1599*** (0.0553)	1.2015*** (0.0483)	1.1599*** (0.0553)
Annual% Change in Unemployment Rate	0.9657 (0.0774)	0.8009** (0.0790)	0.9657 (0.0774)	0.8009** (0.0790)
Log Pop	1.7464*** (0.0437)	1.3980*** (0.0332)	1.7464*** (0.0437)	1.3980*** (0.0332)
Log Income Per Capita (lag)	1.2486*** (0.0417)	1.1739*** (0.0382)	1.2486*** (0.0417)	1.1739*** (0.0382)
Unemployment Rate (lag)	1.3246*** (0.0485)	1.1979*** (0.0445)	1.3246*** (0.0485)	1.1979*** (0.0445)
Observations	41,664	23,950	41,664	23,950

Mechanisms for Growth in Entrepreneurial Entry.

Panel A: New Business Registration				
	Log (1+New Business Registration)			
	(1)	(2)	(3)	(4)
Treat X Post X Wage Growth Volatility	0.0293*** (0.0067)			
Treat X Post X Business Income Volatility (Cross-Sectional)		0.0382*** (0.0094)		
Treat X Post X Business Income Volatility (Time-Series)			0.0430*** (0.0086)	
Treat X Post X Business Bankruptcy Rate				0.0096** (0.0047)
Treat X Post	0.0339*** (0.0115)	0.0240* (0.0129)	0.0215* (0.0126)	0.0374*** (0.0116)
Observations	195,446	195,446	195,446	195,446
R-squared	0.9590	0.9590	0.9591	0.9590
Controls	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes

Panel A: Entrepreneurship Quality

	Entrepreneurship Quality Index			
	(1) >2000	(2) >2005	(3) Treat = 1	(4) >2005 & Treat=1
Treat X Post	0.000004 (0.000021)	-0.000015 (0.000020)	0.000012 (0.000021)	0.000006 (0.000019)
Log Pop	0.000113 (0.000095)	0.000000 (0.000123)	0.000025 (0.000090)	-0.000084 (0.000116)
Log Income Per Capita (lag)	0.000135 (0.000119)	0.000156 (0.000143)	0.000144 (0.000172)	0.000193 (0.000201)
Unemployment Rate (lag)	-0.000000 (0.000004)	0.000002 (0.000005)	-0.000002 (0.000004)	-0.000000 (0.000006)
Observations	188,117	134,317	113,201	81,043
R-squared	0.2849	0.3272	0.2685	0.2891
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes

Panel B: Entrepreneurship Concentration

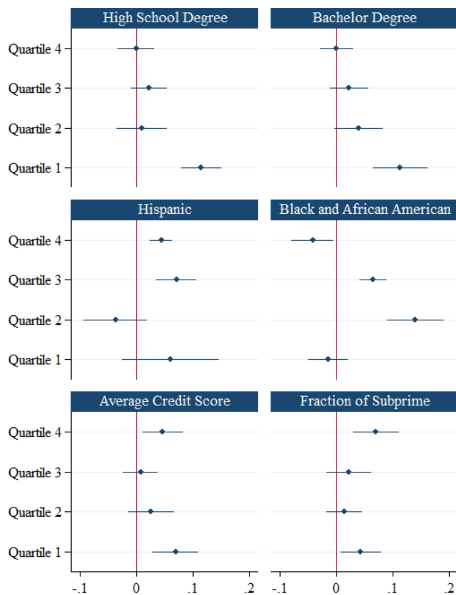
	Business Registration Zip HHI			
	(1) >2000	(2) >2005	(3) Treat = 1	(4) >2005 & Treat=1
Treat X Post	0.0036** (0.0018)	-0.0009 (0.0020)	0.0032* (0.0018)	0.0008 (0.0019)
Log Pop	-0.0513*** (0.0138)	-0.0285 (0.0191)	-0.0421** (0.0180)	-0.0413** (0.0197)
Log Income Per Capita (lag)	-0.0226** (0.0110)	-0.0077 (0.0120)	-0.0025 (0.0110)	0.0017 (0.0120)
Unemployment Rate (lag)	0.0017*** (0.0005)	0.0013** (0.0005)	0.0001 (0.0005)	0.0001 (0.0005)
Observations	195,446	139,225	114,384	81,761
R-squared	0.8675	0.8805	0.9328	0.9441
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes

Is the Increase in Entrepreneurship Due to City Growth?

	Log Average Weekly Wage			
	(1) >2000	(2) >2005	(3) Treat = 1	(4) >2005 & Treat=1
Treat X Post	-0.0093*** (0.0009)	-0.0045*** (0.0009)	-0.0079*** (0.0011)	-0.0032*** (0.0009)
Log Pop	0.0262*** (0.0095)	0.0576*** (0.0132)	0.0250** (0.0123)	0.0646*** (0.0157)
Log Income Per Capita (lag)	0.2597*** (0.0140)	0.2202*** (0.0131)	0.2603*** (0.0144)	0.1865*** (0.0114)
Unemployment Rate (lag)	-0.0033*** (0.0002)	-0.0029*** (0.0002)	-0.0022*** (0.0003)	-0.0021*** (0.0003)
Observations	198,238	142,017	115,024	82,401
R-squared	0.9818	0.9793	0.9813	0.9785
City FE	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes

Who are the new entrepreneurs?

	Education		Race		Credit Score	
	(1) High School	(2) Bachelor	(3) Hispanic	(4) Black and African American	(5) Level	(6) Fraction of Subprime
Treat X Post X Q1	0.1148*** (0.0185)	0.1131*** (0.0246)	0.0604 (0.0434)	-0.0139 (0.0179)	0.0690*** (0.0206)	0.0435** (0.0178)
Treat X Post X Q2	0.0100 (0.0227)	0.0399* (0.0216)	-0.0371 (0.0290)	0.1398*** (0.0255)	0.0262 (0.0204)	0.0147 (0.0162)
Treat X Post X Q3	0.0218 (0.0162)	0.0224 (0.0174)	0.0707*** (0.0185)	0.0651*** (0.0124)	0.0074 (0.0159)	0.0223 (0.0203)
Treat X Post X Q4	0.0000 (0.0165)	0.0005 (0.0149)	0.0441*** (0.0102)	-0.0419** (0.0193)	0.0465*** (0.0180)	0.0700*** (0.0206)
Observations	195,446	195,446	195,446	195,446	195,379	195,379
R-squared	0.9590	0.9590	0.9590	0.9591	0.9590	0.9590
Controls	Yes	Yes	Yes	Yes	Yes	Yes
City FE	Yes	Yes	Yes	Yes	Yes	Yes
Quarter FE	Yes	Yes	Yes	Yes	Yes	Yes
City Linear Trend	Yes	Yes	Yes	Yes	Yes	Yes



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 - Implication and Comments
 - Related Research

- Does gig differ from gig? (Being Uber driver may be different form being Li Jiaqi)
- How about job security of gig work?
- Is there any industry heterogeneity of business formation?
- Something unique in China? Hukou, domestic migrants or...

The Impact of the Gig Economy on Product Quality Through the Labor Market: Evidence from Ridesharing and Restaurant Quality

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Abstract. This paper seeks to demonstrate the impact of the gig economy on product quality in seemingly unrelated local industries through the labor market. Our empirical context is the quality of service for restaurants in the city of Austin, and we examine how they were impacted by the *exogenous* exit and reentry of rideshare platforms, Uber and Lyft, because of regulatory changes. We leverage these exogenous shocks and combine them with sentiment-analyzed data from Yelp reviews that capture how customers assess the quality of service at each restaurant. We show that, compared with control cities, customers in Austin become more negative about service quality when Uber and Lyft are present in the city. Additionally, we use rich data on employee turnover and wages to demonstrate that service staff turnover increases in Austin when Uber and Lyft are present compared with the control cities. We also conduct several additional studies and robustness checks that are all congruent with our hypothesis that Uber and Lyft lower the quality of service in Austin restaurants by raising their staff turnover. Together, these results suggest significant ramifications of the gig economy on the broader industries through the labor market.

History: This paper was accepted by Matt Shum, marketing.

Supplemental Material: The online appendix and data are available at <https://doi.org/10.1287/mnsc.2022.4481>.

《管理世界》

2022年第2期

零工经济对创业的影响^{*}

——以外卖平台的兴起为例

莫怡青 李力行

摘要:随着数字技术的发展,平台经济迅速崛起,大大拓宽了“零工经济”的应用场景,催生了一大批新就业形态,为劳动力市场带来了深刻的变革。零工经济既可能通过提供收入安全网、对冲风险而促进创业,又可能因为提供替代的收入机会从而降低劳动者的创业动机。本文利用外卖平台进入我国各城市的时间差异,采用渐进倍差法,发现外卖平台的进入总体上会减少大约4.7%的企业注册数量。企业和行业层面的异质性分析显示,受到外卖平台负面冲击的主要是低注册资本、生存时间较短的企业,并集中在低资金需求、低技术水平的行业,说明平台所挤出的主要是低质量、生存型的创业活动。进一步的研究发现,外卖平台的兴起带动了金融、信息、科研和人力资源等行业的创业,并且促进了市场的细分化与个体化,这些发现与零工经济下工作灵活化和多元化的变动趋势相一致。

Thank You!

Comments and questions are
welcome.