Place-Based Policy for Entrepreneurship: Evidence from Opportunity Zones

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Overview

- Opportunity Zones provide capital tax breaks on investments in specific tracts

Research Question

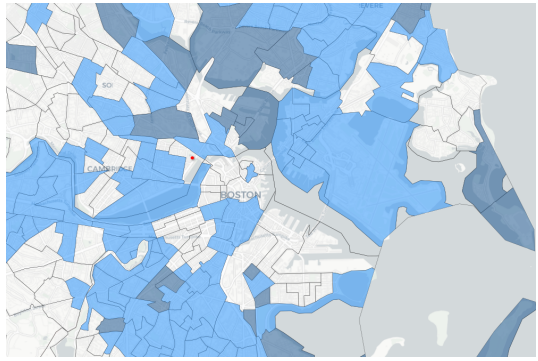
Have Opportunity Zones changed the quantity or success of startups in targeted tracts?

- Utilize the Comprehensive Startup Panel from Fairlie et al. [2019]
- Implement a Difference-in-Differences around the 2018 introduction of OZs
- Results show OZs' effect on startups presents a quantity/quality trade-off:
  - Negative and significant effects on the overall count of startups
  - Positive and significant effect of OZs on counts of employer startups and non-employer transitions to employers

Institutional Background: Opportunity Zones

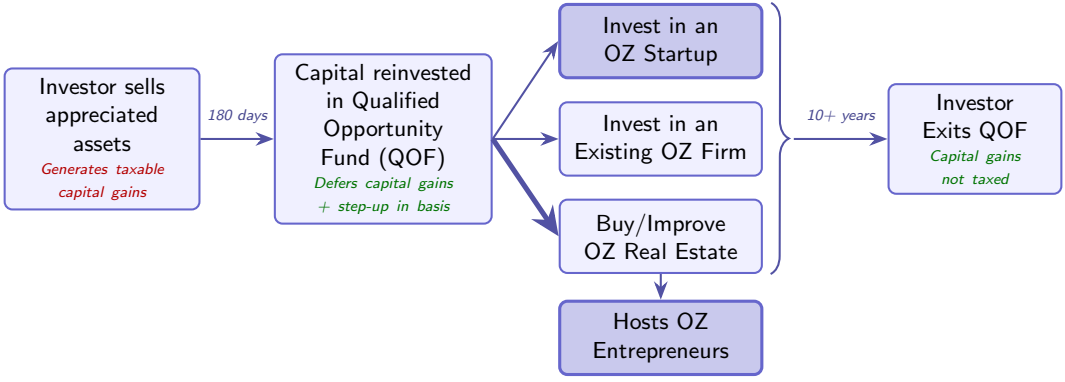
- Opportunity Zones is the largest place-based program in the US
- Opportunity Zones chosen in two stages
  - "Low Income Communities" are eligible based on income or poverty
  - Governors select 25% to become OZs
- OZ investments get two types of favorable tax treatment:
  - Deferral + step-up in basis for capital gains reinvested in OZs
  - No capital gains tax on long held OZ investments
- Program extended/modified in 2025

Figure: LICs and OZs in Boston Area



IRS: *"Opportunity Zones are an economic development tool... [whose] purpose is to spur economic growth and job creation in low-income communities while providing tax benefits to investors."*

OZs may steer capital to Entrepreneurs through QOFs



- Policymakers envisioned QOFs would invest in small businesses [Lettieri, 2018]
- Majority of OZ investment is in real estate [Theodos et al., 2025; Kennedy and Wheeler, 2022]
  - OZ timing requirements favor stability of real estate [Atkinson, 2025]
  - Provides alternative mechanism for effect on entrepreneurship

Data: Comprehensive Startup Panel

- Comprehensive Startup Panel (CSP) following Fairlie et al. [2019].
  - Constructed using restricted ILBD and LBD data in FSRDC
  - Allows measurement of *all* business formation
  - Can follow new firms' survival, employee count, and payroll in years after formation
- We augment the CSP with precise business locations
  - Locations retrieved from Business Register
  - Firms with zip codes but no address are probabilistically assigned to tracts based on commercial address overlap [Din and Wilson, 2020]
- We update through the 2022 startup cohort, with outcomes at startup and one year ahead
- Data is restricted use, only disclosing sign and significance of interim results
  - All disclosure review currently frozen, so can't show latest results

Difference-in-Differences Identification Strategy with IPW

- Core of strategy: compare changes in startups between OZs and non-selected LICs:

$$y_{it} = \sum_{j=2013}^{2016} \beta_j^{pre} \, OZ_i \, \mathbb{1}[j = t] + \sum_{k=2018}^{T} \beta_k^{post} \, OZ_i \, \mathbb{1}[k = t] + \gamma_i + \eta_t + \varepsilon_{it}$$

- Earlier evidence shows OZs were selected on improving economic conditions [Brazil and Portier, 2022; Eldar and Garber, 2023; Freedman et al., 2023, 2025]

- Following Freedman et al. [2023], we incorporate inverse propensity weighting: reweight control tracts based on pre-treatment trends in outcomes
  - Underlying logit model is:

$$OZ_i^* = \alpha + \sum_{t=2013}^{2017} \delta_t y_{it} + v_i$$

  - In effect, we use as controls LICs that are on comparable trajectories to selected OZs

- We also implement doubly robust estimation as outlined in Sant'Anna and Zhao [2020] and generalized in Callaway and Sant'Anna [2021]

Results: Event Study Sign and Significance

Table: Sign and Significance of Event Study for Startup Count

	log(Startup Count)									
Naive	-**	-***	-***	-	•	+***	+***	+***	+***	+***
IPW	-	-	-	-	•	-	-	-***	-**	-***
DR	-	-	-	-	•	-	-	-***	-**	-***
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022

Notes: The "All Startups" sample is estimated based on positive counts of startups in Low Income Communities eligible for designation in Opportunity Zones. To maintain consistent samples across the three rows, the sample is restricted to Low Income Communities in which the startup count is positive in every pre-period. Significance calculated using standard errors clustered by tract. Year and tract fixed effects are included in the model. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

- Clear pretrend: significant negative values before 2017 indicate the OZs were on an upward trajectory ahead of treatment

Results: OZ Status on Startup Outcomes

Table: Sign and Significance of Preliminary Estimates

	Log Startup Count	1-year Survival Rate	Log Emp Startup Count	Log Emp. Count	Log Payroll	Log Non-Emp Startup Count	1-year Transition Rate
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
			Panel A: Naïve Difference-in-Differences				
Post × OZ	+***	-**	+***	+	+	+***	+
			Panel B: Inverse Propensity Weighting				
Post × OZ	-***	-	+***	+***	+***	-	+***
			Panel C: Doubly-Robust Method				
Post × OZ	-***	-	+***	+***	+***	-	+***
Sample	All Startups		Employer Startups			Non-Employer Startups	
N Tract-Years	274,000		159,000			261,000	
N Firms	15,050,000		1,051,000			13,610,000	

Notes: Tract and year fixed effects included in all models. The "All Startups" sample is estimated based on positive counts of startups in Low Income Communities eligible for designation in Opportunity Zones. To maintain consistent samples across the three panels, the sample is restricted to Low Income Communities in which the startup count is positive in every pre-period. The "Non-Employer Startups" sample and "Employer Startups" sample are both defined analogously, but with the positive count in the pre-period restriction applying to counts of non-employer and employer startups respectively. Significance calculated using standard errors clustered by tract. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Discussion: A Quantity/Quality Trade-Off

- The overall number of startups decreases
  - Naïve estimate would show an overall increase
- Increase in startups which form as employers
  - Startup payroll and employment increase correspondingly
  - Increase in the rate at which non-employer startups quickly transition to employers
- No effect on startup survival
- Quantity/quality trade-off could be explained by differential effects on startup types as described in Fairlie and Fossen [2020]
  - OZs $\downarrow$ "Necessity" startups born from prolonged unemployment
  - OZs $\uparrow$ "Opportunity" startups more likely to generate employment

Next Steps

1. Flexible Functional Forms to Handle Zeros ✓
   - Utilize PPML to better model counts and handle tract-years with zero startups
   - Pair with flexible treatment models which can handle zero startups in a pre-period

2. Look at startup survival and employment dynamics over longer horizons ✓
   - Do startups in Opportunity Zones grow faster in a sustained way?
   - Alternative: abundance of capital merely pulls hiring forward in time

3. Look for spillovers/displacement of startups
   - Growth in OZs could be at the expense of nearby/substitute areas
   - Already shown for employment [Freedman et al., 2025] and housing [Gonzalez, 2026]
   - We could use guidance defining likely substitute tracts

4. Look at heterogeneity by industry
   - Prior work has shown startups' ability to generate jobs varies considerably with industry [Fairlie et al., 2019]
   - Are OZs generating the kinds of startups that would result in higher employment?

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Thanks!

Supplemental Slides

Summary Statistics from Robb and Diagne [2025]

Figure: Robb and Diagne [2025] Table 1

Startup Cohort	Number of Firms	Percentage
2011 Start	4,387,000	50.1%
2012 Start	4,365,000	49.9%
Total	8,752,000	100%

Source: Comprehensive Startup Panel, 2011-2012 Startup Cohorts.

Summary Statistics from Robb and Diagne [2025]

Figure: Robb and Diagne [2025] Table 2

Status	Number of Firms	Percentage
Started and ended as a non employer	7,801,000	89.1%
Started as a nonemployer but transitioned to employer during period	159,400	1.8%
Started as an employer; had no net job creation over period	522,500	6.0%
Started as an employer; had positive net job creation over period	268,700	3.1%
Total	8,752,000	100%

Source: Comprehensive Startup Panel, 2011-2012 Startup Cohorts.

Summary Statistics from Robb and Diagne [2025]

Figure: Robb and Diagne [2025] Table 3

Year	Number of Firms	Percentage	Cumulative Percentage
0	8,867	5.6%	5.6%
1	70,470	44.2%	49.8%
2	27,170	17.0%	66.8%
3	16,770	10.5%	77.3%
4	12,070	7.6%	84.9%
5	8,897	5.6%	90.5%
6	8,482	5.3%	95.8%
7	6,703	4.2%	100%
Total	159,400	100%	

Source: Comprehensive Startup Panel, 2011-2012 Startup Cohorts.

Summary Statistics from Robb and Diagne [2025]

Figure: Robb and Diagne [2025] Table 4

Status	Number of Firms	Percentage
Started and ended as a nonemployer; survived	2,036,000	23.3%
Started as a nonemployer but transitioned to employer during period; survived	109,400	1.3%
Started as an employer; had no net job creation over period; survived	117,000	1.3%
Started as an employer; had positive net job creation over period; survived	268,700	3.1%
Started as a nonemployer and didn't survive	5,815,000	66.4%
Started as an employer and didn't survive	405,400	4.6%
Total	8,752,000	100%

Source: Comprehensive Startup Panel, 2011-2012 Startup Cohorts.

Summary Statistics from Robb and Diagne [2025]

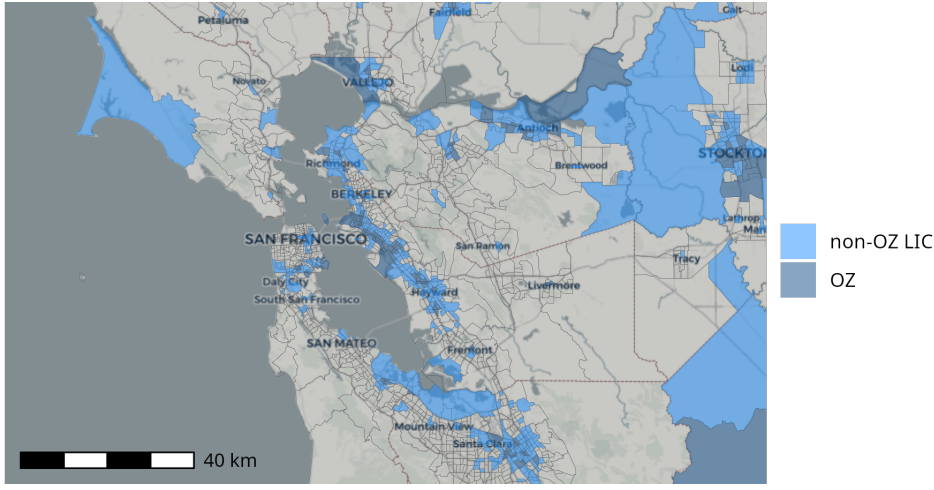
Figure: Robb and Diagne [2025] Table 6

Number of Employees	Number of Firms	Percentage
0	8,469,000	96.8%
1	95,270	1.1%
2-4	101,800	1.2%
5-9	43,220	0.5%
10-19	22,100	0.3%
20-49	12,210	0.1%
50-99	4,108	0.0%
100 or more	3,662	0.0%
Total	8,752,000	100.0%

Source: Comprehensive Startup Panel, 2011-2012 Startup Cohorts.

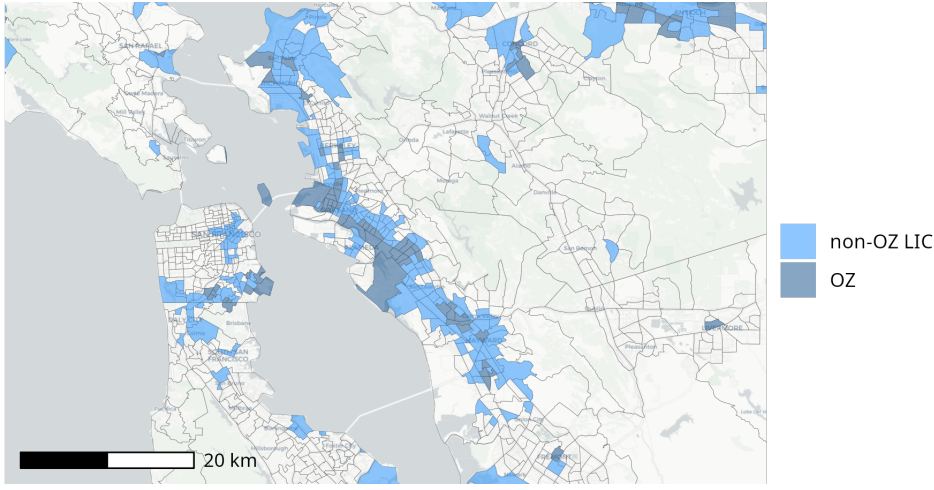
OZ Example Map: Oakland

Figure: Oakland Example Zoom Level 1



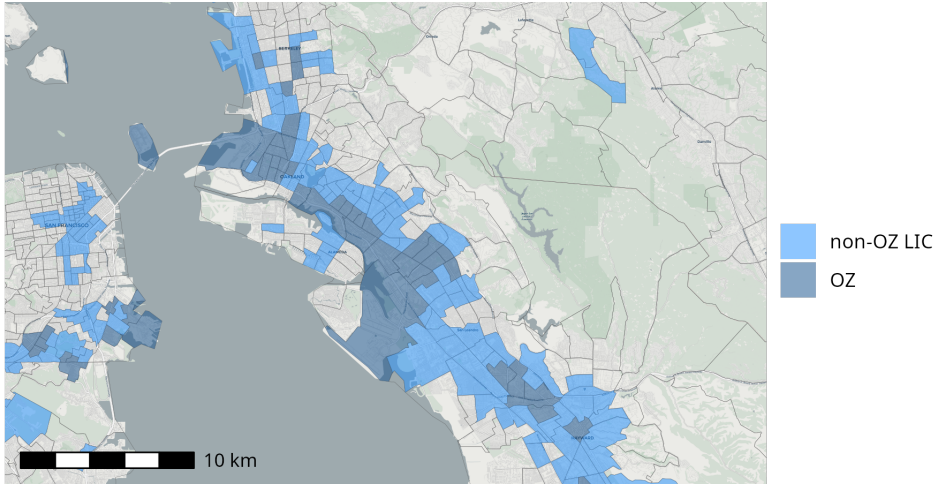
OZ Example Map: Oakland

Figure: Oakland Example Zoom Level 2



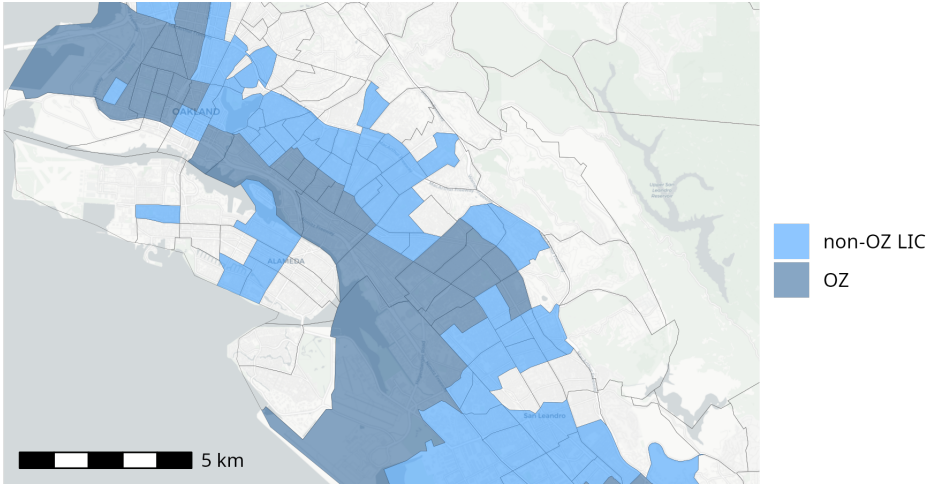
OZ Example Map: Oakland

Figure: Oakland Example Zoom Level 3



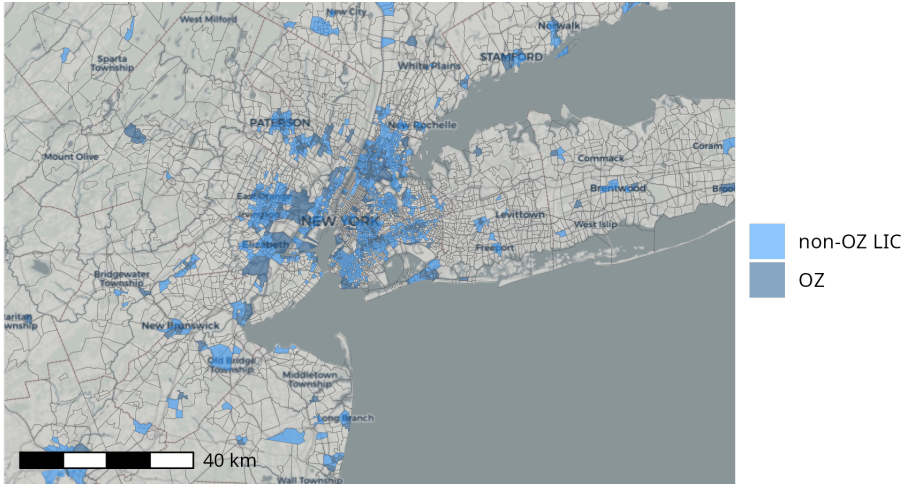
OZ Example Map: Oakland

Figure: Oakland Example Zoom Level 4



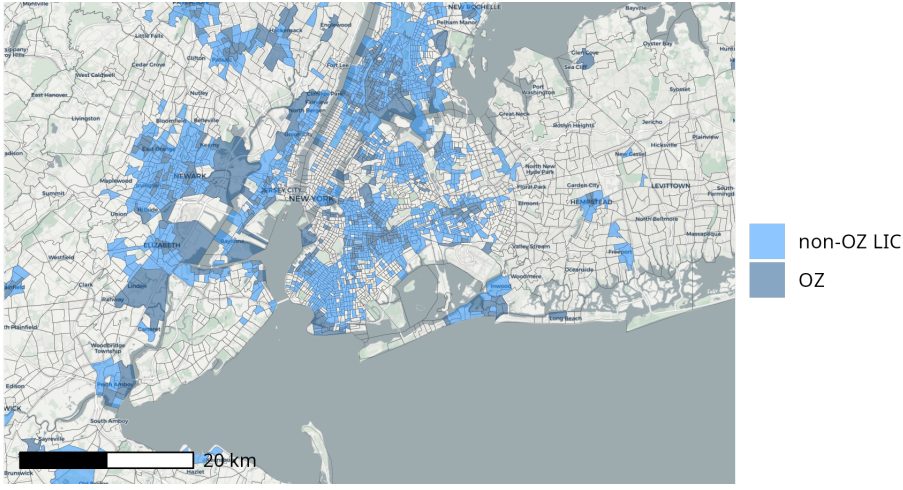
OZ Example Map: Brooklyn

Figure: Brooklyn Example Zoom Level 1



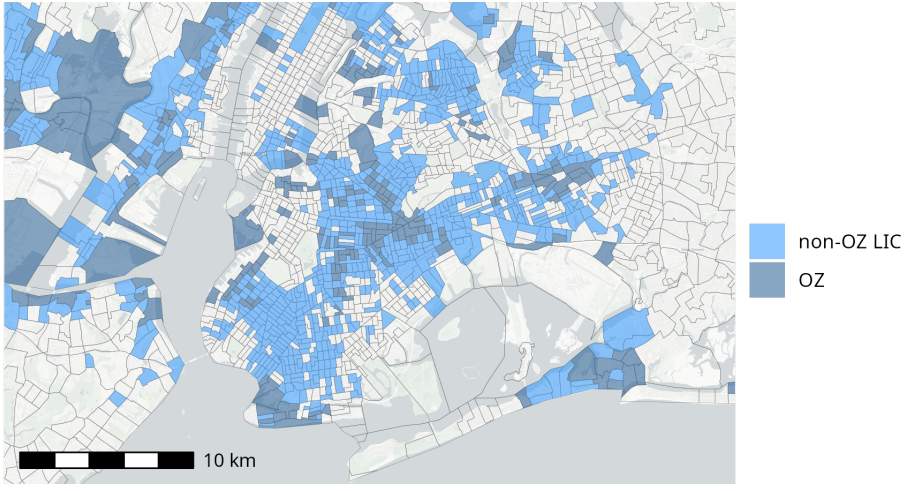
OZ Example Map: Brooklyn

Figure: Brooklyn Example Zoom Level 2



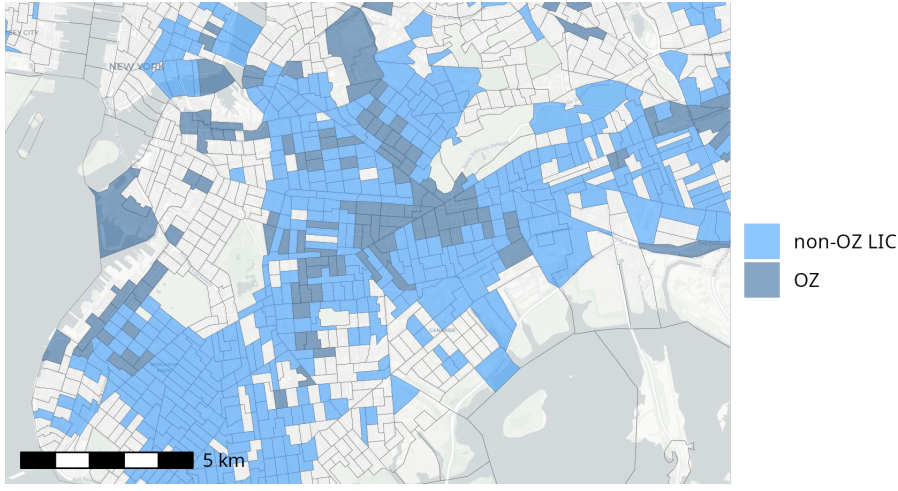
OZ Example Map: Brooklyn

Figure: Brooklyn Example Zoom Level 3



OZ Example Map: Brooklyn

Figure: Brooklyn Example Zoom Level 4



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