Evaluating the Efficacy of Place-Based Procurement Benefits

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May 19, 2018

Many different areas are unattractive for business development because of high poverty levels or high unemployment rates. In the United States, for example, 20.2 percent of all census tracts and 30.6 percent of all non-metropolitan counties are considered underutilized business zones as of January 1, 2018.[1] To encourage growth in these areas, governments often enact place-based development programs, which are programs designed to improve an area's economic performance. Preeminent examples of these types of programs include enterprise zones, which give tax credits to firms in economically distressed communities, and special economic zones, which use tax incentives to encourage foreign investment. As an alternative to tax incentives, governments can also grant firms benefits in federal procurement contracting to encourage their growth. The goal of this study is to investigate the effectiveness of geographically targeted procurement benefits in stimulating entrepreneurship and business development in underdeveloped areas, and we propose to do so through the U.S.' HUBZone program.

At present, the HUBZone program is a place-based contracting assistance program that aims to create jobs and increase capital investment in distressed areas. To this end, the program offers a wide range of benefits to businesses that operate and hire from Historically Underutilized Business Zones (or HUBZones), including competitive and sole-sourced set-aside contracts and a 10 percent discount on full and open contracts. While the literature has shown that these benefits are effective in increasing the representation of preferred firms in contracting,[2] there are, to our knowledge, no articles that look at whether offering these benefits in a given area can lead to geographic changes in entrepreneurship and firm growth. These changes can be particularly important when looking to improve local economic conditions, since Decker, Haltiwanger, Jarmin, and Miranda (2014) show that job creation is disproportionately concentrated among startups and young

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[1] These designations are determined by the Small Business Administration based off of a variety of different factors such as income levels and area unemployment rates.

[2] See Krasnokutskaya and Seim (2011), Marion (2007), Rosa (2018), and Hubbard and Paarsch (2009) for a discussion of bid discounts; Athey et al. (2013) and Nakabayashi (2013) discuss set-asides.

firms. Our study's contribution is then to address that gap in the literature by evaluating how the HUBZone program affected firm entry, exit, and employment growth in its targeted areas.

To measure how the program affected an area's business dynamics, we plan to use the Census' restricted Longitudinal Business Database (LBD) to track firms. The LBD is ideal for this study, since it contains detailed information on all U.S. firms; however, the LBD can only be accessed through particular Census Research Data Centers (RDCs). Access and travel to RDCs can be costly, so much of the grant, if awarded, would go towards funding those costs.

The next step in evaluating the program requires us to know which areas were eligible for the program. To obtain records of these areas, we have already hand-collected old HUBZone designation data from internet archives. This data allows us to see which areas qualified initially as well as areas that qualified at later dates.

Ideally, comparable areas would have been randomly assigned to the HUBZone program. Causal estimates of the program's average effects could then be obtained by comparing firm entry, exit, and employment patterns in areas with and without the program. Unfortunately, the program was not randomized; only areas with sufficiently high poverty and unemployment levels or areas with sufficiently low median income levels qualified for the program. To obtain causal estimates from this type of data, we propose to use a difference-in-differences (DID) matching estimator. We will construct a comparison group by matching areas that qualified for the HUBZone program with areas that did not qualify but are similar based on 2000 U.S. census data. We will then use a DID regression specification to tease out the effect of the program. A limitation of using these estimators is that they require selection on observables, which means that unobserved characteristics that influence an area's HUBZone eligibility could bias the estimates. In our case, HUBZone eligibility was originally determined by the 2000 census, so we have the complete set of observables the government used to designate HUBZones. Migration can also potentially bias our estimates, so we intend to use the LBD to check which firms move to the HUBZone areas. With these precautions in mind, we believe that we can precisely evaluate HUBZone's impact.

In conclusion, the HUBZone program offers us a unique opportunity to contribute to the place-based policy, procurement benefits, and entrepreneurship literature by studying how HUBZone affected business dynamics in its targeted areas. Much of the analysis relies on restricted Census data, which is costly and motivates our grant application. We believe that our methods are sound and that our study can shed light on the critical link between government interventions and business formation.

References

Athey, S., D. Coey, and J. Levin (2013). Set-asides and subsidies in auctions. *American Economic Journal: Microeconomics 5*(1), 1–27.

Decker, R., J. Haltiwanger, R. Jarmin, and J. Miranda (2014). The Role of Entrepreneurship in US Job Creation and Economic Dynamism. *Journal of Economic Perspectives 28*(3), 3–24.

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Krasnokutskaya, E. and K. Seim (2011). Bid preference programs and participation in highway procurement auctions. *American Economic Review 101*(6), 2653–2686.

Marion, J. (2007). Are bid preferences benign? The effect of small business subsidies in highway procurement auctions. *Journal of Public Economics 91*(7-8), 1591–1624.

Nakabayashi, J. (2013). Small business set-asides in procurement auctions: An empirical analysis. *Journal of Public Economics 100*(April 2005), 28–44.

Rosa, B. V. (2018). Resident Bid Preference, Affiliation, and Procurement Competition: Evidence from New Mexico.

Budget Estimate

Item	Quantity	Unit Cost	Total
RDC Fees			
Washington RDC Fee	2 years	$8,000	$16,000
Travel			
Travel to Washington, D.C.	20	$190	$3800
Lodging in Washington, D.C.	20	$259	$5180
Total			$24,980
Amount Covered by Other Sources			$4,980
Total Amount Requested			$20,000

Washington RDC Fee: The firm-level data is restricted and requires access to one of the Census' RDCs. Because Ben is affiliated with Virginia Tech, he currently does not have free access to any RDC; he will have to pay an annual fee of $8,000 to use the RDC in Washington.

Travel to Washington, D.C.: This estimate is based on Virginia Tech's campus-to-campus bus service, which goes from the Blacksburg campus to the one in Arlington, Virginia. A one-way trip costs $95, and we anticipate that Ben will need 20 trips before the project is complete.

Lodging in Washington, D.C.: This estimate comes from the average first-quarter hotel price in D.C. in 2016.

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Employment

Assistant Professor, Department of Economics, Virginia Tech, 2018 – present.

Education

Ph.D., Economics, University of Pennsylvania, 2018.

B.A/B.S., Economics/Mathematics, Howard University, 2012.

Research Fields

Industrial Organization, Public Economics.

Working Papers

"Subcontracting Requirements and the Cost of Government Procurement."

"Resident Bid Preference, Affiliation, and Procurement Competition: Evidence from New Mexico," accepted, *Journal of Industrial Economics*.

Research in Progress

"Evaluating the Efficacy of Place-Based Procurement Benefits," with Mallick Hossain.

"Affirmative Action Programs in a Dynamic Procurement Environment."

"Adverse Selection and Endogeneity in Government Procurement Programs."

Research Positions

Research Assistant for Professor Joe Harrington, University of Pennsylvania (2016-2017).

Research Assistant for Professor Omari Swinton, Howard University (2009-2012).

Summer Analyst, Federal Reserve Bank of New York (2011).

Teaching Experience

Instructor:

Introduction to Microeconomics (Spring 2016).

Head Teaching Assistant:

Introduction to Microeconomics (Fall 2015, Fall 2016).

Recitation Instructor:

Introduction to Microeconomics (Spring 2014, Fall 2014, Spring 2015, Fall 2016, Fall 2017).

Intermediate Microeconomics (Fall 2013).

Other:

TA Training Coordinator (Summer 2016).

TA Training Workshop Leader (Summer 2015).

Fellowships, Honors, and Awards

Dissertation Fellowship, Federal Reserve Board of Governors (2017).

GAPSA Travel Grant (2017).

Fontaine University Fellowship, University of Pennsylvania (2012).

Phi Beta Kappa, Howard University (2012).

Legacy Scholarship, Howard University (2008).

Conference and Seminar Presentations

2018: Duke University, Federal Trade Commission, University of South Carolina, Duke University – Fuqua School of Business, Virginia Tech, University of Kentucky.

2017: Federal Reserve Board of Governors, International Industrial Organization Conference (Boston).

2016 and Earlier: AEA Summer Mentoring Pipeline Conference (Michigan State University), AEA Summer Mentoring Pipeline Conference (University of New Mexico).