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Local employment, poverty, and property value effects of geographically-targeted tax incentives: An instrumental variables approach

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ABSTRACT

The federal Empowerment Zone (EZ) program is a set of tax incentives targeted to areas of select cities. I estimate the effect of the EZ program on employment, poverty, and property values by comparing areas that received an EZ to areas that applied (and qualified), but were rejected. Because of endogeneity concerns, I use political representation to instrument for EZ designation. OLS results show a positive and statistically significant effect of the program on employment and poverty. IV estimates suggest the program had no effect on employment and poverty, and instead had a large statistically significant effect on property values.

1. Introduction

Geographically-targeted tax incentives are an increasingly popular policy for economic redevelopment. The first federal tax incentive with a geographic targeting mechanism, the Empowerment Zone (EZ) program, began in 1995 as the start of a decade-long trend toward using the federal tax code to subsidize areas experiencing economic hardship. In addition to the nine original EZs, Congress established 29 new zones since 1997. The Office of Management and Budget estimates that in terms of foregone revenue, geographically-targeted tax incentives will cost[1] $1. 7 billion in fiscal year 2009 and $4. 8 billion for 2009–2013 (Executive Office of the President, 2008).[2] Despite the growing popularity of geographically-based tax incentives among policy makers, there is not a consensus about how they affect targeted populations.

I use the federal EZ program to test the effect of geographically-based tax incentives on local employment, resident poverty rates, and median property values. Previous estimates of the federal EZ program, Busso and Kline (2006) and HUD (2001), find large positive effects on employment and large negative effects on poverty rates; however both of these studies treat EZ assignment as strictly exogenous. Krupka and Noonan (2009) estimate a substantial positive effect of the federal EZ program on local property values, a result that is robust to several specifications, some that account for endogeneity of zone assignment. I examine potential for zone designation to be endogenous to outcomes of interest and use instrumental variables to provide estimates that correct for the potential endogeneity bias.

I estimate the effect of the EZ program with two different methods. The first, an OLS differencing design, compares the relative outcomes for EZ designated areas and their surrounding city with rejected applicants and their surrounding city before and after the program. The primary assumption in the first method is that EZ designation is not correlated with expected changes in economic outcomes of interest. The second, an IV approach, uses federal political representation of local jurisdictions as an instrument for EZ designation. The primary assumption in the second method is that political representation prior to EZ designation is not correlated with changes in economic outcomes of interest.

The OLS results suggest that the EZ program has a positive and statistically significant effect on resident employment rates, and a negative and statistically significant effect on resident poverty rates. IV results suggest that the EZ program has no effect on resident employment (point estimates equal to zero), and a positive effect on resident poverty rates; however both of these results are statistically imprecise.

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[1] Estimate includes expenditures on Empowerment Zones, Renewal Communities, Enterprise Communities, the New York Liberty Zone that was established in the wake of 9/11, the Gulf Opportunity Zone established after Hurricane Katrina, and the District of Columbia Enterprise Zone.

[2] 2009–2012 estimates assume that many of the Empowerment Zones will be allowed to expire at the end of 2009 making this an underestimate. Despite this caveat, these tax incentives are larger than over half of all tax expenditures in the budget for the period in terms of forgone revenue.

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Alternatively, IV estimates show a large, positive and statistically significant effect of the program on median property values.

The remainder of the paper begins with a brief description of the previous literature. Section 3 follows with an explanation of the EZ program and outlines my identification strategy. Section 4 gives a summary of the demographic and economic characteristics of both the EZs and comparison areas, before and after designation. In Section 5, I describe my results using both OLS and instrumental variables regressions. Section 6 concludes.

2. Previous studies of geographically-targeted tax incentives

Policy makers at all levels of government have implemented a myriad of geographically-targeted tax incentive programs during the last few decades. The incentives offered differ across jurisdictions; some offer tax credits for hiring or training employees in certain industries, others offer tax credits related to creating jobs, many offer incentives for capital investment. The common theme of these incentives is that they create differential tax treatment within an otherwise homogenous tax jurisdiction[3] that is based on a precise physical location within that jurisdiction.

The majority of past analyses of geographically-targeted tax incentives study programs initiated at the state level, and focuses on how these programs affect employment outcomes. Papke (1994) examined the State of Indiana Enterprise Zone program that gives both capital and labor tax incentives to firms operating within the zone. She finds that unemployment claims at offices within the zone declined by 19%, a decline of 1500 claims per year at the mean. Boarnet and Bogart (1996) examine the effect of the New Jersey Enterprise Zone program and find that Enterprise Zone status had no effect on employment or property values at the municipal level. O'Keefe (2004) finds that the Enterprise Zone program in California increased employment growth by 3.1% relative to comparison areas in the first 6 year s followed by a decrease in employment growth of 3.2% in years 7 to 13.

Bonnonio and Engberg (2000) analyze a set of different state geographically-targeted incentives and find that they have no impact on employment. The null result is robust to different methodology and is not sensitive to the features of state programs or the value of the incentives offered. Bondonio and Greenbaum (2007) also analyze different state geographically-targeted programs, but look for differential impacts by the status of firm. They find that geographically-targeted incentives have a positive effect on employment at new and existing firms, but these gains are offset by the loss at firms that close or leave the area.

There are three evaluations of the federal EZ, one conducted by the Department of Housing and Urban Development (HUD) in 2001, another by Busso and Kline (2006) and a more recent analysis by Krupka and Noonan (2009). The HUD study finds several positive effects on areas that received EZ designation including: growth at firms located within the EZs, an increase in the number of residents employed at firms located within the EZs, and an increase in the number of resident-owned businesses. The HUD study identifies the effect of EZs by comparing employment at firms located in the EZs to firms in areas of the city that are both similar and adjacent to the EZs before and after zone designation.

Busso and Kline (2006) use rejected applicants as a comparison group to identify the effects of EZs using a difference-in-difference methodology. The preferred estimates of Busso and Kline suggest that EZ designation is associated with a statistically significant 4.1 percentage point increase in local employment, and a 3.8 percentage point decrease in local poverty rates. Both the HUD and Busso and Kline estimation strategies rely on the assumption that EZ designation did not depend on the economic outcomes that an area would have experienced had it not been awarded EZ status (i.e. that EZ designation is exogenous).

Krupka and Noonan (2009) use future recipients of EZs as a control group to determine the effects of first round EZs on local property values.[4] They address endogeneity concerns by applying the instrumental variables strategy developed in an earlier version of this paper. They find that the EZ program is responsible for a substantial increase in median property value in designated areas. The increase in property value is robust across specifications that account for endogeneity with the magnitude of these estimates ranging from a low of 20% to a high of 60%. They find positive and significant effects even without accounting for endogeneity, which, when compared to the results using rejected applicants here suggests that there may be important unobserved characteristics of areas that went through the original application process.

In addition to the growing literature on Zones, there is a related literature that assesses tax increment financing (TIF) areas. The TIF concept is similar to the Zone concept in that a geographic area is set aside for special treatment within a jurisdiction; however, instead of being offered direct assistance, TIF areas are granted claim to any increase in property tax collection that results from increased property values in the designated area. The evaluation of TIFs is plagued by similar problems as the evaluation of Zones. As pointed out by Dye and Merriman (2000), identifying the effects of a TIF are especially challenging due to the fact that the value of the TIF is directly related to the *growth* in property values. Dye and Merriman summarize this problem with the following question: "does TIF adoption cause future growth in property values or does anticipated growth in property values cause the decision to adopt tax increment financing"?

Despite the challenges in identifying the effects of TIFs empirically, researchers have had some success. Dye and Merriman (2000) estimate the effects of TIF adoption using a self-selection treatment model to account for the endogenous designation of TIF areas. Using data from the Chicago area, they find cities that adopt TIF districts have slower property value growth than those that do not adopt TIFs. Anderson (1990) also recognizes the simultaneous nature of TIF adoption and property value growth in estimating the effects of TIFs on property values in Michigan, and estimates the effect of TIF adoption using a two-stage estimation strategy with structural Probit model. Anderson finds that cities with a growing population and higher predicted property values are more likely to adopt TIFs, suggesting that indeed simultaneity is a problem. Anderson comes to the opposite conclusion of Dye and Merriman about the property value impact of TIFs, he finds that cities that adopt TIFs have greater property value increases than those that do not adopt.

Part of the explanation in these contradictory findings may come from both the wide variation in the type of TIFs and the substantial spill-over effects that TIF districts have on surrounding property values in a city. Weber et al. (2007) find that properties in Chicago located near industrially zoned TIFs experienced declines in value, while those located near commercially and residentially zoned TIFs experienced an increase in property values. See Weber et al. (2007) for a recent, more complete review of the literature on TIFs.

3. Program details and OLS identification strategy

The federal government began to offer tax incentives to employers located in parts of economically distressed areas with the creation of the Empowerment Zone program,[5] which was passed into law as part of the 1993 Budget Reconciliation (OBRA, 1993, P.L. 103-66). HUD designated 6

[3] For instance, if all residents of a county normally faced the same tax treatment, these policies would create areas based on geography within the county that receive different tax treatment.

[4] They do not use a direct comparison strategy as presented here, but instead include data on all census block groups and create separate dummy variables for round 1 EZs and all areas that ever had an EZ. This estimation strategy may suffer from multicollinearity as the round 1 EZ variable is equal to one only when the EZ ever variable is also equal to one. It may also suffer from bias if the initial EZ application process was beneficial to areas.

[5] Given (2004) lists Alaska, Delaware, Idaho, Kansas, Montana, New Hampshire, Nevada, North Dakota, South Dakota, and Wyoming as the only states that do not have some sort of zone-based tax incentive program.