Research Proposal for CPRDC Seed Grants

Title: Does Tax Increment Financing Boost Firm Performance?

Applicants:

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Proposal:

Why this study?

Tax increment financing (TIF) is one of the most popular local government policy tools for stimulating economic development. TIF has been particularly popular in Midwestern states with, for example, 909, 1304, 700, 1735, and 1277 TIF districts in Nebraska, Illinois, Indiana, Minnesota, and Wisconsin, respectively, in FY2017. Compared to those Midwestern states, Iowa—the state of focus in this study—has used TIF most extensively with 2485 active districts in FY2017.

The effectiveness of an economic development policy is most commonly measured by job creation (or employment) and productivity growth in private businesses. Multiple existing studies focus on the effects of TIF on employment (Byrne 2010; Lester 2014). However, these studies examine the effects of TIF on employment at a geographical level, namely Census block groups or cities, not at a firm level. Also, employment is just an indicator of firm performance. No study has examined the effects of TIF on private firms' productivity growth captured by wage or sales per employee. We seek to fill this gap in the literature by examining the effects of TIF on firm performance in terms of employment, average wage and sales per employee. This study focuses on three large MSA's in Iowa anchored by Des Moines, Cedar Rapids and Iowa City.

The findings from our study will have significant policy implications. Our study will provide empirical evidence on whether TIF has any effect on firm performance—a key purpose of TIF use—and thus helps determine whether TIF is an effective economic development tool. The empirical evidence from our study will help inform the policymaking of TIF in Iowa and elsewhere, especially in Midwestern states with a heavy use of TIF. Also, this policy research will benefit the Census in terms of the third criterion "developing means of increasing the utility of Census Bureau data for analyzing public programs, public policy, and/or demographic, economic, or social conditions" (Writing Benefit Statements For Projects Accessing Confidential Data, page 8) Our research is an example of evaluating local public policy using the micro-level restricted data, and can well be extended to other types of public policy evaluations, especially in the area of economic development.

Access to CPRDC is critical

Our policy-relevant research is not possible without access to data available at the CPRDC. We propose to use the micro-level establishment data from the Longitudinal Business Database (LBD) accessible at the CPRDC. LBD allows us to track establishments' longitudinal changes in employment, wages, and sales—key firm performance indicators. The longitudinal nature of LBD allows us to control for firm-level time-invariant factors that are likely to confound and bias the estimated results reported in existing studies using a larger geographical unit of analysis. LBD also provides information on business addresses. Information on TIF districts including their boundaries in pdf files is available at legis.iowa.gov/tif/public. We need to geocode these

TIF boundaries. Access to LBD allows us to geocode firms' locations and overlay them on the TIF boundary maps. These key steps will enable us to identify whether a firm is located in a TIF district or not.

Methods
To establish the link between TIF and firm performance, we will need to overcome a major methodological challenge, namely the endogeneity of firm location, which is a threat to the internal validity of our study. We will adopt several state-of-the-art econometric tools to minimize this threat. First, as briefly stated, the longitudinal data from the LBD will help address time-invariant firm-level confounders, and importantly, allow us to adopt a difference-in-difference (DID) estimation approach. Second, in addition, we will conduct a propensity score matching procedure to find non-TIF firms that match TIF firms. Non-TIF matched firms will serve as controls to establish counterfactual non-TIF scenarios.

Potential funding agencies
The Upjohn Institute of Employment Research is a potential funding agency for our research. This Institute has a history of funding research related to employment and economic development. One of our PI's, Dr. Qian, has working relationships with some key members of the Institute. We also consider submitting our full research proposal to the National Science Foundation as well.

Use of funding
The seed grant will provide salary support ($5,000 in total) for the researchers to develop the full research proposal to submit to the CPRDC to gain approval for access to the LBD and to the two potential funding agencies identified above for research funding.

About PIs
We believe that our team of researchers are fully capable of writing a full research proposal and conducting this study successfully. As indicated in our CVs, both of us have been able to secure external research funding. This study is an interdisciplinary research that combines local public finance and economic development. Each of us has expertise in one area. Dr. Nguyen-Hoang has conducted intensive study on TIF. He has already had two academic articles (one of them is forthcoming) in well-respected journals and another forthcoming book chapter on TIF. Dr. Qian is a leading researcher in entrepreneurship and economic development with many publications in well-regarded journals in the field. Dr. Qian has also served as editors of top journals in economic development.

References
Byrne, Paul F. 2010. "Does Tax Increment Financing Deliver on Its Promise of Jobs? The Impact of Tax Increment Financing on Municipal Employment Growth." *Economic Development Quarterly* 24 (1): 13–22.

Lester, T. William. 2014. "Does Chicago's Tax Increment Financing (TIF) Programme Pass the 'But-for' Test? Job Creation and Economic Development Impacts Using Time-Series Data." *Urban Studies* 51 (4): 655–74.