Short Term versus Long Term Effects of the Louisville Enterprise Zone Incentives: A Response to Zhang

Lambert, Thomas

University of Louisville

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Thomas E. Lambert, PhD
Equine Industry Programs and Economics Department, College of Business
University of Louisville
Louisville, KY 40292
E-mail: thomas.lambert@louisville.edu
Phone: 502-852-7838

Abstract

Zhang (2019) has written that variations in research design have led to conflicting or mixed reviews of many local economic development policies that are based on the enterprise zone concept. She mentions a study and an article (Lambert 1997, Lambert and Coomes 2001) on the Louisville, Kentucky enterprise zone (EZ) and implies the time horizon used to evaluate it was too short. This research note points out that the Louisville EZ went through multiple transformations and expansions over its history from 1983 to 2003, and as noted in the first of two studies, the original zone showed virtually no progress from 1983 to 1990. Several other unpublished papers pointed out the same results when the original EZ and other parts of the expanded EZ were analyzed up to the last years of the 20th Century. Finally, this paper argues that and provides reasons for the methodology employed by Lambert and Coomes (2001) is a superior way of analyzing the Louisville EZ when compared to the methods employed by Zhang (2015). The main reason why Zhang (2015) shows success in the EZ is because she evaluates it in its final form in the late 1990s after it had annexed many sections of Jefferson County which were not as nearly economically disadvantaged as the original Louisville EZ established in 1983.

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JEL Codes: R11, R38, R52, R53, R58
Introduction

Many times tax incentives and/or regulatory relief are granted to existing business firms within a region so as to spur business expansion, investment and hiring, or at the least, to keep an existing business from removing its capital, laying off its workers and relocating to another jurisdiction. Likewise, such incentives and/or relief can be offered to potential new firms thinking about locating to a jurisdiction (or to a specific, targeted part of a jurisdiction) in order to entice these firms to locate within the region. Again, the goal of the local government(s) is to generate local economic growth through direct job creation and investment by current or new firms.

As noted by Lambert (1997), Cummings and Lambert (1997) and Lambert and Coomes (2001), enterprise zones in Louisville and in other Kentucky cities were allowed to start operations by the Kentucky General Assembly in 1983. This was done by the state, and according to the enabling legislation, as a way to help poor and blight ridden inner city communities through private-sector economic revitalization through stimulation of small business activity. But as pointed out in these papers and subsequent ones (Office of the State Budget Director 2002, Lambert and Nelson 2002, Kentucky Legislative Research Commision 2002, Lambert 2003), the emphasis of the state’s program quickly became one focused on businesses, especially larger employers wherein one half of the EZs tax incentives went toward the 8 largest employers, most of which were in Louisville (for example, Ford Motor Company, General Electric (now Haier), and United Parcel Service, among others).\(^1\) Louisville accounted for about two-thirds of the state EZ program activities during the life of the program from 1983 to 2003 and at one time had 1,200 registered firms participating in the program and eligible for incentives.

Also as noted in some of the papers cited above, both the local and national press wrote articles about the Louisville EZ program which raised many policy issues (Lambert 1997, Cummings and

\(^1\) As pointed out in these papers, UPS became part of the EZ in 1984 when the area encompassing the Louisville International Airport was added to the original EZ; Ford joined the EZ program when other parts of Louisville and Jefferson County (the home county of Louisville) were annexed; and General Electric became part of it in 1997. Ford and General Electric were two of the largest manufacturing employers in the area during the 1980s and 1990s, so it is not surprising that Zhang (2015) shows a boost in manufacturing jobs in the EZ from 1980 to 2000 as these two large manufacturers were added piecemeal to other parts of the EZ.
Lambert 1997). Two major issues were a lack of accountability and fairness in the program (Heath 1991, 1992), and another was its large and continuous growing size (Davidson 1992). As originally envisioned by the British urban planner Peter Hall (1977, 1982) enterprise zones were supposed to be geographically small in size, yet Louisville’s zone quickly became one of the largest ones geographically in the US. A survey commissioned performed by the Urban Studies Institute at the University of Louisville revealed that most firms that participated in the EZ program would have either undertaken the investment they initiated or hired the workers that they did regardless of EZ incentives (Lambert 1997, Cummings and Lambert 1997, and Lambert and Coomes 2001). The program was eventually allowed to expire because most policy makers could not see enough substantive results from given the tax expenditures granted over the years (Richards-Hill 2003). In a book chapter on the use of quasi-experimental design in urban policy, Lambert and Bewley (2016) do not find much of an impact in the different installments (original EZ, 1984 expansion, 1986 expansion, etc.) of the Louisville EZ over either short run or long run time periods.

Consistency in Measurement

In an excellent review of most of major existing enterprise and empowerment zone literature, Zhang (2019) claims that evaluations of the same zone programs by different researchers have let to different conclusions because of varying methods. Her conclusion about the Louisville EZ program was that it was successful (2015) whereas Lambert (1997), Cummings and Lambert (1997) and Lambert and Coomes (2001) find success and failure depending upon which version and which area of the Louisville EZ is examined. Zhang (2015) concedes that Lambert and Coomes (2001) demonstrate that the EZ had little impact in the 1980s, yet by using as a unit of analysis transportation area zones (TAZs) in Jefferson County and multivariate regression and difference in difference techniques, she states that the long run impact of the program from 1980 to 2000 is a success. The over 300 TAZs she uses in her analysis comprise transportation zones within Jefferson County within and outside of the enterprise zone.

Yet, according to the way it was designed and implemented, the EZ program boundaries were designed according to a cluster of contiguous census tracts, not TAZs. The US Census Bureau defines a
TAZ as “An area delineated by state and/or local transportation officials for tabulating traffic-related data -- especially commuting statistics. It usually consists of one or more census blocks, block groups, or census tracts.” (US Census Bureau, n.d.). According the original enabling legislation and its subsequent editions (Kentucky Revised Statues 1994), census tracts that were part of the enterprise zone had to have an average income at or below 150% of the poverty level. Therefore, a logical unit of analysis is at the census tract level. In the first few papers on the Louisville EZ (Lambert 1997, Cummings and Lambert 1997, Coomes and Lambert 2001), census tracts were used as the main units of analyses in the descriptive statistics and shift share analyses developed in the papers (US Bureau of the Census 1980 and 1990). Employment numbers were estimated for each census tract, and for further employment analysis, zip code data from the US Census Bureau’s County Business Patterns (CBP) was used from 1980 to 1994 (US Bureau of the Census, 1980 to 1994). Later studies cited in this paper used more years of CBP data and 2000 Census data (US Census Bureau 2000).

As shown in Table 1, using the census tracts that made up the total Louisville EZ as of the year 1986 and when contrasting this area to the rest of Jefferson County outside of the EZ for that year over the time period 1980 to 2000, the Louisville EZ shows mixed results when it comes to demographic and socioeconomic measurements. Unemployment and poverty decreased over this time period in the EZ, but was still at very high levels compared to the rest of the county. Owner occupied housing continued to decline, and civilian labor force participation only went up slightly. One of the original intents of the EZ was to provide employment to those living in the distressed areas, yet when policies were implemented, there was simply a requirement that employers only needed to hire 25% of new workers from within zone neighborhoods in order to receive incentives. Therefore, the impact of employment incentives for EZ residents were watered down once the program was implemented.

\footnote{The year 1986 is chosen since this version of the EZ made up nearly 46 square miles and was the size of the EZ for many years until a later expansion in the late 1990s. Using this version would allow one to better look for longer term effects since by the year 2000 the original EZ had been in effect for 17 years, the 1984 expansions for 16 years, and the 1986 expansion for 14 years.}
Table 2 shows that employment patterns also did not change that much over the long run as well. Using US Census County Business Patterns data at the zip code level from 1980 and 1997\(^3\), Table 2 shows further decline in many industry sectors within the 1986 version of the EZ. More importantly, the total number of jobs declined by around 7\% with the only bright spot being a big gain in employment in transportation and public utilities (TPU). This is probably because United Parcel Service (UPS) underwent a dramatic expansion during this time by growing in size from around 1000 employees to around 18,000 as the airport in Louisville became a major shipping hub for UPS (Lambert 1997). Since most of the zip codes used in the analysis come close to but do not always match exactly the clusters of census tracts in the EZ, zip codes which even had a small portion of their area within the 1986 EZ were counted as EZ areas. Therefore, the EZ numbers shown in Table 2 are somewhat inflated using the zip code jobs data, and yet, from 1980 to 1997 continued job losses are shown as in Lambert (1997), Cummings and Lambert (1997), and Coomes and Lambert (2001). The same is true when looking at aggregate numbers from 1980 to 2004. There apparently were not much if any long run benefits of the program unless one wants to assume that things would or could have been worse in its absence. But to do an empirical test of a counterfactual is an illusive undertaking.

Conclusion

This research note demonstrates along with other empirical evidence given over the last three decades that the Louisville EZ had mixed results at best during its policy implementation from 1983 to 2003. Again, this was apparent to policy makers in the 2003, and so the program was allowed to expire. The “bright spot” of the program was the expansion of the Louisville airport which allowed UPS to expand its operation thanks to over half a billion dollars or more given by federal and state governments.

\(^3\) The year 1997 was the last one that the US Census Bureau used the Standard Industrial Code (SIC) for classifying employment according to employment. It used the same code in 1980. After 1997, the Census Bureau started using the North American Industry Classification System (NAICS). For that reason, only total, private sector employment numbers are used in the 1980 to 2004 comparison in Table 2 because the industry classification scheme changed between 1980 and 2004.
to finance the expansion. This amount accounted for the lion’s share of all of the investment granted by and counted by zone administrators in the EZ up to 1997 (Lambert 1997, Cummings and Lambert 1997). Otherwise, the program came up short in many other areas within the zone.

Zhang (2015) was able to find EZ success using multivariate regression and TAZs as a unit analysis, but this paper would contend that the preponderance and majority of the evidence speaks against the EZ being an overall “success.” The descriptive statistics shown in this paper show many job losses and continued economic stagnation in the EZ. This original installment of the EZ lasted only one year before the EZ was expanded several more times in the 1980s and 1990s. The Louisville EZ grew from a few square miles to almost 82 square miles (around one-fifth the size of the entire county in which Louisville is located) by the time the program ended in 2003. While adding less poorer areas to the original EZ helped the EZ to appear “less worse” than what it would have been otherwise, this alone cannot make the EZ a success.
References


Table 1—EZ versus Non-EZ areas

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<tbody>
<tr>
<td>Unemployment Rate</td>
<td>16.30%</td>
<td>10.70%</td>
<td>-5.60%</td>
<td>6.60%</td>
<td>4.10%</td>
<td>-2.48%</td>
</tr>
<tr>
<td>Civilian Labor Force</td>
<td>46406</td>
<td>49752</td>
<td>7.20%</td>
<td>278663</td>
<td>302980</td>
<td>8.73%</td>
</tr>
</tbody>
</table>

Occupational Categories*
- Management, professional, and related: 12.40% to 19.10%, change 6.70%, 27.50% to 35.20%, change 7.76%
- Service occupations: 23.00% to 20.40%, change -2.60%, 12.30% to 13.20%, change 0.98%
- Sales and office occupations: 21.50% to 25.80%, change 4.30%, 29.80% to 29.00%, change -0.81%
- Farming, fishing, and forestry occupations: 0.60% to 0.30%, change -0.30%, 0.60% to 0.10%, change -0.50%
- Construction, extraction, and maintenance: 7.90% to 10.10%, change 2.20%, 4.00% to 8.10%, change 4.13%
- Production, transportation, and material moving: 34.30% to 24.40%, change -9.90%, 25.90% to 14.40%, change -11.51%
- Percentage of Families Below Poverty: 30.80% to 25.50%, change -5.30%, 8.30% to 7.40%, change -0.90%

<table>
<thead>
<tr>
<th></th>
<th>$11,897</th>
<th>$30,217</th>
<th>154.00%</th>
<th>$21,497</th>
<th>$53,967</th>
<th>151%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Home Value</td>
<td>$19,971</td>
<td>$66,605</td>
<td>233.50%</td>
<td>$45,886</td>
<td>$131,234</td>
<td>186%</td>
</tr>
<tr>
<td>Population</td>
<td>118,502</td>
<td>82,009</td>
<td>-30.80%</td>
<td>566,502</td>
<td>611,595</td>
<td>8%</td>
</tr>
<tr>
<td>Housing Stock</td>
<td>46,560</td>
<td>39,844</td>
<td>-14.40%</td>
<td>219,222</td>
<td>265,991</td>
<td>21%</td>
</tr>
<tr>
<td>Occupied</td>
<td>42,247</td>
<td>35,461</td>
<td>-16.10%</td>
<td>205,322</td>
<td>251,551</td>
<td>23%</td>
</tr>
<tr>
<td>% Vacant</td>
<td>9.20%</td>
<td>11.00%</td>
<td>1.80%</td>
<td>5.00%</td>
<td>5.40%</td>
<td>0.40%</td>
</tr>
<tr>
<td>Owner Occupied</td>
<td>21,473</td>
<td>14,547</td>
<td>-32.30%</td>
<td>143,996</td>
<td>171,840</td>
<td>19.30%</td>
</tr>
<tr>
<td>Renter Occupied</td>
<td>20,774</td>
<td>16,388</td>
<td>-21.10%</td>
<td>64,326</td>
<td>84,237</td>
<td>31.00%</td>
</tr>
<tr>
<td>% Rental</td>
<td>49.20%</td>
<td>46.20%</td>
<td>-3.00%</td>
<td>31.30%</td>
<td>33.50%</td>
<td>2.20%</td>
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*Estimated because 2000 Census used new categories.

Table 2—Employment Data for 1986 Version of EZ for years 1980 to 1997 and 1980 to 2004

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<tbody>
<tr>
<td>Agriculture &amp; Mining</td>
<td>613</td>
<td>880</td>
<td>193</td>
<td>28%</td>
</tr>
<tr>
<td>Contract Construction</td>
<td>5180</td>
<td>5184</td>
<td>-538</td>
<td>-9%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>40,546</td>
<td>25,183</td>
<td>-15,363</td>
<td>-38%</td>
</tr>
<tr>
<td>TPU &amp; Wholesale Trade</td>
<td>17,885</td>
<td>23,555</td>
<td>5,670</td>
<td>32%</td>
</tr>
<tr>
<td>Retail</td>
<td>11,731</td>
<td>12,053</td>
<td>-322</td>
<td>-2.5%</td>
</tr>
<tr>
<td>F/I/RE</td>
<td>2,184</td>
<td>2,110</td>
<td>-74</td>
<td>-3.4%</td>
</tr>
<tr>
<td>Services &amp; Government</td>
<td>25,352</td>
<td>26,324</td>
<td>972</td>
<td>3.8%</td>
</tr>
<tr>
<td>Total</td>
<td>103,491</td>
<td>95,289</td>
<td>-7,202</td>
<td>-7%</td>
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</thead>
<tbody>
<tr>
<td>Total Employment All Industry Sectors</td>
<td>103,491</td>
<td>94,207</td>
<td>-9,284</td>
<td>-8.97%</td>
</tr>
</tbody>
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