

**TRADITIONAL V. NON-TRADITIONAL LOCAL
ECONOMIC DEVELOPMENT:
A TEST OF TWO APPROACHES**

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ABSTRACT

We examine the extent to which the non-traditional focus on quality of life in local economic development is associated with local economic performance that is at least as good as, if not better than the more traditional emphasis on industrial development in the United States. To address this, we compare two types of city-level economic development corporations (EDCs) in the state of Texas – 4A EDCs that focus on industrial-related development and 4B EDCs that pursue improvements in community amenities. We measure local economic performance across Texas cities with an EDC in 2000 and 2010. The economic measures are the overall employment level, the number of individuals employed across 11 economic sectors and the number of establishments in each of these sectors. Our findings have relevance for both scholars and community leaders engaged in economic development decision making where limited city resources must produce beneficial economic outcomes.

As Paul Peterson (1981) in *City Limits* pointed out, economic development is a key activity of city leaders in the United States. At the local level, economic growth historically falls to local leadership, and city leaders in the United States engage in a wide variety of efforts to promote the economic vitality of their communities – from traditional business-centered measures, to redistributive

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policies, to strategies that emphasize lifestyle and quality of life amenities. Recent economic shifts, in fact, may have heightened the need for local leaders to allocate public funds in ways that best ensure their community's economic well-being.

With the onset of the Great Recession in 2008, the United States plunged into a severe and prolonged economic downturn, which directly impacted local economies. As a result, governments struggled to manage debt loads, and financial pressures forced these entities to implement austerity measures – such as freezing labor costs, increasing taxes, and reorganizing public services – to address the high debt burdens (Donald, Glasmeier, Gray, and Labao, 2014; Donald, Gertler, and Tyler, 2013; Whitfield, 2013). As state-level funding reduced, local responsibilities for expenses increased (Lobao, Martin, and Rodriguez-Pose, 2009). For municipalities to compete for these reduced resources, many had to become ever more entrepreneurial to promote economic development at the expense of service cuts (Donald, et al., 2014). An examination of city economic development strategies, and the economic outcomes of these strategies, therefore, is highly relevant in an era of government retrenchment in which local communities increasingly must chart their own economic destiny. Community leaders require a high level of confidence that public money is allocated as effectively as possible.

A recent consideration regarding local development concerns the role of quality of life investments in promoting economic growth. Our guiding question is how does a focus on quality of life amenities, as part of a local economic development strategy, compare with the traditional focus on industrial-oriented economic development regarding community economic conditions? To address this, we examine the effectiveness of two competing approaches to local economic development, the

traditional versus the more recent non-traditional approach. In so doing, the economic impact of city-level 4A and 4B economic development corporations (EDCs) on employment and business in the state of Texas will be compared. In Texas, 4A EDCs are authorized to spend on industrial-related development while 4B EDCs are authorized to spend on amenity-related projects. Findings will have policy implications for local officials looking to allocate ever-more scarce city funds to grow their economy.

TRADITIONAL AND NON-TRADITIONAL LOCAL ECONOMIC DEVELOPMENT

Traditionally, local economic development in the United States involves a process by which local governments use their resources to stimulate private investment (Krumholz, 1999). To retain or attract business, local leaders enact strategies such as tax abatements, land clearance, the use of public money to provide infrastructure for private development and similar policies with a direct connection to job creation, city revenue generation and the preferences of local business (see e.g., Reese and Sands, 2007; Reese, 2006; Ross and Levine, 2005). These types of economic-centered concerns constitute the historic and well-established set of parameters within which local economic development decisions have been made, and in this vein local EDCs can often be used by communities to foster a collaborative relationship with private business (Hatcher and Hammond, 2018).

Traditionally, local economic development viewed citizen quality of life amenities, such as parks and recreational facilities, as the result of community improvement efforts made affordable by economic growth. Essentially, quality of life amenities were the result of, and depended upon, a growing local economy. More recent

thinking, however, has challenged this paradigm. Quality of life amenities are increasingly considered not as the outcome of, but as the catalyst for community economic growth. The idea is that community amenities attract specific populations (e.g., younger, highly educated residents) and desired business. Therefore, the economic effect of cultural, entertainment and life-style aspects of community life need to be accorded serious consideration in local economic development efforts. This approach to local economic development becomes increasingly important to investigate because, as Nathan (2015) notes, city culture is evolving to reflect an emphasis on consumption and amenities.

In *The Rise of the Creative Class* Richard Florida (2002) argues that successful economic development efforts result from attracting and retaining a “creative class” (e.g., artists), technologically based industry, and a culturally tolerant population (e.g., tolerant of gay rights; also see Florida and Mellander, 2014, for an expanded definition of the creative class). Florida suggests that local leaders focus on attracting and retaining this creative class population; as this creative class grows, business will follow. Similarly, Kahsai, Gebremedhin, and Schaffer (2011) argue that because quality of life factors motivate individuals to make choices regarding where they will reside, economic development must consider the role of amenities. In this vein, Filion, Charney, and Weber (2015) observed that economic development focused on diverse recreational and cultural amenities attracts young professionals to locate within an urban area. Amenities such as transit, for example, provide an incentive for where citizens may choose to live, and individuals will make spending decisions on housing and transportation (Guerra and Kirschen, 2016). Further, Strom (2010) notes that cities focusing on creative economic development (e.g. arts), provide a wealth-generating economic sector, which

provides competitive advantage to urban areas. A high quality of life can be a direct magnet for business, and Morais, Migueis, and Camanho (2013) observe that business owners gravitate toward communities rich in quality of life amenities. Similarly, Johnson and Rasker (1995) conclude that amenities such as a quality environment, scenic beauty, and recreational opportunities can be determinants of businesses local decisions.

Quality of life factors have come to be viewed as integral to successful local development efforts, and in some cases these non-traditional ideas about local economic development have been employed by local decision-makers. For example, Austin undertook efforts to attract firms in the computer, movie, gaming, and music industries by offering attractions such as entertainment performances, cultural events, and numerous community festivals (TXP, Inc., 2012); Milwaukee hosted efforts to rebrand the city as a source of cultural life in the Upper Midwest (Zimmerman, 2008); leaders in Paducah, Kentucky, worked to establish a neighborhood targeting artists; leaders in Roanoke supported the construction of an art museum (Know and Mayer, 2013), and Chicago undertook efforts to inject greater creative life within the city as a way to mitigate its industrial image (Clark, 2007). However, there have been questions about the economic impact of the non-traditional approach to local economic development and whether citizens or developers benefit most from such efforts (see e.g., Ponzini & Rossi, 2010; Hoyman and Faricy, 2008). Therefore, there is the need for further study on this issue.

ECONOMIC DEVELOPMENT CORPORATIONS IN TEXAS

Economic development corporations (EDCs) have a common goal of a vibrant economy and are widely

presumed to have positive economic benefits for communities that include employment and the ability to attract and retain business. Most states have EDCs that operate at the county or regional level, while Kansas, New Mexico, and Texas in particular make systematic use of city-level EDCs (see Jarmon, Vanderleeuw, Pennington, and Sowers, 2012). Among these states, Texas is by far the most populous. Cities in Texas rely heavily on local EDCs to provide funding and activities to maintain a vibrant local economy. With its numerous city-level EDCs and wide variety of geographically, socially and economically diverse cities, Texas provides a highly beneficial context for a study of EDC economic impact for local communities.

As noted above, our central question is: How does a focus on quality of life amenities, as part of a local economic development strategy, compare with the traditional focus on industrial-oriented economic development? An analysis of city level EDCs in Texas allows for the investigation of the effectiveness of two broad approaches to local economic development in the United States – the traditional approach and the non-traditional approach to economic development. Discussed more fully below, cities in Texas can adopt a 4A or 4B EDC. 4A EDCs are authorized to spend on industrial development projects. By contrast, 4B EDCs are authorized to spend on quality of life development projects (a list of 4A and 4B activities is provided by Blanco, 2009; activities are also summarized in the Texas Comptroller publication, *Texas Comptroller*, 2018). A comparison of the economic performance of these two types of EDCs provides the opportunity to compare in aggregate the economic performance of spending on industrial-related (traditional) development versus spending on amenities-related (non-traditional) development.

Historically, economic development in the state of Texas has been augmented through the establishment of

the Development Corporation Act (DCA) of 1979. The DCA provided cities the opportunity to finance and expand business opportunities within their communities through the establishment of Economic Development Corporations (EDCs). Under government codes, specific characteristics and rules were established for two distinct types of EDCs: 4A and 4B. Economic development corporations in Texas are 501(c) non-profit organizations under the Internal Revenue Code 26 U.S.C. § 501(c). Amended in 1989, DCA allowed funding of EDCs via a local sales tax. Section 4A specified that this funding was to be used for industrial development and manufacturing. Amended in 1991, section 4B was added and permitted communities to undertake “quality of life improvements” (see Jarmon et al. 2012; Combs 2005). Governed by a board who selects a director, a city-level EDC is adopted via a public vote. City sales tax is by law restricted to 2%, but up to one quarter of this can be allocated for EDC use to fund development projects (Longley, Adams, Moore and Fort, 2015). A city may establish one or both types of EDCs.

4A EDCs are defined as Developing Industries. As such, they focus on industrial development within a community and are intended to fund projects which create “business infrastructure, manufacturing, and research and development” (Texas Comptroller, 2018). In addition to the aforementioned EDC functions, 4A EDC resources may be used for job training and transportation infrastructure (including aviation facilities, light rail, bus operations, and ports). Ultimately, 4A EDC funding may be used specifically for “land, buildings, equipment, facilities expenditures, targeted infrastructure improvements” which are focused on manufacturing and industrial development (Texas Comptroller, 2018).

4B EDCs are unique in that while they may fund projects summarily noted by discussion of 4A EDCs above, 4B EDCs can also fund community amenities. 4B EDCs

projects are noted for focusing on the improvement in quality of life for the community and may use funds to purchase “land, buildings, equipment, facilities, targeted infrastructure improvements” which are used for community improvements for the quality of life of the citizenry (Texas Comptroller, 2018). Examples of acceptable expenditures by 4B EDCs include; “sports facilities, entertainment facilities, public parks, related store, restaurant, concession, parking and transportation facilities” (Texas Comptroller, 2018). In addition, expenditures may be used for street, water and sewer facilities which are necessary improvements to support the quality of life capital improvements. The Texas Comptroller (2018) also states that 4B EDCs may use funds to promote new business enterprises through the funding of “public safety facilities, recycling facilities, street and road improvements, demolition of existing structures, and maintenance and operating costs associated with projects.”

RELEVANCE OF ECONOMIC DEVELOPMENT APPROACH TO COMMUNITY LEADERS

Some scholars argue that an approach to economic development that emphasizes improvements in amenities provides an added value – in addition to greater economic vitality, citizens gain improvement in quality of life. Scholars such as Bruckner, Thisse and Zenou (1999) and Gottlieb (1994) argue that even when unsuccessful at promoting economic growth, improved amenities are of benefit in improving the lives of community residents. If a particular economic development strategy allows communities to attain improved economic conditions and, as an added value improved amenities, it makes sense for community leaders to adopt this approach. However, community resources are far from infinite, particularly in the modern, post Great Recession context. For most

communities, therefore, resources devoted to economic development must produce beneficial economic results. Accordingly, it is highly relevant to ask which type of spending – industrial or amenity-related – has the greatest positive economic impact. Findings have implications for community leaders regarding the strategic choices they make when allocating finite city resources to economic development efforts.

If spending on industrial development has the greater positive economic impact, then community leaders have to act strategically regarding community needs. A focus solely on industrial development may be a strategic option that is best for some communities. Alternately, if spending on amenities has the greater economic impact, then community leaders will want to opt for spending on amenities because of the added value such spending allows. For leaders of numerous local communities, however, the preferred strategy may be a mix of both approaches. It may be the case that one spending approach has a positive effect on some types of economic activities, for instance tourist accommodations, while the other has an impact in different areas, such as manufacturing. In these situations, community leaders would want to look to a mix of approaches.

DATA AND METHODS

Data for the following analyses come from the Office of the State Comptroller of Public Accounts, decennial Census population reports, and the Census Bureau's Survey of Business Owners. Information on EDC type (4A or 4B) and EDC expenditures was collected from yearly EDC reports, filed with and available from the Texas State Comptroller's Office (via each city's *Texas Ahead Economic Development Report*). Information on city population demographics was collected from decennial

Census reports (via American Factfinder). Data on business activity across sectors were gathered from the Survey of Business Owners (2002 and 2012).

Our analysis focuses on cities in Texas with an EDC. There is no mandate that a city have an EDC, and not all do. For those cities with an EDC, our analysis employs relevant EDC expenditure and city census data for the years 2000 and 2010. The use of multiple years helps heighten confidence in findings. These two years in particular allow us to use enumerated population information and provides an opportunity to detect any effect of the Great Recession on local economic development efforts (officially, according to the National Bureau of Economic Research, the recession began in the U.S. in December 2007, and ended in June of 2009, Hendrick, Luby, Terzakis, 2010). For both 2000 and 2010, for each city with an EDC, we collected information on: EDC type, total EDC expenditure, EDC expenditures on administration, personnel, marketing, business incentives and job training, total one-race city population, percent civilian unemployment (converted to percent employment, 100 minus percent unemployment), per capita income, percent aged 25 and above with a Bachelor's degree, the percent of the population that was African-American (alone), White (alone) and Latino/Hispanic.

Measures of business activity were obtained for the years 2002 and 2012. These are the number of business establishments, as well as, the number of employees in these establishments, collected for 11 sectors: Manufacturing, retail trade, transportation and warehousing, information services, financial and insurance services; real estate/rental/leasing; professional/scientific/technical services; education services; health care and social assistance; arts/entertainment/recreation, and accommodation and food services. Conducted every five years, release of business survey results do not align with

the decennial census. The 2002 business activity measures were matched with the EDC and census data for 2000; the 2012 business activity measures were matched with the relevant data for 2010. A result of this is a two-year lag between EDC spending and business activity that may assist with making inferences about the impact of EDC spending on economic outcomes. In some cases, an EDC annual report specified 0 expenditures for that year. Because we could not determine if this reflected an actual amount or was used as a place-holder to meet reporting deadlines, except for Table 1, cases were excluded when total EDC expenditure was reported as 0 in a yearly report. Finally, relevant data for the transportation and financial sectors was unavailable for the year 2000.

FINDINGS

Descriptive Findings

Descriptive findings on EDC growth rate, the demographic characteristics of EDC cities, EDC spending patterns, employment trends and trends in the number of establishments in economic sectors, 2000 and 2010, are reported in tables 1 through 5. Collectively, these findings offer insight into the relevance of EDC type on local economic outcomes.

As reported in Table 1, EDC usage among Texas cities has grown substantially, from 483 EDCs in 2000 to 692 in 2010. Although authorized 12 years after 4A EDCs, by 2000 4Bs had already been adopted in the majority of cities with an EDC. In 2000, 186 cities had a 4A and 297 had a 4B EDC. By 2010 the relative popularity of 4Bs had increased markedly growing by a rate of 58.6%, from 297 to 471. By contrast, growth in 4A EDCs was a comparatively modest 18.8% during this ten-year period, from 186 to 221.

Cities in Texas can adopt both a 4A and a 4B EDC and, as shown in Table 1, many have. There was growth both in the number and percent of these “mixed” EDC cities between 2000 and 2010. The number of 4B-only cities increased slightly, to just over half of cities with an EDC, while 4A-only cities declined both in number and as a percentage.

Table 1: Number and Percent 4A and 4B EDCs, 2010 and 2000				
	2010		2000	
	N	%	N	%
4A	221	31.9	186	38.5
4B	471	68.1	297	61.5
Total	692	43.3	483	
4A only	107	15.5	126	26.1
4B only	359	51.0	237	49.1
Mixed	226	32.7	120	24.8
Total	692		483	

Table 2 reports the demographic characteristics of cities in Texas with an EDC, according to whether they had one type or both types, for 2000 and 2010. The population characteristics of 4A-only cities are distinct. In both years, the population of 4A-only cities tended to be less college educated, more in poverty, have a lower per capita income, and be more Hispanic compared with other EDC cities. By 2010, 4A-only cities also tended to be more populous.

Table 2: Population Characteristics of 4A, 4B and Mixed EDC Cities, 2000 and 2010

	Population	%Bachelors	%Poverty	Per Capita Income
2010				
<i>4A only</i>				
Mean	18402	15.9	18.6	19404
SD	42062	8.5	9.5	5203
Rng	676-297591	4.4-63.5	1.2-52.1	9849-45407
N	107	107	107	107
<i>4B only</i>				
Mean	13345	18.6	17.3	22742
SD	46138	13.3	9.9	11690
Rng	27-718293	0.7-86.6	0.7-52.1	7945-147633
N	356	356	342	356
<i>Mixed</i>				
Mean	14175	19.3	16.3	22116
SD	28994	13.0	10.2	9658
Rng	195-172472	2.8-58.0	1.2-46.2	6000-62018
N	226	226	226	226
2000				
<i>4A only</i>				
Mean	13666	14.1	14.5	14919.3
SD	24962	6.0	7.4	3688.9
Rng	495-169557	3.5-47.5	1.7-51.4	4789-31708
N	120	120	120	120
<i>4B only</i>				
Mean	15232	16.7	12.5	17608.2
SD	45920	10.7	8.1	7766.5
Rng	77-520159	3.5-66.0	0.0-48.9	5062-77374
N	211	211	211	211
<i>Mixed</i>				
Mean	12548.3	19.2	11.4	18131.6
SD	18973.5	12.4	8.9	7281.6
Rng	207-101122	2.4-53.7	1.6-38.7	6230-39206
N	107	107	107	107

Table 2 Continued			
	%White	%Black	%Hispanic
2010			
<i>4A only</i>			
Mean	55.1	9.8	32.3
SD	20.4	10.2	23.3
Rng	1.5-91.9	0.0-44.2	2.2-98.4
N	107	107	107
<i>4B only</i>			
Mean	60.0	7.8	29.3
SD	23.6	10.4	23.6
Rng	0.4-98.9	0.0-87.6	0.0-99.6
N	359	359	359
<i>Mixed</i>			
Mean	58.7	9.1	28.7
SD	26.5	13.2	27.3
Rng	1.5-91.7	0.0-68.3	3.0-98.4
N	226	226	226
2000			
<i>4A only</i>			
Mean	60.6	10.1	27.7
SD	22.9	10.6	25.6
Rng	0.9-95.5	0.0-45.0	1.4-99.0
N	120	120	120
<i>4B only</i>			
Mean	66.3	8.6	23.2
SD	23.6	11.2	23.3
Rng	1.4-97.2	0.0-86.9	0.7-98.5
N	211	211	211
<i>Mixed</i>			
Mean	66.6	11.8	19.4
SD	25.0	17.4	23.2
Rng	1.9-94.9	0.1-94.3	1.0-97.9
N	107	107	107

Table 3 reports EDC total expenditures along with expenditures in key categories by EDC type for each year under review. Total EDC expenditures among 4A-only cities rose a modest 2.1 percent from 2000 to 2010, while expenditures among 4B-only cities rose 13 percent. Among mixed EDC cities, by contrast, expenditures declined a marked 30.4 percent. One of the largest expenditures for each EDC type was Business Incentives, and each EDC type increased expenditures in this category from 2000 to 2010. Personnel and Administration categories of expenditures also had a significant increase in spending from 2000 to 2010. In contrast, expenditures for Job Training and Marketing were the two areas across all EDC types which saw the least total expenditure.

Table 3: Expenditure – Total and by Category – across 4A, 4B and Mixed EDC Cities, 2010 and 2000

		Expenditure per 1000 population	
	Total (per 1000 population)	Personnel	Administration
2010			
<i>4A</i>			
Mean	88022	14027	10727
SD	121450	41619	33012
Rng	280-1038136	0.0-424577	0.0-333217
N	107	107	107
<i>4B</i>			
Mean	81488	7282	6766
SD	150402	31233	15328
Rng	36-1655815	0.0-517265	0.0-148009
N	342	342	341
<i>Mixed</i>			
Mean	52177	4046	4875
SD	80345	10118	14788
Rng	19-558346	0.0-111904	0.0-197965
N	203	204	203
2000			
<i>4A</i>			
Mean	86146	7002	4268
SD	348145	20657	8239
Rng	83-3627389	0-188412	0-59580
N	112	119	116
<i>4B</i>			
Mean	71631	3788	2602
SD	146379	20609	7490
Rng	5-1341380	0-287343	0-87329
	1341380	287342.50	87328.72
N	201	211	208
<i>Mixed</i>			
Mean	75006	1833	1960
SD	298390	3372	3023
Rng	2-2989715	0-16651	0-15365
N	102	105	105
Change 4A	2.18%	100.33%	151.34%
Change 4B	13.76%	92.24%	160.03%
Change Mixed	30.44%	120.73%	148.72%
Note: Expenditure in dollars			

Table 3, continued			
2010			
<i>4A</i>			
Mean	3033	16484	562
SD	5388	28680	1857
Rng	0.0-49460	0.0-150305	0.0-13868
N	107	107	107
<i>4B</i>			
Mean	3005	14609	221
SD	8662	68441	1104
Rng	0.0-110053	0.0-969423	0.0-11444
N	342	342	341
<i>Mixed</i>			
Mean	2619	13191	309
SD	8566	42585	2610
Rng	0.0-106045	0.0-475193	0.0-35375
N	204	204	204
2000			
<i>4A</i>			
Mean	2012	9906	200
SD	5731	24785	774
Rng	0-58962	0-170564	0-5316
N	117	122	124
<i>4B</i>			
Mean	1333	6108	302
SD	3725	35494	2120
Rng	0-24638	0-490249	0-26579
	24638.04	490248.61	26579.25
N	208	211	212
<i>Mixed</i>			
Mean	1102	7662	283
SD	3528	26079	2654
Rng	0-31078	0-226091	0-27437
N	104	106	107
Change 4A	50.75%	66.40%	181.00%
Change 4B	125.43%	139.18%	-26.82%
Change Mixed	137.66%	72.16%	9.19%
Note: Expenditure in dollars			

Table 4 reports employment as percent of the civilian work force along with employed numbers by industry per 1,000 population. Percent employment among 4A and 4B cities decreased from 2000 to 2010, a decline that can be explained by the economic impact of the Great Recession. Job loss in the manufacturing sector was the

most notable change between 2000 and 2010 and was particularly pronounced among 4A-only cities. Manufacturing jobs declined 81.8% among 4A cities, 49.8% among 4B cities, and 37.6% among mixed EDC cities during this time-period. Some cities with a manufacturing base had ostensibly adopted a 4B EDC over time, but the activities of these EDCs may not have been enough to fully counteract the adverse effects of the economic downturn.

As Table 4 shows, other sector changes occurred as well. The number employed in the retail and healthcare sectors experienced notable decline among 4A-only cities from 2000 to 2010. In 2000, 4A-only cities led in the provision of manufacturing, retail, healthcare and accommodations jobs. By 2010, 4A cities kept their edge in healthcare jobs, but 4B-only cities held a notable lead in financial and professional services, as well as jobs in the arts sector.

Table 5 reports the number of establishments across sectors by type of EDC and year. We compare differences between types of EDCs within each year and the change in the number of establishments between years. In 2010 there are few observable differences between cities based on EDC type. Mixed cities have somewhat fewer retail and professional establishments by comparison to 4A and 4B cities, while 4B cities have a noticeably higher number of professional-sector establishments compared to their counterparts. This situation was different in 2000, with 4A-only cities having a higher number of establishments in most sectors – in the manufacturing, retail, real estate, professional, healthcare and accommodations sectors. In contrast, mixed EDC cities had the fewest number of establishments in these same sectors.

Table 4: Percent Employment and the Number of Employees by Sector across 4A, 4B and Mixed EDC Cities, 2000 and 2010

		#Employed per 1,000 population				
	%Emp	Man	Ret	Tran	Info	Fin
2010						
<i>4A</i>						
Mean	92.4	50.4	71.4	16.3	6.7	16.3
SD	3.6	61.6	41.1	19.5	4.9	10.8
Rng	81.5-100.0	0.2-310.9	7.50-262.4	1.3-90.7	1.5-22.9	1.6-72.0
N	107	55	77	42	34	57
<i>4B</i>						
Mean	93.3	50.4	71.0	18.3	7.6	25.0
SD	3.9	63.9	73.6	24.6	8.4	104.6
Rng	76.0-100.0	0.4-397.1	2.2-503.7	0.1-177.2	0.7-41.6	1.4-1261.8
N	356	137	198	96	71	146
<i>Mixed</i>						
Mean	93.1	42.0	57.4	24.5	8.4	12.8
SD	3.4	71.8	53.3	44.1	8.2	12.6
Rng	80.9-100.0	1.1-453.5	5.2-347.6	0.9-231.5	0.9-29.5	0.6-58.2
N	226	82	122	64	34	76
2000						
<i>4A</i>						
Mean	96.1	276.2	100.0	na	12.9	na
SD	1.8	623.5	217.1		21.8	
Rng	88.2-99.5	18.1-2401.5	4.9-1604.1		0.2-127.1	
N	120	19	77		36	
<i>4B</i>						
Mean	96.7	101.3	72.5	na	10.6	na
SD	1.8	90.6	100.6		16.5	
Rng	89.8-100.0	12.5-347.0	4.0-1025.9		1.0-82.2	
N	211	33	131		46	
<i>Mixed</i>						
Mean	96.1	111.8	56.4	na	6.0	na
SD	4.7	103.8	28.5		4.7	
Rng	64.5-99.5	22.0-363.9	5.2-140.7		0.3-19.1	
N	107	27	64		36	
Change 4A		81.75%	28.60%		48.06%	
Change 4B		50.25%	2.07%		28.30%	
Change Mixed		62.43%	1.77%		40.00%	

Note: %Emp=% civilian employment (100-% civilian unemployment);
Man=manufacturing; Ret=retail; Tran=Transportation; Info=information; Fin=finance;
Real=real estate; Prof=professional; Ed=Education; Hlth=health care;
Acc=accommodations

	#Employed per 1,000 population					
	Real	Prof	Ed	Hlth	Arts	Acc
2010						
<i>4A</i>						
Mean	8.0	11.3	1.1	82.1	6.1	57.9
SD	11.9	6.7	0.6	54.8	15.0	86.6
Rng	0.9- 78.4	0.7- 34.6	0.2- 2.0	4.0- 275.4	0.6- 73.0	12.4- 669.8
N	46	54	99	57	85	56
<i>4B</i>						
Mean	7.0	20.0	2.7	71.6	11.1	62.0
SD	8.5	34.9	3.8	86.0	29.0	78.0
Rng	0.6- 70.7	0.79- 307.7	0.1- 22.3	3.8- 661.8	0.1- 199.4	7.0- 722.8
N	135	148	54	139	49	146
<i>Mixed</i>						
Mean	4.3	12.2	1.6	56.6	5.4	50.1
SD	3.6	12.3	1.2	48.7	4.7	48.3
Rng	0.5- 18.9	0.7- 60.1	0.8- 4.9	3.5- 203.8	0.6- 16.7	4.7- 311.3
N	80	90	26	94	38	90
2000						
<i>4A</i>						
Mean	7.6	15.4	1.1	137.84	4.8	58.1
SD	13.2	33.9	0.6	316.7	6.0	120.5
Rng	0.3- 87.9	0.7- 240.5	0.7- 2.0	4.0-1824.2	0.0-27.6	2.3-921.4
N	57	48	4	45	19	71
<i>4B</i>						
Mean	6.5	17.1	2.8	68.6	7.0	47.4
SD	6.4	36.1	3.4	111.5	8.9	56.5
Rng	0.7-47.1	1.0-260.2	0.1-14.1	5.6-759.9	0.1-43.3	5.8-460.8
N	96	88	16	83	33	109
<i>Mixed</i>						
Mean	4.4	11.8	1.9	48.0	5.2	33.7
SD	2.5	7.2	0.8	46.7	4.3	19.3
Rng	1.2-10.5	0.9-27.5	0.9-2.8	8.7-178.1	0.3-15.2	9.5-104.2
N	51	39	7	30	19	49
Change 4A	5.26%	26.62%	0.00%	40.42%	27.08%	-0.34%
Change 4B	7.69%	16.96%	-3.57%	4.37%	58.57%	30.80%
Change Mixed	2.27%	3.39%	15.79%	17.92%	3.85%	48.66%
Note: %Emp=% civilian employment (100-% civilian unemployment); Man=manufacturing; Ret=retail; Tran=Transportation; Info=information; Fin=finance; Real=real estate; Prof=professional; Ed=Education; Hlth=health care; Acc=accommodations						

Table 5: Number of Establishment by Sector for 4A, 4B and Mixed EDC Cities, 2000 and 2010

	#Establishments per 1,000 population					
	Man	Ret	Tran	Info	Fin	Real
2010						
<i>4A</i>						
Mean	1.2	5.5	1.0	0.6	2.3	1.3
SD	0.6	3.0	0.9	0.3	1.0	1.2
Rng	0.1- 2.4	1.3- 19.8	0.1- 5.8	0.1- 2.4	0.2- 5.2	0.2- 10.4
N	71	83	82	78	83	79
<i>4B</i>						
Mean	1.4	5.5	0.9	0.6	2.2	1.3
SD	1.1	5.3	1.1	0.9	1.8	1.2
Rng	0.1- 6.9	0.3- 39.1	0.1- 10.7	0.1- 10.2	0.2- 13.6	0.1- 8.8
N	162	205	188	187	203	200
<i>Mixed</i>						
Mean	1.2	4.3	0.8	0.4	1.9	1.1
SD	0.8	4.2	0.8	0.3	1.8	1.0
Rng	0.3- 4.4	0.5- 29.8	0.1- 4.4	0.1- 1.6	0.3- 12.4	0.2- 6.5
N	97	123	114	96	121	117
2000						
<i>4A</i>						
Mean	3.2	8.2	na	0.8	na	1.7
SD	7.3	14.6		0.8		2.4
Rng	0.1- 36.1	0.5- 119.3		0.0- 5.0		0.1- 19.1
N	29	82		79		78
<i>4B</i>						
Mean	2.1	6.2	na	0.7	na	1.4
SD	1.6	7.0		0.9		1.5
Rng	0.5- 6.6	0.3- 59.4		0.1- 8.3		0.1- 14.8
N	39	134		122		131
<i>Mixed</i>						
Mean	1.7	4.9	na	0.7	na	1.1
SD	0.9	2.7		0.5		0.6
Rng	0.5- 3.4	0.8- 10.9		0.1- 2.2		0.2- 2.9
N	29	68		58		66

Note: Man=manufacturing; Ret=retail; Tran=Transportation; Info=information; Fin=finance; Real=real estate; Prof=professional; Ed=Education; Hlth=health care; Acc=accommodations

Table 5 Continued

	#Establishments (per 1,000 population)				
	Prof	Ed	Hlth	Arts	Acc
2010					
<i>4A</i>					
Mean	2.2	0.2	3.4	0.4	3.3
SD	1.2	0.1	1.9	0.3	2.8
Rng	0.5- 5.4	0.0- 0.4	0.3- 13.5	0.1- 2.5	0.2- 25.5
N	81	41	83	75	83
<i>4B</i>					
Mean	2.7	0.3	3.6	0.5	3.5
SD	2.6	0.3	4.2	0.5	3.5
Rng	0.1- 19.5	0.0- 2.1	0.2- 42.1	0.1- 5.1	0.3- 21.7
N	202	127	204	168	204
<i>Mixed</i>					
Mean	2.2	0.3	3.1	0.4	2.7
SD	1.8	0.2	2.7	0.3	2.8
Rng	0.2- 9.5	0.1- 1.5	0.4- 19.6	0.1- 1.5	0.2- 21.1
N	121	71	121	87	121
2000					
<i>4A</i>					
Mean	2.8	0.2	4.3	0.5	3.5
SD	5.3	0.4	8.3	1.0	5.7
Rng	0.2- 38.9	0.0- 2.2	0.1- 62.8	0.0- 6.6	0.2- 46.2
N	81	36	82	74	81
<i>4B</i>					
Mean	2.5	0.2	3.3	0.4	3.0
SD	2.9	0.2	4.0	0.7	3.8
Rng	0.2- 24.0	0.0- 1.8	0.2- 35.1	0.0- 6.5	0.5- 35.1
N	133	83	134	113	134
<i>Mixed</i>					
Mean	2.0	0.3	2.6	0.3	2.1
SD	1.4	.0.2	1.3	0.2	1.2
Rng	.0.2- 5.1	0.1- 0.7	0.7- 5.6	0.1- 0.8	0.4- 6.6
N	68	37	66	53	66
Note: Man=manufacturing; Ret=retail; Tran=Transportation; Info=information; Fin=finance; Real=real estate; Prof=professional; Ed=Education; Hlth=health care; Acc=accommodations					

An observed change in sector establishments occurred between 2000 and 2010 and this change was associated with EDC type. Among 4A-only cities, the number of establishments declined in most sectors and increased in none. By comparison, 4B-only cities experienced more varied change, with a decline in manufacturing and retail, and an increase in healthcare establishments. Mixed EDC cities experienced the most change, with a decline in manufacturing, retail and information, and an increase in establishments in the real estate, professional, healthcare and accommodations sectors.

The pronounced growth in 4B EDCs over time reported in Table 1 is compatible with the idea that city leaders are attracted to the ability of these EDCs to spend on amenities, i.e., to the added-value aspect of economic development that these allow for. The attractiveness of this added-value becomes clearest when we consider that the trend in favor of 4Bs took place even though, in 2000, 4A cities tended to have a higher number of sector establishments than 4B cities, particularly in manufacturing, retail, health care and accommodations, as shown in Table 5. Descriptive findings also suggest, however, a limit to the added-value aspect of adopting a 4B. That 4A-only cities by 2010 tended to be decidedly less wealthy and educated relative to other EDC cities, as shown in Table 2, suggests that 4A-only community leaders may have viewed the allocation of tax dollars for amenities as less a priority compared to combatting notably adverse economic conditions via an emphasis on industrial development.

Further, descriptive findings point to the influence of EDC type on economic outcomes. Some of the reported shifts over time in employment and the number of establishments across sectors, reported in tables 4 and 5,

can undoubtedly be attributed to the Great Recession. However, the fact that by 2010 4B-only cities provided a higher level of employment in sectors where we would predict spending on amenities to have an impact – financial, professional and arts sectors – suggests that the amenity-oriented 4B EDC did have a real and distinct economic impact. However, descriptive findings indicate that a combination of both types of EDCs may be beneficial. That mixed EDC cities, as reported in Table 5, experienced higher growth in the number of establishments, 2000 to 2010, than either 4A or 4B only cities suggest that adopting both types of EDCs – for spending on industrial development and amenities projects – might provide for the best protection against recession. In addition, in mixed EDC cities, each EDC type can spend less to achieve results. While some of the total expenditure increases among 4B cities and decline among mixed EDC cities, shown in Table 3, may be attributed to cities moving to a 4B and away from a 4B EDC, the decline in total EDC expenditures among mixed cities is undoubtedly due to spending less per EDC when both are adopted to facilitate economic growth.

Multivariate Findings

Our multivariate analysis is based on OLS Regression using SPSS V24. Multivariate models were checked for collinearity issues. Results of collinearity diagnosis, VIF and Tolerance, indicated high collinearity between percent city population with a Bachelors and per capita income, as well as between EDC expenditures on administration and EDC expenditures on personnel. As a result, we dropped per capita income and personnel expenditures from the models. Regarding expenditures, not all expenditure categories listed in the EDC annual reports are included in the analysis. Therefore, we avoid a statistical problem when including total expenditure along

with spending categories. Expenditure categories not included in the analysis are debt service, capital costs, affordable housing, payments to taxing units, and an “other” category. We anticipated the spending categories included in our analysis to have overall greater theoretical relevance regarding economic growth than those we excluded. Further, as previously noted, we excluded cases where total EDC expenditure was reported as 0 in an annual report, as we had no way to determine if 0 was the real amount spent or was the place-holder to meet reporting deadlines.

The dependent variable in each model is adjusted to account for population variation among cities (each dependent variable is standardized per 1,000 total one-race city population). The type of EDC used by a city is expressed as a binary variable, with 4B-only coded 1 if 4B and 0 if not, and mixed EDC coded 1 if a city had both types of EDCs and 0 if not. The comparison group in the analysis, therefore, is when a city employs only a 4A EDC. Finally, as noted previously, relevant data for the transportation and financial sectors was unavailable for 2000.

Tables 6 and 7 report results for employment (both percent employment and the number employed in each sector) for the years 2010 and 2000, respectively. In both years, barring few exceptions, employment is not reliably associated with EDC type at even the .10 level. The several statistically reliable associations include the number employed in the professional sector in 2010, where a higher number of employees is associated with 4B-only EDCs; the number employed in the real estate sector in 2010, where the number employed is lower in mixed-EDC cities; the number employed in manufacturing in 2000, where the number of employees is higher in 4B-only and mixed EDC cities compared with 4A-only cities; and the

accommodations sector in 2000, where the number of employees is lower in mixed EDC cities.

What stands out from these results is that employment is most consistently associated with EDC expenditures rather than the type of EDC adopted. The association between the number employed in a sector and total expenditures is statistically reliable at the .10 level in 7 of the 12 models in 2010 and in 7 of the 10 models in 2000. Among categories of expenditure, sector employment is most reliably associated with business incentives and administration (uniquely, the number employed in sectors is not associated with expenditures on job training). While there is no relationship between percent employment (i.e., 100 minus the census civilian unemployment percentage) and EDC expenditures in either 2010 or 2000, except for education in 2010, the number of individuals employed in sectors is reliably associated with at least some type of EDC spending.

Table 6: Percent Employment, Number Employed in Sectors and EDC Type 2010

	<u>%Employment</u>	<u>Manufacturing</u>	<u>Retail</u>
4B-Only	.530 (.372)	6.437 (10.372)	2.419 (7.084)
Mixed EDCs	.177 (.403)	-1.481 (11.400)	-10.654 (7.786)
TotExp	3.051e-007 (1.244e-006)	1.324e-004** (5.512e-005)	1.688e-004*** (3.372e-005)
Admin	2.362e-006 (8.397e-006)	3.795e-004 (4.029e-004)	4.6288e-004 (2.919e-004)
Marketing	5.082e-006 (1.705e-005)	-2.908e004 (.001)	.002*** (.001)
Business Incentives	3.249e-006 (2.484e-006)	5.010e-005 (1.053e-004)	3.0203e-004*** (5.485e-005)
Job Training	1.105e-004 (7.153e-005)	.004 (.004)	.001 (.001)
TotPop	-8.689e-006*** (2.262e-006)	-4.614e-005 (6.702 e-005)	-1.660e-005 (5.288e-005)
%Bach	.061*** (.011)	-1.192*** (.367)	.294 (.256)
%Pov	-.031** (.014)	-.130 (.440)	.282 (.278)
%Blk	-.051*** (.012)	1.087*** (.336)	.170 (.232)
%Hsp	-.015*** (.006)	-.272 (.199)	-.190 (.131)
Constant	93.009*** (.536)	63.157*** (17.974)	37.135*** (11.680)
R2/Adj. R2	.143/.127	.127/.087	.342/.321
	<u>Real Estate</u>	<u>Professional</u>	<u>Education</u>
4B-Only	-1.184 (1.290)	6.244* (3.432)	.465 (1.173)
Mixed EDCs	-3.721*** (1.420)	-.548(3.773)	-.252 (1.292)
TotExp	1.548e-005*** (1.880e-006)	2.448e-005 (1.504e-005)	6.418e-006 (3.898e-006)
Admin	4.304e-005 (4.735e-005)	.001*** (1.318e-004)	3.473e-005 (2.789e-005)
Marketing	9.904e-005 (9.114e-005)	-.001*** (2.490e-004)	1.687e-006 (1.374e-004)
Business Incentives	2.041e-005*** (6.606e-006)	1.4562e-004*** (2.277e-005)	-1.562e-005 (1.135e-005)
Job Training	-6.862e-005 (1.767e-004)	-.001 (.001)	-7.109e-005 (2.264e-004)
TotPop	1.631e-006 (7.758e-006)	2.657e-005 (2.171e-005)	-1.392e-006 (3.573e-006)
%Bach	.060 (.041)	.414*** (.111)	.101*** (.031)
%Pov	-.015 (.049)	.033 (.136)	3.495e-004 (.038)
%Blk	-.019 (.042)	.099 (.124)	-.018 (.027)
%Hsp	-.007 (.024)	-.020 (.067)	.004 (.021)
Constant	4.935** (2.156)	-5.706 (5.940)	-1.428 (1.763)
R2/Adj.R2	.238/.201	.396/.370	.300/.188
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level. Standard Error is in parenthesis			

Table 6 Continued			
	<i>Transportation</i>	<i>Information</i>	<i>Finance</i>
4B-Only	3.895 (5.786)	-.802 (1.525)	5.147(6.588)
Mixed EDCs	9.396 (6.211)	.019 (1.899)	7.463 (7.538)
TotExp	7.503e-005*** (2.596e-005)	2.435e-005*** (6.5696e-006)	1.979e-004*** (2.872e-005)
Admin	-3.634e-004 (2.366e-004)	1.134e-004* (6.2235e-005)	-3.134e-004 (2.588e-004)
Marketing	3.676e-004 (4.438e-004)	-1.451e-004 (2.4841e-004)	-.001 (4.906e-004)
Business Incentives	2.309e-005 (5.596e-005)	1.992e-005 (1.255e-005)	.001*** (3.8234e-005)
Job Training	-.001 (.001)	-3.662e-004 (3.9426e-004)	2.9274e-005 (.001)
TotPop	-1.0288e-005 (3.348e-005)	9.375e-006 (7.733e-006)	-1.223e-005 (4.478e-005)
%Bach	-.212 (.242)	.203*** (.056)	.398* (.228)
%Pov	.165 (.258)	.098(.077)	.084 (.264)
%Blk	.568***(.183)	-.013 (.056)	.291 (.251)
%Hsp	.077(.111)	.031(.037)	.100 (.120)
Constant	1.951(10.274)	-2.808 (2.937)	-24.735** (10.948)
R2/Adj. R2	.120/.064	.269/.199	.730/.717
	<i>Health Care</i>	<i>Arts</i>	<i>Accomms</i>
4B-Only	-4.905 (11.125)	1.042 (2.676)	3.480 (10.052)
Mixed EDCs	-19.242 (12.101)	-2.750 (2.932)	-8.061 (11.183)
TotExp	-5.552e-005 (5.481e-005)	8.499e-006 (9.8515e-006)	2.327e-004*** (4.221e-005)
Admin	.001* (4.144e-004)	2.223e-004** (1.111e-004)	.001 (3.836e-004)
Marketing	.001 (.001)	-.001** (4.878e-004)	.001 (.001)
Bus Incent	2.364e-004*** (6.254e-005)	1.714e-004*** (1.403e-005)	1.338e-005 (5.728e-005)
Job Train	.004 (.003)	-.001 (.001)	-.002 (.003)
TotPop	4.156e-005 (7.094e-005)	-1.363e-006 (1.177e-005)	-4.373e-005 (6.563e-005)
%Bach	-.048 (.380)	.316*** (.088)	.541 (.353)
%Pov	.694 (.458)	.093(.114)	-.255 (.397)
%Blk	.671* (.363)	.029 (.090)	-.013 (.338)
%Hsp	.008 (.199)	.043(.061)	-.088 (.188)
Constant	50.378*** (18.194)	-7.139 (5.198)	29.279* (17.116)
R2/Adj.R2	.124/.085	.794/.768	.278/.246
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level. Standard Error is in parenthesis			

Table 7: Percent Employment, Number Employed in Sectors and EDC Type 2000			
	<u>%Employment</u>	<u>Manufacturing</u>	<u>Retail</u>
4B-Only	.141 (.287)	67.672* (39.063)	4.627 (8.771)
Mixed EDCs	-.182 (.335)	151.898*** (43.868)	-9.720 (10.336)
TotExp	-8.116e-009 (5.063e-007)	4.039e-004*** (3.786e-005)	3.179e-004*** (1.771e-005)
Admin	2.610e-006 (1.8246e-005)	.008*** (.002)	.007*** (.001)
Marketing	-1.588e-006 (2.721e-005)	.008 (.007)	.004*** (.001)
Business Incentives	5.413e-007 (3.929e-006)	.004*** (.001)	.001*** (1.627e-004)
Job Training	-4.443e-005 (5.615e-005)	.012 (.018)	.001 (.001)
TotPop	2.544e-006 (3.312e-006)	1.106e-004 (1.819e-004)	1.070e-004 (8.247e-005)
%Bach	-.030** (.014)	-4.627*** (1.518)	-.010 (.423)
%Pov	-.058** (.024)	8.352** (3.608)	1.463* (.784)
%Blk	-.101*** (.010)	-2.146* (1.084)	-.067 (.338)
%Hsp	-.037*** (.008)	-3.071*** (1.099)	-.707*** (.245)
Constant	99.435*** (.486)	29.252 (69.517)	15.456 (15.468)
R2/Adj. R2	.338/.318	.906/.889	.834/.826
	<u>Real Estate</u>	<u>Professional</u>	<u>Education</u>
4B-Only	.997 (1.005)	3.421(4.460)	1.739 (2.691)
Mixed EDCs	-1.499 (1.171)	-4.881 (5.577)	3.454(2.530)
TotExp	4.917e-006*** (1.725e-006)	5.575e-005*** (7.812e-006)	1.592e-005*** (3.069e-006)
Admin	.001*** (5.198e-005)	.001*** (2.565e-004)	-6.8547e-005 (5.411e-005)
Marketing	1.353e-004 (1.240e-004)	.001 (.001)	1.553e-004 (1.633e-004)
Business Incentives	7.703e-005*** (1.599e-005)	-2.515e-005 (8.146e-005)	-9.651e-006 (3.051e-005)
Job Training	2.058e-004 (1.363e-004)	3.263e-004 (.001)	.028 (.606)
TotPop	1.535e-005* (7.924e-006)	-4.849e-006 (6.729e-005)	2.1547e-006 (3.4826e-006)
%Bach	.032 (.045)	.682*** (.210)	-.009 (.034)
%Pov	.030 (.103)	.543 (.417)	.306** (.116)
%Blk	-.002 (.032)	-.237 (.161)	-.094* (.947)
%Hsp	-.002 (.029)	-.220* (.127)	-.108** (.049)
Constant	2.155 (1.811)	-4.570 (7.860)	-.346 (3.916)
R2/Adj.R2	.613/.589	.530/.495	.812/.651
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level.			

Standard Error is in parenthesis

Table 7 Continued			
	<i>Transportation</i>	<i>Information</i>	<i>Finance</i>
4B-Only	na	.937 (2.838)	na
Mixed EDCs		-2.508 (3.435)	
TotExp		5.033e-007 (3.817e-006)	
Admin		.001*** (1.227e-004)	
Marketing		3.399e-004 (2.921e-004)	
Business Incentives		1.969e-004*** (5.210e-005)	
Job Training		1.446e-004 (4.070e-004)	
TotPop		4.129e-005** (1.776e-005)	
%Bach		.032 (.121)	
%Pov		.163 (.298)	
%Blk		-.070 (.113)	
%Hsp		-.114 (.082)	
Constant		3.366 (5.273)	
R2/Adj. R2		.578/.529	
	<i>Health Care</i>	<i>Arts</i>	<i>Accomms</i>
4B-Only	-4.688 (17.096)	3.205 (2.391)	1.129 (5.471)
Mixed EDCs	-27.532 (21.409)	.864 (2.887)	-11.642* (6.529)
TotExp	3.758e-004*** (2.839e-005)	7.838e-006 (9.506e-006)	1.987e-004*** (1.051e-005)
Admin	.005*** (.001)	3.4043e-004*** (1.1759e-004)	.003*** (3.119e-004)
Marketing	.003 (.002)	-2.831e-004 (4.486e-004)	.002*** (.001)
Business Incentives	.001*** (2.971e-004)	2.089e-005 (3.902e-005)	3.657e-004*** (1.075e-004)
Job Training	.004 (.002)	-2.210e-004 (.001)	.001 (.001)
TotPop	2.3326e-004* (1.296e-004)	8.695e-006 (1.081e-005)	5.299e-005 (4.911e-005)
%Bach	-.904 (.820)	.119 (.105)	.049 (.268)
%Pov	4.084** (1.851)	.285 (.224)	.459 (.515)
%Blk	-.937 (.933)	-.056 (.081)	-.250 (.215)
%Hsp	-1.540*** (.562)	-.058 (.064)	-.328** (.157)
Constant	27.563 (31.224)	-1.803 (4.443)	19.352** (9.864)

R2/Adj.R2	.818/.803	.309/.166	.828/.818
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level. Standard Error is in parenthesis			

Looking at the city characteristic variables, several differences between 2010 and 2000 become apparent. In 2010 (Table 6), percent employment is reliably associated with percent with a Bachelor's degree in 7 of the 12 models, and with percent Black and total population in 4 models. Percent employment and the number employed in the information, finance, professional, education and arts sectors increases as the city-wide educational level increases. While percent employment is inversely associated with percent Black, the number employed in the manufacturing, transportation and health care sectors increases with larger Black populations. In addition, percent employment is negatively related to poverty and to percent Hispanic.

Employment is comparatively more related to city population characteristics in 2000 (Table 7), where the percent employment is associated with percent Hispanic in 7 of the 10 models, percent poverty in 5, percent with a Bachelor's degree in 4, and percent Black in 3 of the 10 models. Percent employment is inversely associated with education and poverty, as well as with ethnicity and race. The number of jobs in the manufacturing, retail, education and healthcare sectors is positively related to poverty. Finally, percent employment is lower in more populous cities in 2010, while in 2000 employment in the information, real estate, and health care sectors is higher in more populous cities.

Tables 8 and 9 report results for the number of establishments across sectors for 2010 and 2000, respectively. A higher number of establishments in manufacturing and education, in both years, and arts and accommodations in 2000, are associated with 4B-only cities. A smaller number of establishments in the information sector in 2010, and a larger number of

establishments in manufacturing and education in 2000, are associated with mixed EDC cities. A comparatively more consistent relationship is between the number of sector establishments and EDC expenditures – again indicating that the amount spent, more than the type of development pursued, matters. For every sector, in both 2010 and 2000, a higher number of establishments is reliably associated with some form of EDC spending. The number of sector establishments is most frequently associated with spending for business incentives, but the number of establishments in at least a majority of sectors is reliably related to spending on administration and marketing, as well as to total expenditures. The exception here is spending on job training, which only had a positive relationship to real estate establishments in 2000.

The number of establishments is also associated with city population characteristics, though there are substantial differences between 2010 and 2000 in this regard. The association between the number of establishments in manufacturing, information and the arts, and total city population is reliable in 2010, while the number of establishments in most sectors is associated with poverty in 2000, but not in 2010. The number of sector establishments tends to be inversely associated with both percent Black and percent Hispanic in 2000 but not in 2010. Only education level has about the same frequency of reliable association with sector employment in both 2010 and 2000.

Table 8: Number of Establishments in Sectors and EDC Type, 2010			
	<u>Manufacturing</u>	<u>Retail</u>	<u>Transportation</u>
4B-Only	.294** (.114)	.176 (.496)	.049 (.113)
Mixed EDCs	.120 (.127)	-.720 (.548)	-.020 (.124)
TotExp	3.046e-006*** (5.547e-007)	4.599e-006** (2.340e-006)	9.202e-007 (5.603e-007)
Admin	1.860e-006 (4.613e-006)	3.318e-005 (2.040e-005)	2.493e-006 (4.668e-006)
Marketing	2.512e-005*** (9.053e-006)	2.359e-004*** (4.005e-005)	3.647e-005*** (9.080e-006)
Bus Incent	-5.520e-007 (1.053e-006)	1.462e-005*** (3.150e-006)	6.805e-006*** (8.902e-007)
Job Train	-2.737e-005 (2.961e-005)	8.285e-007 (8.552e-005)	3.049e-006 (1.909e-005)
TotPop	-1.770e-006** (8.168e-007)	-3.567e-006 (3.801e-006)	-1.404e-006 (8.550e-007)
%Bach	-.021*** (.004)	-.054*** (.017)	-.006 (.004)
%Pov	.006 (.005)	.006(.020)	-.006 (.005)
%Blk	-.001 (.004)	-.001 (.017)	.005 (.004)
%Hsp	-.011*** (.002)	-.031***(.009)	.002 (.002)
Constant	1.533*** (.199)	5.928*** (.811)	.621***(.194)
R2/Adj. R2	.330/.305	.347/.327	.279/.256
	<u>Professional</u>	<u>Education</u>	<u>Health Care</u>
4B-Only	.267 (.224)	.106** (.045)	.250 (.409)
Mixed EDCs	-.131 (.248)	.035 (.050)	-.218 (.454)
TotExp	1.434e-006 (1.045e-006)	1.628e-007 (1.714e-007)	5.852e-006*** (1.930e-006)
Admin	4.328e-005*** (9.136e-006)	4.424e-006*** (1.481e-006)	2.956e-005* (1.683e-005)
Marketing	2.897e-005 (1.791e-005)	5.977e-006** (2.893e-006)	1.121e-004*** (3.304e-005)
Bus Incent	5.576e-006*** (1.406e-006)	4.753e-007** (2.384e-007)	3.858e-006 (2.598e-006)
Job Train	1.435e-005 (3.817e-005)	-5.396e-006 (1.421e-005)	1.385e-005 (7.055e-005)
TotPop	1.594e-007 (1.698e-006)	-3.133e-007 (2.510e-007)	6.345e-008 (3.137e-006)
%Bach	.047*** (.008)	.005***(.001)	.008 (.014)
%Pov	.008 (.009)	-.001 (.002)	-.004 (.016)
%Blk	-.010 (.007)	-.002 (.001)	.004 (.014)
%Hsp	-.015*** (.004)	-.001 (.001)	-.012 (.008)
Constant	1.212*** (.369)	.121 (.075)	2.559***(.671)
R2/Adj.R2	.395/.377	.381/.348	.210/.186
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level.			

Standard Error is in parenthesis

Table 8 Continued			
	<u>Information</u>	<u>Finance</u>	<u>Real Estate</u>
4B-Only	.005 (.065)	-.050 (.176)	.059 (.125)
Mixed EDCs	-.191** (.076)	-.308 (.195)	-.127 (.139)
TotExp	7.842e-007*** (2.992e-007)	1.797e-006** (8.310e-007)	3.205e-006*** (5.776e-007)
Admin	-7.497e-008 (2.868e-006)	4.985e-006 (7.263e-006)	1.474e-005*** (5.030e-006)
Marketing	-1.286e-005* (7.338e-006)	9.407e-005*** (1.424e-005)	2.952e-005*** (9.875e-006)
Bus Incent	5.637e-006*** (4.0152e-007)	5.996e-006*** (1.118e-006)	1.994e-006** (7.757e-007)
Job Train	-3.546e-007 (1.085e-005)	2.216e-005 (3.035e-005)	5.795e-006 (2.107e-005)
TotPop	-1.015e-006** (4.889e-007)	-4.961e-007 (1.351e-006)	1.192e-008 (9.391e-007)
%Bach	.001 (.002)	-.010 (.006)	.009** (.004)
%Pov	.001 (.003)	-.002 (.00)	.004 (.005)
%Blk	.002 (.002)	-.003 (.006)	-.004 (.004)
%Hsp	-.002* (.001)	-.011*** (.003)	-.006*** (.002)
Constant	.477*** (.111)	2.350*** (.289)	.750*** (.206)
R2/Adj. R2	.499/.492	.356/.366	.375/.355
	<u>Arts</u>	<u>Accomms</u>	
4B-Only	.028 (.045)	.280 (.328)	
Mixed EDCs	-.078 (.053)	-.264 (.364)	
TotExp	8.900e-007*** (2.070e-007)	6.324e-006*** (1.547e-006)	
Admin	3.643e-006** (1.847e-006)	4.655e-005*** (1.349e-005)	
Marketing	4.786e-006 (3.552e-006)	1.234e-004*** (2.648e-005)	
Bus Incent	2.251e-006** (2.728e-007)	8.273e-006*** (2.082e-006)	
Job Train	-5.828e-006 (1.202e-005)	2.877e-005 (5.654e-005)	
TotPop	-6.470e-007** (3.291e-007)	-3.378e-006 (2.515e-006)	
%Bach	.004** (.002)	-.018 (.011)	
%Pov	.002 (.002)	.002 (.013)	
%Blk	-.003* (.002)	-.009 (.011)	
%Hsp	-.002** (.001)	-.016*** (.006)	
Constant	.252*** (.080)	2.882*** (.539)	
R2/Adj.R2	.470/.450	.400/.382	
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level.			

Standard Error is in parenthesis

Table 9: Number of Establishments in Sectors and EDC Type, 2000			
	<u>Manufacturing</u>	<u>Retail</u>	<u>Transportation</u>
4B-Only	.865** (.430)	.667 (.617)	na
Mixed EDCs	1.225** (.485)	-.189 (.721)	
TotExp	6.498e-006*** (4.919e-007)	2.600e-005*** (1.276e-006)	
Admin	9.325e-005*** (2.436e-005)	2.964e-004*** (3.768e-005)	
Marketing	3.054e-005 (7.946e-005)	4.806e-004*** (8.237e-005)	
Bus Incent	4.772e-005*** (8.330e-006)	4.384e-005*** (1.174e-005)	
Job Train	-1.000e-005 (1.650e-003)	1.512e-004 (1.032)	
TotPop	-1.656e-006 (2.264e-006)	7.529e-008 (5.917e-006)	
%Bach	-.069*** (.019)	-.050* (.030)	
%Pov	.046 (.043)	.231*** (.056)	
%Blk	.046* (.014)	-.043** (.021)	
%Hsp	-.028** (.013)	-.088*** (.018)	
Constant	1.934** (.829)	2.883*** (1.055)	
R2/Adj. R2	.899/.885	.816/.808	
	<u>Professional</u>	<u>Education</u>	<u>Health Care</u>
4B-Only	.325 (.317)	.085** (.040)	.531 (.467)
Mixed EDCs	-.246 (.370)	.093* (.050)	-.333 (.557)
TotExp	5.114e-006*** (6.547e-007)	1.629e-009 (6.027e-008)	7.384e-006*** (9.659e-007)
Admin	1.988*** (1.934e-005)	1.4629e-005*** (1.886e-006)	2.874e-004*** (2.855e-005)
Marketing	5.115e-005 (4.234e-005)	5.426e-006 (4.420e-006)	2.242e-004*** (6.245e-005)
Bus Incent	2.788e-005*** (6.026e-006)	3.184e-006*** (7.980e-007)	5.139e-005*** (8.887e-006)
Job Train	7.101e-005 (5.292e-005)	-6.545e-007 (4.602e-006)	9.956e-005 (7.808e-005)
TotPop	4.688e-006 (3.036e-006)	-1.098e-007 (2.722e-007)	5.426e-006 (4.478e-006)
%Bach	.035** (.015)	.003** (.002)	.007 (.022)
%Pov	.054* (.029)	.008* (.004)	.104** (.042)
%Blk	-.019* (.011)	-.004*** (.001)	-.016 (.016)
%Hsp	-.036*** (.009)	-.004*** (.001)	-.043*** (.013)
Constant	.770 (.546)	.076 (.074)	.726 (.803)
R2/Adj.R2	.656/.641	.588/.554	.668/.654
*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level. Standard Error is in parenthesis			

Table 9 Continued			
	<i>Information</i>	<i>Finance</i>	<i>Real Estate</i>
4B-Only	.130 (.080)	na	.110 (.160)
Mixed EDCs	.072 (.097)		-.206 (.188)
TotExp	8.179e-007*** (1.607-007)		7.823e-007** (3.244e-007)
Admin	4.440e-005*** (4.797e-006)		1.292e-004*** (9.577e-006)
Marketing	6.120e-005*** (1.046e-005)		5.063e-005** (2.100e-005)
Bus Incent	5.905e-007 (1.477e-006)		1.253e-005*** (3.040e-006)
Job Train	1.599e-005 (1.296e-005)		5.523e-005** (2.616e-005)
TotPop	-5.885e-007 (7.542e-007)		1.532e-006 (1.503e-006)
%Bach	-.002 (.004)		.001(.008)
%Pov	.025*** (.008)		.012 (.015)
%Blk	-.011***(.003)		-.003 (.005)
%Hsp	-.012*** (.002)		-.014*** (.005)
Constant	.510*** (.145)		.910***(.277)
R2/Adj. R2	.594/.574		.633/.616
	<i>Arts</i>	<i>Accomms</i>	
4B-Only	.131**(.059)	.544* (.284)	
Mixed EDCs	.001(.071)	-.113 (.338)	
TotExp	6.752e-007*** (1.136e-007)	9.492e-006*** (5.865e-007)	
Admin	5.036e-005*** (3.452e-006)	1.966e-004*** (1.734e-005)	
Marketing	2.0563e-005** (8.169e-006)	2.410e-004*** (3.801e-005)	
Bus Incent	5.906e-006*** (1.288e-006)	9.174e-006* (5.396e-006)	
Job Train	1.110e-005 (8.943e-006)	5.082e-005 (4.741e-005)	
TotPop	-8.931e-008 (5.184e-007)	-1.031e-006 (2.719e-006)	
%Bach	.002 (.003)	-.013(.014)	
%Pov	.015** (.006)	.088*** (.026)	
%Blk	-.003 (.002)	-.020** (.010)	
%Hsp	-.005*** (.002)	-.032*** (.008)	
Constant	.031(.112)	1.104** (.492)	
R2/Adj.R2	.759/.746	.795/.786	

*** Significant at the .01 level; ** Significant at the .05 level; *Significant at the .10 level. Standard Error is in parenthesis

DISCUSSION AND CONCLUSION

This study's guiding concern was to assess whether the non-traditional focus on quality of life in local economic develop was associated with local economic performance at least as good as, if not better than the more traditional emphasis on industrial development. To address this, we compared two types of city-level EDCs in Texas – 4A EDCs that focus on industrial-related development and 4B EDCs that can pursue improvements in community amenities. We measured local economic performance across cities in Texas with an EDC in 2000 and 2010. The economic measures examined were the overall employment level, the number employed across 11 economic sectors and the number of establishments in each of these sectors, for each city. Our findings have relevance for both scholars and community leaders engaged in economic development decision making where the use of scarce public resources must produce beneficial economic outcomes.

Results of our analyses suggest that spending may play a more consistent role in promoting a local economy than the type of development pursued. Though the type of development pursued plays a role in local economic outcomes, it is spending that matters most. Independent of EDC type, spending was nearly universally associated with better city economic conditions. An obvious implication is that regardless of the type of development planned, any serious development plan must consider the amount of funds available. The sole expenditure category that failed to have much of an association with either employment or the number of establishments was spending on job training. Cities tended to spend relatively little on job training, so it is difficult to say what might be the case if more were spent in this area.

The type of development pursued, represented by 4A (industrial) and 4B (community amenities) EDCs is not inconsequential, however. EDC type came up as statistically reliable at the .10 level in 14 models. Of importance, the 4B-only variable was statistically reliable in 8 of these 14, and in each of these cases 4B-only cities were higher on the economic indicators under analysis than either 4A-only or mixed cities. To the extent that the type of development pursued plays a role in economic outcomes, however, that role may depend upon the specific economic measure being considered as well as the larger economic context. EDC type showed statistical model reliability more frequently regarding the number of firms in sectors (significant in 9 models, 6 of which were 4B-only) than regarding employment (significant in 5 models), and performed better in 2000 (significant in 9 models, 5 of which were 4B-only) than in 2010 (significant in 5 models). These particular results suggest development that pursues improvements in community amenities is most effective in facilitating growth in firms, possibly start-up ventures. These results further suggest that pursuing community amenities may have had more of an impact in the economic context prior to the Great Recession. The interest in non-traditional economic development focusing on amenities predates the Great Recession, as does much of the literature on this subject. Though not definitive, our findings suggest the relevance of a reexamination of the economic role played by investment in community amenities in the post-Great Recession environment.

Ultimately, it is crucial to note that when the 4B-only variable had a statistically reliable association with an economic measure, that relationship was positive. Therefore, community leaders should strongly consider community amenities as a legitimate component of an economic development plan. In some situations, it may lead to more positive economic performance, perhaps by

encouraging growth in business establishments. Otherwise it is an added value in improving citizen quality of life. Of importance, spending on community amenities is unlikely to lead to any adverse economic performance.

Placing our study in a context that acknowledges some inherent limitations allows for both proper evaluation of our findings and suggestions for future research. First, while the projects funded by 4A and 4B EDCs can be differentiated on the basis of activities that relate to quality of life (with quality of life amenities being the domain of 4B EDCs), there is some degree of overlap in the type of projects that can be funded. Infrastructure improvements, for example, are the domain of both 4A and 4B EDCs. The ramification of this is that we lack as pure a test of the industrial v. quality of life approach to local economic development as would be ideal. Future research might garner information on the nature of distinct EDC projects through interviews with EDC staff. This approach may allow a more targeted focus on quality of life development projects. Second, while an examination of EDC spending provided a beneficial environment for analysis, we acknowledge that an EDC represents one particular vehicle for local economic development, and that most states do not use city-level EDCs. Therefore, further research might look to a wider array of local economic development funding sources with the same goal of gauging outcome differences between traditional and more non-traditional approaches. Along these lines, future research may want to examine county or regional economic development efforts to assess patterns that emerge at this geographic level.

Third, this study's data were for one state, Texas. While Texas is a large, economically and socially diverse state, and our analysis employed a large number of cities, there exist political and cultural differences across states and regions in the United States. Accordingly, an examination of local economic development approaches in

other states would help confirm or modify present findings. Finally, we preferred as much as possible to phrase our discussion in terms of associations, rather than causality. This reflected our acknowledgement that in some cases a particular type of EDC may have been adopted that matched a city's preexisting economic conditions – e.g., an amenity-rich community adopting a 4B. We employed a two-year time lag between EDC spending and business conditions as a way to provide a degree of confidence that the latter was at least in some measure a result of the former. However, we need to be cautious here in that this particular methodology does not fully guarantee that we can speak with the utmost confidence regarding causality.

With these limitations acknowledged, we believe our findings indicate that while local economic development that focuses on the provision of quality of life amenities is not a panacea in terms of providing improved economic outcomes compared with a more traditional approach, there are likely some distinct benefits. In addition to an improved life for citizens, there can be some better employment opportunities and incentives for business growth. Our findings reveal no downside to an approach that pursues quality of life amenities. As part of a local economic development tool box, investment in quality of life improvements makes sense, therefore, for many communities.

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