An Assessment of the Impact of the Rural Empowerment Zone and Enterprise Community Program on Texas' Rio Grande Valley

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Abstract

This study investigates the impact of the Rural Empowerment Zone and Enterprise Community Program on the Texas Rio Grande Valley. In order to examine the program's impact, human development indexes for pre-EZ designation (1990) and EZ implementation (2000) time periods were developed. The results revealed minimal increases in human development index values in the EZ program counties. In fact, these counties remained in the lowest 20 percent of all counties in these state. It is suggested that this lackluster performance could be attributed to several institutional factors.

Introduction

In 1993, the U.S. Congress passed the Omnibus Budget Reconciliation Act, which launched the Empowerment Zone/Enterprise Community (EZ/EC) program (GAO, 1997 and 1998). The goal of this ten-year program was to provide an impetus for growth and revitalization in urban and rural communities based on the principles of creating economic opportunities; sustainable community development; community-based partnerships; and strategic visions for change. EZ/EC designation was based on particular criteria, which pertained to characteristics such as geographic size, poverty level, and the preparation of a strategic plan for executing the above-mentioned principles.

Recipients of EZ and EC designations each received $40 and $3 million, respectively. In addition to these resources, which were funded through from Social Services Block Grants, businesses located or wishing to locate into these zones and communities were eligible to receive tax incentives.

The Rio Grande Valley[1] of Texas received one of three rural empowerment zone designations[2] in December 1994. The empowerment zone sought to address a number of pressing development concerns indigenous to the area (RGVEZC, no date). Most notable of these concerns were the creation of sustainable jobs paying livable wages; educational opportunities that lead to high skills training; and, increased capacity in housing development.

The purpose of this study is to evaluate how the designation and implementation of the Empowerment Zone (EZ) program affected economic and community development in the counties comprising the Rio Grande Valley EZ[3]. This study focuses on two of the principles of the EZ/EC program: creation of economic opportunity and sustainable community development. Given the focus on these principles of the program, Human Development Indexes (HDI) for pre-EZ and EZ-implementation time period were created as tools of analysis.

The present literature on the impact of rural empowerment zones is not as prolific as that of urban empowerment zones and enterprise communities (Barrera, 2001). To the best of the authors' knowledge, the literature on this topic has been limited to reports from the GAO (1997, 1998, and 1999) and the occasional conference presentation (Barrera, 2001) and scholarly article (Wang and Van Loo, 1998). This paper hopes to provide additional insight into the EZ program's efficacy and stimulate discussion on the subject at hand.

[1] The Rio Grande Valley is composed of the following counties: Cameron, Hidalgo, Starr, and Willacy.

[2] The other recipients of rural EZ designations in 1994 were the Kentucky Highlands EZ and the Mississippi Mid-Delta EZ.

[3] Keynesian economic theory suggests that increases in autonomous spending, such as the infusion of $40 million into the economy of an EZ designee, would eventually lead to economic growth. Measuring the program's impact using measures such as per capita personal income, employment, etc. does not neatly address the second EZ/EC principle of creating sustainable community development.

Data and Methods

At present, methods for measuring the EZ/EC program's impact have focused on measures such as the number of jobs created, the number of training programs established and the number of housing units built or rehabilitated[4]. Such measures do not necessarily provide an encompassing view of development as envisioned in the program principles. In order to capture the core principles of the program, this paper proposes the use of a human development index (HDI).

The United Nations Development Programme introduced the HDI, which has served as a composite measure of human development, in 1990 with the publication of the first Human Development Report (UNDP, 2001). At the heart of these human development reports was the promotion of an alternative means of viewing human development. These reports have called for a shift in the development paradigm from a focus on economic growth towards a more evenhanded interest in equity, sustainability, productivity, and empowerment.

In its original form, the HDI measures a nation's overall achievement based on three basic dimensions. The first dimension, which is *longevity*, is measured based on life expectancy. The second dimension, which is *knowledge*, is measured based on a set of variables pertaining to educational attainment. The final dimension, which is *decent standard of living*, is measured using adjusted income per capita in purchasing power parity U.S. dollars. Indexes are developed for each of these dimensions. The average of these dimension indexes form the HDI. The resulting HDI provides a value between zero and one. Nations with HDI values closer to one (zero) represent higher (lower) levels of development. An explanation of human development index construction and its use in this study are presented in the appendix.

[4] Information on these measures were obtained from reports from the individual designees on the EZ/EC website (USDA, 2002).

While the initial applications of the HDI have been to compare achievements in human development among nations, a number of studies have been conducted using the HDI to compare achievements at the sub-national level (Agostini and Richardson, 1997; Felder, 2002; and, Hanham, Berhanu, and Loveridge, 2002) and among population groups (Corrie, 1994). This study uses the HDI in a manner similar to the works conducted at the sub-national level.

The components[5] of the HDI used in this study focused on three of the goals of the RGVEZ strategic plan. One of these goals, which was the creation of education opportunities that lead to high skills training, was represented by a set of variables that characterize the *education* component of the strategic plan. Another component, which was *economic opportunity*, pertained to the goal of generating sustainable jobs paying livable wages. The third component, which was referred to as *access to housing*, corresponded to the third strategic plan goal of increased capacity in housing development. The variables that comprised these components are presented in Table 1.

In order to analyze how counties in the RGVEZ have progressed since EZ designation, two HDIs were developed. The first HDI focused on the above-mentioned components using data from 1990 (pre-EZ designation time period). The second HDI utilized data for 2000 (EZ implementation time period). Progress was measured by comparing human development indexes for both time periods. An increase (decrease) in HDI values over the time periods indicates increasing (decreasing) development. In addition, each of these counties were ranked vis-à-vis other counties in Texas based on their HDIs to provide an added perspective with respect to the level of growth (decline) in development that has transpired.

[5] These were measured using available variables that reasonably represent these components.

Results

Results of the construction of the human development indexes for Cameron, Hidalgo, Starr, and Willacy Counties are presented in Table 2. Based on the table, the four counties have posted gains albeit minimal in index values for most of the component and human development indexes. The *economic opportunity* index was the only component that reflected declining values from 1990 to 2000.

What is surprising to note is that despite the increased index values the relative ranks of these counties vis-à-vis other counties in Texas have not increased. Except for increased rankings in the *access to housing* component index, all other indexes, including the HDI, have resulted in no change or decreases in county rankings. An analysis of these findings is presented below.

Education

Education component indexes for the four RGVEZ counties have shown positive increases from the 1990 index to the 2000 index. Cameron County demonstrated the largest increase from 0.3947 in 1990 to 0.4597 in 2000. This county also posted the highest index values of the four RGVEZ counties. On the other hand, Starr County showed the lowest education component indexes among the four counties for both time periods.

In terms of how these RGVEZ counties ranked with respect to other Texas counties, Cameron County was the only county that ranked in the upper half of all Texas counties in the pre-EZ designation period. Of the remaining counties, Starr County ranked in the bottom 10 percent of Texas counties. These counties' ranking deteriorated in the EZ-implementation time period. All four counties ranked in the bottom half of all Texas counties with Willacy joining Starr in the bottom 10 percent. Why have county rankings decreased despite improvements in index values?

A possible explanation is the values of the variables that represent the education component. A perusal of education variables from Table 1 shows that these counties have lower percentages of high school and college graduates when compared to the state. In terms of the percentage of high school graduates, RGVEZ counties on average had approximately 29 percent and 28 percent fewer high graduates than the state average in 1990 and 2000, respectively. As for college graduates, these counties had roughly 10 percent and 13 percent less graduates than the state average for the same time periods. It is only the percentage of the population enrolled in elementary and high school where the RGVEZ counties have exhibited higher percentage rates than the state. This is primarily due to the younger population base on these counties.

Economic Opportunity

County index values for this component have exhibited little change between the pre-EZ designation and EZ-implementation periods. All of the counties, except for Starr, posted decreases in index values. In terms of rank with respect to other Texas counties, the four RGVEZ counties have been positioned at the bottom of the county rankings in both time periods.

Table 1 may be able to shed some light on the dismal performance of these counties in the economic opportunity index rankings. In terms of the percentage of families living below the poverty level, the RGVEZ counties have exhibited average values that are twice the state average in both time periods. As for the average monthly unemployment rate, these counties have displayed average rates that are three times higher than the state rate in 1990 and 2000. On the other hand, median household incomes in these counties in 1990 and 2000 have consistently been half of the state's median value.

Why has there been no change in the economic opportunity values for RGVEZ counties between 1990 and 2000? According to Barrera (2001), the economic development and job

training programs implemented under the empowerment zone's strategic plan were flawed. The programs that were established did not generate sustainable jobs paying livable wages. Most of the jobs created were of a minimum wage, seasonal, and lay-off prone nature.

Access to Housing

Of the three components of the human development index used in this study, the *access to housing* component showed the most promise for the four South Texas counties. All the counties posted increases in index values and county rankings between 1990 and 2000. Hidalgo and Starr Counties made significant gains in rank. Hidalgo, which was classified as an urban county together with Cameron, moved from 47th to 25th among Texas counties in terms of housing access. Starr, which was categorized as a rural county together with Willacy, jumped from 240th to 192nd from 1990 to 2000. Why have these counties performed well?

Based on Table 1, the four RGVEZ counties displayed high growth rates in terms of the total number of housing and owner-occupied housing units between 1990 and 2000. On average, the growth in the total number of housing units in these counties was roughly 19 percent higher than the state. These counties outpaced the state in the growth rate of owner-occupied housing units by an average of 10 percent.

The rapid growth in the number of owner-occupied housing units could be attributed to several factors. One is the fact that the values of these units have been lower than the state's median value. In 1990 and 2000, the median values of owner-occupied housing units in these counties were approximately $28,800 and $38,050 less than the state median value. The lower median value of these owner-occupied housing units has made home ownership accessible to most local residents.

Another factor has been efforts by local, state, and federal organizations to improve housing conditions in depressed quarters in these counties (Dabir, 2001). Programs such as the individual development account[6] could present welcome relief from traditional means of financing home purchases and construction.

Human Development Index

As noted in the appendix, the human development index that was developed in this study represented the average value of the three component indexes discussed above. Based on Table 2, the HDIs for the four RGVEZ counties ranged from 0.1072 for Starr to 0.3224 for Cameron in 1990. These counties' experienced positive increases HDI values in 2000 ranging from 0.1537 for Starr to 0.3540 for Cameron. These increases in HDI values over the time period under study provided an indication of modest gains in development for the four counties based on the three components that were utilized.

It is interesting to note that there has been little change in these counties' HDI ranks, except for Cameron County, between 1990 and 2000. This means that these counties ranked in the bottom 20 percent of Texas counties in terms of development prior to and during the EZ program implementation. Does this mean that the EZ program has had little or no impact on the counties' development?

Discussion and Limitations

While there has been no change in the HDI rankings for the four RGVEZ counties between 1990 and 2000, this does not necessarily provide an indication that EZ program has been ineffective. Several factors need to be brought into focus.

[6] An individual development account or IDA is similar in structure to an individual retirement account (IRA). An IDA allows a participant to save money in an account which can be used for the purchase of a first home, pay for higher education expenses, or provide capital for a small business. Local community organizations exercise management control over these IDAs while the funds are in the safekeeping of local financial institutions.

Based on the data used in developing the component and human development indexes, it was evident that the values of the counties' education and economic variables were significantly lower than the state's average values. Despite significant improvements made by the counties in terms of graduation rates, median household incomes, percentage of families living below poverty levels, and unemployment rates, it was difficult to catch up with growth that was taking place in other parts of the state.

Other factors contributed to the lackluster HDI performance of the RGVEZ counties. These factors, which could be classified as institutional in nature, were the flawed development of the RGVEZ strategic plan; local stakeholder experience in program development and implementation; and, lack of clarity and guidance on the part of federal agencies that oversaw the program.

In terms of flawed strategic plan development, Barrera (2001) noted that in the conception of the strategic plan there was a fundamental deficiency of understanding with respect to what a strategic plan is about and how the process should be undertaken. She mentioned that in the grant application, consultants were hired to organize efforts, collect information, and produce the strategic plan document. Barrera observed that if the applicants' intent was to produce a strategic plan, the consultants' role should have focused on training and facilitation in strategic plan development. Furthermore, she stated that the final document (strategic plan) was essentially an action plan that described the area's dire conditions and a wish list of what the organization would do with the funds if they successfully received the grant.

The blame for this misguided view of strategic plan development cannot be placed solely on the shoulders of the entity that initiated the empowerment zone application. It can be attributed to two additional factors: a lack of experience on the part of the organization managing

the empowerment zone program and a lack of clarity and guidance on the part of federal agencies that oversaw the program.

In a GAO report to a U.S. House of Representatives subcommittee (GAO, 1998), it was stated that the management organization's prior experience in developing and implementing programs similar to the EZ program contributed to the success in strategic plan development and program implementation. The report noted that in the case of the Kentucky Highlands EZ, one of the three recipients of the first rural EZ designation together with the Rio Grande Valley, the organization that has been managing the EZ program has been in existence for more than two decades and has had prior experience in implementing economic development programs funded by federal entities such as the U.S. Department of Commerce's Economic Development Administration. On the other end of the spectrum, the Rio Grande Valley Empowerment Zone Corporation, which is a 501c3 private non-profit entity that has been managing the Texas rural EZ, was formed after the region received EZ designation (RGVEZ, no date).

A prior GAO report (1997) to the U.S. Senate Committee on Agriculture, Nutrition, and Forestry, noted that lackluster performance of the EZ program stemmed from the lack of clarity and guidance on the part of federal agencies that oversaw the program. One problem encountered was the short time frame in which EZ/EC applications were to be made[7]. Another problem involved federal oversight and implementation of the EZ/EC program.

The USDA, which was given the task of overseeing the implementation of the rural EZ/EC program made initial misstatements with respect to the disbursement of EZ/EC funds. At several meetings, USDA Office of Community Development officials stated that funds were to be released as a lump-sum payment. At other meetings, statements were made that pertained to

[7] After President Clinton announced the creation of the program, communities were given five and a half months to submit their program applications.

incremental disbursement of program funds. USDA oversight of the program was plagued lack if systematic reporting by USDA state coordinators and EZ/EC program participants. This reporting inadequacy stemmed from inadequate funding for hiring and training staff that would oversee the wide range of economic and social development projects involved in the EZ/EC program[8].

While explanations for the less-than-desirable HDI performance of the Rio Grande Valley Empowerment Zone have been given, this study has been limited by several factors. One limiting factor is the geographic scope of the study. Federal guidelines for EZ/EC applications use the census tract as the geographic basis for zone designation. The current study has been limited to using counties as the geographic reference of analysis due to the availability of social and economic data.

Another limiting factor is the choice of variables used in measuring the components of the human development index used in this study. The variables used in this study were chosen based on the availability of information at the county-level for the two time periods being investigated.

[8] A majority of the USDA state coordinators, who were involved in the program, were selected from existing staff at USDA state offices. They did not possess the necessary experience and training that would allow them to effectively oversee the EZ or EC programs in their respective states. A subsequent GAO report (1998) noted that most of these deficiencies have been rectified.

TABLE 1: Selected Characteristics of Counties in the Rio Grande Valley Empowerment Zone.										
Variables	County								Texas	
	Cameron		Hidalgo		Starr		Willacy			
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Education										
1	50.0%	55.2%	46.6%	50.5	31.6%	34.7%	42.9%	48.7%	72.1%	75.7%
2	12.0%	13.4%	11.5%	12.9%	6.7%	6.9%	8.8%	7.5%	20.3%	23.2%
3	26.8%	23.3%	27.7%	23.7%	30.7%	25.0%	28.1%	23.0%	19.4%	19.1%
Economic Opportunity										
4	$17,336	$26,155	$16,703	$24,863	$10,182	$16,504	$14,590	$22,114	$27,016	$39,927
5	33.7%	28.2%	36.3%	31.3%	56.5%	47.4%	37.6%	29.2%	14.1%	12.0%
6	12.7%	8.7%	22.4%	13.6%	40.5%	22.5%	16.7%	15.7%	6.3%	4.2%
Access to Housing										
7	88,759	119,654	128,241	192,658	12,209	17,589	6,072	6,727	7,008,999	8,157,575
8	47,172	65,875	72,715	114,580	8,137	11,450	3,813	4,316	3,695,115	4,716,959
9	$38,100	$53,000	$35,600	$52,400	$21,700	$37,800	$25,000	$34,600	$58,900	$82,500
Other										
10	261,728	336,991	387,200	573,920	40,805	53,840	17,699	20,080	17,056,755	20,946,503

SOURCES: Texas State Data Center
Texas Workforce Commission

NOTES: The variables' definitions are as follows:
(1) Percent of persons aged 25 years and older who are high school graduates;
(2) Percent of persons aged 25 years and older who are college graduates;
(3) Percent of total population that are enrolled in elementary and high school;
(4) Median household income (data for 1989 and 1999);
(5) Percent of families living below the poverty level (data for 1989 and 1999);
(6) Average monthly unemployment rate;
(7) Total number of housing units;
(8) Number of owner-occupied housing units;
(9) Median value of owner-occupied housing units; and,
(10) Population.

TABLE 2: Component and Human Development Indexes for Counties in the Rio Grande Valley Empowerment Zone.						
County	**Education Index**					
	1990		**2000**		**Change**	
	Index Value	**Rank**	**Index Value**	**Rank**	**Index Value**	**Rank**
Cameron	0.3947	111	0.4597	153	0.065	-42
Hidalgo	0.3814	128	0.4381	181	0.057	-53
Starr	0.2888	238	0.3275	248	0.039	-10
Willacy	0.3395	180	0.3682	238	0.029	-58
County	**Economic Opportunity Index**					
	1990		**2000**		**Change**	
	Index Value	**Rank**	**Index Value**	**Rank**	**Index Value**	**Rank**
Cameron	0.4345	244	0.4251	244	-0.009	0
Hidalgo	0.3318	250	0.3284	249	-0.003	1
Starr	0.0000	254	0.0423	254	0.042	0
Willacy	0.3523	248	0.2977	250	-0.055	-2
County	**Access to Housing Index**					
	1990		**2000**		**Change**	
	Index Value	**Rank**	**Index Value**	**Rank**	**Index Value**	**Rank**
Cameron	0.1381	62	0.1772	53	0.039	9
Hidalgo	0.1555	47	0.2190	25	0.064	22
Starr	0.0328	240	0.0912	192	0.058	48
Willacy	0.0406	232	0.0780	213	0.037	19
County	**Human Development Index**					
	1990		**2000**		**Change**	
	Index Value	**Rank**	**Index Value**	**Rank**	**Index Value**	**Rank**
Cameron	0.3224	206	0.3540	218	0.032	-12
Hidalgo	0.2896	235	0.3285	235	0.039	0
Starr	0.1072	254	0.1537	254	0.047	0
Willacy	0.2442	249	0.2480	251	0.004	-2

NOTE: The lowest possible rank is 254 due to the fact that there are 254 counties in Texas.

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Appendix

This section provides an exposition of how the human development index, as utilized in this study, was constructed. The creation of this index was based on the original index as developed by the United Nations Development Programme (2001).

The data that was utilized for this study were obtained from the Texas State Data Center (TXSDC) and the Texas Workforce Commission (TXWC). The indexes that were developed for this paper's version of the Human Development Index take on the following general form:

$$\text{Index} = (Xi - \min X) / (\max X - \min X)$$

Where Xi – County I's value for a specific variable;

Min X - the lowest observed value among all counties for the specific variable; and,

Max X - the highest observed value among all Counties for the specific variable.

The county-level variables used to develop the components of the Human Development Index were as follows:

Education Variables (Data Source: TXSDC)

(1) X^{E1} - Percent of persons 25 years of age or older who are high school graduates or higher (1990 and 2000)

X^{E1} Index = $(X^{E1}_i - \min X^{E1}) / (\max X^{E1} - \min X^{E1})$

(2) X^{E2} - Percent of persons 25 years of age or older who are college graduates or higher (1990 and 2000)

X^{E2} Index = $(X^{E2}_i - \min X^{E2}) / (\max X^{E2} - \min X^{E2})$

(3) X^{E3} - Percent of total population that are enrolled in elementary and high school (1990 and 2000)

X^{E3} Index = $(X^{E3}_i - \min X^{E3}) / (\max X^{E3} - \min X^{E3})$

Employment Variables (Data Sources: TXSDC and TXWC)

(1) Y^{E1} – Median Household Income (1989 and 1999) - TXSDC

Y^{E1} Index = $(Y^{E1}_i - \min Y^{E1}) / (\max Y^{E1} - \min Y^{E1})$

(2) Y^{E2} - Percent of families living below the poverty level (1989 and 1999) - TXSDC

Y^{E2} Index = $1 - [(Y^{E2}{}_i - \min Y^{E2}) / (\max Y^{E2} - \min Y^{E2})]$

(3) Y^{E3} – Average Monthly Unemployment Rate (1990 and 2000) - TXWC

Y^{E3} Index = $1 - [(Y^{E3}{}_i - \min Y^{E3}) / (\max Y^{E3} - \min Y^{E3})]$

Housing Variables (Data Source: TXSDC)

(1) Z^{H1} – Total Number of Housing Units (1990 and 2000).

Z^{H1} Index = $(Z^{H1}{}_i - \min Z^{H1}) / (\max Z^{H1} - \min Z^{H1})$

(2) Z^{H2} – Number of Owner-Occupied Housing Units (1990 and 2000).

Z^{H2} Index = $(Z^{H2}{}_i - \min Z^{H2}) / (\max Z^{H2} - \min Z^{H2})$

(3) Z^{H3} – Median Value of Owner-Occupied Housing Units (1990 and 2000).

Z^{H3} Index = $(Z^{H3}{}_i - \min Z^{H3}) / (\max Z^{H3} - \min Z^{H3})$

<u>Indexes</u>

(1) Education Index = $(X^{E1} + X^{E2} + X^{E3}) / 3$

(2) Employment Index = $(Y^{E1} + Y^{E2} + Y^{E3}) / 3$

(3) Housing Index = $(Z^{H1} + Z^{H2} + Z^{H3}) / 3$

(4) Human Development Index =

(Education Index + Employment Index + Housing Index) / 3