DETERMINING THE EFFECTS OF JACKSONVILLE'S ENTERPRISE ZONE

By

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To all who have sacrificed to help me achieve this milestone

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LIST OF ABBREVIATIONS

Adjusted R Square	How well the model would explain the total variation if the model was run on the population rather than the samples.
ETI	Enterprise Florida, Inc.
R	Pearson's Correlation value
R Square	Helps to determine the variation in (Y) given (X)
SIC	Standard Industrial Classification
OPPAGA	The Florida Legislature's Office of Program Policy Analysis and Government Accountability
OTTED	The Governor's Office of Tourism, Trade, and Economic Development

Abstract of Thesis Presented to the Graduate School
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Jacksonville, like many cities across the U.S., has experienced blight in the downtown area. A popular antidote to this problem is the implementation of enterprise zones. In theory, enterprise zones reduce blight through revitalization by offering incentives in the form of tax cuts and reduced regulation. It is thought that incentives like these will encourage businesses to locate in the area. However, recent studies have shown that the majority of enterprise zone programs evaluated produce little or no effect on job growth. My study uses regression analysis to determine if Jacksonville's enterprise zone is generating jobs at a higher rate than the surrounding region. There are limitations in the data however, due to availability and geographical considerations. The results suggest that the enterprise zone is losing jobs, while other areas of the region are gaining jobs. Jacksonville appears to be undermining the enterprise zone in downtown by subsidizing sprawl. It is clear that an alternative strategy is needed to revitalize the urban core.

CHAPTER 1
INTRODUCTION

Many cities across the nation have experienced blight in the urban core. A popular scenario for American cities is the citizen exodus of the traditional downtown in search for new, cheaper homes in the suburbs. When those who can afford to escape downtown leave, blight and crime often take their place. So what can planners, governments, or legislatures do to reverse this trend?

Many states, and the federal government, have embraced economic development as a tool to revitalize blighted areas. One economic development strategy used by governments is the creation of an enterprise zone. Enterprise zones are geographically designated areas that offer tax incentives and reduced regulation to businesses in order to incentivize firms to locate in the enterprise zone. Elvery (2008) explains the theory behind enterprise zones:

> Economic theory suggests that enterprise zones can increase zone resident employment. In zones where subsidies are provided for hiring zone residents, businesses have an incentive to hire zone residents rather than nonresidents because the net cost of compensation for zone residents would be lower than for nonresidents. In addition, the subsidies might be used to increase the wages of existing jobs for zone residents, perhaps causing wages to rise above individuals' reservation wages and moving them into employment. Even if enterprise zones do not have specific incentives for hiring zone residents, one would still expect a rise in zone residents' employment probabilities if the policies led to additional jobs locating in the area. (p45)

In theory, the incentives offered by the zone will create new jobs in the blighted area, thus slowly revitalizing the urban core. (Butler, 1991)

Jacksonville, Florida, my birth place, has experienced a similar scenario as described above. The State Comprehensive Plan designates revitalization of distressed communities as a local responsibility. (Section 187.201 (16), *F.S.*) So how do local

governments know if enterprise zones are effective? My study will examine the effects Jacksonville's Enterprise Zone has had on employment and try to determine if the enterprise zone will effectively revitalize the urban core.

First, my study will review the evolution of the enterprise zone. The review will show that the original concept of enterprise zones, originally proposed in Britain, has been tweaked to fit American goals and objectives. The review will also examine the beginnings of Jacksonville's enterprise zone, revealing that zone officials green lighted the creation of a zone based on less than convincing evidence provided by a pilot project.

Second, my study will review the base of literature on enterprise zones in order to reveal what scholars have learned about the effectiveness of enterprise zones. The review will examine multiple methodologies and determine which methodologies are most effective in measuring impacts on employment and income. The literature review will show that empirical studies conducted on the effects of enterprise zones produce mixed results and very few studies attribute any growth in employment or income to the creation of enterprise zones.

Third, using 2004-2008 county business pattern data by zip code, from the US Census, and Florida Geographical Data Library data used in conjunction with ArcGIS, my study will try to determine if Jacksonville's enterprise zone has created any significant growth in employment. The 2004 -2008 period was chosen because the Florida Enterprise Zone Program was renewed in 2005. Studying this period will allow us to see how Jacksonville has developed since the renewal of the program. Furthermore, data for evaluating enterprise zones is hard to come by and the data used

for my study must come from the same time period. 2004-2008 is the most recent period that all the data needed was available. My study will use this data to run two regression models to determine if Jacksonville's enterprise zone is creating jobs at a significantly higher rate than the surrounding region.

Finally, my study will examine the findings of my statistical tests and try to determine if Jacksonville's enterprise zone is creating new jobs at a significantly higher rate than non-zone areas. The findings will be followed by a discussion on what my study reveals.

Jacksonville: A profile. Jacksonville, Florida is a port city located at the mouth of the St. Johns River in north Florida. It is the largest city in land area in the United States. This is due to the consolidation of the city and county governments and the extension of the city limits to cover nearly the whole county. Jacksonville has become an important city in the region due to its location at the mouth of the St. Johns River. One obvious sign of Jacksonville's importance to the region is the Greater Jacksonville Metropolitan Area's population of 1,313,228.

The city of Jacksonville has a population of 802,843 with 426,592, about 69%, in the labor force. 7.5% of the civilian labor force is unemployed. The industries that support the most employees are the retail trade, finance, insurance, real estate, education, healthcare, and professional and administrative. The 2009 median household income for Jacksonville was $48,514, which is below the median household income for the US ($51,425). Jacksonville also has a large African American population, about 30% of the total population. Hispanics make up a smaller portion of

the population, around 6%. (US Census Bureau, 2005-2009 American Community Survey)

Jacksonville's strategic location at the mouth of the river has allowed the city to grow both in size and in economic terms. The first two big industries to take advantage of Jacksonville's location on the river were shipping and timber. The vast pine forests of northern Florida had been relatively untouched in terms of logging. These forests would provide a booming business for Jacksonville. By 1900, Florida was producing 30 percent of the nation's timber production. Ten years later Florida was producing up to 50 percent. Abundant rainfall and easy access to shipping lanes allowed the industry to flourish. Jacksonville's proximity to the Atlantic Ocean meant that timber and cotton could be transported to multiple markets throughout the country. Although timber production has dropped off, shipping continues to be a very important aspect of Jacksonville's economy. (Miller, 1998)

The St. Johns River has also given the military an ideal harbor in which to conduct its military operations. Along with Mayport Naval Station, Jacksonville is home to Naval Air Station Jacksonville, Blount Island Command, and The Florida Air National Guard. Camp Blanding and Naval Submarine Base Kings Bay are also nearby. With so many military installations around, a citizen-soldier culture has developed. The military has become a sense of pride for many of Jacksonville's citizens. Recently Cecil Field, an air base for the Air Force, has closed down and Jacksonville's submarine fleet has dispersed to other births. If this keeps happening the city of Jacksonville could pay a heavy price.

Jacksonville has experienced a “hollowing-out” of the city center. Abandoned houses are a common site and the houses that are not abandoned are in disrepair. As a child I remember my parents rolling up the windows and locking the doors whenever we drove through the downtown area because they were afraid. Crime has steadily been well above the national average in the past decade. This fact has been a contributing factor for the exodus of the downtown area.

The United States, including Jacksonville, experienced a boom after the end of the Second World War. Suburbs sprang up along the country side to house all the soldiers and sailors coming back home from the war. The development of these suburbs added to the alleged “white flight” from the city and caused the massive urban sprawl that is familiar to Jacksonville today.

“White flight” refers to the mass exodus of white families from traditional downtowns to commuter towns. This trend of fleeing citizens eroded the city’s tax base. With a depleting revenue source the city could not afford to keep up with funding education, sanitation, and traffic control. Also, the people who fled to the suburbs didn’t have any municipal services. These factors contributed to the consolidation of Jacksonville and its surrounding suburbs. This was an attempt by the city to get back the revenue from the tax payers it had lost. The 1964 public school fiasco only made things worse for the city. All fifteen public high schools lost their accreditation at the same time. This event would prove to be the straw that broke the camel’s back. It was clear that reform was needed in order to improve the city. In 1968 the county and city governments were consolidated in order to bring the badly needed reform.

CHAPTER 2
LITERATURE REVIEW

Evolution

The term enterprise zone first appeared in 1978 in a speech about urban blight by Sir Geoffrey Howe, a politician in the British House of Commons. At a time when the creation of government programs were the default solution for solving social problems, his proposal of creating an enterprise zone was viewed as radical. This is because Sir Geoffrey Howe envisioned enterprise zones as being nearly completely devoid of government regulation in the most dilapidated areas of Britain's cities. He hoped that unhindered private enterprise would prevail where government programs had failed. Therefore, he proposed designating specific geographic locations as virtually tax and regulation free havens for free enterprise to flourish. (Green, 1991)

Instead of hindering business with regulation, Howe wanted to instead create conditions that would allow private enterprise to prosper. In essence, Howe was counting on the entrepreneurs' ever present pursuit of profit to return Britain's blighted areas back to their former glory.

Howe modeled his enterprise zone concept after the free trade zones of the world, such as Hong Kong. He observed extremely rapid economic growth in these areas and attributed it to low taxes, low regulation, and few land use restrictions. Bendick and Rassmussen (1986) accredited the rapid growth among newly-industrialized third-world nations with "An absence of government regulations, a very low level of taxation, and a high level of individual work effort and entrepreneurial initiative" (p6). These two views of Hong Kong are slightly different but the main idea is the same; uninhibited free trade brings rapid economic growth.

It is important to note that Howe's enterprise zones where conceived in order to bring economic activity to virtually abandoned areas that were devoid of any significant population. This is different from the American view of enterprise zones, which viewed the new strategy as a way to revive specific small communities. Butler equates the British vision with inner-city industrial parks. These "industrial parks" would be a catalyst for further economic development in the metropolitan area, which may or may not lead to an influx of migrant citizens. The British vision was never intended to reinvigorate slums. (Papke, 1991)

The British enterprise zones waved property taxes for commercial and industrial buildings (not residential buildings), implemented a one-year tax write-off for building and machinery expenses, and exempted customs duties on imported materials used for the manufacturing of exports. This tactic was really only useful to large companies with deep pockets and large tax dues. Thus, the small business owner did not directly benefit from the British enterprise zone legislation, which was never the primary objective in the first place.

American Zones

The American objective of using enterprise zones to revitalize blighted urban neighborhoods is based on the idea that poor neighborhoods and poor people can revitalize themselves if given help. Proponents of enterprise zones believe there are vast, untapped human and capital resources in poor communities. However, "that potential is smothered in red tape, excessive taxation, and a culture of welfare dependency" (Green, 1991, p32). There is some disagreement among supporters of enterprise zones however. Some believe that incentives alone will not awaken the supposed sleeping giant of human capitol in poor neighborhoods. These critics think

that in order to trigger growth, more focus on neighborhood improvement is needed in conjunction with financial incentives. Other critics believe that tax cuts and reduced regulation should not be the means to revitalize blighted areas; rather governments should focus on providing services and infrastructure. (Fisher & Peters, 2000)

The Influence of Community Institutions

Rather than emphasizing physical redevelopment, as was the case in the 1950s and 60s, American proponents of enterprise zones stressed the importance of preserving and strengthening the community institutions that already exist. Jane Jacobs, a vocal supporter of community institutions, saw a problem with conventional urban development. While most planners emphasized separation of uses, larger scale planned development, and large streets and blocks, Jacobs maintained that the complex social relationships of a community were at the heart of successful urban development. She realized that the large scale developments ignored the sense of place, thus removing people from their established context and historical identity. Jacobs' main ideas were:

- 1) The facilitation of mixed use buildings and preservation of old buildings
- 2) Dense populations
- 3) Small block sizes
- 4) Decentralized ownership

Jacobs' work heavily influenced the way Americans viewed enterprise zones. The idea of place became important. Enterprise zones were seen as an anti-poverty tool that addressed the context of the people living in distressed neighborhoods. (Jacobs, 1961)

Focusing on Small Business

There are two main reasons why proponents of enterprise zones support the promotion of small business. Enterprise zone advocates argue that small firms are the biggest generator of new jobs, and targeting small firms will help with the promotion of local economic activity.

Around the time enterprise zones first appeared, David Birch (1979) of MIT conducted a study of the job generation process. He was interested in finding how firm behavior causes change and what policies to implement based on the information found. He conducted a survey of 5.6 million U.S. firms using data from a credit rating company. He confirms that small enterprises (less than 20 employees) are the biggest net generators of new jobs, while very large firms have a tendency to be a net destroyer of jobs. According to Birch, the rate of job loss is about 8% across the nation, both in growing and declining areas. Therefore, the defining characteristic between growth areas and declining areas are the creation of new firms. (Birch, 1979)

Another reason why American enterprise zones focus on small business is that small firms make a better fit in the local economy. Butler points out that large start up firms tend to need new facilities, unlike small firms that can move into existing structures. Furthermore, small firms are more likely to hire local, unskilled labor than larger firms. Since the local, unskilled labor population is the primary focus of neighborhood improvement, in makes sense to encourage the growth of businesses that hire the distressed population. (Green, 1991)

Comparison of British and American Concepts

The British concept of enterprise zones differs slightly from the American concept. Bipartisan legislation and the influence of community activists have modified the original concept of enterprise zones. Table 2-1 illustrates these differences. If the original concept of enterprise zones has changed, does this mean that the effects of the enterprise zone will change as well? To determine if these changes have affected enterprise zone performance in the United States we must look at how the program is administered, implemented, and how it performs.

Background

In 1982, Florida established one of the country's first enterprise zone programs. The Florida Legislature revised the existing Enterprise Zone Program in 1994 with the adoption of the Florida Enterprise Zone Act. The act repealed existing zones and mandated new parameters for zone designation based on the federal government's Empowerment Zone/Enterprise Community programs. (Florida Enterprise Zone Program Annual Report, 2010)

In 1995, local governments competed for zone designation and nineteen new enterprise zones were formed. Shortly after, in 1996, the program received another shake up. "Program administration responsibilities were transferred to the OTTED following the dissolution of the Department of Commerce in 1996" (Use of Enterprise Zone Incentives Has Increased, but Challenges Continue, 2000, p5). Since that time the number of enterprise zones in Florida has risen to a total of 56. (Florida Enterprise Zone Program Annual Report, 2010)

The program was set to expire in 2005, but the Florida Legislature extended the program for another ten years. During this time, the local zones could amend their

boundaries and be re-designated to be in effect until December 31, 2015. (Florida Enterprise Zone Program Annual Report, 2010)

Jacksonville's Enterprise Zone Pilot Project

The City of Jacksonville started the Enterprise Zone Pilot Project in 1999 in a distressed inner city neighborhood. The pilot project area was designated in the Gateway Shopping Center, an inner city mall that has seen many of its tenants vacate in search for greener pastures. Only one business qualified and took advantage of the pilot projects incentives. Other chain-based businesses located in the pilot project area but did not qualify for the incentives. However, these businesses were able to take advantage of state Enterprise Zone incentives. The pilot project has had a limited effect but the area has had some success with revitalization. (Enterprise Zone Pilot Project Incentives Not Widely Used, But Progress Made in Revitalization Project Area, 2003)

The Florida State Legislature decided to designate one test area, or pilot project, in an existing enterprise zone. The Governor's Office of Tourism, Trade and Economic Development (OTTED) was given authority over the project and intended to provide employment for the local area citizens. The OTTED selected the pilot project area based on the following set of criteria:

- The area must be contained within an enterprise zone that is composed of one contiguous area in a community with a population of 150,000 or more persons.
- The local government must grant economic development ad valorem tax exemptions and electrical energy public service tax exemptions in the enterprise zone. [Ad valorem definition: "A tax based on the assessed value of real estate or personal property. In other words ad valorem taxes can be property tax or even duty on imported items. Property ad valorem taxes are the major source of revenues for state and municipal governments" (www.dictionary.com, 2010).]
- The local government must develop a plan and commit at least $5million for revitalizing the pilot project area or an area that includes the pilot project area.

- The pilot project area must be contiguous and no more than 70 acres so that state assistance can be effectively concentrated on revitalizing the acute area of economic distress.

- The pilot project area must contain a diverse group of facilities or space for a mix of retail, restaurant, or service related businesses necessary to an overall revitalization of surrounding neighborhoods.

Source: Office of Program Policy Analysis and Government Accountability, Report No. 03-64

The following eligibility requirements were specified for businesses to access the pilot project's tax credits. The businesses must:

- Enter into a contract governing the lease of commercial space in a facility located within the pilot project area;

- Begin operations in a facility located in the enterprise zone between July 1, 1999, and July 1, 2000; and

- Be engaged in activities classified under three Standard Industrial Classification (SIC) codes 5311 (department stores), 5399 (general merchandise stores), and 7832 (movie theaters).

Source: Office of Program Policy Analysis and Government Accountability, Report No. 03-64

Under Florida State Law, no more than four businesses could be eligible for the incentives offered under the pilot project. The limit to the amount of tax credits to be awarded was $1 million annually. Eligible businesses would receive $5,000 in tax credit for every full-time worker and $2,500 in tax credit for every part-time worker. These credits could be applied against corporate income or sales and use tax in a taxable year. (Enterprise Zone Pilot Project Incentives Not Widely Used, But Progress Made in Revitalization Project Area, 2003)

Along with the pilot project incentives, businesses could also receive tax incentives from the state's Enterprise Zone Program. Florida's Enterprise Zone Program offers

sales tax incentives, corporate tax incentives, sales tax exemptions for businesses that produce motion pictures (for theaters or television), television series, commercial advertising, music videos or sound recordings, tax credits for contributions to nonprofit scholarship funding organizations, and renewable energy tax incentives. (Florida Department of Revenue, 2010)

Jacksonville's Gateway Shopping Center

Out of five potential applicants (Jacksonville, Miami, Tampa, Orlando, and St. Petersburg) the City of Jacksonville was the only city to apply for the pilot project. The City of Jacksonville proposed that the Gateway Shopping Center be designated as the pilot project area. This inner city commerce center was an ideal candidate because in a ten year span from 1989 to 1999 the shopping center lost most of its major tenants to suburban malls. The Gateway Shopping Center went from an occupancy rate of 95% (employing 1,500) in 1989 to an occupancy rate of just 29% (employing fewer than 300) in 1997. The Gateway Shopping Center was designated as the pilot project area in 1999. (Enterprise Zone Pilot Project Incentives Not Widely Used, But Progress Made in Revitalization Project Area, 2003, p3)

Pilot Project Findings

According to the Office of Program Policy Analysis and Government Accountability, only one applicant out of a total of three was approved by OTTED to receive program incentives. The two businesses that did not receive designation did not qualify because the OTTED had determined the businesses could not be classified under the specified Standard Industrial Classification (SIC) code. The business that did qualify for program incentives received $40,000 in tax credit in the year 2000 to be applied towards corporate income tax. There is some evidence that the incentives did

not have the desired effect. A fact that lends credence to this notion is, according to the report, “The business has not applied to receive tax credits under the pilot program in subsequent years” (Enterprise Zone Pilot Project Incentives Not Widely Used, But Progress Made in Revitalization Project Area, 2003, p3).

Results of the Pilot Project

The Office of Program Policy Analysis and Government Accountability reported in 2003 that some revitalization progress has been made in the pilot project area, though only one business received any form of tax credit from the pilot project. By then, the shopping center’s occupancy rate had risen to 92% employing nearly 1,200 people. Clearly, the tax incentives offered to one business was not the factor that influenced this rise in employment. (Enterprise Zone Pilot Project Incentives Not Widely Used, But Progress Made in Revitalization Project Area, 2003)

It is unclear whether the revival of the Gateway Shopping Center can be attributed to the pilot project’s incentives. The only business that took advantage of the incentives of the pilot project did not reapply in following years. It seems that if the incentives were effective, the business would have jumped at the chance to receive more credits. It does not seem logical to reason that the Gateway Shopping Center’s occupancy rate increased from 29% in 1997 to 92% in 2003 because of the tax incentives received by one business in one year. Clearly, other factors contributed to the increase in occupancy rate. The possibility of receiving tax credits may have factored into the businesses’ decision to locate in the shopping center, though the participation rate in the program points to the contrary. “A number of commentators argue that development incentives are ineffective in attracting new businesses because of the limited weight businesses give to such incentives in location and investment decisions”

(Rubin & Wilder, 1989, p 419). The Department of Revenue does not give out information about the specific stores that receive tax credit, so it is impossible to know if the incentives were a major factor in the business's decision to locate in the Gateway Shopping Center. There is not enough evidence to conclude the magnitude of the effect of the Enterprise Zone Pilot Project. This is a common occurrence when evaluating the effectiveness of enterprise zones. "Even where state enterprise zone organizations or state offices have kept records on job development, this information lacks the level of detail necessary to identify the component of job generation that is due wholly to factors within the zone" (Rubin & Wilder, 1989, p 419). It is very likely that the growth in the area was due to factors other than enterprise zone incentives.

It appears that Jacksonville implemented its enterprise zone based on an unsuccessful trial. The revitalization of the area cannot be attributed to the incentives offered by the zone, so why continue with the program when the economy appeared to fix itself? This suggests that part of the problem with enterprise zones are the government agencies charged with administering them.

Government Agencies

It is important to consider who is administering a program that you are evaluating. The performance of a given program may be a reflection of the program administrators. The Governor's Office of Tourism, Trade, and Economic Development (OTTED) is responsible for overseeing Florida's 56 enterprise zones.

OTTED has many responsibilities inherent to administering the Florida Enterprise Program, including: (Florida's Enterprise Zone Program Is Similar to Those of Other States, 2004)

- Approving enterprise zone designation applications
- Approving enterprise zone boundary changes at the behest of the Florida State Legislature
- Conducting annual reports on the program to be submitted to the Governor and the Legislature
- Providing technical assistance to local program administrators
- Assisting businesses in utilizing the program's benefits and incentives
- Monitoring local enterprise zones through periodic site visits.

OTTED also works closely with the Florida Department of Revenue and Enterprise Florida, Inc. (EFI). It is the responsibility of the Florida Department of Revenue to approve the program's tax incentives for qualified businesses in the enterprise zones. EFI is a public-private partnership created in 1992 by the Florida Legislature. The partnership's focus at inception was increasing the number of high technology jobs in Florida by promoting small- and mid-size businesses within the state. It received further responsibilities in 1996 when the Legislature abolished the Department of Commerce and assigned the former agency's responsibilities of administering the state's economic development and international trade programs (Concerns Over Enterprise Florida's Performance, Services to Distressed Areas Point to a Need to Consider Several Alternatives for Its Future Role, 2001). EFI also handles the marketing for the Enterprise Zone Program by marketing to businesses seeking designation within an enterprise zone. (About Enterprise Zones, 2010)

Overseeing OTTED, EFI, and the Department of Revenue is The Florida Legislature's Office of Program Policy Analysis and Government Accountability (OPPAGA). "OPPAGA's mission is to support the Florida Legislature by providing evaluative research and objective analyses to promote government accountability and

the efficient and effective use of public resources" (About OPPAGA, 2010). OPPAGA has conducted several program reviews of government agencies. It has submitted 56 such reports, dating back to 1994, on the Executive Office of the Governor, including Enterprise Florida programs and OTTED. (Concerns Over Enterprise Florida's Performance, Services to Distressed Areas Point to a Need to Consider Several Alternatives for Its Future Role, 2001)

The multiple program reviews conducted by OPPAGA revealed some short comings in the Florida Enterprise Zone Program. In March 2000, OPPAGA reported that the use of incentives offered by Enterprise Zones had increased since the revision of the program in 1994. However, the "former Department of Commerce and the Governor's Office of Tourism, Trade, and Economic development did not prepare the research design required by state law" (Use of Enterprise Zone Incentives Has Increased, but Challenges Continue, 2000, p1). Thus, OPPAGA was unable to assess any changes in socio-economic conditions.

In December 20001 OPPAGA reported that EFI had met established performance standards, but "There is no strong, direct link between EFI's economic development activities and its contribution to the creation of and retention of jobs in Florida" (OPPAGA,2001, p1). The report also notes that EFI is not providing certain types of services needed by rural economic development organizations.

Spending

The 2010 Florida Enterprise Zone Program Annual Report shows that from 2004 through 2009 the program added a state wide total of 54,000 new jobs at a cost of $229,045,943. That is about $4,241.59 per job. The total cost is the sum of local

incentives ($70,122,628) and state incentives ($158,923,315) offered. This does not take into account the man hours it takes to staff the multiple agencies that deal with enterprise zones, so the total cost of running the state wide program is probably much higher. Furthermore, Florida's Enterprise Zone Program was established in 1982, so the total amount that state and local governments have spent on the program must be huge. The report shows that Jacksonville provided $5,350,000 in tax incentives between October 1, 2008 and September 30, 2009. The money used to provide tax incentives is money that the local government could have used elsewhere and in other ways. So by implementing and sustaining an enterprise zone, the local government has forgone other options for economic development. With this in mind, it becomes important to make sure that the programs funded by tax payer dollars are worth the money. So is Jacksonville's enterprise zone effective in significantly increasing jobs in the area?

The original enterprise zone concept was molded by politics and activism into the form states use today. Will this modified concept produce the same effects as originally envisioned by the original architects of enterprise zones? The findings of the Jacksonville Enterprise Zone Pilot Project and the reports issued by OPPAGA, both unable to attribute any socio-economic changes to enterprise zone incentives, suggest that further inquiry is needed to answer the question, "Is Jacksonville's enterprise zone producing significant increases in area employment?" Furthermore, with the amount of money spent on enterprise zones, both locally and statewide, the question becomes even more important.

Table 2-1. Comparison of British and American Concepts

British Tactics (original concept)	American Tactics (modified concept)
Deep tax incentives- intended to spur major physical development.	Provisions aimed at modest improvements of existing commercial structures.
Aimed at bringing business to virtually abandoned areas of the city.	Aimed at generating economic activity in poor neighborhoods.
Intended to generate general economic growth.	Intended to reinvigorate slums in specific geographic locations.
Helping poor communities is a perceived byproduct of program, not primary objective.	Primary objective is to revitalize poor communities.
No provisions for existing houses.	Incentives for improving existing housing.
Tax incentives to employ machines rather than people.	Tax incentives to encourage the hiring of low-skilled or disadvantaged labor.
No evidence of focus on community institutions.	Community institutions are crucial to economic development.
Target large businesses.	Small businesses should be favored over large ones.

Source: Butler, S. (1991). *Enterprise Zones: New Directions in Economic Development.* Newbury Park: Sage.

CHAPTER 3
METHODOLOGY MATTERS

Since states started implementing enterprise zones in the early 1980s, a number of empirical studies have been conducted to determine the effects of enterprise zones on local development. A January 2005 Minnesota House of Representatives Research Department Policy Brief revealed, “Most social scientists uncover little net benefit to enterprise zones. However, studies and their results vary widely, delivering mixed conclusions” (Enterprise Zones: A review of the Economic Theory and Empirical Evidence, 2005, p2)

Many types of methodologies are used to determine the effects of enterprise zones. Not surprisingly, these various methodologies deliver various results. Some methodologies are better than others at dealing with the two main problems of measuring the effect of enterprise zones. Rubin and Wilder examined multiple empirical studies and found,

> The modest amount of empirical research is due to two basic constraints: (1) the lack of reliable quantitative data to evaluate zone performance, and (2) the difficulty of isolating the effects of zone designation and incentives from those of other economic development factors and initiatives. (Rubin and Wilder, 1996, p2)

Other than obtaining enough reliable data, the main problem is that researchers have difficulty accurately measuring the benefits delivered by an enterprise zone. It is difficult to measure these benefits because there is no way to know what would have happened but for the zone designation. In other words, it is difficult to isolate the effects of the zone – i.e., employment growth and income growth – from effects caused by demographics, local characteristics, economic factors, and so forth. The 2005 Policy Brief admits, “Although economists continue to develop improved statistical methods,

they still cannot completely separate the effects of a zone from growth in the community itself" (Enterprise Zones: A review of the Economic Theory and Empirical Evidence, 2005, p9).

One of the earliest and most publicized evaluations of enterprise zones was completed in 1989. Rubin and Armstrong (1989) studied New Jersey's zone program and concluded the program had created 9,193 jobs between 1985 and 1988. Later, a study by Boarnet and Bogart (1996) examined the same program for the same time period. The later study revealed no job growth in seven of the zones. How could two studies examining the same program during the same time frame come up with such different conclusions? The difference in conclusions is due to variations in methodology. (Boarnet, 2001)

The first study examined New Jersey's program based on survey methodology. A survey was given to businesses located in the zone in 1988 and asked them to assess the influence of zone incentives on their businesses location decisions. One obvious problem with this methodology is that there is no control group. Since the survey was only given to businesses in the zone, the results cannot be compared to non zone employment rates. Thus, it is difficult to gauge what might have happened had the zone not been there. (Boarnet, 2001)

The second study, Boarnet and Bogart (1996), did use a control group in a regression analysis. Since the second study controlled for the overall health of the regional economy, we can be more confident that the conclusions are accurately representative. (Boarnet, 2001)

Survey studies have many limitations, reducing the confidence that the results are accurately representative. Surveys must rely on data provided by businesses in enterprise zones and thus may contain bias. Also, surveys cannot account for outside factors such as local and "regional economic conditions or other factors" (Enterprise Zones: A review of the Economic Theory and Empirical Evidence, 2005, p10). Surveys also cannot determine whether a business would have located in the area had an enterprise zone not been there. Because of these limitations, my study will focus on more sophisticated analysis.

Shift-Share Analysis

Rubin and Wilder (1989) studied the Evansville, Indiana, Enterprise Zone impacts on employment using shift-share analysis. They concluded that "Evansville has been a relatively cost-effective job –generation tool" (Rubin and Wilder, 1989, p418). The study used data collected from surveys on firm characteristics, job development, foregone tax revenues, and employment levels before zone designation in 1983, until the end of the study in 1986. The shift-share analysis revealed a statistically significant difference between the employment growth of the zone and the metropolitan area. Rubin and Wilder also conducted an analysis to determine the cost-per-job and found that the average annual cost-per-job was $1,372. According to Rubin and Wilder, this cost-per-job, "compares exceedingly well" (Rubin and Wilder, 1989, p423) to other efforts made by local governments to stimulate economic activity.

Shift-share analysis is better than survey method in that it controls for some effects. However, shift-share analysis has short comings as well. Shift-share analysis breaks down economic growth into three components: National share, industry mix, and

regional shift. The analysis will show how much each component contributes to local economic growth. Shift-share analysis attempts to isolate job growth due to enterprise zone designation, but its main problem is that it assumes that job growth in an enterprise zone is proportional to job growth in the region. Rubin and Wilder state that, "The implication is that a sector in the zone's economy grew because it was a part of the larger region and *shared* its growth" (Rubin and Wilder, 1989, p421). This assumption is a serious limitation because conditions in the enterprise zone may be different from overall conditions in the region. The growth inside the zone maybe related to growth in the region, but not in the neat, proportional way that shift-share analysis assumes. (Enterprise Zones: A review of the Econooic Theory and Empirical Evidence, 2005)

Regression Analysis

A more sophisticated method of analysis of enterprise zone benefits is regression analysis. A regression model can show how much of the growth occurring in enterprise zones is attributable to incentives offered by the zone and how much of the growth is attributable to other factors – i.e. demographics, local characteristics, economic factors and so forth.

Dabney (1991) studied how enterprise zone incentives affect business location decisions and found "Enterprise zones generally do not fare well in classical and nontraditional location factors causing enterprise zone incentives to be unable to offset the deficiencies of major location factors in zones" (Dabney, 1991, p2). The study examined enterprise zones in Maryland, Ohio, Illinois, Kentucky, Connecticut, Pennsylvania, Missouri, and Kansas. Dabney used annually updated data on

observations of the percentage rates of change in the number of establishments in the eight case study zones. The study used observations from two separate time periods; 1980 to 1982 (before zone designation) and 1982 to 1984 (after zone designation). Dabney tested whether zone designation affected the rates of change in number of establishments using an analysis-of-variance statistical technique. The data showed, "Location within an enterprise zone versus the rest of the city was not revealed to be influential in determining rates of change in the number of businesses" (Dabney, 1991). Dabney concluded that the benefits of the tax incentives offered by enterprise zones are often outweighed by the higher economic costs of locating in the area; costs associated with insurance, transportation, and the access to raw material. (Dabney, 1991)

The Minnesota House of Representatives Research Departments policy brief on enterprise zones reviewed several studies that used regression analysis. The results are mixed; while some studies show a temporary gain in jobs and income, 5 studies found no increase in jobs.

Upon reviewing Papke's (1991) study on Indiana's enterprise zone program, the policy brief noted that the study found a reduction in unemployment claims. Papke used regression models to predict the effects of zone designation on labor markets. To do this, Papke used data on unemployment claims, machine and equipment capitol, and inventories from 1980 to 1988. The regression revealed that zone designation produced a 9.8% decline in machinery and equipment, and an 8.3% increase in inventories. Designation also produced a 25% decrease in unemployment claims at the nearby claims office.

Moore (2003) used regression analysis to evaluate the effects enterprise zones have on the number of firms. The study examined several zones within the state of California from 1987 to 1991. Moore used County Business Pattern data from the US Census Bureau to conduct a Two-Way Fixed Effects Model. The data includes Standard Industrial Classification codes, number of establishments, number of employees, and annual payroll. A review of Moore's study on California's enterprise zone program revealed an increase in jobs in some employment classes and job losses in others. The sectors that showed growth were retail, real-estate, finance, and insurance. Moore notes that while enterprise zones did create some firms and thus some new jobs, the research has limitations that can create doubt as to whether enterprise zones improve socio-economic conditions. The limitations include controlling for the migration effect (most people do not live in the zone but commute to work), geographic mismatches (Enterprise Zones do not geographically correspond to data tracts like zip codes, census tracts, etc.), and lack of a cost-benefit analysis. (Moore, 2003)

A review of O'keefe's (2004) study on California enterprise zones reveals a temporary increase in employment, but no positive effect upon earnings. The study tested the impact California's Enterprise Zone Program had on employment both at the establishment level and census tract level from 1992 to 1999. O'keefe used a propensity score matching model to compare enterprise zone census tracts to non-enterprise zone census tracts. The study used annual establishment level employment data to conduct the model. The results show that while enterprise zones increase employment by about 3% a year, the increase is not permanent. (O'Keefe, 2004)

Review of Beck's (2001) study showed that employment within enterprise zones grew at a faster rate than the surrounding county. Beck used Census data on job growth and establishment growth to conduct a regression that examined 51 enterprise zones across the nation. In the study, Beck tested three types of causal variables. The first type included the number of different tax, financial, infrastructural, and quality of life improvements offered by each zone. The second type of causal variable measured the effort put into a zone, while the third type is spatial factors. He notes that the only significant predictors in the regression model were quality of life factors, which could either be offered in the zone or offered outside the zone. This study adds credence to Dabney's study of business location factors because it shows that the predictors to growth are things that are not exclusive to the enterprise zone itself. Hence, the evidence suggests that it is not the zone incentives that are influencing business location decisions, but rather the amenities offered by quality of life improvements. (Beck, 2001)

One of Greenbaum and Engberg's studies showed no net change in establishment births, while another study of many state enterprise zone programs showed no increase in per capita employment. Engberg co-authored a study with Bondonio (Bondonio & Engberg, 2000) covering five state enterprise zone programs and found no changes in employment, income, or poverty rates.

Boarnet and Bogart's study of New Jersey's enterprise zones had similar results, showing no impact on employment. The study used municipal level data to conduct an econometric analysis on enterprise zones from 1982 to 1990. The data includes employment information gathered from New Jersey's Labor Department. The

regression revealed that the enterprise zone program had no effect on municipal level employment. (Boarnet & Bogart, 1996)

A review of Peters and Fisher's (Fisher & Peters, 2000) study of enterprise zones across the country revealed no increase in employment. "What causes the difference in results is uncertain. It might be partly related to the statistical method, the data used for analysis, the particular program, or the economy within the surrounding zone" (Enterprise Zones: A review of the Economic Theory and Empirical Evidence, 2005, p11).

Other Studies

Peters and Fisher (2004) take a position along the same line as Dabney. Based on a metareview of a massive body of literature, they maintain that governments' ability to micromanage economic development is limited; governments should instead focus on providing quality of life improvements and let the economy regulate itself. Peters and Fisher see traditional incentive-based economic development as a waste of government and tax payer money. "Thus the best case is that incentives work about 10% of the time, and are simply a waste of money the other 90%" (Peters and Fisher, 2004, p32).

Some social scientists go so far as to ask the question, "Why are state policy makers still proponents of enterprise zones?" (Greenbaum and Landers, 2009, p1) Greenbaum and Landers' (2009) review of the research on enterprise zones reveals that while the number of programs, the number of zones designated, and the land area of the zones themselves have steadily increased, "There is little evidence that they [enterprise zones] have succeeded" (p466). According to the authors, the body of

research conducted on enterprise zones is enough to merit no confidence in the program.

Elvery (2008) used employment probability models along with neighborhood-level propensity score matching to evaluate the enterprise zone programs of Florida and California. Elvery used a three-stage estimation strategy for the study. The first stage used employment probability models to determine the correlation between employment and neighborhood characteristics. These characteristics include race, education, marital status, age, immigration status, and number of children. The next stage, "estimates the propensity for an area to be designated an enterprise zone" (Elvery, 2008). The third stage matches the propensity scores to estimate the effect of enterprise zone policies on resident employment. He found,

> In California, the estimated effect on the raw employment rate of all men ranges is -1.69 percentage points, and the estimated effect on the neighborhood component of employment probability is -2.55 percentage points. In Florida, the estimated effect on the employment rate of all men is -3.47 percentage points, whereas the effect on the neighborhood component of employment probability is -1.87 percentage points. (p56)

These findings suggest to the author that enterprise zones reduce the likelihood that a man living in an enterprise zone is employed.

Business Location Factors

The concept of enterprise zones is based on the premise that tax incentives offered by the zone will influence the business location decisions of new firms to the extent that they decide to locate within the zone. But what are the factors that businesses consider when deciding where to locate? Is the tax structure of a location really the deciding factor when determining where a firm is to be located?

It is difficult to measure what factors influence business location decisions for two reasons. Data is not readily available and it is difficult to measure the interaction between location characteristics like land prices, tax structure, labor force, and the presence of unions. Bartik (1985) studied the location decisions of a new firm using a conditional logit model and found some evidence that contradicts traditional location theory literature. Conventional wisdom on the subject maintains that state taxes do not influence business location decisions. However, Bartik found that state taxes did play a role in determining the firm's location decision, although the effect was modest. Bartik's study showed that a 10% increase in state corporate tax caused a 3% decline in new firms. Similarly, a 10% increase in the state's average business property tax rate resulted in a 2% decline in new firms. Other factors that had significant effects on location decisions were the provision of infrastructure, wages, existing activity, and the presence of unions. Factors that had no significant effect were education, construction costs, population density, and energy prices. (Bartik, 1985)

Interestingly, as stated earlier, Dabney also promotes infrastructure improvements as a way to attract new firms. From this evidence, it seems that a better strategy for enterprise zones would be to provide increased public investment in quality of life factors instead of providing tax incentives. Many economists doubt the significant effect tax incentives have on location decisions. Even Bartik admitted that his study showed little effect. However, there does seem to be a consensus that infrastructure improvements will increase the birth of new firms.

Methodology matters when assessing the impact of enterprise zones. Some studies are more sophisticated than others and they sometimes contradict each other. Even though the more sophisticated studies attempt to control for external factors, they still cannot prove what would have happened had the zone not been there. But we can be sure that the more sophisticated studies, those using regression analyses, are better at measuring changes in socio-economic conditions.

The more sophisticated studies have been able to attribute very little growth to enterprise zone incentives. The majority of the literature suggests that enterprise zones have no permanent effect on socio-economic conditions in the zones. Furthermore, a common theme among researchers is that public investment in infrastructure is a significant factor in business location decisions, while the findings of effects of tax incentives on location decisions appear to be mixed. Yet, every enterprise zone is different. Zones vary in size, economic and demographic conditions, location, incentives, and many other factors. While the literature is convincing in dispelling the illusion that enterprise zones will be the cure all for local governments, further study is needed to determine if Jacksonville's enterprise zone in particular is creating jobs.

CHAPTER 4
METHODOLOGY

Hypothesis

My hypothesis is Jacksonville's Enterprise Zone is not creating more jobs than the surrounding area. Jacksonville's Enterprise Zone Program began in 1999. Since that time, the Florida Legislature renewed Florida's Enterprise Zone Program in 2005 to run until 2015. It is now 2011 and there are very few visible signs that downtown Jacksonville is better off from having an enterprise zone. However, that does not mean that progress has not been made. In order to measure the success of the enterprise zone, I will use ArcGIS mapping software to map the growth of businesses. This should demonstrate where new firms are locating; if enterprise zone incentives really work, we should see the majority of establishment births happen in the enterprise zone. Furthermore, I will compare the average annual growth rate of employees from the enterprise zone with the rest of the region. Again, if Jacksonville's enterprise zone is working then it should have a higher average annual employee growth rate than the rest of the region. Furthermore, I will conduct two regression models to predict what factors are influencing the average annual employee growth rate.

Data

The data used in my study primarily comes from the US Census. Using 2004 through 2008 County Business Pattern by Zip Code data from the annual economic survey, I compiled figures for number of establishments, number of employees, and annual payroll totals for all Standard Industrial Classification codes for fifty zip codes in the Jacksonville Metropolitan Statistical Area. The totals do not include figures for government or rail establishments. I used this data to calculate growth in

establishments, employees, and annual payroll for the four year period between 2004 and 2008 (Table A-1). I also used these figures to calculate the annual growth rate of employees for the Enterprise Zone and the surrounding Urban Zone and the outer Suburban Zone. The annual growth rate is calculated by dividing the rate of change by the number of years you are observing; in this case 4 (2004-2008). The rate of change is calculated using the following formula:

> Rate of Change = ((value at end of period - value at beginning of period)/value at beginning of period) * 100

Using ArcGIS mapping software I mapped all the zip codes for the Jacksonville Metropolitan Statistical Area using maps created by the University of Florida Shimberg Center for Housing Studies in 2004 and downloaded from the Florida Geographic Data Library. The shapefile I downloaded from the Florida Geographic Data Library also contained figures on black population, Hispanic population, number of housing units and number of households for each zip code. I then layered maps of Florida's enterprise zones over the zip code map to determine which zip codes corresponded to Jacksonville's Enterprise Zone. After entering the establishment growth from 2004 to 2008 into the Zip Code layer attribute table I was able to determine which zip codes had experienced the most growth in establishments. (Figure 4-1)

Statistical Method

For the first regression I used a dummy regression to determine if the annual employment growth rate in enterprise zone zip codes was significantly different than non zone zip codes. The dependant variable in my regression is annual employment growth rate. The predictors (independent variables) for my regression are annual establishment growth rate and annual payroll growth rate. To control for area

demographics and conditions, figures for black population, Hispanic population, number of housing units, and households were also tested as predictors of employment growth. My dummy variable was coded as 1 = enterprise zone, 0 = non enterprise zone. This will determine how much enterprise zone designation affects the dependant variable, in this case annual employment growth rate. Table 4-1 gives the descriptive statistics for the first regression.

For my second regression I will test if the annual employment growth rate for enterprise zones is significantly different from other parts of the Jacksonville Metropolitan Statistical Area. Table 4-2 gives the descriptive statistics for the second regression. The metropolitan area was divided into three parts; Enterprise Zone, Urban Zone, and Suburban Zone. (Figure 4-2) These three zones are the dummy variables for my second regression. The schemas for the dummy variables are illustrated in Table 4-3.

Stating the Null Hypothesis

My regressions are testing the models ability to predict the variation in employment growth given the predictors. In other words, we are testing if factors like enterprise zone designation, establishment growth, Hispanic population, etc. are affecting employment growth. Furthermore, the coefficient determination of the regression will determine the magnitude and direction (positive/negative) of the variation in employment growth given the predictors. Therefore, the Null Hypothesis is:

There is no difference in the prediction of (Y) given (X);

Y = employment growth, X = predictors

Limitations

Boarnet (2001) explains that while methodology plays a big role in determining the effects of enterprise zones, data also affects the outcomes.

> Ideally, an enterprise zone evaluation should have outcome data for both zones and a well chosen control group. These data might include information on jobs and wages within zones and employment rates among targeted populations (Boarnet, 2001, p248)

Even though I have a control group, the data does have some limitations. For example, the data for establishment growth, employment growth, and annual payroll growth that I used for my regression are based on zip codes. However, Jacksonville's enterprise zone does not geographically correspond to zip code boundaries. Therefore, some zip codes are completely within the enterprise zone while others only contain parts of the enterprise zone. Because of this, the figures obtained from the US Census may be skewed. Some growth could have occurred in a zip code that contains parts of the enterprise zone without actually growing in the enterprise zone itself. Boarnet (2001) explains why this limitation is common to evaluating enterprise zones,

> Zones are often smaller than municipalities or other jurisdictions, such that zone boundaries do not correspond to any geographic unit for which data are regularly available. This was the case, for example, in New Jersey, where Boarnet and Bogart (1996) used municipal data in lieu of information on zone employment. Similarly in California, Dowall (1996) used geographic information systems (GIS) technology to apportion zip code employment data to zones. (p248)

Furthermore, the data contains figures for employment in a specific place, in my case zip codes. Therefore, we only know the employment figures for the zip code and not for individuals. So the enterprise zone may see growth in employment, but there is no guarantee that the zone is increasing employment for zone residents. People often

commute to work, so the figures for growth may contain employment of non zone residents. (Boarnet, 2001).

The data for establishment growth, employment growth, and annual payroll growth were obtained for 2004 through 2008. This time period is important because it encompasses the year the Florida Enterprise Zone Program was renewed (2005). This will help to evaluate program performance since the renewal. The 2010 Florida Enterprise Zone Program Annual Report shows that total state incentives have gone from $14,060,057 in 2004 to $23,433,535 after renewal of the program in 2005. From 2004-2008 the total state incentives increased by $31,291,384.

The time frame does present some limitations however. The four years observed in my study also correspond to a national recession. Downturns in the economy may affect zone performance. A bad economy could render successful zones unsuccessful. Thus, it is important to compare the performance of the enterprise zone to the performance of the rest of the region. This is because the recession affected the region fairly equally, so even though an enterprise zone is not experiencing positive growth it could be performing better than the rest of the region. For this reason, I have compared data from the Enterprise Zone to data from the Urban Zone and Suburban Zone.

Furthermore, four years may not be long enough to get a true sense of how the enterprise zone has changed socio-economic conditions. Ideally, the data should include figures for years before zone designation all the way to the present. However, limitations of locating such data are presently insurmountable.

Also, because the data from the US Census corresponds to zip codes, I was forced to use predictors in my regression that contained figures that also correspond to

zip code. Very little data is available in this way so the number and type of predictors are reflections of the limitation of the data.

Choosing predictors for the regression models proved difficult. The choice of predictors should reflect inferences into what factors are influencing the dependant variable. However, because of limited data I must use what is available. Ideally, I would like to test how property values influence the average annual employee growth rate in different zip codes. I hypothesize that cheap land significantly influences business location decisions, and that the price of land will be more of an influence than enterprise zone incentives. However, I could not find data on property values that matched up with the time frame of my study. Also, ideally I would test the amenities offered by quality of life improvements. Dabney and Bartik have determined that quality of life factors influence business location decisions. If data were available, I would test the amount of money invested in each zip code for quality of life improvements as a dependant variable in my regression. I chose to test black population data as a predictor because Jacksonville has a very large black population; about 30% of Jacksonville's population. I tested black population and Hispanic population to see if a certain race was receiving more benefit than another, or if race had a negative effect on job growth. I tested number of households and housing units as predictors to see if housing stock influenced job growth. It is my contention that businesses will locate where they have access to the most customers; especially in the retail trade, one of Jacksonville's biggest industries. So, if new houses are continually built far from the city center, new businesses will locate close to the new customer base.

Table 4-1. Descriptive Statistics For First Regression

Variable	Mean	Std. Deviation	N
Job Growth Rate	.2984	.15934	50
Enterprise Zone	.1200	.32826	50
Establishment Growth	51.6800	75.17610	50
Annual Payroll Growth	66662.6400	130796.13679	50
Black Population	4788.2000	7103.22937	50
Hispanic Population	824.3000	797.18905	50
HousingUnits	9175.9000	5926.16400	50
Households	8396.0800	5493.93522	50

Table 4-2. Descriptive Statistics For Second Regression

Variable	Mean	Std. Deviation	N
Job Growth Rate	.2984	.15934	50
Enterprise Zone	.1200	.32826	50
Urban Zone	.4800	.50467	50

Table 4-3. Dummy Variable Schema

Zone	Code		
Enterprise Zone	1	0	0
Urban Zone	0	1	0
Suburban Zone	0	0	0

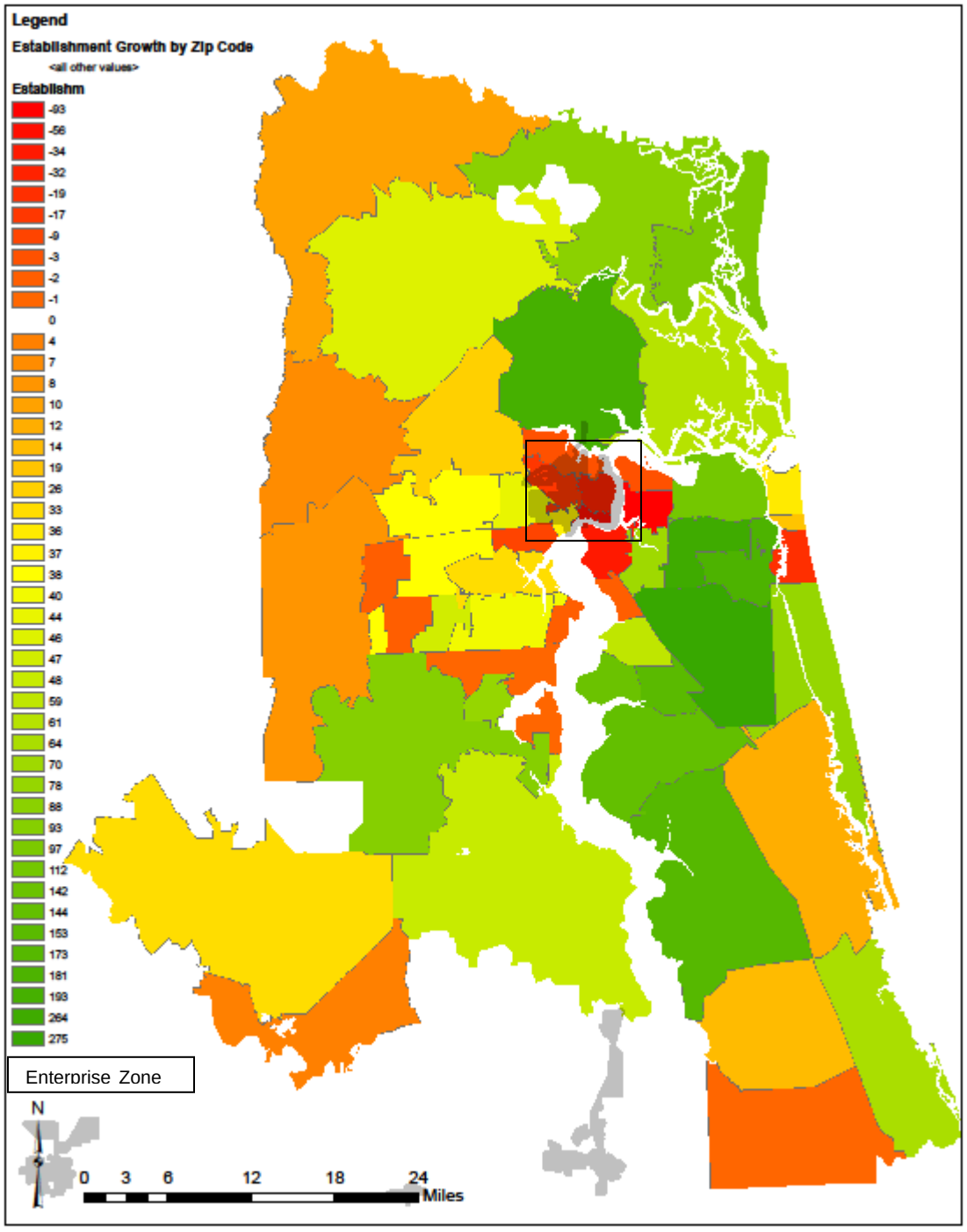

Figure 4-1. Establishment growth 2004-2008 by zip code for Jacksonville Florida

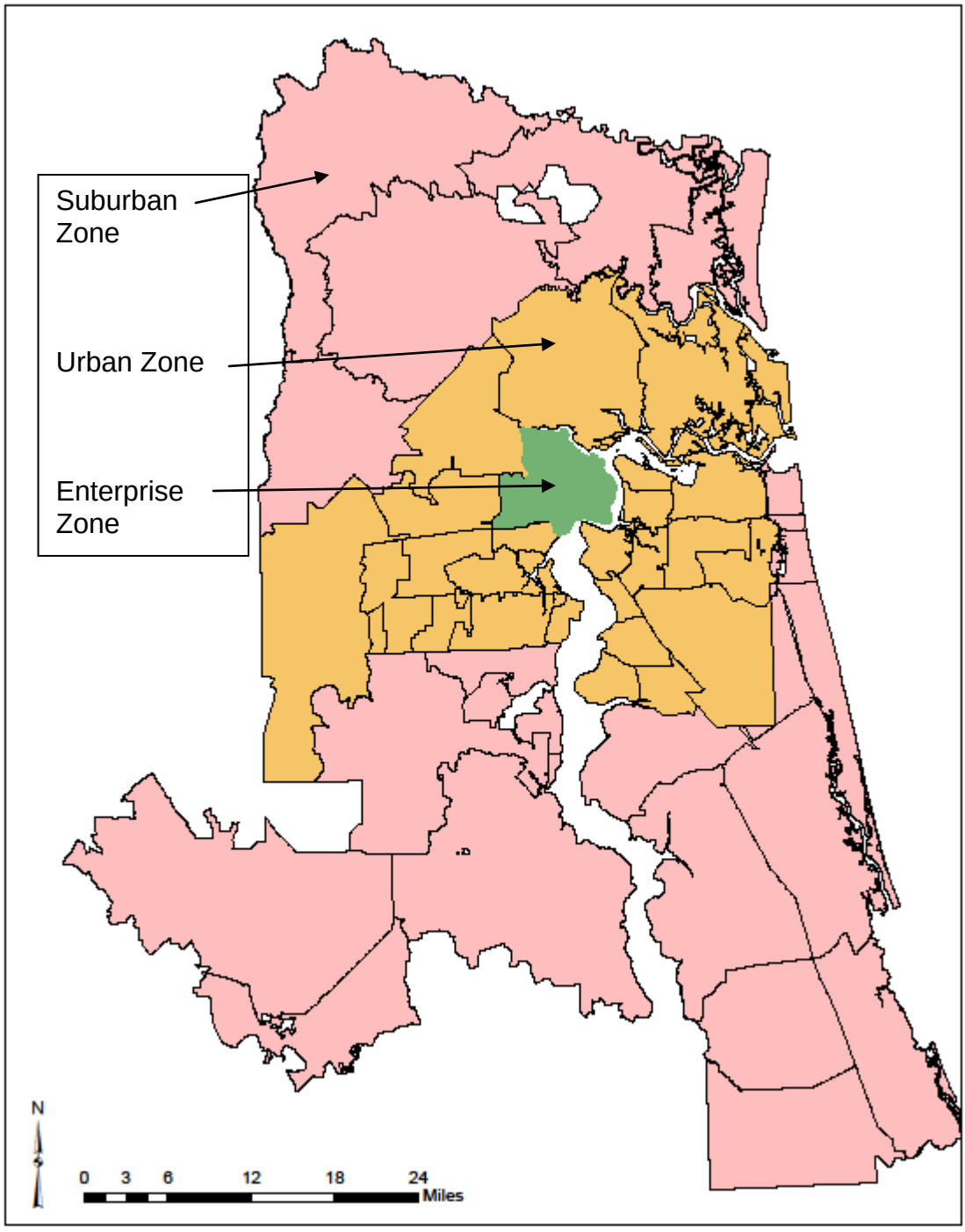

Figure 4-2. Test zones for regression

CHAPTER 5
RESULTS

Findings

Figure 4-1 reveals the pattern in which Jacksonville's businesses are growing. You can see from the map that the downtown area, including the enterprise zone, is experiencing negative growth while the outer regions are experiencing positive growth. Clearly, there is some factor that is influencing business location decisions to a greater degree than enterprise zone incentives. The map suggests that the city is supporting growth in the form of sprawl while simultaneously working to revitalize the downtown area. This strategy seems counterintuitive. Why would you support sprawl by building roads and other services when you are simultaneously trying to incentivize businesses to locate downtown? Being from Jacksonville, I have observed new developments, new business parks, and new strip malls being constructed in large numbers in the green regions of the map. All of this green field development is undermining the enterprise zone program that Jacksonville is spending millions of dollars on. While the government continues to subsidize sprawl, the majority of new businesses will chose green filed development instead of infill development.

Table A-1 shows the figures for establishment growth, employee growth, and annual payroll growth for all zip codes in the Jacksonville Metropolitan Statistical Area between 2004 and 2008. These figures were used to calculate annual growth rates. The average annual growth rate for employees will help us determine which areas are experiencing positive growth. The average annual growth rate of employees in enterprise zones is -0.2%, while the average annual growth rate of employees in urban and suburban zones were 3.3% and 3.9% respectively. This suggests that the

enterprise zone is losing jobs at 0.2% a year, while non zone areas are gaining jobs at about 3% a year. The reason for this negative growth in the enterprise zone is still unclear. The results of the first regression will help determine what factors may be affecting job growth.

The first regression, using IBM SPSS Statistics software, tested enterprise zone designation, establishment growth, annual payroll growth, black population, Hispanic population, number of household units, and number of households as predictors of employment growth. The Model Summary (Table 5-1) shows the results of the regression. The R value for the model is 0.425. The R value is the Pearson's Correlation value that helps determine if there is a relationship between the dependant variable and the predictors. The R Square value is 0.181. The R Square value helps determine how well the model explains the variation in (Y) given (X). In this case, the model explains 18% of the total variation in the data. The Adjusted R Square value is 0.04. The Adjusted R Square value tells us how well the model would explain the total variation if the model was run on the population rather than the samples. It also explains the diminished predictive capability based on the sample size and number of predictors. The Significant F Change is 0.264 and is crucial to the models predictive capabilities. Using a 95% confidence interval, it is crucial to get a significance that falls into the rejection region in order to reject the null hypothesis. To do this, the significance must be equal to or less than 0.05. Because the significance is 0.264, we fail to reject the null hypothesis and conclude that there is no difference in the variation of employment growth given the predictors.

The second regression, again using IBM SPSS Statistic software, yielded similar results. The second regression tested the difference in employment growth given the zip codes location, whether it be in the Enterprise Zone, Urban Zone, or Suburban Zone. The Model Summary (Table 5-2) shows the results of the regression. As in the first regression, the significance does not fall in the rejection region. Because the significance is greater than 0.05, we reject the null hypothesis and conclude that there is no difference in the variation of employment growth given the predictors.

The regression models reveal that annual establishment growth rate, annual payroll growth rate, black population, Hispanic population, number of housing units, and number of households are poor predictors of employee growth. This allows us to eliminate these factors from the list of possible contributors to the variation in zone performance. The average annual growth rate for employees revealed that the enterprise zone was losing jobs while the urban and suburban zones were gaining jobs. Coupled with two regression models that show no significance, there is enough evidence to conclude that Jacksonville's enterprise zone is not creating jobs, but actually losing them. It is impossible to go back in time and determine what would have happened had the zone not been there, but the evidence suggests that enterprise zone incentives are not enough to encourage businesses to open or expand in the zone rather than other areas. Furthermore, my findings coincide quite well with the literature. Most empirical studies have determined that enterprise zones produce little to no benefit.

Discussion

The enterprise zone concept has been around for decades. Originally conceived in Britain, enterprise zones have evolved to encompass American objectives. States were the first to implement enterprise zones in the early 80s. The federal government got involved and reorganized the program in the mid 90s. Since that time, the government agencies involved in Florida's Enterprise Zone Program have had trouble discerning the effectiveness of the program.

A number of empirical studies have been conducted on the effectiveness of enterprise zones to create positive changes in socio-economic conditions. The earliest studies showed that enterprise zones create jobs, but because the methodology used in these studies were survey method, the studies have serious limitations. The most recent studies find either a temporary gain in jobs and income or no discernable impact at all. These later studies use a more sophisticated methodology so the results are most likely more accurate than the earlier studies.

The majority of literature on the effects of enterprise zones suggest that zones do very little to improve socio-economic conditions. Yet, governments continue to increase spending on the program. The vast amount of money spent on the enterprise zone programs could be used for other services, so it is imperative that policy makers are able to measure the impacts of the programs they prescribe. The fact that enterprise zones are so difficult to evaluate is a serious limitation. In an era of renewed government transparency and weary disposition to government spending, proving that programs are worth the money is more important than ever. Unless clear proof of the significant benefits of enterprise zones is obtained, the enterprise zone programs around the country is likely to be criticized in years to come.

Jacksonville has experienced large decentralization, much like other cities across the nation. Jacksonville's strategy for eradicating the blight left behind after decentralization was the implementation of an enterprise zone. My study focused on Jacksonville's enterprise zone and its ability to create jobs.

Using the same type of methodology as the latest studies on enterprise zones, I determined that the enterprise zone is losing jobs at a rate of 0.2% a year while other parts of the metro area are growing jobs about 3% a year. The regressions could not attribute the variation in job growth to any of the predictors. Therefore, it is safe to say that black population, Hispanic population, number of households, and number of housing units do not significantly affect job growth. The regressions also revealed that a zip codes location – i.e. enterprise zone, urban zone, or suburban zone; had no bearing on the variation of job growth. Hence, it is my contention that Jacksonville's enterprise zone is not creating jobs at a significantly higher rate than the surrounding area.

It is true that there are limitations to my study. The amount and type of data available proved to be the deciding factor in choosing what area characteristics to control for. Furthermore, other factors that have not been discovered may be affecting the zones performance. However, my study coupled with the evidence discovered in the literature review, suggests that my results closely reflect actual changes in socio-economic conditions.

Why are governments continuing to promote enterprise zones when evidence suggests that they do not work? We can speculate that the program has survived this long because it is politically popular. From the perspective of a politician, enterprise

zones sound wonderful. Enterprise zones are promoted as a way to help poor neighborhoods revitalize through the implementation of tax incentives. A politician who promotes helping the poor while implementing tax breaks can likely expect a lot of support from voters. After all, who wouldn't like a tax break? It is important to remember that the politicians make the final decisions when it comes to government programs. So, as long as enterprise zones are politically popular and are promoted as viable economic development tools, enterprise zone programs will continue.

Recommendations

Figure 4-1 reveals the competing strategies implemented by Jacksonville. The government cannot expect to see rapid revitalization of downtown while simultaneously subsidizing sprawl. Therefore, it is my recommendation that Jacksonville discontinue the provision of new infrastructure in green field areas. Instead, Jacksonville should implement some kind of service boundary for new development. If the city only provides infrastructure for new development in areas that the city deems ripe for redevelopment, then more businesses would locate in those areas. But, if the city continues to provide infrastructure for sprawl development, businesses will continue to locate away from downtown. A service boundary would signal the intention to invest money downtown, rather than investing in sprawl. Businesses would soon realize that locating downtown is a better long term strategy because they will receive benefits from the enterprise zone and benefit from the heavy public investment in the area. If you are a business, you would chose to locate in an area that will receive much public investment over an area that will see very little public investment. Coupling the enterprise zone strategy with an urban service boundary would do much to revitalize

downtown. In fact, a better strategy would be to implement an urban service boundary while discontinuing the Enterprise Zone.

Implementing an enterprise zone is not the only revitalization strategy available to governments. Community Redevelopment Agencies, Business Improvement Districts, and Main Street programs have all had some success in revitalizing blighted areas. In order to revitalize Jacksonville's urban core, the city should implement these strategies in a holistic, comprehensive way that allows each strategy to benefit from the other. We have seen that Jacksonville has undermined its revitalization strategy by subsidizing sprawl at the same time. In order to successfully revitalize, Jacksonville must create policies that will strengthen its efforts; not compete with them.

Table 5-1. Model summary for first regression

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.425	.181	.044	.15579	.181	1.323	7	42	.264

Table 5-2. Model summary for second regression

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.182	.033	-.008	.15999	.033	.801	2	47	.455

APPENDIX
DATA USED IN METHODOLOGY

Table A-1. Establishment Growth, Employee Growth, and Annual Payroll Growth from 2004 to 2008. Data collected from US Census Bureau County Business Pattern by Zip Code 2004 -2008.

Zip Code	Establishment Growth 2004-2008	Employee Growth 2004-2008	Annual Payroll Growth 2004-2008 ($)
32202 EZ	-56	-3846	116620
32204 EZ	37	10033	765508
32205 UZ	-9	-1194	15431
32206 EZ	-32	-200	40072
32207 UZ	-34	1690	264724
32208 EZ	-3	-1447	-3264
32209 EZ	-17	495	107987
32210 UZ	33	-1165	-9727
32211 UZ	-93	-2757	-28285
32212 UZ	-2	87	1736
32215 UZ	-2	-132	-4900
32216 UZ	70	6	-111111
32217 UZ	-2	-570	-5202
32218 UZ	193	3623	80600
32219 UZ	26	579	52956
32220 UZ	38	299	10294
32221 UZ	38	1978	60923
32222 UZ	47	1197	18166
32223 UZ	142	1621	78877
32224 UZ	181	3205	238061
32225 UZ	112	1766	93110
32226 UZ	61	1121	45872
32234 UZ	8	256	19850
32244 UZ	40	-186	-12518
32246 UZ	264	4830	189355
32250 SZ	-19	-1113	29721
32254 EZ	44	-792	66652
32256 UZ	275	-2628	190175
32257 UZ	59	1701	109733
32258 UZ	153	8279	401625
32259 SZ	144	1773	40250
32266 SZ	19	-255	-3507
32277 UZ	-3	73	14543
32011 SZ	46	54	7059
32033 SZ	14	-268	-12915
32034 SZ	97	896	53910
32043 SZ	48	676	51851

Table A-1. Continued

Zip Code	Establishment Growth 2004-2008	Employee Growth 2004-2008	Annual Payroll Growth 2004-2008 ($)
32046 SZ	10	-17	3414
32065 SZ	78	1369	30961
32068 SZ	93	862	22947
32073 SZ	-1	-1919	34102
32082 SZ	78	216	65938
32086 SZ	64	546	36546
32091 SZ	33	465	25336
32092 SZ	173	1848	91233
32095 SZ	12	169	8421
32097 SZ	88	574	12446
32145 SZ	-1	-72	-139
32233 SZ	36	-372	18612
32656 SZ	4	202	9083

Source: US Census Bureau, County Business Patterns 2004-2008
EZ = Enterprise Zone; UZ = Urban Zone; SZ = Suburban Zone

Table A-2. Demographic data from shapefile created by Shimberg Center for Housing Studies at the University of Florida 2004

Zip Code	Black Population	Hispanic Population	Household Units	Households
32202 EZ	3310	112	1816	1408
32204 EZ	3922	176	3916	3287
32205 UZ	6159	886	14540	13323
32206 EZ	17439	391	10467	8280
32207 UZ	7069	1586	16283	15144
32208 EZ	25397	322	13738	12574
32209 EZ	38857	281	17526	15234
32210 UZ	14575	2531	24665	22736
32211 UZ	10075	1809	15003	13847
32212 UZ	689	304	348	346
32215 UZ	287	73	248	200
32216 UZ	5775	1623	12434	11774
32217 UZ	2780	1238	8956	8498
32218 UZ	14983	623	14801	13772
32219 UZ	4022	98	3950	3498

Table A-2. Continued

Zip Code	Black Population	Hispanic Population	Household Units	Households
32220 UZ	438	195	4241	3876
32221 UZ	1803	510	6734	6347
32222 UZ	484	182	1732	1596
32223 UZ	1075	888	9873	9610
32224 UZ	2618	1847	13450	12608
32225 UZ	7152	2538	17236	16591
32226 UZ	130	149	3226	3013
32234 UZ	546	84	2458	2257
32244 UZ	10405	2533	18569	17118
32246 UZ	5762	2323	14343	13339
32250 SZ	1057	701	12053	10925
32254 EZ	7998	245	6094	5343
32256 UZ	3512	1835	15247	14034
32257 UZ	3143	1865	15651	14856
32258 UZ	986	477	4428	4316
32259 SZ	369	432	6286	6000
32266 SZ	53	152	3462	3272
32277 UZ	8636	1242	11384	10827
32011 SZ	603	89	4385	4121
32033 SZ	332	46	963	854
32034 SZ	2351	533	13336	10230
32043 SZ	1884	691	7643	7057
32046 SZ	557	64	3074	2851
32065 SZ	1588	1158	7345	7050
32068 SZ	1334	1276	13351	12590
32073 SZ	4540	2705	18950	18111
32082 SZ	286	702	13312	11866
32086 SZ	584	731	11167	9363
32091 SZ	3349	279	6261	5439
32092 SZ	249	93	2739	2393
32095 SZ	3841	586	9507	8480
32097 SZ	925	163	4096	3798
32145 SZ	1093	124	1515	1361
32233 SZ	4279	1516	10691	9846
32656 SZ	109	208	5302	4545

EZ = Enterprise Zone; UZ = Urban Zone; SZ = Suburban Zone

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BIOGRAPHICAL SKETCH

Curtis Ryan Dubberly was born in 1984 in Jacksonville, Florida. The younger of two boys, he grew up in Orange Park, Florida, a nearby suburb of Jacksonville. Curtis, an avid surfer, guitar player and athlete, graduated from Ridgeview High School in 2003.

He attended Florida State University for two years before deciding to transfer to the University of Florida to pursue a BA in architecture. Upon graduating in 2009, he entered into graduate school at UF and began working on his MA in urban and regional planning.

Upon completion of his MAURP, Curtis would like to pursue a career in Florida, where he sees much potential for responsible and functional growth.