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Population Growth In Grundy County Illinois As A Function Of Local Economic Factors

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POPULATION GRWOTH IN GRUNDY COUNTY ILLINOIS AS A FUNCTION OF LOCAL ECONOMIC FACTORS

by

David Lowery

B.S. Southern Illinois University, 2012

Research Paper

Submitted in Partial Fulfillment of the Requirements for the

Master of Science.

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POPULATION GROWTH IN GRUNDY COUNTY ILLINOIS AS A FUNCTION OF LOCAL ECONOMIC FACTORS

By

David Lowery

A Research Paper Submitted in Partial

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Approved by:

Ira Altman

Graduate School Southern Illinois University Carbondale May 18, 2015

AN ABSTRACT OF THE RESEARCH PAPER OF

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TITLE: POPULATION GROWTH IN GRUNDY COUNTY ILLINOIS AS A FUNCTION OF LOCAL ECONOMIC FACTORS

MAJOR PROFESSOR: Dr. IRA J. ALTMAN

The purpose of this study is to examine the effect of population growth in Grundy County Illinois as a cause of some economic factors within Grundy County. During the mid-2000's Grundy County experienced significant population growth. The significance of this population and economic growth must be better understood to prepare local government, businesses and residents for future growth. With a better understanding of the area's population, location and economic growth, the local economy will be better prepared to capitalize on future growth and development as well as understand implications from future growth.

TABLE OF CONTENTS

CHAPTER	<u>PAGE</u>
ABSTRACT	i
LIST OF TABLES	iii
CHAPTERS	
CHAPTER 1 – Topic Introduction	1
CHAPTER 2 – Literature Review	4
CHAPTER 3 – Methods	11
CHAPTER 4 – Data Analysis Results	14
CHAPTER 5 – Conclusions and Summary	17
REFERENCES	19
APPENDICES	
Appendix A - Related Figures	21
VITA	26

LIST OF TABLES

TABLE	<u>PAGE</u>
Table 1	14
Table 2	

CHAPTER 1

TOPIC INTRODUCTION

Grundy County is a small county located in northeastern Illinois, roughly 50 miles southwest of Chicago with a population in 2013 of 50,228 (Bureau of Economic Analysis). Grundy County is considered to be part of the Chicago-Naperville-Joliet, IL-IN-WI Metropolitan Statistical Area (Comprehensive Economic Development Strategy, 2011). While Grundy remains largely a rural county, its location is ideal to take advantage of and experience growth from the Chicago region (Comprehensive Economic Development Strategy, 2011). During the housing boom in the 2000's Grundy County experienced significant population growth. Mostly in the eastern and northeastern regions. Before the recession started in 2007, Grundy County was growing as the third fastest county in Illinois, right behind Kendall and Will counties, which are neighboring counties to the north and east respectively (Comprehensive Economic Development Strategy, 2011). From 2000-2010 census period Kendall, Will and Grundy counties were growing at rates of 110%, 35% and 33% respectively (Comprehensive Economic Development Strategy, 2011). Figure 2 visually represents consistent population growth up to 2003 while experiencing significantly faster growth from 2003-2009. From the same figure it can be seen that in 2009 population growth slowed dramatically appearing as though it has plateaued.

The location of Grundy County is unique in the fact that it has two major interstates running through it. On the east side of the county there is interstate 55 that runs from Chicago to St. Louis passing through Bloomington and Springfield Illinois. On the North side of the county is interstate 80 that runs east and west, passing through the south suburbs of Chicago. Just outside of the northeast corner of the county these two interstates meet giving Grundy County easy and convenient access for interstate commerce. This allows easy transportation for residents

and product shipping making Grundy County an ideal location to set up business or move to as a resident. Residents that may work in the suburbs of Chicago but want to live in a more rural setting see the area as an opportunity for them with the ease and speed of commuting to work. In addition to the interstate system the Illinois River also passes through the county, essentially dividing the county into a Northern and Southern half. The agriculture sector in the county utilizes this river access with three river terminals that load grain commodities onto barges in Morris, Illinois.

About 78% of land in Grundy County is dedicated to agricultural use in some practice (Comprehensive Economic Development Strategy 2011). The southern and western regions of the county remain the most rural and least populated, while the northern and eastern regions are becoming more urbanized. Much of the urbanization has occurred in the form of housing units being built in the form of subdivisions. While driving through areas in the northern and eastern parts of the county you can observe parcels of what used to be productive farmland, now filled with houses, and in some cases subdivisions that were never finished. There are a few subdivisions that have roads and electricity with empty lots because the houses never got built when the Great Recession hit and the housing market plummeted.

The research in this study should benefit those that may have the potential to experience large population growth in their county or small region. Local residents, policy makers, school districts, and incorporated areas in the county should benefit from of this research. The implications of population growth and understanding how to respond to the growth should better prepare the county residents, businesses, schools and local government in the future. Economic growth is often difficult to understand during the time it occurs but doing research from data collected should help to prepare and understand as much as possible during these times.

Recent optimism in the economy has led residents to believe there could be some economic upturn in the country as well as in Grundy County. Grundy County has worked well in preparing their infrastructure and planning for growth by understanding their position and location for economic growth. The "Grundy County Comprehensive Plan" gives insight that the county is planning for the future by understanding its own economy.

CHAPTER 2

LITERATURE REVIEW

When talking about rural America today we sometimes think of small dying towns that only seem to exist because of the agriculture community, there are a few exceptions to this belief when the location of these communities are on the borders of developing cities Grundy County is one of these communities. Grundy County has experienced in-migration in recent years. Rural America and places like Grundy County offer many positive cultural attributes like hard working spirit, good morals, and a feeling of pride from local residents towards their community (Miller, 2014). Recently there has been an increasing need for information on small geographic areas in places like Grundy County (Baker et al. 2008). Research on these small areas is being used by developers, policy makers, businesses and others for population estimates to make educated decisions for their communities (Baker et al. 208).

A recent study was done by Jessica D. Ulrich-Schad, Megan Henly and Thomas G Safford, to analyze reasons why rural residents stay in their communities or move to others. The study found that community attachment is a key predictor of rural migration, even during an economic recession. This study does recognize that location is an important driver in why rural communities have the results in population growth or decline that they do.

Central place theory gives reason to why Grundy County has experienced much of its growth (Deller, Marcouiller, Shaffer 2004). The location of Grundy County, as stated before, is suitable for economic growth and the ability to sustain that growth. Grundy County allows for easy access to fast transportation on two major interstates, rail transportation, and river access. All of these opportunities for shipping goods faster and decreasing costs are attractive for a transportation hub. Although Grundy County does have pleasant landscape along the Illinois

River, major tourist attractions are limited. Being on the Illinois River is the best way to access this scenic landscape, limiting the number of people that are able to enjoy this attribute. In places like Jackson, Wyoming the population growth can be more closely attributed to reasons for its natural amenities that make it a great retirement and vacation destination resulting in significant population growth from in migration (Miller, 2014). Grundy County does not possess the natural amenities such as places like Jackson, Wyoming to attribute reasons for its population growth.

Migration trends in America are important to understand when recognizing predictors of population growth. Local migration trends may vary from national trends. Rural population growth from 2000-2010 was only 4.5% in the U.S., but when considering Grundy County, a rural county, its population growth was 33.38% from 2000-2010 (Ulrich-Schad, Henly, Safford, 2013, Comprehensive Economic Development Strategy, 2011). This is significantly more than most rural counties in the United States during the same time frame. In the 1970's rural population growth was faster than urban growth from in migration in the U.S. (Ulrich-Schad, Henly and Safford, 2013). The 1980's showed a slow in rural growth from an economic recession that hit the agriculture industry extremely hard with high interest rates, then falling land and commodity values that left rural agricultural based residents in financial hardship (Ulrich-Schad, Henly and Safford, 2013). This particular situation makes rural living very unappealing to migrate to, or even for existing residents to stay in the community. For young people when jobs are scarce or low paying in their rural community moving to an urban area appears to be much more appealing, resulting in out migration for rural communities. In the 1990's rural population showed growth in rural communities from good economic growth in the 1990's (Ulrich-Schad, Henly and Safford, 2013). This steady growth in the 1990's is represented for Grundy County in figure 2.

Considering the situation in the 1980's and the 2000's young people in rural communities are becoming more educated. When educated, these young people look for jobs that may not exist in their home communities. These young educated people are leaving their home communities in search of better wages and opportunities for themselves. This is often referred to as the "rural brain drain" resulting in a loss of human capital in these communities (Green, 2014). In research, higher educated people are shown to be positively associated with intentions to migrate out of a rural community (Ulrich-Schad, Henly and Safford, 2013).

Gary Paul Green's paper in 2014 entitled, "Sustainability and Rural Communities", states there are many reasons for a decline in rural communities but there are four main reasons that he points out:

- 1. Many rural economies are still dependent on natural resources, both renewable and non renewable. Natural resources are the basis of commodity production, such as forest or agricultural products, and consumption, through recreation, retirement and tourism. Rural people are the stewards of these natural resources, but poverty can contribute to the exploitation of these important assets. The poor may be more likely to be concerned with short-term benefits rather than long-term. Improving rural livelihoods is, therefore, important to the sustainability to these areas.
- 2. Agricultural productivity has increased over the past few decades, but the demands of world population growth and biofuel consumption have undercut these gains. Land use patterns may limit the potential supply of food and fuel. Long-term strategies to protect farmland from urban sprawl are essential to meet growing demand for food and fuel. Farmland being put into production as a result

- of this increased demand that was previously in conservation programs is important for conserving soil and wildlife in rural communities.
- 3. The stagnation and rural decline of rural areas adds to the pressures on cities to accommodate rapid population growth. Policies encouraging increased urbanization, may lead to a decline in the quality of life for the rural residents experiencing the growth in their area. (there are possible benefits for a few select people, and those are the land owners that are likely to receive an amount of money for their land exceeding what they would get when selling to another buyer that would be intending to use the land for agricultural production.) Rural to urban migration tends to be selective, so the most educated workers are likely to leave rural communities. The result is a loss in human capital.
- 4. The lack of job opportunities in rural areas contributes to the rural brain drain, the loss of young educated adults resulting in a downward cycle. Losing young educated people in rural areas makes it even more difficult for employers to find qualified workers. This downward cycle also affects local government losing tax revenues resulting in fiscal problems.

It is very important for rural communities to assess their situation and understand what is happening, whether that is population and/or economic growth, or all too often the opposite (Green, 2014). To understand the economics of a community will allow policy makers and residents to collaborate on solutions to problems that may be of concern to their community (Green, 2014). For those communities that are experiencing the positive affects of rural development, they should too, understand the consequences of not sustaining or maintaining their growth or past growth they have experienced (Green, 2014). Continuing evaluation and

strategic planning is extremely important for these areas to maintain a quality of life for residents, while preventing the downward affects that are occurring in less fortunate communities elsewhere (Green, 2014). "This is where the competitive advantage lies for Grundy County. The highly skilled and experienced local and regional workforce provides an excellent labor pool for incoming ventures. There also remains a geographic advantage to locating in Grundy County. The central location and variety of efficient transportation options are valuable commodities for supply chain management and distribution" (Comprehensive Economic Development Strategy, 2011).

In a book written by Ron Shaffer, Steve Deller and Dave Marcouiller in 2004 entitled "Community Economics Linking Theory and Practice", an understanding of how some specific economic theories apply to our community of topic can be made. Specifically for now, Central Place Theory. Central place theory is one conceptual framework that addresses two facets of economic activity (Deller, Marcouiller, Shaffer 2004):

- Interdependence among merchants across different communities. Firms are dependent upon where their competitors locate or are located.
- The firms interpretation of market demand and socioeconomic characteristics that dictate market demand and how that interpretation influences decisions to provide particular goods and services.

Central place theory is used in community analysis to offer information on why specific goods and services are or are not present in a particular community (Deller, Marcouiller, Shaffer 2004). It is essential to understand that central place theory basically claims there is a hierarchy of communities based on the functions of retail and services that are provided in a community (Shaffer, Deller, Marcouiller 2004).

Shaffer goes on to explain that distance determining the geographic limit of a market is measured in terms of physical separation, including travel costs and time. Factors to be accounted for are the ease and ability to access markets through transportation and technology. This very idea suits Grundy County with the fact that ease of fast transportation to a market area like Chicago is readily available.

Shaffer talks about agglomeration economies stating that the scale of firms increases and they become self reinforcing as more firms locate together. Shaffer uses Chicago as an example describing an agglomeration economy. Chicago is located on the southern part of Lake Michigan and on the Illinois River that connects the Great Lakes to the Mississippi River. Chicago has a transportation advantage for agricultural commodities in the corn belt and then to the urban markets in the eastern United States (Shaffer, Deller, Marcouiller 2004). Chicago was also in an ideal location for steel industry being between the coal fields in southern Illinois and Kentucky and to the north iron ore mines in Michigan and Minnesota (Shaffer, Deller, Marcouiller 2004). Chicago was also home to the center of the meatpacking industry with its location giving economies of scale of meat processing and close ability for transporting livestock that are raised in the Midwest (Shaffer, Deller, Marcouiller 2004). With this example of Chicago's growth in different sectors Shaffer explains that centripetal forces will cluster into a smaller number of cities, Chicago being one example. The forces of economies of scale favor growth in larger cities, typically having an effect on smaller communities (Shaffer, Deller, Marcouiller 2004). This effect can be seen in Grundy County. Some of these forces were only beginning to have a major effect on the economy in the county until the recession in the 2007. Grundy County's location outside of the city with sufficient amounts of land that can be developed near interstate interchanges is readily available and zoned for industrial development.

The effects that Grundy County has experienced are significantly recognized by its population growth. The location of Grundy County has been more suitable to the industrial growth, but housing development had started to increase significantly as well. Population growth has been significant as well but came to a halt with the start of the recession. The location of Kendall County directly to the north has experienced much more significant population growth and housing development. Kendall County possesses more natural amenities that people may desire when relocating. Grundy County should expect this population growth to gain momentum if the housing market strengthens like it had in previous years. This housing development is dependent on a number of factors; preference of developers, demand for development, zoning, landowners, demographics, distance to services and the major factor, the availability of land for development (Baker et al. 2008). The areas in Grundy County that experienced this housing unit growth were ideal locations for development. Most of these places were once well drained corn fields around a small city that were sold for housing development. These small cities have grown to provide good schools and all of the necessary amenities that residents would want close by but yet not having to live in a congested urban area. Their location is close to interstate travel that provides easy access to Chicago and its suburbs. The results from a study done by Baker et al. (2008) are consistent with the situation of the spread effects that were occurring in Grundy County. Residents from nearby congested urban areas have moved to places like Grundy County, which is consistent with theory as well. With results from the study that Baker et al. (2008) did, it is stated for policy makers to proceed with caution for planning and to have flexibility because these non metropolitan areas are being developed from multiple cities and not just one large nearby city. The effects of population growth that Grundy County is experiencing could be from more than just the urbanized Chicago land area.

CHAPTER 3

METHODS

The method used for data analysis is the Ordinary Least Squares (OLS) method using four explanatory variables. The Ordinary Least Squares method of estimation is an efficient and unbiased estimator. Ordinary Least Squares method of estimation is the Best Linear Unbiased Estimator (BLUE). Using this method we are able to find βeta that will minimize the error sums of squares (ESS). There are some assumptions made using the Ordinary Least Squares method of estimation. There will be a normal distribution of random error terms, no autocorrelation between error terms, equal variance of errors, zero correlation between error terms and explanatory variables, and a linear relationship. Both models are a time series models. Model one uses four explanatory variables with 24 observations collected from 1990-2013 annually. Model two uses three explanatory variables with 40 observations collected from 1974-2013 annually.

Model 1:
$$\gamma = \beta_0 + \beta_1 + \beta_2 + \beta_3 + \beta_4 + \epsilon_i$$

Model 2:
$$\gamma = \beta_0 + \beta_1 + \beta_2 + \beta_3 + \epsilon_i$$

Variables

The dependent variable is the population of Grundy County Illinois. Data for the population was collected from the Bureau of Economic Analysis using mid year population estimates for Grundy County, Illinois. 2010-2013 estimates reflect county population estimates available as of March 2014. Data used in the model are observations collected on an annual basis from the years 1990-2013 for model one, and years 1974-2013 for model two.

The four explanatory variables used in model one are: unemployment rate, per capita personal income, total number of jobs and building permits applied for in Grundy County. All data are representing annual observations for the years 1990-2013 for model one and 1974-2013 for model two.

- Unemployment Rate: Data for the unemployment rate are collected from the Illinois
 Department of Employment Security using annual averages.
- 2. Per Capita Personal Income: Data for per capita income are collected from the Bureau of Economic Analysis. Per capita personal income was computed using Census Bureau midyear population estimates. Estimates for 2010-2013 reflect county population estimates available as of March, 2014. The data is measured in thousands of dollars.
- 3. Total Number of Jobs: Data for the total number of jobs is collected from the Bureau of Economic Analysis. This data includes total full-time and part-time employment positions.
- 4. Building Permit Applications: Data for the number of building permits applied for in Grundy County are collected from the United States Census Bureau. The number of permits issued represents county level data on new privately owned residential housing units authorized by building permits. This variable was dropped for the second model because data could only be found going back to 1990, limiting the preferred number of observations for estimation.

Expected Signs of coefficients and hypothesis

- Unemployment Rate: Unemployment rate is expected to have a negative effect on the
 population. Indicating that as the unemployment rate increases the population
 decreases. Hypothesizing that higher unemployment rates in the county make it less
 appealing for in-migration, resulting in an out-migration to areas with more
 employment opportunities.
- 2. Per Capita Personal Income: Per capita personal income is expected to have a positive effect on the population change. As per capita income is increasing people are going to want to move to the area for higher paying work. An increased per capita income should represent an increase in demand for workers, resulting in an increase in population.
- 3. Total Number of Jobs: Total number of jobs in the county is expected to have a positive effect on the population. Hypothesizing that as the number of jobs increase in the county, this will result in an in-migration of residents to move closer to their place of employment.
- 4. Building Permit Applications: Building permit applications are expected to have a positive impact on population growth. Hypothesizing that as housing units are being built, there is an in-migration of people building new homes in the county.

CHAPTER 4

DATA ANALYSIS RESULTS

Model 1: γ total population = $\beta_0 + \beta_1$ unemployment rate + β_2 per capita personal income + β_3 total full and part time jobs + β_4 building permits applications+ ϵ_i

Variable	β1	Standard Error	t-value	P-value
% Unemployment Rate	279.41	192.14	1.45	0.162
Per Capita Income (\$1,000's of dollars)	-0.04	0.28	-0.14	0.890
Total Number of Jobs	2.44	0.62	3.94	0.001
Building Permit Applications	-4.54	1.95	-2.33	0.031

Table 1. Results from estimation using OxMetrics 6 data analysis program. This data represents four independent variables with data for the years 1990-2013. Adjusted R-squared value = .92.

In the first model, the building permit applications variable shows to be statistically significant. The sign is negative, which is opposite of the hypothesis. The hypothesis was to see a positive impact on population with the logical thought that an increase in building permit applications for homes means an in-migration of residents, increasing the population. The results represent building permit applications reducing the population by about 4.5 people per application. Logically speaking the results do not make sense. The model does not account for a lagged affect in population growth. From the time there is a permit given for building a house, it is reasonable to say the people will not move into the house the same year the permit is given, this resulting in a lagged affect for population increases from building permits. The results of the actions take time to show up in the dependent variable, population growth. In the data the buildings permit applications have a significant spike in the year 2003. After the housing growth started slowing dramatically the number of applications went from 883 in 2003 to only 141 in 2007 and continuing to drop through 2013. Prior to the significant increase in permits applied for (represented in *figure 3*) the growth was gradually increasing but after the recession began the

number for permit applications dropped well below where they were before the major increase started. This situation gives misleading results from the model.

Model 2: γ total population = $\beta_0 + \beta_1$ unemployment rate + β_2 per capita personal income + β_3 total full and part time jobs + ϵ_i

Variable	β1	Standard Error	t-value	P-value
% Unemployment Rate	252.04	128.30	1.96	0.057
Per Capita Income (\$1,000's of dollars)	-0.30	0.15	-1.98	0.055
Total Number of Jobs	2.78	0.42	6.71	0.000

Table 2. Result from estimation using OxMetrics 6 data analysis program. This data represents three independent variables with data for the years 1974-2013. Adjusted R-squared value = .92.

Per capita income and percent unemployment rate do not show to be statistically significant in the first model. With the increased number of observations in the second model, these two variables show t-values of 1.96 (percent unemployment rate) and -1.98 (per capita personal income) making them very close to being significant variables. Per capita income shows a negative sign, which is different than what was hypothesized. While per capita income shows to be nearly statistically significant in the second model, the implications of the variable are very small. The results show that as per capita personal income increases by \$1,000 the population will decrease by .30 people. This variable does not explain a very large number for population changes in the county. Per capita income is being measured in thousands of dollars. Per capita income is unlikely to experience large swings in values like population and building permit applications represented in *figures 2 and 3*. The results can be attributed to an increase in non-working youth in the county raising the population but decreasing the per capita personal income (Comprehensive Economic Development Strategy, 2011). The implications of this variable have basically no effect on population change according to the model.

The impact of the percent unemployment rate is nearly statistically significant in the second model and show fair strength in the first model as well. As the population increases by 1% the results represent an increase in the population by 252 people. The direction of the sign is different than what was expected to be observed. After evaluating the information a logical explanation for the results can be determined. Grundy County experienced significant population growth in the mid 2000's until the beginning of the recession. When the recession hit residents did not move out of the county to find work, rather population growth plateaued giving the county a high unemployment rate that peaked at 15.4% in January of 2010 (Comprehensive Economic Development Strategy, 2011). This could be the reason that increasing unemployment rate is associated with an increase in population. Logically thinking we do not expect people to move to an area with increasing unemployment rates, rather the opposite should attract new residents moving to an area for work.

The variable for total number of jobs in the county shows to be statistically significant in both models, results are in line with the hypothesis. In the second model as one-job increases the population is shown to increase by almost 3 people, which is a reasonable number. This number represents a number that could be associated with the size of a family in-migrating to the area for work. The results from this variable should be very important for the community. This variable represents just how important job growth and retention within the county is.

CHAPTER 5

CONCLUSIONS AND SUMMARY

It is necessary to estimate two models. The first model was restricted by the number of observations available for building permit applications. Data for building permit applications went back to 1990 giving the model 24 observations. For the other three variables there are data going back to 1974, giving the model 40 observations. Giving a time series analysis more observations allows for a stronger model to better represent results.

There are some limiting factors in this study that should be recognized for future studies. The model used only considers economic variables with data that could be obtained to do a time series analysis. Another way to estimate data that would help us to understand why people are moving in or out of the county is to take a survey of people who live in the county. The survey should ask questions about benefits of living in the county and reasons why they enjoy living in the county. A similar survey could be done for people that had moved to the county in the last fifteen years asking reasons why they moved to the county. A more complex model with more data should provide vital information for policy makers, business owners and residents in the county to understand why people want to move to Grundy County. Considering that population growth may have a lagged affect from some variables should be taken into account in future studies. Another approach for estimating population growth in Grundy County could be set up as a similar model using economic factors and data for the metropolitan region. It is logical to expect the surrounding economic conditions to have a more significant impact on local population growth. Industry employment is very strong in the county, but there are also many places of employment located a short distance outside of the county. The regional factors may play a more significant role than at the county level alone.

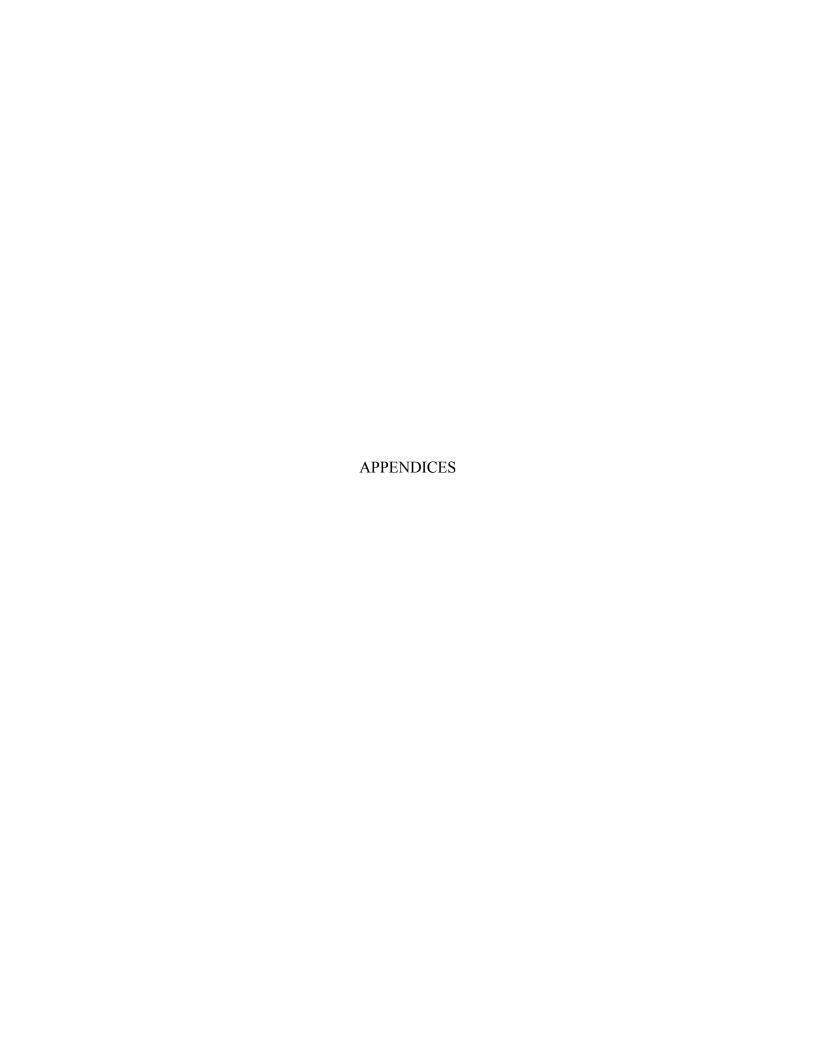
Using economic factors as reasoning for predicting population growth is limiting within itself. Considering spatial aspects like proximity to larger metropolitan areas, local perception on development, policy decisions, land zoning, demographics and many other factors play a role in determining why people choose to locate where they do (Voss, 2007). Simply observing the population growth period in Grundy County in the 2000's occurring and ultimately ending along with the beginning of the great recession should indicate that the United States economy has an effect on population growth, at least in Grundy County. It is possible that the United States economy has an effect on this population growth and that other factors determining migration intentions don't come in to play until people simply have the money or the ability to relocate to a more desired location. A strong economy should decrease unemployment rates and increase the number of jobs, which shows in this data to be a significant factor for population growth in this more rural nonmetropolitan county.

Although this study may have some limitations, jobs in the county are very important. A list of major employers in *figure 5* gives an idea of the number of jobs and different industries that exist in the county. Generally speaking the county government should be looking to assist with job creation and retention as much as possible. A pro business mindset that will assist growth or new business development within the county should continually be addressed to promote these opportunities. Gaining momentum for business growth and development should begin to have a cumulative causation effect that will continually promote growth and development.

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APPENDIX A RELATED FIGURES



Figure 1. Visual Location of Grundy County Illinois. Picture taken from the Grundy County Comprehensive Economic Development Strategy.

Grundy County Population 1990-2013

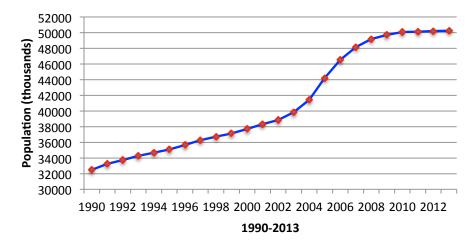


Figure 2. Data in this graph is from the Bureau of Economic Analysis

Grundy County Building Permits 1990-2013

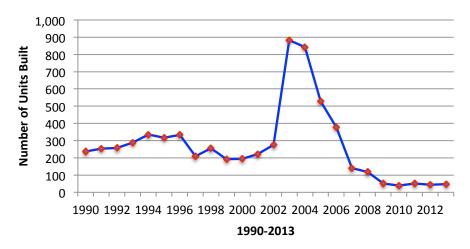


Figure 3. Data in this Graph is from the U.S. Census Bureau

	Illinois F	astest Growing Count	ies 2000 - 2010	
Rank	County	2000	2010	% Growth
1	Kendall	54,544	114,736	110.35%
2	Will	502,266	677,560	34.90%
3	Grundy	37,535	50,063	33.38%
4	Boone	41,786	54,165	29.62%
5	Kane	404,119	515,269	27.50%
6	Monroe	27,619	32,957	19.33%
7	McHenry	260,077	308,760	18.72%
8	DeKalb	88,969	105,160	18.20%
9	McLean	150,433	169,572	12.72%
10	Champaign	179,669	201,081	11.92%

Figure 4. Information in this chart is from the Grundy County Comprehensive Economic Development Strategy

Major Employers

Morris Hospital1000 HealthcareExelon - Dresden Station850 UtilitiesWal-Mart500 Retail TradeLyondellBasell400 Chemical ProcessingD Construction350 ConstructionCostcoLogisticsJewel-Osco250 Retail TradeMinooka CCSD 201210 EducationChicago Aerosol200 ManufacturingITW Filtration190 Manufacturing165 Transportation &LogisticsU.S. Cold StorageLogistics
Wal-Mart500 Retail TradeLyondellBasell400 Chemical ProcessingD Construction350 Construction260 Transportation &LogisticsJewel-Osco250 Retail TradeMinooka CCSD 201210 EducationChicago Aerosol200 ManufacturingITW Filtration190 Manufacturing165 Transportation &
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U.S. Cold Storage Logistics
Minooka CHSD 111 151 Education
Coal City CUSD 1 147 Education
Morris Healthcare & Rehab Center 140 Healthcare
Menards 140 Retail Trade
Travel Centers of America 140 Retail Trade
130 Transportation &
Exel Logistics/Clorox Logistics
Northfield Block 124 Manufacturing
Rezin Orthopedics 120 Healthcare
115 Transportation &
A & R Distribution Logistics
Reichhold Chemicals 112 Chemical Processing
Utility Concrete Products111 ManufacturingAux Sable Liquid Products103 Utilities
Aux Sable Liquid Products103 UtilitiesWalnut Grove Retirement103 Utilities
Community 100 Healthcare
Akzo Nobel 100 Chemical Processing
R-Place 100 Food Services
Sponge Cushion 88 Manufacturing
Holiday Inn 80 Accommodation Services
Evron Industries 80 Manufacturing
ALDI, Inc. 75 Transportation & Logistics
Cardinal Transport 75 Transportation & Logistics

Figure 5. Information in this chart is from the Grundy County Comprehensive Economic Development Strategy

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Major Professor: Dr. Ira Altman