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The University of Southern Mississippi

Education and Economic Development: An Untapped Alliance

by

Serena Williams

A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of the Requirement for the Degree of
Bachelor of Science
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Abstract

Many Mississippi economic developers firmly believe that education could be the answer to the economic development of a community. However, there is a relatively small amount of research published on *how* the connection between education and economic development works. This is a case study of the Greater Hattiesburg Area of Mississippi which seeks to explore and to begin to understand how to better the relationship between education and economic development.

The researcher conducted eight in-depth, open-ended interviews with key informants who were directly engaged in the K-12 education system and economic development of the Greater Hattiesburg Area. The researcher coded data from the interviews according to common themes that emerged from all of the interviews. These data were then sorted theme by theme so to conclude how education and economic development work together.

The results show that there is a definite connection between education and economic development. The five major themes found in the data are that 1) there is a connection between education and economic development, 2) education is used as a tool for economic development, 3) there are challenges to strengthening the relationship between education and economic development, 4) steps can be taken to increase this relationship, and 5) Hattiesburg has “all the right ingredients” to tap into this alliance.

Key Words: education, economic development, Mississippi, Hattiesburg

Dedication

To my mother, Jo Anne Holston Williams

Thank you for your constant encouragement in this research process.

You are my hero.

Acknowledgements

I would like to thank Mark. M. Miller for his unwavering support in this research process. He has afforded me the opportunity to delve into meaningful qualitative research and to enjoy the process. He also never doubted my ability to complete this work. He has truly been a light in what sometimes seemed like the dark, and I hope to become as knowledgeable, encouraging, and patient as he is.

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Chapter I- Introduction

According to Reilly (2013), Mississippi is past the days of relying only on aggressive tactics and alluring benefits to attract businesses to locate in the state. It has transformed its economic outlook and is now focused on creating an economy that will grow from a skilled, educated workforce (Reilly 2013). Today, Mississippi leaders work to enhance the relationship between education and economic development so to ensure a better, brighter Mississippi.

Mississippi's Governor, Phil Bryant, emphasizes that the quality of the workforce in Mississippi is what attracts business to the state. "I want to make sure every child has the opportunity to be a part of that workforce," he stressed when announcing his efforts to generate economic development in the state (Governor Bryant 2013). Dr. Phil Pepper, former State Economist of Mississippi, stated that education is a "tool" for the development of any economy (Hardwick 2010). Along with Dr. Pepper, two other state leaders in economic development stress the importance of an educated workforce: Gray Swoope, former director of The Area Development Partnership for Hattiesburg, believes in showing prospective businesses that a community prioritizes education, and Dr. Hank Bounds, the Mississippi Commissioner of Higher Education, knows that "education is the answer." (Hardwick 2010). These are not the only leaders in Mississippi that "get it." Dr. Lynn House, former superintendent for the Mississippi Department of Education, has stressed that the state should embrace Common Core State Standards, a new set of K-12 education standards that she defines as the "crucial step forward" to a "thriving workforce." Dr. House also recognizes the importance of students' being "prepared to succeed in college and in a modern workforce" (Mississippi Department of Education News 2013). Dr. Carey Wright, the new superintendent for Mississippi, notes the "untapped potential"

in Mississippi (Kulo 2013). Mississippi's economic development professionals hope that education can be the key to tapping this potential.

With many so professionals acknowledging this relationship, it seems simple: an improved education system will lead to an increase in economic development. Though education is a primary focus in economic development, we are yet to fully clarify *how* to use it as a tool to shape the development of an economy.

Research Problem

As is everything in life, using education to increase economic development is easier said than done. According to Moretti (2013), the economy of the United States is changing, and this is affecting many cities. With a new economy ahead, communities need to know how to sustain themselves, and businesses are now looking to collaborate with educators on what kind of workforce is needed (Reilly 2013). Unfortunately, there are no clear models for how communities, like Hattiesburg, can connect education with economic development. Communities also need to know how to overcome obstacles such as “brain drain,” the migration of educated individuals from the community where they received their education to another area in search of better opportunities (Florida 2011).

Research Purpose and Questions

The purpose of this study is to explore the relationship between education and economic development through a case study of Hattiesburg, Mississippi. More specifically, the purpose of this study is to *operationalize* more clearly this loosely-defined model: that is, how do we best define the variables of education and economic development in this model, how do they work

together, and how can we potentially enhance the relationship between these variables? What components of education (Education standards? Literacy? Public schools?) and economic development (Number of jobs? Quality of jobs? Tax Revenue?) create this alliance? How might we take these essential variables and piece them together to enhance the relationship? How do we avoid or overcome obstacles such as losing our “best and brightest” due to brain- drain? Foremost, how can our economic development professionals more effectively understand and capitalize on our education resources and achievements to advance our state, and what does this mean for Hattiesburg, Mississippi?

Chapter II- Literature Review

According to Plato, the primary role of education is to develop citizens so that they can contribute to the community (Longworth & Osborne 2010). It is also thought that education is what forms the base of an economy of a given area and what determines the well-being of the people who live in it (Weber, Marre, Fischer, Gibbs, & Cromartie 2007). In the past three or so decades, there have been more and more empirical data that connect education and economic development (Organization on Economic and Cooperative Development 2010). Literature from the past decade shows an emphasis on using education for economic competitiveness, investing in education for economic development, developing skills of individuals through education, connecting education to a changing economy, and utilizing strategies in education to increase economic development.

Defining Education and Economic Development

As complex as education is, it can be classified in types and levels. According to Agabi (2009), in order to make proper investments and goals in education, education must first be defined. Education is typically defined by three levels, program types, and methods. The three levels are primary (i.e., education given to individuals between the ages of five and twelve), secondary (i.e., education given after the primary level to prepare students for the workplace or for higher education), and tertiary (i.e., education obtained at the highest institutional level). The three programs are special programs (i.e., programs for different needs in education), vocational programs (focused on specific fields of work), and artistic or science and technology programs. The three methods in which to educate are formal in which a trained teacher facilitates learning; Formal education is given by institutions with trained educators, informal education is

interpersonal, non-deliberate learning, and non-formal education is learning through experiences like on-the-job training (Agabi 2009).

According to the American Economic Development Council (1984), economic development is "...the process of creating capital, physical and natural resources to generate marketable goods" (American Economic Development Council 1984). According to the World Bank (2011), economic development includes approaches to improve the local economy through increasing competitiveness in business attraction. Some examples of these strategies to increase competitiveness in economic development include investing in businesses, infrastructure, and workforce development (World Bank 2011). Economic development success can be measured by job growth, improvement in the quality of jobs, reduction in the poverty rate, and in overall growth of the levels of income or wealth (Leigh & Blakely 2013).

Education and Economic Competitiveness

Due to an increase in global economic competitiveness, countries have pushed for improvements in their schools (Hanushek, Jamison & Woessman 2008). These "pushes" for improvement began with the desire to use education as a tool to develop the work force of a country and to decrease inequality gaps among its citizens, according to the Organization for Economic Cooperation and Development (OECD) (2010). In response to this push, various organizations have attempted to measure the impact of this push for improved education. Many of these studies show that educational improvements have yielded gains in the development of an economy of a country (Mamoon & Murshed 2009). In 1997, the OECD launched PISA, the Program for International Student Assessment (OECD 2010), in order to compare the cognitive skills of countries through testing in math and science (Hanushek, Jamison & Woessman 2008).

In 1992, the International Association of Educating Cities (IAEC) hosted the Gothenberg Conference, at which four hundred cities devoted themselves to enhancing the connection between education and community development through strategies like private-public partnerships (Longworth & Osborne 2010).

Meanwhile, researchers, educators, and policy makers in the United States are working to determine what skill sets are needed for people to be “college and workplace ready” (Lippman, Atienza, Rivers & Keith 2008). The focus of these studies range from childhood education to increasing economic productivity through workforce training programs.

Some community-based studies, like one by the Wisconsin Policy Research Institute (2012), have shown that it is best for communities to invest in early childhood education programs, because the cost of not investing is far greater than the cost of actually investing in early childhood education. A study by Rolnick and Grunewald (2013) stresses the importance of early childhood education and has correlated the low education levels of an area with the fact that there is no in-place early childhood programs. Early childhood programs have also been associated with lower levels of spending on social programs and lower levels of spending that goes toward criminal activity (Rolnick & Grunewald 2003). Early childhood programs are suggested to increase the skills of an individual and show private and public returns as much as 20 percent (Leigh & Blakely 2013).

A few years beyond this early childhood focus, a “K-12 revolution” is underway. This is a revolution of K-12 schools creating a new focus in education, in efforts to increase the knowledge, skills, and values that students earn throughout high school (Wheeler & Byrne 2003). Education is believed to be a critical factor in developing skills of humans so that they can contribute to an economy in a meaningful way (Agabi 2009). This meaningful contribution is

possible when education grants skills to individuals in a community, which, overall, leads to the goal of “productive capacity,” in which the workers of an economy increase levels of economic productivity (Tatlah, Naz & Iqbal 2011).

Investing in Education for Economic Development

Current national policies show the importance of a country developing its citizens for greater human capital, but policies based on the immediate needs of the business-cycle seem to be put predominate (OECD 2010). These types of training programs are skill-specific and have become common in workforce development (Bencini 2013). A prime focus in these types of programs is direct-experience technical training programs, where individuals get hands-on experience in a field (Lippman, Atienza, Rivers & Keith 2008). This has made community colleges and vocational technology schools more and more important (Leigh & Blakely 2013).

There are different definitions of workplace and college readiness because there are different types of skills needed for a certain field of work (Lippman, Atienza, Rivers & Keith 2008). In order to develop these varying skills, different types of educational investments are needed to support the different types and levels of education (Longworth & Osborne 2010).

Unfortunately, for some areas that have invested in education, there have been failed, “expensive attempts” to use education for solving economic issues (Hanushek, Jamison & Woessman 2008). It is shown that education is affected by the type of investment decisions that are made (Weber, Marre, Fischer, Gibbs, & Cromartie 2007), not just the amount of money spent. This signifies that money cannot simply be thrown at education issues: investors and educators must determine how to spend and where to place resources in hopes for a highly educated workforce (Hanushek, Jamison & Woessman 2008). This is known as being “cost effective” with public resources in order to produce skills that are relevant to the economy of that

community (Agabi 2009). These purposeful investments are vital because institutions of education are “prerequisites” for economic development (Mamoon & Murshed 2009).

The American Federation of Teachers (AFT) also promotes proper investment in education through their agendas of interest. The AFT supports interests such as improving the quality of teaching, improving data collection for research, increasing choices and level of support given to educators, and creating partnerships within the community (American Teachers 2012). Some groups similar to AFT call for sustainability education, in which schools educate students on how to be contributing citizens and future workers in an environmentally-sensitive economy (Wheeler & Byrne 2003).

If education is properly invested in, “shared prosperity” and a foundation for a strong economy can emerge (Berger & Fischer 2013). Cost-effectiveness is what will make these investments worthwhile (Agabi 2009).

Overall, the purpose of these investments is to develop the human capital, or workforce, in a given community. According to Agabi (2009), the creation of human capital occurs when education results in a skilled labor force whose skills directly contribute to the economy. Improvements in education will create a more productive human capital, which contributes to the economy and allows the community to invest more in human capital (Agabi 2009). However, in order for education to contribute to the development of human capital, researchers and public officials must understand how to make this connection a reality (Longworth & Osborne 2010).

Development of Skills through Education

Today, many businesses express that workers do not have the necessary skills to immediately contribute in the workplace (Bencini 2013). This concern of businesses can be

attributed to the lack in diversity of skills that individuals receive through the traditional education system. The current “Millennial Generation,” in particular, has been singled out as not ready for the workplace (Walsh 2013).

Regardless of the concerns of businesses, there is a wide spectrum of skill sets for the workplace that an individual can attain through education. Cognitive skills seem to be a primary focus. Cognitive development is the development of critical thinking and reasoning skills, and contributes to the creativity and lifelong-learning aspirations of an individual (Lippman, Atienza, Rivers & Keith 2008). Groups like PISA use standardized tests to determine cognitive levels to compare to levels of productivity at the national level, and countries that participate in PISA believe that cognitive skills are related to the gross domestic product of their economies (OECD 2010).

According to Hanushek (2008) the development of cognitive skills is seen as the main purpose of education, but it is not the only skill gained through education. Some different components of development are the physical, psychological, social, cognitive, and spiritual domains (Lippman, Atienza, Rivers & Keith 2008). In order for education to contribute to skill development of individuals, it is important to determine what skill domains are necessary for an individual to have before entering the workplace or continuing his or her education.

There are a mix of factors that influence the contribution a person has to society such as political, economic, financial, environmental, and cultural factors (Longworth & Osborne 2010). The development of social skills is also important because these skills determine the interaction a human has with others when participating in an economy (Lippman, Atienza, Rivers & Keith 2008). Skill development is important in all domains because they interact with one another and play a role in the level of success or contribution of a person in society (Heckman 2008).

Even with the specificity of different domains of development, there is a need for a basic set of skills for all workers and learners which should be based on the needs of the economy (Leigh & Blakely 2013). An economy needs to focus on developing advanced aspects of human capital for technological advances (e.g., engineers), but it is just as important for all other humans in the workforce to have a set of skills to contribute to the economy. Skills are inputs for the outputs in the economy of a nation (Tatlah 2011), and education should be the answer. Socio-emotional skills, physical and mental health of a person, as well as his or her possession of qualities such as perseverance, motivation, and self-confidence all contribute to performance in the workplace and in higher education (Heckman 2008).

In the past, economic developers have focused on how higher levels of education in a community impacts an economy (Leigh & Blakely 2013), but some groups suggest that learning should be cultivated at all ages (Longworth & Osborne 2010). While many business projects have made strides to better an economy with low or no rates of return, early childhood investments yield both public and private returns in an economy (Rolnick & Grunewald 2003). These types of investments, referred to as early childhood development programs (ECDPs), have been associated with less poverty (Cohen 2013), less crime, a more highly educated workforce, and better schools (Rolnick & Grunewald 2003). Literacy and primary education benefit societies as a whole (Tatlah 2011), and the development during early years of life impact the contributions a person will give to a society later in life (Rolnick & Grunewald 2003).

Due to this connection, researchers suggest that schools and communities should focus on developing diverse skills in the youth of a community (Lippman, Atienza, Rivers & Keith 2008). In order to do this, primary education should be made free and available to all students (Tatlah 2011). It is also important to expand availability of ECDPs because they have been considered

more effective than other tactics (Heckman 2008). The skills and knowledge gained in early childhood programs is transferrable to other levels of education (Lippman, Atienza, Rivers & Keith 2008), which will make students more successful in the long run.

According to Lippman, Atienza, Rivers, and Keith (2008), research also shows that the development of disadvantaged children should be monitored more closely for economic as well as humanitarian reasons. ECDPs are believed to make up for the challenges faced by disadvantaged students because they provide mentors and programs to “catch them up” with students labeled as not being at a disadvantage (Lippman, Atienza, Rivers & Keith 2008). This “catching up” is important because there is a significant gap between the skills, on both the cognitive and non-cognitive levels, of advantaged and disadvantaged groups (Heckman 2008). Education also closes gaps among groups, and economic development works to decrease inequality (Leigh & Blakely 2013) while raising the standard of living. Programs in the United States, such as Title I, grant funding to students with disabilities and show efforts made to mitigate educational gaps (Goodwin 2011).

Literacy is another key factor in this education debate for multiple reasons. According to Cree, Kay, and Steward (2012), when an individual is illiterate, he or she potentially loses the opportunity to attain wealth, to sustain a family, and to give to the community. These individuals are also more likely to experience unemployment, to be reliant on social programs, have a lower quality of health, and have a higher chance of taking part in criminal activity (Cree, Kay & Steward 2012).

Families also play a big role in education and in the adult outcome of a child (Heckman 2008); professionals encourage parents to take responsibility for their children's preparedness for learning and for everyone to focus on the youngest generations (Cohen 2013).

Education and a Changing Economy

According to Richard Florida and Enrico Moretti, in their separate books, the economy of the United States is developing in a whole new way. According to Florida (2012), author of *The Rise of the Creative Class*, investing in humans is the key to creating a "creative human class" that will drive economies in the United States. Moretti (2013), author of *The New Geography of Jobs*, addresses the same idea in terms of "innovation hubs" in the United States. Moretti stresses that there will be a "new economy" in the United States due to the shift from factory-based, hands-on jobs to more creative, cognitive-based jobs that lead to innovation. This notion of a new economy based on innovation and creativity calls for an improvement in education.

However, there is a downside to improved education systems. According to Florida (2011) a phenomenon known as "brain drain," where educated individuals will move from where they received their education to a new area, works against the education-economic development connection in a community. Brain drain contradicts education improvements because, in some cases, an individual with higher education wants better opportunities than those the community in which he or she was educated has to offer. Therefore, in these cases, it is more likely for that person to move away to move somewhere that does have more attractive opportunities available. Because of this, it is possible that no economic impact will occur from educational improvements in communities because those educated individuals are leaving the area (Florida 2011).

Weber, Marre, Fischer, Gibbs & Cromartie (2007) states that education influences the migration of humans on a large scale, and depending on the community, higher levels of education typically lead to the migration of more people. What is hurtful about this migration, or brain drain, is that educational attainment has been connected to the reduction of poverty in an area, (Marre, Fischer, Gibbs, & Cromartie 2007). In order to detract from this negative phenomenon, communities can promote their levels of education to attract more high-paying jobs (Berger & Fischer 2013) so to meet the demand of jobs for individuals with higher levels of education in a community (Tatlah 2011).

Another obstacle in the relationship between education and economic development is choice in schools. With an increase in charter schools and private schools, families have more choices in where to send their students to schools (King 2005), which may take to focus away from public schools.

It can be detrimental when the top-educated professionals of a city choose to send their children to private schools instead of choosing to support public schools of the area. If all the top-educated parents in a city enrolled their children public schools, and were not satisfied with the local school system, they could create an extremely powerful group to create positive change in that school system. “In many under-resourced schools, it’s the aggressive PTAs... and willful parents” that help make the school a better, more productive place (Benedikt, 2013). If the majority of top-educated parents are sending their children to private schools, public schools are losing potential benefits from those top-educated parents.

Non-public schools are usually a result of public schools not having necessary support, which can lead to biases in testing, lower education expectations, conflicts

among education administrators and educators, unfavorable school environments, and unequal allocation of resources (Lucey 2003). When schools fail to create a positive learning environment as just described, school choice becomes important for economic development. This has led to the creation of non-public schools, in which schools can run more independently without the “bureaucracy” seen in public schools (King 2005).

Strategies for Strengthening the Relationship between Education and Economic Development

Regardless of why or how the economy is changing, communities must respond. The education system in the United States has responded to the call for educational improvements through the creation of a new set of curriculum standards, Common Core State Standards (CCSS). These standards were adopted by forty-six states in the United States (Association for Supervision and Curriculum Development 2014). According to Common Core State Standards (2014), the primary section of the standards (K-6th grade) focuses on making students literate and analytical by using both literature and informational texts. These standards also delineate how students of all levels will gain communication skills through writing and speaking and listening standards (Common Core State Standards 2014). These standards connect the different domains of development suggested by research that will help individuals be a part of the economy.

Standards are likely not the only component of matching education to the needs of a new economy, but teachers must be properly educated and supported for this connection to work (Wheeler & Byrne 2003). Appropriate policies should be created to support efforts in schools (Mamoon & Murshed 2009). If education is truly connected to

economic development, economic productivity will increase alongside an improvement in public infrastructure and technological innovation (Berger & Fischer 2013), which will help society adapt to the new economy. However, those who are involved in the education system of a community must first determine how to have successful education on the local level that will support a changing economy (Lucey 2003).

Public-private sector partnerships, which are encouraged to foster education (Longworth & Osborne 2010), are on the rise (World Bank 2012). In such cases, K-12 school districts partner with businesses, religious organizations, civic groups, non-profit associations, and even public organizations such as the military branches (Newport News Public Schools 2014). According to the World Bank (2012), representatives of the private business actor should also visit schools to encourage learning. In some cases, businesses even support schools monetarily so that the schools can meet the specific workforce demands of an economy.

According to Bencini (2013) it is becoming more frequent for high school students to look beyond a four-year degree route in order to participate in the economy. These students are turning to less expensive training opportunities like community colleges or work force training programs to get the skill sets they need for a specific field of work (Bencini 2013). This change in focus is attributed to the expansion of knowledge about learning opportunities that students receive. This broad awareness of opportunities gives individuals a choice on how they want to contribute to the economy (Longworth & Osborne 2010).

While there are monetary costs to investing in education (Agabi 2009), the cost of not investing is far greater because of the potential for K-12 schools success (Schweke 2004). Of course, these investments take time and scarce resources (Agabi 2009).

In conclusion, economies are growing and changing (OECD 2010), and investment in education is necessary in all types and levels. Proper planning for education should be key in this process (Agabi 2009). Communities can widen the road to success for students through education in many different ways, and the future can be more secure and more prosperous with proper planning in education (Wheeler & Byrne 2003). The 21st century calls for candid conversations and serious considerations in education (Lucey 2003); working together, communities can brighten the futures of their youngest citizens (Longworth & Osborne 2010).

Chapter III- Methodology

As shown in the literature review, there is a need for more research on how to specifically link education and economic development. Despite our own state's long history in economic development, Mississippi has only recently begun emphasizing the importance of education in economic development (Reilly 2013). In response, this study presents an exploration of the topic, using the Greater Hattiesburg Area of Mississippi as a case study. The researcher utilized the Grounded Theory method to guide the data collection and data analysis process.

Why Hattiesburg?

Mississippi is much more than a convenient choice for the research focus. It is a struggling state which is constantly proposing new ways to improve economic performance. Alongside Mississippi's being the "fattest," it is also one of the most poor states as defined by its gross domestic product per capita and percentage of citizens living below the poverty line (McIntyre & Sauter 2010). As of 2011, however, Mississippi remains "dead-last" in education. Mississippi earned a 1.11 out of 5 for math and science, as according to the State Engineering Readiness Index (SERI) (Huffington Post 2012). In response, Mississippi has adopted a new set of education standards (Nave 2013), approved a public-charter school bill (Governor Bryant Online 2013), and approved a teacher-merit pay system (Mississippi House Legislature 2012) all in the year of 2013.

The diversity of Hattiesburg in both education and economic development make it an ideal match for this study. According to The Area Development Partnership (2014), Hattiesburg's metropolitan area is home to over 150,000 residents. Known as the hub city, it has a central geographic location, a three-pillar economy (i.e., an economy sustained by three major industries: healthcare, military and education), and has been noted as a "leading" and "vibrant"

community (The Area Development Partnership 2014). There are a variety of school districts in Hattiesburg, which, as of 2012, range from a “Successful” accountability rating of “C” to “High Performing” accountability rating of “B” (Mississippi Department of Education 2012). Overall, Greater Hattiesburg Area has a successful education system which still has room for improvement.

Sample: This study collected data through eight in-depth, open-ended interviews with key informants at top leadership levels in either the education system or economic development of Hattiesburg. These informants included leaders in the professions of economic development and education such as public officials, leaders of community development foundations, school system superintendents, and curriculum administrators. These interviews lasted about one hour each and allowed the informant to give insight to the researcher on how he or she has seen education and economic development working together during his or her career. Below are the names and titles of the informants:

Informants in Economic Development

Chad Newell, President of the Area Development Partnership of Hattiesburg,
Mississippi

Wanda Land, Workforce Specialist for the Mississippi Development Authority

Melissa Medley, Chief Marketing Officer and Senior Vice President of Enterprise
Florida

David Rumbarger, President of the Community Development Foundation of Tupelo,
Mississippi

Robert Ingram, President of Common Sense Economic Development, LLC

Larry Lee, Community Development Director for the City of Bloomington, Alabama

Informants in Education

Ben Burnett, Ph.D. Superintendent of Education for Lamar County School District

Leisha Mohn, Ph.D. Director of Student Assessment for Petal School District

Variables:

Education- K-12 school districts in the Greater Hattiesburg Area, including Hattiesburg Public Schools, Petal Public Schools, Forrest County Public Schools, and Lamar County Public Schools.

Economic Development- According to the American Council on Economic Development (AEDC), economic development is the “management of public-private investment collaborations to facilitate sustainable growth in the economy as typically measured by job creation, increased citizen wealth, a greater tax base, and improved quality-of-life” (American Economic Development Council 1984).

Data Collection Methodology:

The researcher chose a qualitative method of research titled Grounded Theory. The researcher chose this methodology because there is no clearly recognized, well-defined model of how education and economic development work together.

There is extensive literature published on the Grounded Theory methodology, which was developed in the 1960s by two sociologists, Barney G. Glaser and Anselm L. Strauss (Charmaz 2006). In the text *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Corbin and Strauss (2007) explain the

systematic approach to developing theories through simultaneous involvement with the collection and analysis of data and the construction of analytic codes and categories from the data. Grounded Theory is also discussed in *The SAGE Handbook of Qualitative Geography* (DeLyser 2009).

The thesis advisor of the researcher recommended a text by Kathy Charmaz, a qualitative researcher, on how Grounded Theory can be used for this particular study. According to Charmaz (2006), Grounded Theory is a form of data analysis that allows the researcher to create a theory that is “grounded” in the data. Through a data-focused coding process, this method seeks to develop, or “cultivate,” data into an applicable theory (Charmaz 2006). In other words, this method of research will develop operational definitions of education and economic development in regards to their proposed relationship.

Data Collection Instrument: See Appendix

Procedures:

The data collection process for this study was based on the Grounded Theory process, as described and defined in *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis* (Charmaz 2006).

A. Gathering Participants: Working with her thesis advisor, the researcher identified names of educators and economic developers for initial interviews. The researcher contacted the informants via email to request personal or telephone interviews. At the end of the interviews, the researcher asked informants if they had suggestions for other possible informants that could help continue the study. These suggested

informants were then contacted by the researcher to set up an interview. The researcher stopped scheduling interviews when enough common themes emerged from the interviews.

- B. **Conducting Interviews:** During the interviews, the researcher began by introducing the study and asking the informant to describe his or her connection to education and economic development. The researcher then opened the interview by asking “Do you believe that there is a connection between education and economic development?” The researcher allowed the informant to answer the question, and based on the response, continued to guide the interview based on the informant’s responses with a questionnaire found in the Appendix.
- C. **Organizing the Data:** In order to have accurately recalled points made in the interviews, the researcher recorded each interview. The researcher used these recordings to transcribe the details of key points made in each interview. The researcher then highlighted the main points made in each of the interviews. Points that were brought up in all of the interviews were labeled as major themes. The researcher then created a color code for the five major themes found in the data. This color code was used to mark statements in each of the interviews that related to the five major themes. Once this step was complete for all of the interviews, the researcher cut, pasted, and organized the coded data by major themes in a separate document.
- D. **Interpreting the Data:** Once all of the data was organized by major theme, the coded data were printed in color on copy paper. By hand, the researcher cut the single statements that related to the major themes. These statements were then organized by

major themes. Theme by theme, the researcher compared and sorted statements based on their meaning within each major group. These sorted groups were labeled as subthemes, which were common connections made about major themes by the informants. The researcher created an outline of the themes and subthemes in order to accurately expand the meaning of each major theme.

Chapter IV- Results

This chapter describes the themes that emerged from the research data coding process described in the methodology. Five themes emerged from the data, and within each theme are the sub themes which derived from the major themes. The bold headings are the major themes, and following each bold heading are the sub-themes as well as anecdotes that the informants used to illustrate the themes.

There is a Connection between Education and Economic Development

Among the informants, there was consensus that a relationship does exist between education and economic development. The majority of informants stated this as a definite, constant connection, while others noted that not all communities have a match between education and economic development. For example, some communities may have a competitive advantage in attracting businesses because of a successful education system, while some communities are unable to connect education and economic development due to unsuccessful school systems. Along with this consensus was the realization that the relationship is complex. One economic developer explained how there is not a simple connection, or “straight line,” that marks how education and economic development work together nor how their relationship can be enhanced.

Economic developers and educators each had their own explanations and analogies to illustrate the connection between education and economic development. One of the analogies was that the two are “forever connected at the hip.” Another was that there is a marriage between the two; they “aren’t divorced yet, but are definitely separated” in many Mississippi communities. One school administrator stressed that

schools are a reflection of the community, not necessarily the other way around. This means that school success is determined by the success of the community. Other economic developers and educators used simple words to describe the existence of the relationship, such as “absolutely,” “definitely,” or “without a doubt.”

Another economic developer stated that the relationship between education and economic development “takes on a life of its own,” and that not all communities are able to connect education and economic development. This economic developer stressed that the relationship between the two is complicated, in the sense that businesses are about “how much and how fast” while educators are focused on programs of “development and comprehensiveness.”

Education is Used as a Tool for Economic Development

The data suggest that education is currently used as a significant, though not solitary, tool for attracting businesses in the economic development process. The main reason for this, based on the interview responses, is that education statistics portray the skills sets, trainability, and percentage of education levels of the population to prospective businesses. In addition, relocating companies want to ensure that there are quality schools in place so that the children of relocating workers and managers will receive a quality education. The data also suggest that there are other ways that a community can demonstrate the quality of its education system, besides school performance statistics: for example, and programs that show promise that the current students will become a productive workforce.

Economic developers and educators all mentioned the importance of education statistics in business attraction. Some economic developers stated that education is a sort of “screening mechanism” in which companies look at education statistics at the regional, state, and local levels. As described by one economic developer, a business wants a “solid K-12 education system” for their workforce and for the families of their managers.

For example, when a company is interested in locating to an area, that company will review a variety of variables in the education system. All the economic developers interviewed noted that different companies look at different parts of education statistics, depending on the specific needs of the company. Some of these different considerations include test scores of the school district, percentage of residents with a certain level of education (e.g., high school diploma, four-year degree, certificates), school expenditures, proximity to institutions of higher learning, and even whether superintendents are elected or appointed (some companies may be concerned that elected superintendents are subject to political influences).

One economic developer with over thirty years of experience explained how varied the considerations businesses make can be when looking at the education system of an area. He stated that, surprisingly, he has witnessed only once a business asking specifically about the private schools of a community. The same developer referred the researcher to the website of the International Economic Development Council (2014) which specifies as many as twelve hundred factors which might be considered by businesses looking to locate to a community. Of these, thirty-four factors concern K-12 education, and only one of these factors specifically concern private schools.

To further describe how education is used as a screening mechanism, another economic developer stated that the K-12 education system of a community either “does or doesn’t do” what a business needs it to do. The economic developer went on to explain that there are certain requirements to be met; it is a “go or a no go.” This means that a poor education system could potentially kill a business deal that could have happened if the schools demonstrated strength in the considerations made by the business. This is because, overall, businesses want to know that their future workforce can “read, write, and reason logically and efficiently,” as stated by one economic developer. As shown in the data, education statistics are what can demonstrate the reading, writing, and logic capabilities of the workforce of a community.

Not only are there specific skills that need to be available for prospective businesses, but work ethics of individuals are also a “must.” According to one economic developer, businesses are not necessarily worried about individuals’ having the necessary skills for a job, but businesses want to know “Can I teach them what they need to know, and will they show up to work?” Another economic developer sums this up by expressing that communities need to be able to show that their workforce has the “aptitude and attitude” for businesses.

Most economic developers interviewed also agreed that it is best if an education system can support an array of businesses and industries. These economic developers stressed how it is important for a community to have a diverse economy. According to one economic developer, in the case of a disaster in any part of a community’s economy, a diverse economy will not entirely suffer. An example of this, given by one economic developer, was the strength shown by the Mississippi Gulf Coast after Hurricane Katrina.

The informant explained how much of the tourism industry was destroyed due to this natural disaster, but the community was able to pull itself back up with workers that were skilled in different things, like the skills to clean up and dispose of debris, to construct new buildings, and to provide food and other services. This available workforce allowed the community to make its first step in getting back on its feet after the destruction of one of its main economic sectors and to “jump start” the overall economy— thanks to an education system that developed a diverse set of skills in the community. Another analogy given by the same developer on diverse economies is for a community not to “keep all of [its] eggs in one basket,” so that it can have the “resources to rebuild, pick back up, and spread money around again.”

The many different types of jobs needed to run just one business represents another type of diversity needed in an economy, which the data suggested an education system could also support. One economic developer explained how a school should be devoted to developing diverse skills in its students. The developer stressed that these skills should not only be based on different industries, but also on the different types of jobs within each industry. A typical company needs different types of jobs such as administrators, managers, salesmen, and hands-on workers to function successfully. This developer stressed that “It takes all types of workers to develop economies.”

Besides the major theme of business attraction, there are other components of education that can influence economic development. One educator stressed the importance of how drop-out rates, high levels of literacy, housing, and employment levels all play a role in the education-economic development relationship. This educator noted that dropout rates can indicate how successful a school has been, and that literacy is a

fundamental skill which needs to be solidified in a student by third grade in order to set a strong foundation for the future of that child. This educator connected economic variables such as housing and low employment with low drop-out rates and high levels of literacy: for example, if an area has fewer drop outs, it will have a higher percentage of high school graduates, who in turn are more likely to be employed. In addition, as noted by a different educator, the more successful a school can show that it is, the more likely individuals will be buying housing in that community because parents want their children to attend a successful school.

Other factors of education influencing economic development that were noted by informants reinforced the complex nature of the relationship. High-performing schools, for example, are more likely to instill pride in the community and receive more community support. A failed relationship can also result in a downward spiral: one economic developer stressed that a community can have no hope for sustainability if they do not better connect education and economic development.

Overall, as stated by an economic developer, a company can feel more comfortable in relocating to an area when the education system of an area can demonstrate that it can provide a quality work force for “today, tomorrow, and for years to come.”

Actions Can be Taken to Strengthen This Relationship

There was also consensus among both the economic developers and educators that actions can be taken to strengthen the relationship between education and economic development. In particular, communities can connect students to the economy at earlier ages through economy-relevant education and community partnerships.

Besides a workforce having specific skill sets, the informants stressed the importance of making meaningful connections to the economy for students. This means making students aware, at earlier ages, that the skills they develop in school will one day contribute to not only their individual success, but also to the success of the community. One economic developer noted that this can be achieved through community businesses speaking with students about the importance of mastering curriculum-based skills in order to do a job or enter a career. Another economic developer stated that the connections a school makes to the economy of a community should be based on the pillars of the local economy, as well as on the interests of the students so to make a more meaningful connection. For instance, a business could ask a group of students in a math class, “Do you want to work for me? Well, you’ve got the master this skill now,” suggested one economic developer. In this way, businesses can give students a realistic idea of what skills they need for a specific field of work and to get their degree. This developer stressed that connecting students to businesses they know and admire could help better “capture their imagination.”

In order to achieve the above, educators and businesses must form partnerships, as noted by the educators and the majority of the economic developers. These partnerships can be fostered through local school boards, development foundations, or through “ombudsmen,” individuals who serve to unlock resources of one organization. The term ombudsmen was linked to the education-economic development relationship by one economic developer. This developer explained that instead of the chair of a university department working to connect its resources to local K-12 school systems, there can be a person specifically designated for “unlocking” its resources for K-12 schools.

The data suggested that partnerships formed should not only benefit the schools or only benefit the businesses, they should be mutually beneficial. For example, schools will have support from businesses, and businesses will make educators aware of what economic-applicable skills they would like to see students leave the school possessing.

Both educators and economic developers stressed that these connections are not easily made because business and educators have different focuses and operate differently. An educator noted that there are “time crunches on both sides,” and one economic developer noted that educators and businessmen “speak different [technical] languages.” Regardless of the potential difficulty, the two informants both noted that there is a need for the two sectors to be connected.

The data also showed that schools can benefit from connecting with institutions of higher learning. An educator explained this connection: K-12 schools can partner with university teacher-education programs to help educate future educators (e.g., allowing student teachers to have clinical experiences within the school). This type of partnership can also help influence quality teachers from local universities to work in local schools after they graduate.

Tupelo, Mississippi is a frequently-cited example of how businesses and schools could be partnering. According to an economic developer from the area, Tupelo noticed that there were unequal success levels in its area schools. One of the key curriculum components they felt was lagging was in technology training. The school district worked with the Community Development Foundation of Tupelo to partner schools with Apple products. This partnership created the “Apple 1:1” project in which every child had a

computer. This drove the innovation and technology curriculum, as student assignments were all based on the laptops they were granted thanks to the partnership.

Another type of program that an economic developer described was “career academies” like in Nashville, Tennessee. This program, like Tupelo’s, was created in response to an area whose suburbs prosper and sometimes inner city struggles. The purpose behind these career academies is to connect the economic pillars of an area with its K-12 education system. An economic developer stated that this is an important focus because it allows a community to build off its strong points, and these strong businesses can provide resources that a school could not otherwise obtain.

Some of the most likely partnerships noted by educators and economic developers were partnerships between school administrators and leaders in local business boards and development foundations. However, several informants also stressed that in order for these efforts to connect education and economic development successfully, the entire community should be involved. Families should be involved, churches, small businesses, local charity groups, etc., in order to strengthen how much students are connected to a community. The more people and groups on board, the more likely beneficial connections will be made that will continue in the future. An analogy given by an economic developer of the degree of connectedness needed was that “college football shows hope.” This economic developer explained how people will come together from all different walks of life to have one thing in common—support for their football team. The developer stated that communities should have a similar, no-boundaries attitude like this towards education. “Education is everyone’s business,” the economic developer stated, and schools can flourish from this type of community-unified support.

According to the data, education also needs to ensure that students meet the future needs of the economy. Economic developers and educators stated that this can be accomplished through recognizing the needs of businesses by creating a curriculum based on goals to develop the skill sets in students that are needed by the businesses. An economic developer noted that some K-12 schools do not demonstrate focus on the fact that students will be a part of the economy years down the road; it is easy for many schools to focus on what is needed to get kids to the next level rather than keeping the “end goal in mind.” According to one economic developer, the focus should be “How will this help students get jobs when they leave?” Attitudes like this could make schools “a lot more creative,” the developer noted.

Broad community partnerships can help make meaningful connections between education and the economy for students. For example, according to one economic developer, a group of eighth grade students learning important language and cognitive skills through reading, writing, and mathematics may not be able to see how the learning objectives of today could contribute to their future in the economy. However, a local business may be able to help students make these complex connections in the minds of students. This, in turn, can motivate students to stay in school, to take charge of their education and to become a member of the future local workforce. According to an economic developer, this will also be a form of instilling a desire to learn for students who do not come from a background in which education was not prioritized.

One educator noted that students “need to have a home at school.” Community partnerships can also play a role in creating this sense of belonging: for example, by supporting extracurricular activities such as school organizations, athletics, and the arts.

Schools can also help develop connections to the community for students through community service projects: for example, volunteering for a local charity so that students can have a personal connection to the community.

These types of school programs for student involvement can also make the school systems more attractive for people to move to the area. As stated by another educator, if these extracurricular programs excel, they can even instill a sense of community pride, making people want to invest in the schools.

There are Challenges to Strengthening the Connection between Education and Economic Development

Unfortunately, the connection between education and economic development cannot be made without obstacles. Brain drain and whether or not a community prioritizes education were the two recurring themes noted by economic developers as obstacles in the relationship between education and economic development.

The majority of economic developers focused on how brain drain is a struggle for communities, especially in Mississippi. One economic developer explained brain drain as young people wanting to experience the world. An analogy given by another economic developer about this struggle is that brain drain is like “losing our best heifers.” Heifers, adolescent female cows, are the group of cows that keep all of the other cows around. The developer said that heifers are just like our “best and brightest;” when they leave, everyone else in the community is more likely to leave also. If a community has “nothing to come home to”—in the words of one of the developers— a community has

no hope for keeping the educated individuals that are most likely to better develop the community.

On the other hand, some informants saw brain drain as a natural occurrence that is not always an obstacle. A few economic developers noted that brain drain can be beneficial to a society: for example, if an individual moves to a different area for more opportunities and to apply his or her skills sets, that individual may move back to his or her home community to apply newly gained skill sets. Economic developers stressed that, in order for this reverse brain drain to occur, there must be a job for those individuals to come home to. An example of this, as given by an economic developer, is Ellisville, Mississippi, which was recently successful in attracting General Electric to locate in the town. This success attracted many former residents back to the area, because there was an increase in job availability in the community. Another economic developer explained that the majority of Mississippians “go somewhere else for a while,” but eventually come back because Mississippians are “loyal to their home state” and have an “appreciation for a certain way of life.”

One economic developer even questioned that, in the case of brain drain, if there is not a job for students “at the end [of school],” then what is the purpose of educating them? This means that a community should develop its education so to create a strong workforce, but the community also has to work hard in attracting businesses. This way, there are jobs available for that workforce, and educated individuals might be less likely to leave when there are attractive jobs present in the community.

One educator noted that brain drain is irrelevant for the community that a school system serves, because educators are working to prepare students for a “world economy.” The educator stressed that educators focus on getting a child “above the median,” so to best serve the future of that child. It was also noted by this educator that the purpose of education is to give a child all of the necessary skills and opportunities possible. “Their competition is not the child sitting next to them, but children across the globe.”

Economic developers also noted that people in a community must value education in order for the education-economic development relationship to be at its full potential. These developers noted that if an individual does not have a desire to be educated, there is no way that education can connect that individual to the economy. According to one economic developer, the lack of desire for education may be inter-generational, where parents who have not received as much as a high school diploma might not be able to fully instill education as a value for the future of their children. However, according to an economic developer, the real question becomes “how do you help long-term pockets of the society be lifted out of poverty when there is a generational pattern of low levels of education?” “It is hard to pass along something you don’t have” noted the same developer. This developer stressed that these attitudes cannot be fixed in school. For example, a student may weigh dropping out of high school in the tenth grade to get a job at a younger age as more beneficial than staying in high school for two more years just to go to a college for more years of expensive education.

One economic developer expressed concern that schools have begun to be focused on “raising” students instead of just educating them (e.g., needing to feed children breakfast and mentor children through possible issues at home). This developer

believes that when a school is feeding kids an extra free meal, funds are being spent somewhere else besides on education, and when teachers are focused on getting children ready to learn because of difficulties in the home, energy is also being spent on something besides education. This is not true for all schools, but the economic developer was suggesting that some schools have had to focus on getting kids ready to learn, rather than the family getting children ready to learn with a healthy breakfast and an attitude set for learning. This way, educators can focus on educating.

One economic developer noted that “Even if it is parenting, students need an appreciation for education so that they can instill in their [own] children the importance of education,” so to create more opportunities for the next generation of children.

Hattiesburg has the Proper Resources to Strengthen the Relationship between Education and Economic Development

The informants expressed general agreement that the Greater Hattiesburg Area of Mississippi has the resources to make this education-economic development connection stronger. According to one economic developer, Hattiesburg not only has a flourishing, three-pillar economy in education, healthcare, and the military, but it also has successful school districts, newly created programs that connect education and economic development, reverse brain drain, and an annual population growth rate of 1.4 percent.

According to a leading Hattiesburg economic developer, The Greater Hattiesburg Area has eight different school districts and about 28,000 college students. These education systems and the large, potential workforce is highly attractive to prospective businesses. One developer noted that the K-12 schools in the Greater Hattiesburg area are

among the top in the state, in many different regards. According to one economic developer, this shows businesses that there is both a high quality workforce and high quality school systems for the children of relocating executives.

According to an economic developer, The Area Development Partnership (ADP) of Hattiesburg has created programs to connect students to job. The ADP has an “Education Task Force” in which they bring business and educators together. This enables businesses to help educate education counselors and administrators on what jobs are available with what companies in the area. Other programs developed by this task force are “Mission Possible” and the “Governor’s Job Fair,” where local employees educate high school students on job opportunities and the skills necessary for the workplace and for continuing education. According to the same developer, local schools are also utilizing Hattiesburg’s medical sector (Forrest General Hospital, Hattiesburg Clinic, and Wesley Medical Center) and local engineering firms to “leverage” their expertise for the education system. Hattiesburg is also working on these connections through local boards of directors and other business leaders, so the community has received more “buy in” to schools from the collaboration between businesses and educators.

Though brain drain is prevalent in Hattiesburg, informants also noted cases of “reverse brain drain” in the city. An economic developer mentioned how outsiders “fall in love with Hattiesburg,” and another developer noted that former residents want to come back “close to home” to raise families. Once these people return to Hattiesburg, they bring new, innovative ideas as workers, entrepreneurs, and community residents.

One economic developer from Hattiesburg believes that the connection between education and economic development can be recognized in economic statistics of the Greater Hattiesburg Area. An educator attributes recent school district success in retaining high school students to the low level of unemployment in the community. This educator also credits successful schools in the community with the relatively successful local housing market of the community that the school serves.

Chapter V- Conclusions

In conclusion, the data strongly suggest that education and economic development either have an existing relationship that can be strengthened or a potential relationship that can be created. Regardless if the relationship exists or does not exist for a community there is a relationship that can be tapped. Although Hattiesburg is a unique community, the research for this thesis suggested several themes that could usefully apply to other communities seeking to strengthen their economies through education.

The themes found in the data stress that local education systems, both successful and unsuccessful, affect communities in the business attraction process. The result could be for the good of the community or for the bad. Either way, education is not the only factor, but a very important and universal factor in the process of business attraction for a community. The data reveal many different aspects of education that affect different variables of economic development.

These varying aspects of education include different types of statistics in education (e.g., literacy, drop-out rates, levels of education, standardized test scores), school programs that portray a school's effort in connecting students to a local economy, overall school success in academics and extracurricular activities, and other varying considerations that are unique to individual companies. When a community has impressive education statistics, meaningful programs connected to the economy, alongside other expectations that businesses might consider, that community is able to attract businesses for the creation of jobs. Additionally, schools that excel in academics and school programs, like athletics and the arts, attract skilled workers to the community.

This is because families are more likely to relocate to a community that has school systems that can demonstrate their success in providing quality education. This attraction of workers from other communities will stimulate the housing market for successful school districts. The data also suggest that low drop-out rates can be correlated with low unemployment, and successful literacy rates increase the chance of an individual contributing to an economy in the future. Adversely, the data suggest that if these various components of education are not successful or are non-existent, a community will most likely not be successful in business attraction or in attraction of potential workers.

The informants proposed many different ways to enhance the relationship between education and economic development. The strategies that were most frequently suggested were related to the purpose of increasing the connection students have with a local economy during the K-12 experience. The data were full of encouragement for schools to partner with businesses in the local economy, formed through an “ombudsman” or through a community development organization, so to capitalize on available resources in the community. The data suggest that when schools and businesses are connected, schools can benefit from the resources of businesses while businesses can benefit by having input in the education of students. A local economy has a greater potential to flourish when these partnerships are formed because schools will have the knowledge and needed resources from local businesses on how to make meaningful, personal connections between students and the local economy.

The data also show themes in two different obstacles in strengthening the education-economic development relationship. The most commonly noted obstacle was the brain-drain phenomenon. Brain drain was seen in two different ways. Foremost, it

was labeled as a common contradiction to the education-economic development relationship in Mississippi communities. On the other hand, brain drain was seen as a natural cycle that can benefit communities, like Hattiesburg, through a process of educated individuals moving away for greater opportunities, gaining new skill sets, and later moving back to their home community, contributing those new skills to the development of the community. It was suggested that, in order to dodge the type of brain drain that leads to the permanent emigration of an individual, communities must attract businesses that offer jobs that are attractive to individuals with higher levels of education. It was also suggested that connecting students to a local economy through school and business partnerships can help a community dodge brain drain in the first place.

Another obstacle found in the data is the societal, or generational patterns of low levels of education. Educators and economic developers stressed that students must have a desire for learning so that schools can connect students to the economy. However, it was repeatedly mentioned that education cannot increase the level of which individuals in a community prioritize education. The data suggest that these patterns in low levels of education are social or cultural issues which are not easily broken.

Altogether, this research shows that yes, there is a connection between education and economic development, and communities have potential to capitalize on this connection. As suggested by educators and economic developers, communities like Hattiesburg *must* connect education and economic development if they wish to continue to create a better life for all of its residents.

Relevance to Related Literature

The results of the research had both comparisons and contrasts with the related research literature. As stated in the literature review, skills are vital in the contributions a person gives to a society. The results of the study also aligned with related literature by suggesting that that education statistics, like literacy and test scores, play an important role in the success of an economy.

Surprisingly, despite extensive research connecting economic success with early childhood programs, pre-K was rarely brought up in the interviews; the research was focused on K-12 schools, and the data also includes references to how higher levels of education, like colleges and universities, impact economic development.

Recent literature focused on the connection of large-scale investments, such as state pre-K programs, to economic success. The interview research for the thesis suggests that education statistics are what play a major role in business attraction. While most of the related call for more public investment in schools, the data from the thesis research suggest that school partnerships with the private business sector can be the key to enhancing the relationship between education and economic development.

These comparisons and contrasts show that there is a connection between education and economic development, but the contrasts might be attributed to the difference between the levels of focus. The interview research for this thesis focused on education and economic development at a community level while the literature focused on this connection at the national and state levels.

Indications for Further Research

This research could be continued by more interviews to expand the major themes. The additional data collected from new interviews could validate the proposed operationalization of the variables. The results of the research could also be strengthened by gaining more insight from educators.

Overall, the researcher learned that the relationship between education and economic development is complex. Economies are complex enough in themselves, but when the diversity of one metropolitan area is added to the mix, this relationship becomes increasingly difficult to turn into reality. Hattiesburg, for example, has diverse geographic areas within its own metropolitan area. As noted by many informants, the different regions within Hattiesburg have unique strengths and different struggles, making the connection between education and economic development more complex. The data suggest that it cannot be ignored that some communities with well-developed economies might be more successful in connecting its students to its economy than a community with a less-developed economy. Regardless, any community that has businesses and schools can connect education and economic development, and communities must be willing to tap into this untapped alliance to ensure its future.

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Appendices

Questions for Guiding the Interviews

1. Do you believe, in regards to the greater Hattiesburg area, that there is a relationship between education and ED?
2. If so, how exactly does education benefit the area's economic development? Are there certain measures or programs or grades of education that you believe are especially key in this relationship?
3. On the other hand, exactly what kinds of economic development, or measure of economic development, can be increased by education improvements?
4. Who do you think are the key players in a community, like Hattiesburg, to help make the education- ED connection work?
5. What do you think can be done, or needs to be done, to make the connection between education and ED even stronger?
6. How can improvements in the greater Hattiesburg economy help strengthen local education? What do you think can be done, or needs to be done, to help make this connection, in this direction, even stronger?

7. Are there any phenomena that could detract from this relationship? What can be done to prevent this?

8. Are there any other aspects of the education- ED link in the greater Hattiesburg area that I may be overlooking, or that you think are particularly important?

9. Is there anyone else you think would be particularly important for me to interview on this topic?

IRB Approval Letter



INSTITUTIONAL REVIEW BOARD
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NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 13111402
PROJECT TITLE: **Education and Economic Development: The untapped alliance**
PROJECT TYPE: **New Project**
RESEARCHER(S): **Serena Williams**
COLLEGE/DIVISION: **College of Education and Psychology**
DEPARTMENT: **Curriculum, Instruction and Special Education**
FUNDING AGENCY/SPONSOR: **N/A**
IRB COMMITTEE ACTION: **Expedited Review Approval**
PERIOD OF APPROVAL: **12/13/2013 to 12/12/2014**

Lawrence A. Hosman, Ph.D.
Institutional Review Board