BUILDING LOCAL ECONOMIC DEVELOPMENT CAPACITY: A CASE STUDY OF SANTA FE COLLEGE IN GAINESVILLE, FLORIDA

By

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To my wife Kathy and my children, Shearod and Emma Grace; I love you

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TABLE OF CONTENTS

Abstract of Dissertation Presented to the Graduate School
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This dissertation examines the role of the community college in building institutional capacity within the context of a community's local and regional economy and provides recommendations on the manner in which the role of the community college can be enhanced with respect to interaction with other urban and regional partners. It seeks to at least partially answer the research question: What role do educational institutions and the community college specifically play in the building of a community's local and regional economic capacity? This question is worthy of study since building institutional capacity through partnership is increasingly important to the economic development planning practitioner in the achievement of longer term community economic development goals.

In order to substantively examine the research question noted above this dissertation reviews economic development planning as a discipline within the broader urban and regional planning theoretical framework. The theoretical foundations of economic development are examined in both traditional and alternative contexts and an analysis of New "Innovation" Economy precepts is undertaken.

Furthermore, to assist in answering this question, a case study focused on Santa Fe College in Gainesville, Florida examines the impacts of a specific community college and how those impacts can be understood in terms of their local economic development capacity building effects. Santa Fe College operates in several spatial and policy contexts and all are important in revealing opportunities and challenges. Impacts are measured through a review of: 1) adaptive organizational efficiencies; 2) employer surveys; 3) an economic impact analysis assessment; 4) the process undertaken by Santa Fe College over the past year to move forward on state authorization regarding the issuance of two life sciences baccalaureate degrees and their link to local community economic development prospects; and finally, 5) the spatial profile and industrial focus of the College.

Findings indicate that Santa Fe College's presence within the community does appear to build local economic development capacity and to lead to positive economic impacts. However, there are opportunities for further study and analysis of these impacts in light of the community economic development planning goals and objectives of the greater Gainesville area.

CHAPTER 1
INTRODUCTION

Scope of Work

This dissertation examines the role of the community college in building institutional capacity within the context of a community's local and regional economy and provides recommendations on the manner in which the role of the community college can be enhanced in these efforts with respect to interaction with other urban and regional partners. It seeks to at least partially answer the research question: What role do educational institutions and the community college specifically play in the building of a community's local and regional economic capacity? This question is worthy of study since building institutional capacity through partnership is increasingly important to the economic development planning practitioner in the achievement of longer term community economic development goals. We hypothesize that the link between education and sustainable economic development manifested through a variety of educational institutions, inclusive of the community college, is becoming of greater importance in today's economy.

Federal Reserve Chairman Ben Bernanke has remarked on the importance of education to the nation's macroeconomic prospects, "Education fundamentally supports advances in productivity, upon which our ability to generate continuing improvement in our standard of living depends. If we are to successfully navigate such challenges as the retirement of the baby boom generation, advancing technology and increasing globalization, we must work diligently to maintain the quality of our educational system where it is strong and strive to improve it where it is not" (Bernanke, 2007,p.1). Thus, Mr. Bernanke draws a connection between an educated workforce and an improving

economic environment. It should be noted that in light of the existing dire economic environment that community colleges are likely to receive increased levels of federal funding under the auspices of the American Recovery and Reinvestment Act of 2009 recently adopted by Congress.

With respect to the role of the community college in these efforts, Bernanke goes on to state that,

> community colleges have made a significant contribution to expanding educational opportunities. Offering lower costs and more flexible schedules, they now enroll almost one half of US undergraduates...Community colleges play a constructive role not only for 18-22 year olds but also for older adults, providing flexible programs for obtaining new skills, specialized training contracted for individual businesses, remedial education and adult enrichment (Bernanke, 2007, p.1).

Edward Blakely states that, "the principal goal of local economic development is to stimulate local employment opportunities in sectors that improve the community using existing human, natural and institutional resources" (Blakely and Bradshaw, 2002, pg xvi). This goal reflects a balanced and interdisciplinary approach driving community economic development and it suggests the important role that an educational institution such as Santa Fe College may play in the process.

In addition, it is institutions, in an economic context, that balance and shape the role of the individual within the confines of a dynamic marketplace. In light of the heavy knowledge and technical basis of today's New "Innovative" Economy, it is the educational institution that is specifically positioned to provide the contours for community economic development.

Therefore, the vitality of educational institutions is posited as crucial to the prospects of community economic development. The nation's 1,200 community colleges, in terms of mission and organization, have positioned themselves to fill a

needed role in the education continuum that prepares individuals for gainful employment leading to economic development. The question is then, what theory and evidence supports their role in building local and regional economic capacity? The responses to these questions are addressed at length in Chapter 2, “Review of Related Literature.”

Research Significance

The author's dissertation seeks to assist the academic and economic development planning practitioner to understand the important role that the community college plays in building institutional capacity vital to local community economic development. This is increasingly important as academics and policy makers attempt to understand the needs and requirements of communities in preparing their populations for the New “Innovation” Economy. "Nontraditional approaches speak well for the ability of community colleges to address pressing economic development problems; especially those posed by a growing underclass whose skills leave them unable to join the economic mainstream" (Katsinas and Lacey, 1990, p.1).

In addition to the substance of the effort, the dissertation attempts to build process bridges between the academic and economic development planning practitioner community; the various disciplines; and institutions engaged in the process. Each of these process bridges is increasing in importance as the New “Innovative” Economy forces a more collaborative model of interaction. Thus, the substance and process both lend themselves to serious consideration and a significant effort.

As reflected in much of the literature on workforce development and by the Florida Legislature’s decision last year to allow for greater offerings relative to the issuance of baccalaureate degrees by community colleges, the existing and future role of the

community college in the community economic development of the State of Florida's many communities could not be of greater contemporary significance. (The 21st Century Community College, et. al, 2004) As a consequence, the ability of the community college as an entity to be adaptively efficient in the attainment of its mission is crucially significant to the prospects of local economies at the present time.

In addition to significance symbolized by political action, Santa Fe College's role in shaping local community economic development is dictated by local, as well as macro-economic conditions and thus, an obvious competitive advantage adheres to Gainesville region due to the existence of a large research institution located within the City of Gainesville as a partner.

The New "Innovative" Economy's apparent reliance on a resilient storehouse of human capital, places a premium on the provision of adequate educational and technical training resources. It would seem logical that in the State of Florida, recent State action designed to diversify economic opportunities over the long term (primarily those revolving around attraction of such entities as Scripps, Torrey Pines, the Burnham Institute) would be met with a concurrent emphasis upon a well developed and educated workforce.

Within the Gainesville market specifically, a New "Innovative" Economy infrastructure is beginning to reach critical mass. Components of this infrastructure include: 1) an engaged University of Florida Office of Technology and Licensing; 2) a recent growing critical mass of life science oriented firms (bio-science, medical device research and information technology); 3) various programmatic and physical platforms inclusive of the Gainesville Technology Enterprise Center, Sid Martin Bio-Tech

Incubator and Progress Center, UF's Cancer and Genetic Center and Pathogen Research Center, Santa Fe College's Northwest campus and downtown Economic Development and Innovation Center, the High Tech Corridor and Heart of Florida initiative); and, 4) a supportive public policy environment.

Concurrently, the recent economic downturn has placed a premium on the ability of institutions to partner and collaborate on these attempts at workforce development. This situation places the community college at a very significant crossroads regarding the future of the State's efforts and more investigation into its role is likely. A balance will have to be struck between the ability of the community college to fill its traditional role of providing opportunities for a broad representation of the public at an affordable rate with the need for the institution to reposition itself to meet the needs of a developing economy.

Approximately fifty years following the publication of Dr. James Wattenbarger's seminal report, "The Community Junior College in Florida's Future", (Wattenbarger and Albertson, revised, 2005) the planets seem to be aligning for a reevaluation and potential repositioning of the community college within the State of Florida. This bodes well for the contributions that this dissertation can lend to the effort contemporaneously, and with respect to future investigative and analytical opportunities.

The Choice of the Case Study

There are several reasons for choosing Santa Fe College as the subject for the case study. First, on a practical level, the researcher has access to this institution both in terms of its physical location but also in terms of professional associations with Santa Fe College staff. Second, Santa Fe College, among the twenty eight community colleges throughout the State of Florida, is recognized as a leader in community and

economic development efforts impacting local residents, students and businesses. Third, recently, Santa Fe College has been provided State legislative authorization to expand its educational mission through participation in a pilot project intended to result in the awarding of baccalaureate degrees. The Florida Board of Education recently approved two life sciences baccalaureate degrees and this program will be instituted in the Fall, 2009 semester. Fourth and finally, there is an interesting dynamic to be examined regarding the relationship between Santa Fe College and the University of Florida in terms of building local capacity for community economic development through workforce development and its impact on various demographic segments of the community specifically as it regards economic development capacity in the life sciences business sector.

The dissertation provides an interesting glimpse at the evolution of the community college (Santa Fe Community College just celebrated its 42nd anniversary) in the context of a rapidly changing and challenging macro-economic environment and the manner in which traditional workforce development considerations have been supplemented by economic development opportunities generated by the University of Florida's research commercialization efforts.

Broader Roles for Community Colleges

Santa Fe College is not isolated in this respect. Within the State of Florida, there are a number of community colleges in similar situations and a better understanding of the role that the community college plays relative to its traditional, and now evolving role in community economic development, is important to understand to promote a more generalized and applicable model.

Furthermore, community economic development has been recognized as a crucial component in the building and maintenance of a vital urban fabric. Increasingly, urban planners are engaged in efforts designed to foster employment opportunities and growth in tax base that can lead to a higher quality of life for a community's residents. Understanding the role that educational institutions play in an area's prospects for indigenous economic development is therefore important for the planning profession as well as for policy makers.

A Glimpse at the Theoretical Framework Relative to the Case Study

In order to accomplish the research that is proposed, the dissertation establishes the theoretical basis for economic development and economic development planning itself is explored. The New "Innovative" Economy, the change to a more dynamic and technology based economy (Atkinson, 2004, pg 94) is defined and discussed as forming the foundation for a more recent economic development paradigm referred to as community economic development. The characteristics of the community college broadly and its traditional role in economic and workforce development is examined.

Santa Fe College's history, organizational evolution and its measurable effect on the local economy are analyzed in the context of the New "Innovative" Economy and the community economic development paradigm (Shaffer, et.al, 2006). The legislative authorization provided by the Florida State Legislature regarding the issuance of baccalaureate degrees is examined as an example of an adaptive efficiency and evolution of Santa Fe College's mandate in the provision of educational and economic opportunity. The establishment of a Health Services Administration and Clinical Laboratory Sciences baccalaureate degree also is examined as a concrete indicator of the community college's role in building local/regional institutional capacity.

Finally, prospective applications of the Santa Fe model will be explored for other similarly situated community colleges and communities within the state of Florida's, "The Great 28", as referred to by the Florida Association of Community Colleges. The author will make recommendations on enhancements designed to strengthen community partnerships while improving prospects for greater local returns to the local and regional economy.

Summary

There are three research objectives that drive this dissertation. First is an examination of the characteristics of the New "Innovative" Economy that place a premium on human capital development and institutions. What is it about this new wave of community economic development that drives the need for an institutional infrastructure that can build adequate capacity, and how do educational institutions generally, and the community college specifically, fit into this model? A second objective is establishing to what degree the community college has evolved into a key foundation for the building of vibrant local and regional economy. How do the characteristics of the community college, both historically and contemporaneously, position it to be a prime driver of building this capacity and infrastructure? Third and finally, in what manner has Santa Fe College fulfilled this role in its established service region of Alachua and Bradford Counties? Has Santa Fe College been a pro-active provider of those services necessary to enhance efforts at fostering community economic development?

The dissertation examines these research objectives in light of theory based upon the New "Innovative" Economy, precepts of Institutional economics and the community economic development model described in Chapter 2. Methods to examine Santa Fe

College's role in light of the research objectives will rely on feedback from relevant employers of Santa Fe College graduates, review of recent economic impact studies and the recent process undertaken to create baccalaureate degrees that will facilitate the local/regional life sciences industry.

In summary, the research objectives of this dissertation intend to further clarify and enhance the understanding of the role that community colleges play in community economic development from both an academic and economic development planning practitioner perspective using Santa Fe College as its main focus. They are intended to enlighten and shape future efforts at examining and positioning community colleges within a broader urban and community economic development framework.

CHAPTER 2:
REVIEW OF RELATED LITERATURE

Introduction

In order to understand the context within which the community college operates to build local and regional economic institutional capacity, the canon of economic development theory is reviewed. Similarly, the principles behind Economic Development Planning are examined in order to relate their practical application to a broader planning framework.

Economic development or wealth creation has been the subject of analysis since Adam Smith published the first examination of the subject in the year of America's revolution (Mazlish, 1961). Subsequent analysis has focused upon the forces that lead to development of a nation's economy and the creation of wealth for individuals and communities (See, for example, Blakely, 2002; Malizia and Feser, 1999; Schumpeter, 1961; Jacobs,1969).

What follows then is a recounting of the classic literature on economic development and some of its chief ideas and their authors. These are discussed based upon traditional understanding, a review of the theoretical precepts that underlie the New "Innovative" Economy underpinnings, and finally, an alternative view that is grounded in traditional understanding while emphasizing a different approach based upon the New "Innovative" Economy models.

In both the traditional understanding and alternative approach, the primary forces are the same: 1) the role of institutions, 2) the qualitative alignment of factors of production, 3) the role of place and the 4) importance of the exchange of goods and services.

Traditional Theoretical Underpinnings of Economic Development

Neoclassical Theory

Over two hundred years ago, economics emerged as a science with the publishing of Adam Smith's, "An Inquiry into the Nature and Causes of the Wealth of Nations" (Mazlish, 1961). Smith held that the creation of wealth derived essentially from the division of labor and the specialization that resulted as a consequence. Development of a nation's economy occurs if productive tasks are sufficiently divided among those who participate in the economy. Specialization of tasks leads to greater degrees of efficiency in production and therefore, to higher wages. Smith held that "it is the great multiplication of the productions of all the different arts in consequence of the division of labor which occasions a well governed society, that universal opulence which extends itself to the lowest ranks of the people" (Smith in Mazlish,1961, Book 1, pg. 11).

In order to profitably dispense the results of the division of labor and specialization, markets and trade become foundational. "The great commerce of every civilized society is that carried upon between the inhabitant of the town and those of the country. It consists in the exchange of rude for manufactured produce, either immediately, or by the intervention of money or of some sort of paper which represents money" (Smith in Mazlish, 1961, Book 3, p.137). Smith's insight is that access to markets and interaction among producers and consumers is foundational to the process of wealth creation for individuals and nations and regions as well.

David Ricardo's law of comparative advantage takes Smith's analysis one step further in stressing the importance of trade and the relative and absolute advantages that nations and regions may have in the production of goods and services. One country or region is said to have a comparative advantage over another in the

production of a particular good or service relative to other goods or services it can produce if it produces these goods or services least inefficiently as compared with the other country or region (Baumol and Blinder, 1982). As a result, even if one country or region is more efficient than another in the production of goods and services, both can benefit by through trade.

Smith and Ricardo (Smith particularly) based their analysis of trade and exchange within a broader labor theory of value. In the opening words of *The Wealth of Nations*, Smith talks about, “the annual labor of every nation” and the notion that it is ultimately the produce of labor which constitutes a nation’s opulence (Smith in Mazlish, 1961, Introduction, xxxi). This set Smith and Ricardo against the mercantilists of their time who claimed that the store of money represented the true wealth of nations. Thus, a modern recognition evolved that attempts to build institutional capacity of the nation, regional or local economy focusing on improvement of the skills and productivity of the labor element.

Modern neoclassical theory, building on Smith and Ricardo and stressing the concept of scarcity and hence competition (and the underlying price mechanism leading to general equilibrium), and the concept of man seeking his own utility lays the foundation for economic development. Blakely stresses that, "two major neoclassical concepts for regional and local development are equilibrium of economic systems and mobility of capital" (Blakely and Bradshaw, 2002. p.57). Proponents of neoclassical theory, because of their emphasis upon the workings of the pricing mechanism and movement towards conditions of equilibrium, tend to favor a more limited role for government intervention. In terms of critiques of this approach, Douglass North holds

that, "it’s most unrealistic assumption, which underlies its frictionless character, has been the rationality assumption. . ."(North, 1994, p.1).

Furthermore, "Modification of the rationality assumption means that ideas, dogmas, prejudices and ideologies matter. . .we must incorporate into our analysis the belief systems that the actors hold that determine the choices they make" (North, 1994 p.3). This thought lends itself to a broader conception of economic development than pure economic utility. Thus, Edward Blakely states that, "the neoclassical framework is generally viewed as antagonistic to the interests of communities as places with a raison d'etre beyond their economic utility" (Blakely and Bradshaw, 2002 p.58).

Place Based Theory

Neoclassical theory provided the foundations for the theoretical regional approaches to economic development propounded in the mid-twentieth century by Tiebout and North (Shaffer, et al. Deller and Marcouiller, 2006). One of these principal representative theories is that of Economic Base. "Adherents of economic base theory postulate that a community’s economic growth is directly related to the demand for its goods, services, and products from areas outside its local economic boundaries. The growth of industries that use local resources, including labor and materials for final export elsewhere, will generate both local wealth and jobs” (Blakely and Bradshaw, 2002, p.58).

Furthermore, "policies based upon export base theory are aimed at attracting capital resources from other locations via tax subsidies, low rent land and training funds, among others" (Shaffer, et al. Deller and Marcouiller, 2006, p.61). Economic base theory has traditionally focused on attracting industries to a local economy that will result in export of goods and ultimately, lead to local economic growth. The theory's

weakness is its reliance on low cost factors of production in a local economy as a basis for improvement. It should be stated however, that there is an opportunity for utilizing economic base theory not as a basis for attraction of industry but as a method by which to understand how a focus on the retention and expansion of the local economic base can be materially improved. As with neoclassical theory, economic base theory does not lend itself to the qualitative improvement of a locale based upon non-economic factors nor does it even take these non-economic factors into account.

The role of transportation and access to wealth creation were stressed by classical theorists on location, Johann-Heinrich von Thunen and Alfred Weber, who wrote extensively on processes of industrial location as a trade-off between raw materials and transportation costs. Firms in heavy industries seek out locations in which raw materials are abundant and where waterways and transportation routes could minimize transportation costs. (Florida, 2008, p.111). Alfred Marshall in his classic, *Principles of Economics,* discusses the concept of agglomeration. Some firms take advantage of economies of scale by integrating their activities and growing larger. But firms can also benefit by the agglomeration economies that come from locating close to one another (Marshall in Florida, 2008, p.112).

Marshall's notion of agglomeration economies has more recently evolved into theoretical concepts of building economic growth and development in communities endogenously with an emphasis upon the role of clusters. This movement has its basis in notions of agglomeration and the important role played by the entrepreneur. It is Michael Porter, writing on the importance of clusters suggested by Von Thunen, Weber and Marshall, who in the past stressed the role of specialization, not among individual

laborers in a production process, but among firms in a specific region, as leading to favorable economic development outcomes.

Innovation and the Entrepreneur

Writing fifty years ago on the subject of Capitalism, Socialism and Democracy, Joseph Schumpeter advanced the notion of “creative destruction” asserting, “this process of creative destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in” (Schumpeter, 1942, p.83). Emphasis is placed upon the fact that the economic climate cannot be measured at one point in time and economic development is postulated by Schumpeter as a dynamic process. “Capitalism is by its nature a form or method of economic change that can never be stationary. This evolutionary character of the capitalist process is not merely due to the fact that economic development goes on in a social and natural environment which changes and by its changes, alters the data of economic change” (Schumpeter, 1942, p.82). The primary actor in the economic drama according to Schumpeter is the entrepreneur, "a special type" who provides the stimulus for economic development and therefore formulates a theoretical policy basis for efforts at building local capacity to foster entrepreneurship (Schumpeter,1961).

Like Schumpeter, Douglass North observes economic development as dynamic in nature and maintains that the source of economic change is found in the wedding of science and technology that underlies modern productivity (North, 1994). However, achieving the potential that accompanies this dynamism “entails a restructuring of economic, social and political institutions and organizations in order to realize the increasing return attributes of the technology in which this scientific knowledge is embodied “(North, 1981, p.4).

Continuing, North critiques the rationality assumption of the neoclassical school because it neglects the notion of path dependence; the powerful influences of the past on the present and future and conditions of uncertainty in which many crucial economic and political decisions are made that shape economic change (North, 1994). Modification of the rationality assumption means that ideas, dogmas, prejudices and ideologies matter, and that the actors making decisions in the face of the uncertainty that characterizes major political and economic choices frequently are doing so with results that are widely at variance with original intentions. It means that we must incorporate into the analysis the belief systems that the actors hold that determine the choices they make (North, 1994). Moreover, we know that the ideal "economic man" does not exist, and that the most we can get is "bounded" or "limited rationality".

In his theoretical framework, the "New Institutional Economics", North stresses the role of both institutions and organizations in shaping economic development capacity. The key to efficient markets is institutions that result in low costs of transaction. Transaction costs are the costs involved in protecting property rights, measuring what is being exchanged, and the enforcement of agreements; in other words, the rules of the game. The notion of "adaptive efficiency", the relative flexibility of institutions and organizations, likely accounts for the relative success of western economies in providing material comfort to their populations.

Adaptive efficiency ". . . is concerned with the kinds of rules that shape the way an economy evolves through time. It is also concerned with the willingness of a society to acquire knowledge and learning, to induce innovation, to undertake risk, to creative activity of all sorts, as well as to resolve societal problems and bottlenecks through time.

We have much to learn about various aspects of what makes for adaptive efficiency, but clearly the overall institutional structure plays a key role to the degree that society and the economy will encourage trials, experiments and innovations that we can characterize as adaptively efficient. The incentives embedded in the institutional framework direct the process of learning by doing the development of tacit knowledge that will lead individuals in decision making processes to evolve systems that are different from ones that they had to begin with" (North, Institutions, Institutional Change and Economic Performance, 1990, p. 80-81).

Human Capital

Unlike Douglass North who focuses on the institutional role in economic development, Gary Becker, in his monumental *Human Capital*, cites the role of education and training in developing the productive capacity of labor to add to the capacity of economies to develop, " The systematic application of scientific knowledge to production of goods has greatly increased the value of education, technical schooling and on the job training as the growth of knowledge has become embodied in people----- in scientists, scholars, technicians, managers and other contributors to output. It is clear that all countries which have managed persistent growth in income have also had large increases in the education and training of their labor forces" (Becker, Human Capital, 1993, p. 24).

Abel and Gabe in a recent Federal Reserve staff report regarding *Human Capital and Economic Activity in Urban America* maintain that, "studies of urban and regional economies have linked higher levels of human capital to increases in measures of economic viability, such as employment and population growth, wages and housing prices. There are two primary explanations for this finding: 1) human capital increases

individual level productivity and idea generation and, 2) the concentration of human capital within a region facilitates knowledge spillovers, which further enhances productivity and fuel innovation…In addition, a region's stock of human capital has been shown to lead to more rapid reinvention and increases in long run economic vitality of cities" (Abel and Gabe, 2008, p.1-2).

New "Innovative" Economy Precepts

"When it comes to 21st century economic development, innovation is the name of the game. States and localities recognize that their future prosperity depends upon their ability to nurture innovation in local communities, local businesses and in local residents. Hundreds, if not thousands of economic development programs seek to foster innovation. These take various forms, from cluster development strategies to technology commercialization programs to business incubators to youth entrepreneurship programs and so on" (Pages and Taft, Economic Development Journal, Winter, 2009, p.22).

So say two leading voices in the economic development practitioner field. Innovation itself has become a bit of a conventional cliché. However, there is a very real and meaningful aspect to this trend, for innovation does foster the nation's competitive advantage as developed in our educational institutions and in the ability to eventually bring new ideas to market.

With respect to innovation, Pages and Taft offer that, "there are literally hundreds of ways to define innovation" (Pages and Taft, Economic Development Journal, Winter 2009, p.22). One of the more comprehensive definitions comes from the January, 2008 report to the US Secretary of Commerce from the Advisory Committee on Measuring Innovation in the 21st Century Economy. The Committee defines "innovation" as:

> the design, invention and development and/or implementation of new or altered products, services, processes, systems organizational structures or business models for the purpose of creating new value for customers in a way that improves financial returns for the firm. (Pages and Taft, Economic Development Journal, Winter, 2009, p.23)

The New "Innovative" Economy is framed by an Organization for Economic Cooperation and Development (OECD) report that states, "Long term growth and employment depend less on short term allocative efficiency measures . . . than on a set of long term policies aimed at enhancing the knowledge base . . . through increased investment in the knowledge infrastructure, the knowledge distribution system and the human knowledge component" (Atkinson, 2006, p. 202).

As Atkinson states, "growth economics recognizes that it is only through actions taken by workers, companies, industry consortia, entrepreneurs, research institutions, civic organizations and governments that an economy's productive and innovative power is enhanced. As a result, when examining how the New "Innovative' Economy creates wealth, growth economics is focused on this different set of questions: Are entrepreneurs taking risks to start new ventures? Are workers continually upgrading their skills, and are companies organizing production in ways that utilize those skills? Are companies in America investing in technological breakthroughs, and is government supporting the technology base (e.g., funding research and the training of scientists and engineers)? Are regional clusters of firms and other institutions fostering innovation? Are policymakers avoiding erecting protections for companies against more innovative competitors? Are research institutions transferring knowledge to companies? And are policies supporting the ubiquitous widespread adoption of advanced information technologies and e-commerce? In short, growth economics recognizes the fundamental insight that innovation takes place in context of institutions" (Atkinson,

2006, p.203). In conclusion, Atkinson states that, “In the New Economy, innovation and knowledge are the most important factors driving economic growth” (Atkinson, 2006, p.225).

The evolution to a New “Innovative” Economy lends itself to finding an alternative interdisciplinary and holistic approach to local economic development. Blakely maintains that four attributes define the evolving global economy, including globalization, accelerated pace, knowledge base and networks (Blakely and Bradshaw, 2002). The globalizing tendencies of the New Economy mean that factors of production will become increasingly mobile. As a result, both the macro and more localized economies will have to compete on quality rather than cost as there will be a competitive disadvantage particularly in regards to labor. An accelerated pace of market interaction and product cycles will lead to the need for economic institutions and individuals to adapt more quickly to the changing environment. The knowledge base of the economy will mean that industry and employees will need to be more technology savvy while also remaining on the cutting edge with respect to education levels. Lastly, the importance of networks and collaboration in terms of individual relationships and/or firm supply chains will be stressed as imperative.

As a result of the momentous change in not only the traditional economic structure of the economy but also the underlying institutional basis upon which the economy is built, economic development planning will play an important mechanical role in helping communities cope with the current upheaval in the financial markets, while at the same time helping chart a future course. It is likely that, because of the emphasis placed upon innovation and knowledge as the basis for the Innovative Economy, practitioners

of economic development will be responding through the economic development planning process to address issues of education (K-12, university and community college), institutional and organizational reform, issues related to the concept of the workplace, and to quality of life. Furthermore, in the future, it is likely that economic development planning will continue to be practiced in order to provide an outlet for citizen concerns about their economic futures stressing many more non-traditional economic development principles that are the substance of the Innovative Economy.

The New "Innovative' Economy thus places a premium on the ability of our collective institutions to be realigned to foster the creative and innovative impulses that drive economic growth and development. This environment should be a competitive advantage for the United States generally, and for communities focused on building an economic development capacity based upon the knowledge attributes of their inhabitants. Although specifically, there are many shortcomings in America's educational system, it can be argued that it is still the envy of the world, particularly at the post-secondary level, and we are well positioned to prosper in this new economic paradigm.

An Alternative Approach to Traditional Theory

Alternative approaches emphasize the importance of economic and non-economic factors in local economic development and therefore provide a context for examining the role of educational institutions in community economic development capacity building. These approaches have their bases in the traditional economic development theories (and are definitely informed by them) but are often urban, locally based, and shaped by the New "Innovative" Economy framework principles that emphasize the development of the knowledge economy and the institutions and policies that support it.

The Urban View

Although the New "Innovative" Economy is a relatively new macro-phenomenon, the importance of the urban environment to economic development was observed forty years ago by Jane Jacobs. Although Jacobs is best known for the *Life and Death of Great American Cities (1961)* and her acerbic commentary on the planning profession of the day and its collaboration in the destruction of traditional urban settings, her reflections on urban economic development are less known. However, in the *Economy of Cities (1969)* and *Cities and the Wealth of Nations (1984)*, Jacobs made a huge contribution to our understanding of the forces that generate and shape urban economic development. This was acknowledged by Nobel prize winning economist Robert Lucas who remarked that, "in his writings, he would be following closely the lead of Jane Jacobs whose *The Economy of Cities*, seems to me mainly and convincingly concerned with the external effects of human capital" (Lucas in Florida, 2008, p.65).

Jacobs' chief insight is that economic development arises from both innovation and diversity. "Economic life develops by grace of innovating" (Jacobs, 1969, p.39). Furthermore, "development is a do it yourself process; for any economy it is either do it yourself or don't develop. All of today's highly developed economies were backward at one time, yet transcended that condition. Their accumulated experience demonstrates how the thing is actually done. Historically, we find two major patterns or motifs: reliance of backward cities upon one another and economic improvisation" (Jacobs, 1969, p.140).

"For Jacobs as Schumpeter, this type of economic development turns on innovation----the ability not just to do more of something but to do something new. It is not specialization per se that drives economic growth. Rather it is the innovation that

stems from a diverse pool of resources" (Florida, 2008, p.67). Jacobs states that, "the diversity, of whatever kind, that is generated by cities rests on the fact that in cities so many people are so close together, and among them contain so many different tastes, skills, needs, supplies and bees in their bonnets" (Jacobs in Florida, 2008, p.67).

Aside from diversity leading to innovation in the context of cities, Jacobs also focused on the other half of the equation with respect to economic base theory. For if economic base theory focused on the monetary return a community receives from the export of the parochial production of goods and services, then import substitution provided a basis for internal development of those goods and services that were currently being produced externally to the city. "Import replacement occurs most explosively and unleashes many forces of expansion. These include new markets, new jobs, new technology, new work and new city capital" (Jacobs,1969, p.47).

Substituting for imports expands the variety of goods and services produced by a community and ultimately spinoffs occur. New types of work and productive processes will emerge from currently produced goods and services. As Jacobs documents, by adding new work and tasks to already existing work, a city's economy increases its overall production of goods and services and is able to increase not only the patronization of its establishments but also its competitive capacity relative to external markets. New work which flows from already existing production processes allows a city to diversify its output and compete on additional fronts. This stimulative result leads to a general rise in the city's productive capacity and ultimately towards greater economic prosperity.

Import substitution is inextricably linked to rising export levels as well. As a more diverse set of goods and services are produced, outlets for these products will have to be found in external markets. Thus, substituting imports, balanced with increasing exports to external markets are the keys to generating the city's overall development potential. Both processes can occur organically within the local and regional economy and can lead to multiplier effects throughout the community with regard to job creation and income production.

With respect to the link existing between human capital and urban development, Edward Glaeser finds that, "Human capital predicts population and productivity growth at the city and metropolitan area level as surely as it predicts income growth at the country level" (Glaeaser and Saiz, The Rise of the Skilled City, 2003, p. 42). This literature seems to indicate that aside from climate, the skilled city is one of the best predictors of urban growth and development. Increased skills among the urban population drives productivity growth, which drives the growth of the metropolitan area.

Glaeser and Saiz further find that, "the results in the paper suggest that city growth can be promoted with strategies that increase the level of local human capital. At the regional or metropolitan level, attracting high human capital workers may require provision of basic services, amenities and quality public schools that will lure the most skilled. Conversely, redistributive policies *at the local level* have to be carefully designed as they may have the undesired side effect of repelling the skilled and deter growth. Generating new technologies *locally* does not seem as important as having the capacity to adapt them. Providing basic quality education (maximizing success rates in high school graduation) may both produce and attract the educated. Since local tax bases

are heterogeneous, state and federal funds can play a role in avoiding “low education traps” in ailing cities (Glaeser and Saiz, The Rise of the Skilled City, 2003, p.44).

The Creative Class

As Jacobs focused on the creative organic processes that develop the city’s economy, Richard Florida’s work has focused on the creative individuals who are increasingly responsible for economic development in the New “Innovative” Economy.

In a twist on Gary Becker’s *Human Capital, Rise of the Creative Class* authored by Florida and published in 2004, looks at the forces reshaping our economy and at how companies, communities and people can survive and prosper in uncertain times. In *Rise of the Creative Class*, he traces the fundamental theme that runs through a host of seemingly unrelated changes in American society: the growing role of creativity in our economy.

Florida describes a society in which the creative ethos is increasingly dominant. Leading this transformation are the 40 million Americans – over a third of our national workforce – who create for a living. This “creative class” is found in a variety of fields, from engineering to theater, biotech to education, architecture to small business. Their choices have already had a huge economic impact. In the future, they will determine how the workplace is organized, what companies will prosper or go bankrupt, and even which cities will thrive or wither. Communities that wish to enhance and accelerate their economic development potential are advised to position themselves to capture the creative class by embracing technology, talent and tolerance as guiding principles.

In his latest work, *Who’s Your City* published in 2008, Florida retraces much of the traditional economic development theory reviewed above but focuses on the important

role that place plays in the ability of a community to compete on the economic development playing field.

In a departure from Jacobs, he posits that the mega-region is the real driver of the global economy and explains why mega-regions are diverging not only in economic specialization but also with respect to their inherent personality. Thus the New "Innovative" Economy is making the place where an individual lives the most important decision in life.

It's a mantra of the age of globalization that where you live doesn't matter: you can telecommute to your high-tech Silicon Valley job, ski-slope in Idaho, beach in Hawaii or loft in Chicago; you can innovate from Shanghai or Bangalore. According to Florida, this is wrong. Place is not only important, it's more important than ever.

Globalization is not flattening the world; on the contrary, the world is spiky according to Florida. Place is becoming more relevant to the global economy and our individual lives. The choice of where to live, therefore, is not an arbitrary one. It is arguably the most important decision we make, as important as choosing a spouse or a career. In fact, place exerts powerful influence over the jobs and careers we have access to, the people we meet and our "mating markets" and our ability to lead happy and fulfilled lives.

In addition to Florida's reflections on the importance of the Creative Class and the role of place, the university as an institution that is reflective of the New "Innovative" Economy emphasis has taken center stage.

Clusters and the University Influence

A 2004 study jointly undertaken by Carnegie Mellon University for the Economic Development Administration found that,

> Universities can play a powerful role in the development of industry clusters… similarly, new industry clusters have re-ordered the ranking of major economic regions.
>
> Unfortunately the path from university research to cluster development and finally to regional economic benefit is not simple or direct. The assets of the university must be properly aligned with clusters that are appropriate targets for the regional economy. This report concludes that the characteristics of the cluster are as important, if not more important, than the characteristics of the university. The task for the university (and for regional stakeholders) is to identify and support areas of university expertise that align with clusters of opportunity for the region.
>
> For the university these clusters of opportunity are delineated by an area of significant university expertise. A large base of research and development is required but not sufficient. The university must also address business, workforce, and community issues. The university must be aligned with regional interests and industry clusters across a broad spectrum of issues, not just in terms of technical knowledge. For the region, clusters of opportunity are defined by sectors with expanding markets, "where the ability of the university to spark innovation can impact the competitive advantage of the region (Paytas et al., 2004, p.34).

The Community College Role

The role that the community college plays in economic development has become increasingly important in the New "Innovative" Economy context. As recently as May, 2009, the President of the United States stressed this in his announcement: "So I think this is one more piece of the puzzle. It's a good start. It is only a start, though. These steps are just a short-term down payment on our larger goal of ensuring that all Americans get the skills and education they need to succeed in today's economy. And to that end, I have asked once again every American to commit to at least one year or more of higher education or career training. It can be community college or a four-year school; vocational training or an apprenticeship; but whatever the training may be, every American will need to get more than a high school diploma. And we will be backing up that effort with the support necessary. And we will ensure that by 2020, America will once again have the highest proportion of college graduates in the world." Furthermore,

the President indicated that, “In the weeks to come, I will also lay out a fundamental rethinking of our job training, vocational education, and community college programs. It's time to move beyond the idea that we need several different programs to address several different problems -- we need one comprehensive policy that addresses our comprehensive challenges” (White House Press Briefing, May 8, 2009, President Obama Remarks on Job Creation and Job Training).

The literature on the role that community colleges play in job creation, job training and economic development has accelerated within the past fifteen years. As far back as 1993, now Council for Economic Advisor Cecilia Rouse indicated that, “despite the increasing importance of the community college as a labor market institution, the lack of data has resulted in little work in the area. There is a clear need for more data with which to evaluate them” (Kane and Rouse, 1993, p.31). Furthermore, “as an increasing proportion of high school graduates seek to improve their skills in the face of rising wage inequality, the community college is becoming an increasingly important institution in the US labor market. Roughly 50% of those entering college today do so at community college. However, even this figure probably understates their importance since community colleges are the port of entry for a disproportionate share of those marginal students most likely to be affected by state and federal financial aid policies” (Kane and Rouse, 1993, p.31).

More recently, in September, 2004, a seminal work was produced for the US Department of Education through its Office of Vocational and Adult Education and the Academy for Educational Development. The guidebook work, entitled, “*The 21st*

Century Community College: A Strategic Guide to Maximizing Labor Market Responsiveness" was produced in an,

"effort to develop and disseminate information and tools enabling community colleges, as a unique and critical component of America's education and training system, to keep pace with the needs of a diverse student body and a dynamic labor market."

The main goals of the Office's initiative are to: 1)determine the characteristics of a "market responsive" community college and identify the indicators and measures by which market responsiveness can be judged; 2) identify the policies and practices community colleges have put in place to facilitate and support labor market responsiveness; 3) pinpoint the steps colleges can take to improve labor market responsiveness and the quality of customized programs they offer to students; and 4) disseminate that knowledge to the field.

This guidebook is the main tool for this dissemination effort. In writing the guide, Westat and AED relied heavily upon case study analysis of more than 30 community colleges in 10 diverse labor markets, especially hundreds of interviews and discussions conducted with college leaders, local employers and economic development professionals. To augment the case studies, we collected standardized data across all colleges using surveys and document review, conducted statistical analyses, reviewed the relevant literature, and consulted with experts" (MacAllum, et al., 2004. p.v).

The guidebook resource highlights and defines the responsive labor market community college as one that," . . . delivers programs and services that align with and seek to anticipate the changing dynamics of the labor market it serves. These programs

and services address the educational and workforce development needs of both employers and students as part of the college's overall contribution to the social and economic vitality of its community" (MacAllum, et al., 2004, p.5).

Importantly, this resource indicates that, "Contextual factors, such as changing local demographics and industrial mix, inevitably influence the choice and effectiveness of these approaches. Depending on local conditions, context can either enhance or inhibit their implementation. The important lesson is that a college's ability to serve its constituents and contribute to economic development is directly related to its ability to design, develop, and implement practical approaches that take into account these contextual factors while tightening the linkages between what the college offers and what the community needs" (MacAllum, et al., 2004, p.6).

Furthermore, the guidebook resource asserts that, "Our research question—and the question we believe college leaders want answered—became, What specific things do effective colleges do that enable them to be more market-responsive?...We found that the answers to the research question we had posed could be organized into seven broad dimensions that promote or inhibit a college's ability to be labor-market-responsive. It is these dimensions of the community college that leaders must address in order to maximize labor market responsiveness:

- Leadership and governance
- Organizational structure and staffing
- Organizational culture
- Resources and funding
- Information and data
- Relationship-building
- Partnerships" (MacAllum, et al., 2004, p.10)

This guidebook resource thus provides an organizing mechanism and approach to measuring the community college's effectiveness at being market responsive. The external and internal factors above drive the institution towards either a more or less aggressive posture when confronting the challenges of remaining relevant in the New "Innovative" Economy.

In some measure driven by the parameters and framework of this guidebook resource, Leigh and Gill have investigated two research questions as a focus of their study on the responsiveness of California's community colleges. They are:

- **Research question 1:** Are community colleges meeting the education and training needs of current and recent generations of immigrants?
- **Research question 2:** Do community colleges respond to changing demand conditions by providing occupational training programs that produce skills that are marketable in the local economy? (Leigh and Gill, 2007,p.3).

While Research Question 1 is of interest and would seem to be linked to Research Question 2, it is Research Question 2 which is of most interest in the context of the scope of this dissertation. Leigh and Gill explain,

"The rapid pace of technological change and the relentless pressure exerted by global competition means that doors to job opportunities in growing sectors of the economy are continuously opening, while job opportunities in stagnant sectors are declining. The implication for policymakers is the importance of providing an educational and training system that is targeted to real employment opportunities…At the state level, in addition, legislation typically exists that explicitly directs community colleges to participate more directly in efforts to promote economic development and global competitiveness" (Leigh and Gill, 2007, p.7).

Furthermore, “policymakers have clearly identified community colleges as the principal institutional provider of training services to adults looking for employment or seeking to retain an existing job. But while increased attention is being directed at community colleges in their role as suppliers of adult training services, relatively little is known about how successfully they perform this function. Our Research Question 2 asks how well community colleges are doing, in a dynamic and ever changing economy, in meeting the challenge of supplying training that meets the skill requirements of employers in local labor markets” (Leigh and Gill, 2007, p.8).

In terms of methods and results, Leigh and Gill indicate that,

> we develop and compare across colleges measures first of the supply of trained workers and next of the demand for trained workers, both classified by occupational TOP *(taxonomy of programs)* codes. Then we bring supply and demand together using an index of labor market responsiveness constructed for each individual college. Colleges are found to differ substantially in terms of their labor market responsiveness. We next seek to determine whether these differences in responsiveness can be explained by college-level and community characteristics. We find that measures of the financial capacity of colleges play a role in determining labor market responsiveness. Our main result is evidence suggesting that colleges that appear not to be particularly labor market responsive when examined in isolation may turn out to be part of community college districts that are substantially more responsive (Leigh and Gill, 2007, p.12).

This comparison of supply and demand factors for trained workers based upon the occupational distribution of completed credits supplied by the community college and the occupational distribution of projected new jobs in counties (service districts) where community colleges are located is a viable model and in some measure could be employed to measure the effective labor market response of Florida’s Community College system.

Community Economic Development

Finally, in the context of the New "Innovative" Economy and the principles that provide its foundation, a community economic development theoretical paradigm formulated by Shaffer, Deller and Marcouiller (Shaffer, et al., 2006) is offered for economic development practitioners functioning in a local and regional economy context. The paradigm balances the economic factors of markets, resources and space with the non-economic (community development) factors of society and culture, rules and institutions and decision making. It is interdisciplinary stressing the interactions and entanglements among these factors in pursuing development of the local economy. All are pertinent and must be addressed in order to achieve gains for the community. It acknowledges that local economic development is a qualitative proposition as well as one built upon quantitative measurements and results. This approach strikes a balance between the vagaries of the market and the claims of community that make a place sustainable and livable. Finally, the paradigm reflects the realities of the New "Innovative" economy propositions respecting the challenges that confront the practice of economic development and also the opportunities for capitalizing on national and local competitive (and comparative) advantages. Some of these challenges and opportunities are reflected in economic development planning as described below.

The Practice of Economic Development Planning

Economic development planning in a local and regional community context has become increasingly practiced in the last several decades. Since the inception of the Department of Commerce in the 1960s and the Economic Development Administration, a division of that Department, economic development plans have been prepared in

development districts and larger planning regions for the disbursement of Federal funds (Malizia, 1985).

This method is consistent with many other Federal community and urban development programs that require some type of reporting, technical analysis or feasibility study to justify the receipt of funds by local communities for program implementation. In essence, the planning has been required as a condition for the provision of the dollars necessary to execute these plans. As a consequence, planning for economic development has been with us for at least forty years.

More recently, particularly in the decade of the 1980s, economic development planning became more popular at local and regional levels of government as the availability of Federal dollars became more scarce. Communities increasingly began to look inward for the talent, resources and ideas needed to spur local economic development (Malizia, 1985). This trend continued for the next two decades consequently local economic development efforts have often been pursued by local governments as well as public private partnerships and various economic development agencies.

Moving forward, the landscape for economic development efforts may be evolving once again. The unprecedented recent financial challenges that are accompanying a deep recession beginning in December, 2007 will likely result in a new platform for the practice of economic development. The recent passage of an approximately $750 billion dollar federal stimulus bill designed to reignite the macro-economic engine and the multiple Federal efforts to stabilize the banking system, housing and consumer markets and the recently introduced FY 2010 Federal budget are all likely to coalesce

into a drastically changed environment for economic development practitioners across the nation.

In addition, recently, the Obama administration announced its “American Graduate Initiative” which aims to result in the highest proportion of college graduates in the world by 2020 inclusive of five million community college graduates. This initiative foresees the expenditure of twelve billion dollars over ten years with a focus on an expansion of community college graduates; the creation of a community college challenge fund; funding of innovative strategies to promote college completion; modernization of community college facilities; and, the founding of a new online skills laboratory. This federal effort will therefore once again put the focus on economic development planning in an educational context.

Economic Development Planning will thus likely move to the forefront of planning efforts in the next several years, and may even take center stage as communities attempt to resurrect their local and regional economies concurrently positioning themselves for the New “Innovative” Economy platform with an emphasis upon energy, health care and education. In the pages that follow the practice of this subset of urban planning are discussed.

Evolution, Justification and Future Directions

The evolution of economic development planning tracks to a certain degree with the increasing role of government in the private sector over the past century. With this advent of a more vital role played by government at all levels in shaping the economic environment, the prospects and possibilities for economic development planning have been enhanced. In addition to the changing relationships between government and the private spheres of influence, a heightened sense of unease about the results of

Schumpeter's "creative destruction" for a community's well-being has increased the public desire for attention paid to the community's economic development condition. Citizens want to feel as though they have some measure of control over their destiny as a community, and the economic development planning process helps fulfill this desire. Finally, it has always been understood that to some degree, the public sector provides the underpinnings and environment in which the economy functions. As Atkinson states, "As a result, the key is not to help small business per se, but rather to create a climate conducive to entrepreneurial activities that brings true innovation to the economy" (Atkinson, 2004, p.291).

The economic development planning process is the mechanism by which the conditions of the community and its regional environment can be structured as part of an on-going public participation and deliberation process. "In the New Economy, innovation and knowledge are the most important factors driving economic growth. If we are to boost both . . . it (government) needs to invest in knowledge and support competition, but in ways that both preserve fiscal discipline for future generations and helps workers cope with increased risk" (Atkinson, 2004, p. 293). The nature of the economy has changed in the last two decades and will likely continue to change at an accelerated rate in upcoming decades. As a result of this momentous change in not only the traditional economic structure of the economy but also in the underlying institutional basis upon which the economy is built, it is very likely that economic development planning will continue to play an important role in helping communities cope with upheaval while charting a future course. Because of the emphasis placed upon innovation and knowledge as the bases for the New Economy, practitioners of

economic development will be responding through the economic development planning process by addressing issues of education (K-12, university and community college), institutional and organizational reform, issues related to the concept of the workplace, and quality of life (See Blakely, 2002; Atkinson, 2004). These are not traditionally areas upon which the economic development professional focuses; however, with the advent and further development of the New “Innovation” Economy, they will continue to remain in the forefront of a community's economic development planning efforts.

Economic Development Planning

Planning for economic development suggests that a community is cognizant of change and wishes to participate in the shaping of that change, presumably for the betterment of the community's prospects, in the short and long term. Blakely holds that, "the planning of local economic development is a process meant to deliver a product" (Blakely and Bradshaw, 2002, p.75). The product in this case, is a more viable economic future for the citizens of the community via the provision of additional and better jobs, greater public resources (via an expanded tax base) to provide public goods, and the community’s ability to provide economic opportunity as part its overall quality of life.

Economic Development Planning is pursued in a variety of spatial contexts, from an international and national perspective down to the level of the town or village. Typically, economic development activities are undertaken in the public interest often, but not exclusively, at the behest of public entities. Defining the economic development planning exercise is important for a few reasons. First, it should be reflective of the manner in which the economy in a particular locale is operative. It should recognize whether the economy is properly analyzed on a small scale spatial basis or if its realities

dictate that a larger spatial area, such as a county or multi-county space, would be more effective. Second, in order to be successful, it is important to determine who the responsible and participating entities in the economic development process are, and who will serve as the implementing entity. Third and finally, the expectations of the process should be understood by all those participating in the effort. For instance, what does the community mean by economic development? How does the economic development planning effort integrate into the vision for the community overall? These are foundational concepts for all to understand in the establishment of the economic development planning process.

Mechanically, the Economic Development process follows a standard planning approach. However, Malizia discusses a distinction between synoptic-comprehensive planning and contingency or strategic planning. The former is relates to a community as a whole and helps to identify key actors, articulate shared goals, mobilize scare resources, and surface local conflicts. The latter are forms of organizational planning vested in local economic development organizations and the plan of the organization often represents one piece of a larger mosaic of organizational plans which must be jointly executed to accomplish wider community economic development goals (Malizia, 1985). The contingency or strategic planning is likely the better option as it provides an action oriented basis for pursuing implementation of broader goals.

Blakely concurs and asserts, "the basic planning approach for local economic development is self-education first, strategy development second and projects third, according to six phases

- data gathering/analysis
- selecting a local development strategy

- selecting local development projects
- building action plans
- specifying project details, and,
- overall development plan preparation and implementation"(Blakely and Bradshaw, 2002, p.79).

One phase that Blakely does not explicitly mention is evaluation but it is key (and important to conduct on an on-going basis) to the enterprise.

The role of the implementing entity (agency, public/private partnership, institution) and the approach to the economic development planning enterprise must be determined. The role of the implementing entity can run the gamut from a more passive role (allowing the private sector to shape the economic development environment) to a more aggressive one in which the implementing entity participates in driving the economic development engine. As a consequence, the approach to the economic development planning process becomes either reactive or pro-active in implementation.

Finally, planning for economic development is a value proposition. Development in this context connotes a qualitative improvement in a community's and individual's economic circumstances. It is slightly different from a concern purely for growth suggesting a purely quantitative improvement. The economic development planning process, although concerned with shaping growth, is focused upon fostering development and building capacity which will lead to overall economic improvement.

Economic Development Planning's Relationship to Comprehensive Planning

Comprehensive Planning conceptually focuses on a broad array of community elements for analysis in formulating future directions. Faludi maintains that, "proponents of comprehensive planning, on the other hand, are more inclined to see society as an organic whole, something which is, in a metaphorical way, more real than

the collection of individuals which it embraces" (Faludi,1973, p.113). Concurrently, the process is based upon a rational management approach to the actual implementation of the process itself. "The comprehensive plan as a static guide to the community's future is giving way to a comprehensive planning *process* that includes and coordinates various plans, programs, and procedures. Within this continuing process, certain aspects of general development plans are produced and revised over a specific time period" (So,1988, p.71).

Economic Development Planning can be seen to follow this general example. The practice of local economic development engages a variety of economic and non-economic factors and as a result the planning enterprise needs to be vigilant in acknowledging the broad range of considerations and constituencies that go into its formulation. In addition, the process, and more importantly, its implementation, is predicated upon a rational approach to assessment, derivation of strategy and project development.

In addition to composition issues of organic conception and rational management, Comprehensive Planning and Economic Development Planning can both be seen as practical responses to change utilizing the mechanism of public participation. In both cases, there is an acknowledgement that change is inevitable. As a result, there is recognition that in a changing world, a community's inhabitants will demand to have a say in how change manifests itself in their physical environment. Thus, both the Comprehensive and Economic Development Planning processes provide the means necessary to attain an acceptable and supportable end. It must be emphasized that in light of the accelerating nature of the New "Innovation" Economy environment in which

citizens now find themselves and the growth management issues that many Florida communities confront, the clamor for engagement in these planning processes will increase in the coming years. Finally, it must be acknowledged that as a technical and statutory matter, Florida's current growth management legislation does mandate Comprehensive Planning. An Economic element to the Comprehensive Plan may be submitted as part of a community's overall Community Plan; however, it is not mandated. Typically, the Economic Development Planning enterprise is undertaken voluntarily either by local or regional communities or, in some instances, by the private or non-profit sectors.

Summary

The theory behind economic development has a long and storied history. From Adam Smith down through the centuries to Richard Florida, observers of the wealth creation process have focused on various aspects of the machinery that makes the process work. All to one degree or another have identified the importance of: 1) the role of institutions, 2) the qualitative alignment of factors of production, 3) the role of place and the 4) importance of exchange. Spatially, the theory has focused upon various geographic dimensions including the nation, the region and the urban sphere. In every case however, the intent is to understand the process in order to better influence the output for inhabitants. Building productive capacity and therefore benefitting inhabitants has been the formative goal.

The vehicle for reaching this goal in a Planning context has been the practice of Economic Development Planning. Economic Development Planning is a justifiable and increasingly practical vehicle for expressing a community's desires for community economic development. Economic Development Planning in democratic society’s is a

process that accommodates citizen participation in the shaping of this important aspect of a community's well being. The process is consistent on several fronts with that followed in Comprehensive Planning and shares similar theoretical underpinnings. Economic Development Planning, in its explicit form, has been in place since the public sector took a more active role in the shaping of recent urban economic environments but it can also be seen to have been practiced in the shaping of urban environments since time immemorial. In the future, it is likely that Economic Development Planning will continue to provide an outlet for citizen concerns about their economic futures while stressing the many non-traditional economic development principles that are the substance of the New “Innovation” Economy.

CHAPTER 3
DISSERTATION RESEARCH DESIGN AND METHODS

Design

The dissertation focuses on the degree to which the community college plays a role in building local community economic development capacity. The methodological approach utilized is the case study and the author analyzes the role played by Santa Fe College in shaping and responding to the region's efforts at economic development through qualitative analysis.

The questions examined include those broadly framed in the Introduction regarding the role of educational institutions and the community colleges as capacity builders within a community economic development context and New "Innovation" Economy platform and then several specific to Santa Fe College including : 1) What has been the role of Santa Fe College in building the capacity of the local economy over time? 2) How has this role evolved in light of changing circumstances confronting various levels of the economy and in light of State policy direction? 3) Has Santa Fe College exhibited North's concept of "adaptive efficiency" in pursuing its educational and economic mission in the community? 4) Has Santa Fe College's organizational capacity been affected by its membership in the League of Innovation? 5) To what degree and how successfully does Santa Fe College interact with the private sector as well as other partners in pursuit of local economic development? 6) How does Santa Fe College's community economic development role mirror or contrast with community colleges "the Great 28" throughout the state of Florida?

The theoretical framework that supports the dissertation is constructed from a literature that is inclusive of economic development thought, cognizant of economic

development planning practice and animated by personal observation of the Santa Fe College experience. The literature on economic development thought, economic development planning and the community college is derived primarily from available book and journal resources. The observations and summary of the case study are based upon a review of the documentary evidence as well as informal conversations with Santa Fe College's administrative staff in key positions with respect to the profile of the College in the community with respect to economic development.

The dissertation attempts to follow solid research design as outlined by Yin, "Another way of thinking about a research design is as a "blueprint "of research, dealing with at least four problems: what question to study, what data are relevant, what data to collect, and how to analyze results…the main purpose of the design is to help to avoid the situation in which the evidence does not address the initial research questions" (Yin, 1994, p.21).

As regards data collection, Yin offers six sources of evidence as a focus "(documentation, archival records, interviews, direct observations, participant observations and physical artifacts" (Yin, 1994, p.80). The first five of these seem particularly relevant to the author's dissertation subject. Again, because of the author's engagement in the subject's physical and professional environment these components of evidence are available for analysis. Therefore, in terms of evidence, the record is rich.

As mentioned, one of the weaknesses of case study research has been identified in some instances to be production of an unwieldy final product. Because of professional and academic experiences, the author remains cognizant of the desire for

the results of this effort to be utilized by both communities in the future. Care has been given to this effort and the author is sensitive to producing a work that is viable to those it seeks to inform.

With respect to significance, this dissertation seeks to assist the academic and the economic development practitioner in understanding the important role that the community college plays in local community economic development. This is increasingly important as academics and policy makers attempt to understand the needs and requirements of communities in preparing their citizens for the New "Innovation" Economy. Nontraditional approaches speak well for the ability of community colleges to address pressing economic development problems, especially those posed by a growing underclass whose skills leave them unable to join the economic mainstream" (Katsinas and Lacey, 1990, p.1).

In addition to the substance of the effort, the dissertation attempts to build process bridges between the academic and practitioner community; the various disciplines; and, institutions engaged in the process. Each of these process bridges is increasingly being built as the New "Innovative" Economy forces a more collaborative model of interaction. Thus, the substance and process both lend themselves to a significant effort, and a systems model, based upon prior work undertaken by the Southern Growth Policies Board, is offered to describe the community economic development partnership and its inner workings.

Relative to completeness, there is an attempt to be comprehensive in approach to this dissertation subject. Because the author favors the holistic approach that the case study methodological approach offers, the intent is to be as comprehensive as possible

in pursuit of the effort. A record is built in terms of observation, informal interviews and review of documentation as well as broad interaction with all pertinent parties to the dissertation subject. The chosen location of the case study and the author's interaction in the environment are an advantage with respect to the thoroughness in approach to the dissertation subject as well.

The advantage of employing a case study methodological approach and its holistic groundings is that a variety of alternative perspectives (the phenomenon and context analysis) are documented. Although it seems intuitive that the community college plays a role in the economic development aspects of a local community, the degree to which that is the case may appear to differ based upon varying perspectives. Particularly in light of informal interview and direct observation, alternative perspectives based upon circumstances are understandable. The author's dual position as economic development practitioner and researcher within the dissertation subject's environment is helpful in documenting these alternative perspectives.

Methods

Several methods have been employed in order to execute the dissertation's design. These include: 1) archival research; 2) informal interviews; 3) review of specific impact measurement tools; 4) incorporation of professional observation based upon practitioner experience; and, 5) qualitative analysis.

The effort has incorporated appropriate archival research as noted in the Review of the Literature. The research effort focuses on several broad areas that are important in approaching the subject and pursuing the research question.

1) Classic economic development literature lays the foundation for the

dissertation; this is inclusive of the canon as well as more recent additions relative to innovation and the entrepreneur, the role of academic institutions, the cluster and urban approach and the new community economic development paradigm. This literature includes the work of Smith, Schumpeter, North and Becker as to the former; as to the latter, notables include Jacobs, Porter, Deller and Florida. All of these are rounded out in Chapter 2, "Review of Related Literature."Since the dissertation is pursued in an urban planning and development context, the economic development planning discipline is examined as well. Finally, the role of the community college in workforce and economic development is examined as is the literature and recent data on the impact of Florida's community colleges on state and local economies.

The archival research has been pursued through the traditional mediums of University of Florida Library resources as well as through the Internet. The economic development canon and economic development planning literature are predominately documented using traditional library resources. The alternative economic development approach is pursued through the traditional library resources but also through academic and practitioner periodicals and through the Internet.

On the specific community college literature, traditional library resources are utilized however, the bulk of the archival research revolves around Internet resources, particularly as they relate to Florida's Community College System overall and Santa Fe College itself. The former relies heavily on the Florida Association of Community Colleges and Florida Board of Education. The latter relies on the Santa Fe College web-site and resources provided electronically by the College's Office of Institutional Effectiveness, Research and Planning.

2) Santa Fe College provided assistance in the context of informal interviews. These were conducted over the past year and focused on the design of the dissertation as well as its direction and available data resources. Informal interviews were held with the College President, Provost, Office of Institutional Effectiveness, Research and Planning Director and Economic Development Director. Information shared during the interviews concerned the nature of the study and its direction. Clarification on various areas of focus was provided to the author by the interviewees as well as insights into various aspects of the organization's operations.

3) This College provided the author with direction on available data resources relative to the case study particularly those regarding major employer surveys (see Appendix 7) conducted in past years as well as results of a recent economic impact study. An analysis of these resources provides a glimpse of the success of the community college in providing a prepared workforce and economic impacts on the local economy.

In addition to employer surveys and the aforementioned impact study, the organizational culture of Santa Fe, the issuance of baccalaureate degrees that will occur in Fall, 2009 to facilitate the development of the region's life sciences industry, and the spatial platform that the College maintains are examined in light of their contribution to the building the economic development capacity of the region.

Specific impact measurement tools examined include the major employer survey and the recent economic impact study. Each provides an objective measurement of the College's impact on the local economy. Important but slightly harder to quantify, the College's ability to improvise and evolve, based upon the dictates of local economic

demands inclusive of its recent decision to issue baccalaureate degrees, and the spatial platform that the College maintains throughout its service district, are reviewed as well.

4) The author is pursuing this research in an academic capacity as well as in the capacity of an urban and economic development planning practitioner with over fifteen years of experience in the field. Not only does this provide a slightly different perspective on the dissertation's design, methods and outcome, but it also provides a concrete rationale and work product in terms of application. As has been mentioned, one of the anticipated outcomes of the dissertation is to build academic and economic development practitioner bridges; another is to provide a framework for applied results for the benefit of the local economy. This motivation has been utilized in the preparation primarily of the case study and in the dissertation's chapter on summary and recommendations. Professional practitioner contacts in the community have been helpful in the endeavor as well. This is inclusive of various institutional economic development partners in the community such as the Workforce Board, the Greater Gainesville Area Chamber of Commerce, the University of Florida in a variety of capacities and private industry.

5) The analysis provided within the dissertation is qualitatively driven except as mentioned in respect to the more objective and quantifiable results of the broad community college impact data, the major employer surveys and the College economic impact study. Several of the impacts examined within the case study are in need of the analytical tools that will assist in providing a more objective quantification of community college impacts on the local economy, particularly in a New "Innovative" Economy framework.

The case study animated by the factors above is framed via a systems model suggested in a review of the literature on the university role in building the innovation economy. The model is specifically definitive of the University's role however, the dissertation adapts the model to the community college role by modifying several applicable attributes.

This system's model is comparable to that derived by David Easton in his relating systems theory to political science, and it represents a fluid relationship among various inputs inclusive of institutions, mechanisms and the environment leading to various outputs (Easton, 1965). The model seems to work well in describing the interaction of these factors in shaping the economic environment, and it can be made reflective of the community college's role in this process.

Furthermore, the derivation of the model described above is an attempt to offer a broader application of the case study's conclusions. Santa Fe College is positioned differently from other community colleges within the State of Florida, since it occupies the same proximate space as the University of Florida, the state's land grand university and premier institution for higher learning. As a result, one challenge for the case study is to build a record that can be examined and applied in other, similar settings.

The model is employed as a tool in framing the case study, and its chief findings are intended to provide a more direct conceptual framework for similarly situated community colleges in spatial locations adjacent to a large university or those with similarly large university footprints. For those differently positioned, certain features of the model can still be utilized to understand collaborative economic development relationships as well as various interactive mechanisms. These community college and

university alliances found outside of Florida as well as a few locales within the state; in the latter several community colleges are similarly positioned throughout the State including Hillsborough Community College in Tampa, Tallahassee Community College in Tallahassee and Valencia Community College in Orlando.

CHAPTER 4
THE COMMUNITY COLLEGE INSTITUTION AND SANTA FE COLLEGE

Introduction

Community colleges have evolved in the last one hundred years to provide a dual role in building a community's capacity for local and regional economic development, and as we noted in Chapter 2, building capacity is a primary objective of economic development. First, across the nation, these institutions have provided affordable educational opportunities to individuals completing high school, and either the receipt of a two year degree or matriculation at a university to complete a four year degree. Second, community colleges have provided workforce development opportunities for those currently in the workforce seeking to either add to or buttress an existing skill set. Recently, Florida's twenty eight community colleges have begun to offer baccalaureate degrees in areas of concentration that are important to employers in a specific community.

Increasingly, because of its local and regional grounding and its traditional mission as outlined above, the community college is relied upon to meet the needs of the community in developing its human capital and workforce development potential. Importantly, the community college exhibits the adaptive efficiency qualities that make it an appealing institution in terms of servicing the New "Innovative" Economy's platform (inclusive of globalization, accelerated pace, knowledge base, and collaboration) (Blakely, 2002) as discussed in Chapter 2.

What follows then is an examination of the broad based position of the community college in workforce and economic development, a brief review of the evolution of the Florida Community College System and the addition of baccalaureate degrees as one

concrete example of adaptive efficiency in building community economic development capacity . This history helps to form the context for the case study of Santa Fe College in Gainesville, Florida.

The Community College Role and its role in Workforce and Economic Development

The original intent of the community college was the provision of education opportunities that were locally oriented. "Traditionally, community colleges confer degrees and offer programs that are less than four years in duration. These colleges have been called, "people's colleges", primarily because of their open access admissions policies, their affordable costs and their geographic locations that are within easy driving distance for most people" (Floyd and Skolnik, 2005).

In recent years, the traditional transfer orientation of the community college (beginning one's higher education training in a community college setting and then transferring to a traditional four year degree granting institution) has evolved, and often offers baccalaureate opportunities. "During the past few years, however, community college leaders, policy makers and legislators have been seriously exploring, and in some states and Canadian provinces, implementing, the notion of community colleges offering and conferring bachelor's degrees, especially in certain high need areas as teacher education and nursing" (Floyd and Skolnik , 2005). This is in addition to the community colleges' entrance into the provision of adult education opportunities and a variety of workforce development programs. "Increasingly, however, community colleges provide another option: career training through vocationally oriented courses that leads to a certificate. This type of career training previously was offered mainly by proprietary school and vocational institutions, but community colleges now have similar

programs to better serve the needs of local businesses and communities" (Kasper, 2002-2003, p.14). “The growth of these programs can be seen particularly as resulting in a tremendous increase in part-time enrollments, approximately 200 percent from 1.1 million in 1970 to more than 3.4 million in 1999"(Kaspar, 2002-2003, p.20).

The community college student is defined in many respects by the mission of the institution he/she attends. The community college has historically been devoted to the proposition that it serve the needs of the local community in an open setting by providing lower cost access to higher education. As a result, compared to their four year degree granting institutions counterparts, the community college student is often likely to come from a background of more limited financial means, and with greater diversity in respect to age, gender and ethnicity. Increasingly, because of the evolving mission of the community college and the economic environment in which it operates, the community college is providing local industry with the means by which it can enhance the professional skills of its employees through access to workforce training and certificate programs. This trend and the ability of the community college to adapt itself to the changing nature of the work environment will continue to provide the community college with increasing enrollments and a continued diversity in student background.

As reported in a recent issue of Economic Development America, "the nation's 1,100 plus community colleges are well known to economic developers as partners already in place to meet their region's workforce needs. Yet even economic developers may be unaware of the wide reaching impact of community colleges. Some fast facts are: 50 percent of new nurses and the majority of health care workers are educated at

community colleges; close to 80 percent of firefighters, law enforcement officers and EMT's are credentialed at community colleges; and, 95 percent of the businesses and organizations that employ community college graduates recommend community college workforce and training programs" (Campbell and Long in Economic Development America, Fall, 2006, p.23). Community colleges are in the business of economic development and have been for at least the past forty years. Cohen and Brawer write, "the American Association of Junior Colleges in 1964. . . concluded that, many students come to the community college with narrow backgrounds, and, for them, career education may mean only gaining skills for a specific job. . . Through lack of attention to general education, community colleges often exacerbate this tendency toward narrowness. . . we recommend that the core curriculum be integrated into technical and career program" (Cohen and Brawer, 2003, p.250).

Furthermore, as can be gleaned from a review of the community college's statutory basis in Florida law, the primary mission and responsibilities of the institution are broadly defined and include: "providing lower level undergraduate instruction and awarding associate degrees, preparing students directly for careers requiring less than baccalaureate degrees; providing student development services; promoting economic development through workforce, technology transfer and economic development centers; and, through workforce literacy programs; and by providing dual enrollment instruction" (Florida State Statutes, Chapter 1004.65). This is a broad mandate and is inclusive of the traditional education role of the community college institution, but it seems to recognize the wider mission of workforce preparation required for future and current participants in a community's workplace.

Thus, the community college appears to have a wide and varied agenda. It is responsible for the provision of traditional educational opportunities to a locally based population whose pool is on the rise and is impacting the prospects for individuals and firms with respect to workforce preparation (Kaspar, 2003). Add to this the current economic environment in which we find ourselves that is primarily knowledge, technology and innovation driven, and the importance of the community college in building local community economic development capacity would seem to be critical.

Furthermore, because the new economic equation puts a premium on collaboration and networking, community colleges would seem ideally positioned to play an important role in community economic development. The Economic Development America citation above describes five award winning programs from around the country that are providing creative and innovative solutions to the community economic development needs of their host communities. These run the gamut from the role played by a community college in Springfield, Massachusetts in creating a 15 acre technology park to the creation of an alliance between industry and a community college in Alabama designed to transform the American pulp and paper industry.

Evolution in the Community College's Role

As a consequence of its current education and workforce mandate, the evolving economic situation confronting communities and its inherent adaptability to a changing environment, the future for the community college is crucial and it will be increasingly relied upon to buttress the community economic development prospects of communities across the nation. "The new economy is a knowledge driven economy... and they (industry) know that higher skills will be required to realize the potential productivity gains that technology can bring" (Blakely, 2002, p.6). Thus the literature suggests that

in order for individuals and firms to remain competitive in the current economic environment, a premium has been placed upon the maintenance of an educated and skilled workforce.

The community college has become a prime mover in the provision of opportunities for workforce development in recent years. ". . . in the past thirty years in particular, community colleges have become increasingly focused on workforce preparation, and the degree of emphasis on this function has increased greatly in the past several years" (Cohen and Brawer, 1996; Bailey and Averianova, 1999). Much of the work of the community college in building the attributes of less skilled workers has been achieved in collaboration with industry and public sector partners. "Partnerships with industry and local and state governments have resulted in the development of relatively short-term, certificate-oriented training programs (Dougherty and Bakia, 2000) and financial pressures and opportunities have rendered this sector of education increasingly entrepreneurial (Grubb et al., 1997).

While the educational level of the labor force is almost certain to increase, much of the growth will occur via-short term, specialized, vocationally oriented programs of study (Shaw and Rab, 2003). These programs of study are ultimately building the capacity of the labor force and preparing not just individuals and firms for entry into the new economy, but also the communities that host both. As Atkinson reports, “increased skills not only enable workers to better perform their jobs, but allow employers to redesign work to take advantage of those higher skills, further boosting productivity. When companies institute participatory work systems they not only raise productivity and cut costs, they often provide more rewarding tasks” (Atkinson, 2004, p. 286).

“Firms with more educated workers have higher productivity, and raising the educational level of employees by a year results in an 8 to 13 percent increase in labor productivity" (Union of Industrial and Employers Confederations of Europe, 2001; Appelbaum et. al, 2002; Black and Lynch, 2000 in Atkinson, 2004).

With respect to the community economic development destiny of local communities, the community college is relied upon to provide leadership in the provision of training opportunities important to local firms in a rapidly changing economy, while remaining responsive to the needs of its students of varying backgrounds. The inherent flexibility of the community college allows it to meet the increasingly technically and innovatively driven needs of the local economy, and it will remain an asset in the community's arsenal of economic development tools.

Community College Economic Development Impacts

Recently, Florida Tax Watch’s Center for Educational Performance and Accountability in Tallahassee, Florida, performed a study entitled, *“Putting Minds to Work Pays Big Dividends! The Impact of Florida’s Community Colleges on Students’ Prosperity and the State’s Economy: A Solid Return on Investment* (Putting Minds to Work, published February, 2006 by Necati Aydin, PhD,et.al.).

Incorporated in the study is a literature review of community college impact studies from around the nation. These studies were conducted by CC Benefits, Inc. in collaboration with the Association of Community College Trustees (as is the Santa Fe College study analyzed within this dissertation) in order to streamline and substantiate the economic benefits generated by community colleges. Summary findings were established for eleven community college studies. These studies include:

- Oregon Coast Community College (2003)
- Del Mar College in Texas (2002)
- Douglas College in Canada (2003)
- 33 community college districts in Washington (2003)
- Community colleges of Spokane (2003)
- 39 community colleges in Illinois (2003)
- 50 community college districts in Texas (2002)
- Madison area Technical College in Wisconsin (2001)
- 16 community colleges in Maryland (2003)
- Clackamas Community College in Oregon (2003)
- Hillsborough Community College in Florida (2003)

These studies examined three generic categories of the socioeconomic benefits of community colleges including higher earnings, investment analysis and social savings (reduced crime, unemployment /welfare and improved health). These were further refined into seven subgroup comparison elements as follows:

- Higher Earnings: Per Credit Hour
- Higher Earnings: Per Full-Time Student
- Investment Analysis: Rate of Return
- Investment Analysis: Benefit/Cost Ratio
- Investment Analysis: Payback Years
- Social Savings: Per Credit Hour
- Social Savings: Per Full-Time Student (FTE)

Summary findings are that: 1) higher education via the community college results in higher earnings averaging $112 per credit hour and $3,296 per full time equivalent; 2) investment analysis finds community college educational benefits outweigh their costs with an average rate of return of 25%, average benefit/cost ratio of seven and average payback of seven years; and, 3) social savings due to community college education were significant totaling $35 annually per credit hour and $1,353 annually per full time equivalent (Putting Minds to Work, published February, 2006 by Necati Aydin, PhD,et.al. p.5). (See Appendix A).

Florida's Great 28

The growth of Florida's Community College System over the past 80 years has mirrored the growth and development of Florida itself. This has occurred in quantitative terms, to serve a growing population and in qualitative terms, through an evolution in mission to correspond with the State's educational and workforce needs. In the course of approximately 45 years, the system has grown to its current size and in the future will likely change, as circumstances dictate. To observe this process is to observe the creation of an institutional public policy response to the educational and economic development capacity needs of the State of Florida as a whole.

> The birth of Florida's Community College System can be traced to the private sector. In 1927, St. Petersburg Junior College was founded as a private, two-year college on Florida's central Gulf Coast. Shortly thereafter, several other private two-year colleges including Jacksonville Junior College, Orlando Junior College, Casements Junior College, and Edison Junior College were organized. All of these early private junior college efforts in Florida failed with the exception of St. Petersburg Junior College. Florida's first public junior college, Palm Beach Junior College, was established in 1933 by approval of the local Board of Public Instruction. In 1939, the legislature adopted a law which provided that a county or group of counties with a population of 50,000 or more could petition the State Board of Education for the establishment of a public junior college. From 1933 until 1947, Palm Beach Junior College remained the only public two-year college in the state.
>
> By the end of 1948, Florida's emerging community college system included four publicly funded institutions — Palm Beach Junior College, St. Petersburg Junior College, Chipola Junior College, and Pensacola Junior College. These four junior colleges became the focus for Florida's new approach to postsecondary education.
>
> The Community College Council was organized in the fall of 1955, and Dr. James Wattenbarger was granted a leave of absence from the University of Florida to direct the study of the council. After nearly two years of study, the council issued its report to the 1957 Legislature. The report, titled *The Community Junior College in Florida's Future*, recommended a state plan that would provide twenty-eight junior colleges located within commuting distance of 99 percent of the state's population. The 1957 Legislature accepted the report as the master plan for Florida's community/junior colleges and at the same time approved six new community college districts to begin implementing the master plan. The six

colleges approved by the 1957 Legislature were Gulf Coast Community College, Central Florida Community College, Daytona Beach Community College, Manatee Junior College, North Florida Junior College, and St. Johns River Community College.

The 1957 Legislature also approved statutory revisions that permitted the junior colleges to begin a separate existence apart from the K-12 programs, and the Division of Community Colleges was established as a separate division within the Florida Department of Education. Dr. James Wattenbarger was appointed as the Division Director.

During the next ten years, sixteen of the eighteen new public community/junior colleges visualized in the ten-year master plan were opened. They were Brevard Community College (1960), Broward Community College (1960), Indian River Community College (1960), Miami-Dade Community College (1960), Edison Community College (1962), Lake City Community College (1962), Lake-Sumter Junior College (1962), Okaloosa-Walton Community College (1964), Polk Community College (1965), Florida Keys Community College (1966), Florida Community College at Jacksonville (1966), Santa Fe Community College (1966), Seminole Community College (1966), South Florida Community College (1966), Valencia Community College (1967), and Tallahassee Community College (1967). In 1968, Hillsborough Community College was authorized by the legislature, and in 1972, twelve years after the Community College Council issued its report to the legislature, Pasco-Hernando Community College was opened to complete the twenty-eight community/junior college system in Florida.

Since then, Florida's Community College System has become a national and international model for the orderly development of a community college system. Locally controlled by individual district boards of trustees, Florida's "Great 28" community colleges continue to make notable contributions towards assuring that all of the citizens of Florida have access to higher educational opportunities. As the community college transitions through the implementation of The Florida Education Governance Reorganization Act of 2000, HB 2263, SB 1162, and the most recent education governance bill, SB 20E passed by the 2002 Legislature and referred to as the School Code Re-write Bill, the ability of Florida's twenty-eight community colleges to meet the higher education needs of local communities and the students within those communities will undoubtedly be impacted. Likewise, the mission and purpose of Florida's community colleges will be scrutinized by the new Florida Board of Education and, is already evident by the board's approval for baccalaureate degrees at four of the state's twenty-eight colleges, the result of this scrutiny will shape the future history of the Florida Community College System. Through all of the history of changes in the organization and governance of the Florida Community College System, there has remained only one constant, the Florida Association of Community Colleges (FACC). With a membership of nearly 8,000 community college faculty and staff and all 28 of the state's community colleges, it is the largest state-based

community college organization in the country and one of the largest associations in the State of Florida (Wattenbarger and Albertson, 2007, p.8).

Most agree that Florida has a structurally sound community college system that really does provide it with the basis to align its educational and workforce mission with the New "Innovative" Economy platform. By providing a locally oriented solution to the citizens of the various community colleges established regions, this system can provide the springboard necessary for the state to effectively position itself as a leader in grooming needed human capital resources.

Expanding Opportunities through the Issuance of Baccalaureate Degrees

The mandate provided to the community college within the last several years regarding the issuance of baccalaureate degrees is another manifestation of the presumed efficiency of the institution is an effective adaptation to the education and workforce needs of the state's inhabitants. This movement is intended to position the state proactively in its efforts to mold the 21st Century's State workforce and to respond to the needs of employers.

According to Kenneth Walker writing in *The Community College Baccalaureate*, "What began to happen in the 1980s, and more particularly in the late 1990s, was for some community colleges to decide to offer a few baccalaureate programs in selected areas in order to provide access to baccalaureates for students who would not otherwise be able to earn a four year degree. . . the Florida Council of Community College presidents endorsed community colleges offering selected baccalaureate degrees in 1997 and later, in 2001, the Florida legislature greatly expanded the authority of the state's community colleges to offer four year degrees" (Walker, 2005). Slowly, within the last 20 years, Florida's community colleges, as well as others

nationwide, have embarked upon a pragmatic realization that defines their educational mission: the recognition that offering a four year degree is of increasing importance, and is driven by factors that define the current economic environment as well as the economic viability of the community college itself. In terms of the economic environment, the offering of baccalaureate degrees is a response to the need of many occupations to be filled by candidates who have minimally earned a four year degree.

With regard to the community college as an economic entity itself, the offering of the baccalaureate is an important and a viable alternative for those individuals seeking a baccalaureate alternative in a community college setting. Thus, as Walker states, "three factors affecting the motivation of community colleges to offer baccalaureate degrees are: 1) rising demands of employers and students; 2) rising costs of universities; and, 3) limited programs and access to meet these demands (Walker, 2005). It seems therefore, that the drive to offer baccalaureate degrees in a community college setting is as much about meeting the needs of students in a changing educational environment as it is about preserving the community college's position as the community's institution for providing for the higher educational needs of the local population. Because of their standing as the vital institution in community workforce preparation, the community college is particularly suited to the granting of the baccalaureate degree in order to meet the ever increasing educational demands of its host community's workforce. In addition, because of their strength in providing access to a diverse student population and their existing physical presence in their host communities, close to the populations they serve, community colleges seem to be uniquely qualified to enhance their academic offerings. As a result, this would enhance

the local community's efforts at building capacity, in human capital terms, in order to facilitate and foster community economic development.

In the knowledge based economy in which we now find ourselves, further refinement of human capital resources would be attractive to existing firms seeking to expand employment opportunities, innovative firms beginning to evolve from within the local economy, and firms seeking to relocate to the area based upon a well positioned labor pool.

In terms of detrimental effects of offering of the baccalaureate degrees, there seem to be several strands of critique. Townsend describes them as, "effects on the mission, quality of the degree and a threat to the future of the community college generally" (Barbara Townsend in Floyd, Skolnik and Walker, 2005). Briefly, the mission of providing continued open access to the local population may be threatened by the introduction of a product other than the two year degree due to a reallocation of resources or the hiring of faculty with different cultural values. The quality of the degree itself may not be perceived as on an equal footing with the four year degree offered by traditional four year degree granting institutions and therefore not as valuable in the market. Finally, if community colleges are trending towards issuing four year degrees, then why in essence continue the community college? Its evolution into a four year degree granting institution by its very nature means that its original raison de etre no longer exists. Each of these criticisms is worth consideration however they are arguable and unconvincing. The offering of baccalaureate degrees by community colleges is consistent with the original mission of the community college to primarily serve the needs of its local host community. If the nature of the needs change, then the offering

must likewise be reevaluated. In addition, the heavy emphasis placed upon preparing the community for various workforce challenges seems to demand that a changing economic environment, leading to changing educational requirements, be appropriately assessed and addressed by the community college.

Finally, it could be argued that the organizational essence of the community college is its ability to adapt efficiently as suggested earlier in this study. The offering of a four year degree is an organizational response to changing economic circumstances and is a reflection of the community college's flexibility in structure.

In recent years, the traditional transfer orientation of the community college (beginning one's higher education training in a community college setting and then transferring to a traditional four year degree granting institution) has evolved with the onset of the offering of baccalaureate opportunities. "During the past few years, however, community college leaders, policy makers and legislators have been seriously exploring, and in some states and Canadian provinces, implementing, the notion of community colleges offering and conferring bachelor's degrees, especially in certain high need areas as teacher education and nursing" (Floyd and Skolnik, 2005).

Conclusion

Because of its unique place in the fabric of the community and its founding institutional inspiration, the community college broadly and Florida's State Community College system as a whole appear to be well situated to play a decisive role in local community economic development. In the current economic circumstances, concentrated as they are on the quality of human capital and the provision of an adequately trained workforce, the community college must continue to be a leader in collaborative efforts to assist the educational and workforce requirements of individuals

and firms residing in its host community. The offering of baccalaureate degrees, although a modification to the traditional portfolio of the community college, is consistent with its responsibility to the community and its flexibility in structure. In seeking to fulfill the educational needs of the local community in providing the four year degree, the community college is acting in a manner consistent with its mission and at the service of the local community's efforts to develop the capacity of its economy. In the following pages, a case study of Santa Fe College will be explored in order to examine and amplify a specific community college's operations within the context of its community economic development environment.

Santa Fe College

Santa Fe College recently celebrated the 40th anniversary of its existence in service to the citizens of Alachua and Bradford Counties. Although forty years may be considered a relatively short duration for an educational institution in terms of carrying out its core mission, Santa Fe has established itself as an important player within its two county service area in the terms of encouraging community economic development.

Santa Fe has accomplished this task in two principal ways related to its core educational and economic development missions. In terms of its educational portfolio, the mission of the college revolves around its Associate of Arts, Associates of Science, Associates of Applied Sciences and community educational programs. Many students enrolled in these programs will ultimately matriculate to a traditional four year college or university. With respect to workforce development, those students enrolled in the Associate of Science and certificate programs, referred to as Career and Technical Education, are prepared for direct entry into a variety of careers.

The College has a vigorous spatial profile as well with a number of centers located throughout its service area associated with different skill sets important to the development of the community. The Kirkpatrick Criminal Justice Training Center provides training to the law enforcement and criminal justice community. The Center for Business provides custom designed courses for professionals in industry and government. Various other centers located in Starke, Archer and Keystone Heights, (and soon Alachua) provide launching points for the college's interaction with the education and workforce needs of its citizens.

Finally, Santa Fe offers a rich tapestry of cultural activities and personal development opportunities to the community that result in a holistic opportunity for growth and development and another platform for economic development. On and off campus, artistic events throughout the year provide a beneficial economic impact to the community, while drawing attention to the area's creative talent and cultural heritages. Community education is offered to the community at large to foster personal growth through non-credit leisure courses. This particular educational offering is provided in a very flexible format to meet the needs of both traditional and non-traditional students.

Each of these facets of the College's existing operations makes Santa Fe a very vital institution in fostering community economic development. Enhancing and further defining these core facets are: 1) the adaptive efficiency of the College; 2) the College's spatial platform for community engagement; 3) the College's positive effects on area employers; 4) the issuance of Baccalaureate degrees; and, 5) the economic impact of the College's operations.

These initiatives will be further articulated in the case study that follows and will be introduced within a conceptual framework developed by the Southern Growth Policies Board for an analysis of institutional efforts leading to economic development in a more typical university setting. The framework will be modified and elaborated upon based upon the College's contribution to local community economic development.

However, the analysis of any institution begins with its historical development, for past is prelude, and in Santa Fe College's case, forty years have brought many opportunities for growth and development in carrying out its mission.

History

Santa Fe Community College (SFCC) was established in 1965 by the Florida State Legislature as Florida's twenty second community college. The College's district was designated as the confluence of Alachua and Bradford Counties. In July 1966, Santa Fe was designated the Area Vocational School for Alachua County.

When Santa Fe opened its doors in September, 1966, approximately 900 students were enrolled in classes dispersed throughout Gainesville at various locations. In 1968, with a donation of land by a local family, the College settled on a campus location in the northwest greater Gainesville area on approximately 100 acres. In the same year, the Florida State Legislature created a mechanism for community college governance consisting of local boards of trustees with members to be appointed by the Governor. In Santa Fe's case, this board consisted of eight citizens from Alachua and Bradford Counties. This year also saw the achievement of Santa Fe's accreditation through the Southern Association of Colleges and Schools.

In the 1968-1969 academic year, Santa Fe became a charter member of *the League of Innovation in the Community College*. The League is an educational

consortium specifically committed to improving community colleges through innovation, experimentation and institutional transformation.

In the 1970-1971 academic year, the faculty grew to 284 full and part time instructors with an enrollment of approximately 3,900 students.

In the fall of 1971, a change in leadership occurred and under the supervision of President Alan Robertson, the northwest campus opened for classes in the fall of 1972. During the 1973-1974 academic year, the College granted its first Associate of Science degrees. Within the Division of Technology and Applied Sciences, Santa Fe expanded vocational degree and certificate programs to prepare students for careers in local economic sectors.

Over the next 20 years, major purchases of property were undertaken in order to accommodate the growth and development of the College. These included additional purchases of property proximate to the northwest campus location. In addition, the Andrews Center was established as Santa Fe's presence in downtown Starke in 1985. This permanent campus location was designed to fulfill the educational needs of Bradford County's citizens.

In 1988, Santa Fe College consolidated its presence in downtown Gainesville in the vicinity of 6th Street and University Avenue. Through a combination of donations by the City of Gainesville and a local family, Santa Fe established this downtown center, ultimately named the Charles L. Blount Center. In 2005 the SFC East Gainesville Initiative and Community Outreach offices were relocated to the Charles L. Blount Center. In the following year Santa Fe's offices for administering the Carl D. Perkins Education Act were also relocated to the center.

In the spring of 2006 the new Charles L. Blount General Classroom Building opened. It contains approximately 10,000 square feet, seven classrooms, an art classroom, a computer lab, a testing lab, offices for adult education and programs, and offices for faculty and academic advisors. In fall 2006 the college made both interior and exterior upgrades to the old Gainesville Gas Co. building to develop SFC's nexus for business and professional development. The Charles L. Blount Center for Innovation and Economic Development (CIED) opened in the spring of 2007. The CIED hosts the college's Center for Business and the CIED incubator, and offers rental facilities supporting business innovation and training. The SFC Center for Business provides short-term, noncredit "training for excellence" for people or companies desiring improvement of skills. The center houses the Center for Business and Industry, the Continuing Professional Education division, and the Computer Institute.

In 1990, Dr. Lawrence Tyree became Santa Fe's third President. In this year, the College recorded approximately 29,000 students, the majority of these seeking Associate of Arts or Science degrees, and a smaller portion seeking technical certification. The operating budget was reported to be close to $31 million dollars.

The expansion of programs and services to the community continued with an expansion of the downtown Gainesville campus as well as expansion of both the main and Starke campuses. A new technology building was opened on the northwest campus in 1995 and Santa Fe's Police Academy moved to a new location in the vicinity of Gainesville Regional Airport and was named the George G. Kirkpatrick Criminal Justice Training Center. This Center provides training to law enforcement officers as well as those involved in the criminal justice system more broadly.

On the northwest campus, a student services center was opened in 1996 and dedicated to the father of the community college system in Florida, Dr. James Watttenbarger. Following his resignation from the Presidency, the college dedicated a new three story library established on the northwest campus to Dr. Tyree, the Lawrence W. Tyree Library.

Recent History

In 2002, Dr. Jackson Sasser became the fourth president of Santa Fe Community College. Santa Fe Community College is currently home to approximately 16,600 students drawn overwhelmingly from the College's defined district but also from the State of Florida more broadly. Recent figures suggest that the College receives approximately $33 million dollars annually in grant funds.

According to recent figures presented by Santa Fe, 22,706 credit and non-credit students attended the College in academic year 2004-2005. As many as 80% of these students stay in the region after they leave the College and thus contribute to the local economy. The average earnings of a student with a one year certificate is approximately $34,000. The average earnings of a student with an Associate's Degree is approximately $40,000.

Santa Fe currently offers 70 technology, applied science, and instructional programs leading to degrees and technical certificates. Some of these include: Health Sciences, Construction, Public Safety, Information Technology, Early Childhood Education, Business, Bio-Technology and Zoo Animal Technology.

Santa Fe reports that 96% of Santa Fe graduates are placed with placement rates at 100% for health sciences programs. Additionally, 99% of employers recently surveyed indicate that they would be highly likely to hire Santa Fe graduates in the

future and a large majority of same gave a high rating for Santa Fe graduates and their job entry level preparation (Santa Fe Community College, Center for Innovation and Economic Development Presentation, 2007).

The College reaches students interested in construction careers through its Banner Center for Construction Education, a partnership amongst the College and other economic and workforce development entities. Similarly, the College coordinates with Shand's Healthcare, North Florida Regional Medical Center and the Veterans Administration in the development of its health education program.

Recently, Santa Fe opened its Center for Innovation and Economic Development in downtown Gainesville where it houses its Center for Business. The Center for Business generated over $325,000 in corporate training receipts in 2005/2006 and has partnered with new and expanding businesses to bring in over $1 million dollars in quick response training grants for local employers.

Soon, the planned Alachua Center for Emerging Technologies will house the College's efforts to foster collaborative relationships in the building of the local technology driven economy by companies located at the University's Sid Martin Bio-Technology Incubator (Santa Fe Community College, Center for Innovation and Economic Development Presentation, 2007).

Educational Institution – Economic Development Conceptual Schema

In 2002, the Southern Growth Policies Board, analyzed best practices of a dozen major universities from across the nation in order to document the significant contributions of university activities to the innovation process generally and in turn, to technology based industrial performance (Southern Growth Policies Board in Innovation U., 2002). The study was an attempt to understand and define the partnership model

as it relates to the interaction of universities, local and state governments and industry in the fostering of community economic development.

The conceptual schema for this board (see Appendix B) has three main domains: 1) mechanisms and facilitators of partnership and economic development; 2) institutional enablers, which primarily pertain to organizational culture and rewards; and, 3) boundary spanning structures and systems (Southern Growth Policies Board in Innovation U., 2002).

The interaction of these domains and their resulting locally captured technological outcomes lead to local economic development. Mechanisms and facilitators of partnership and economic development are the actual activities undertaken by the institution to generate community economic development. Institutional enablers are inherent within an institution's culture and tend towards behaviors and orientations that promote community economic development. Both of these are influenced by boundary spanning structures and systems that define the partnership between local and state government and industry.

Within this conceptual schema, the business and processes of community economic development are undertaken and brought to fruition in terms of a community's ability to generate wealth, provide meaningful and vital work, and generate resources for other worthy social and civic purposes.

Santa Fe's Adaptive Efficiency

As mentioned in the earlier literature review, the New "Innovation" Economy increasingly demands institutions and entities that can easily adapt to their surrounding environments and circumstances effected by the quickened pace of technological

change that underlies economic interactions. To this end, the community college seems uniquely oriented to do well in this milieu.

Santa Fe College has many of the attributes, with respect to its organizational structure, that lead one to believe that it has positioned itself well to react to the new economic landscape. This primarily flows from: 1) organizational direction outlined in its mission/vision, values and strategic goals; 2) a locally oriented board and endowment structure; 3) administrative hierarchy; 4) engagement with the League of Innovation; 5) accreditation; and, 6) educational and workforce development instruction structure.

Mission/Vision, Values and Strategic Goals

Santa Fe College's raison de etre, like any institution, begins with its mission/vision, values and strategic goals (see Appendix C). These core principles define the institution and speak to its chief constituency, delineating the values that it seeks to impart and the practical activities that define its work in the community.

There are two points to make with regard to the College's mission, vision and values, one procedural and one substantive. In procedural terms, the fact that the College has one inclusive mission, one set of values and one set of strategic goals makes it different from other larger institutions in that there is one distinct direction that the institution follows rather than many. Often larger institutions are comprised of various sub units that hold different set of values that may even be at odds with one another. This can create confusion and lack of communication in implementation of programs, sometimes leading to paralysis.

In substantive terms, the values of the college focus on dynamism and innovation overall while concurrently stressing collaboration with the community and a more traditional set of educational priorities. Similarly, strategic goals stress outreach and

access but also promote workforce development in terms of collaboration with the community in the context of employers and economic development agencies.

This sole direction of the institution and its emphasis upon collaboration in terms of reaching its educational and workforce goals manifests itself in the conceptual schema through the institutional enabler role which lends itself to reaching some level of adaptive efficiency.

Locally Oriented District Board of Trustees and Endowment Corporation

Santa Fe College is governed by a citizen board appointed by the governor. The trustees represent Santa Fe's Alachua-Bradford County service district and ensure that the education and services provided by the College are responsive to the locally generated educational and workforce development needs of the local and regional economy. Since trustees are appointed by the governor, a nexus between the policy objectives of the State of Florida and the local communities is established and maintained.

The Santa Fe College Endowment Corporation, Inc. is a not-for-profit corporation organized under Florida law and it is fiscally and organizationally separate from the college. Its purpose is to receive private gifts, bequests and donations, and to account for, manage and help appreciate monies or property submitted to the corporation. Such donations are totally tax deductible. Funds from the corporation are distributed to benefit and advance the college and for the encouragement and subsidization of students and faculty of SFC. The Endowment Corporation Board of Directors is comprised of selected persons from Alachua and Bradford Counties who represent positive leadership and community influence who have expressed an interest and desire to use their influence on behalf of the college.

The Endowment Corporation has been responsible for leading the College's efforts in terms of expanding its physical and accessibility profile to the community. Funds for the various centers around the service district have been raised via community drives.

Administrative Capacity

With respect to the organizational capacity of the Santa Fe College, the College has an administrative hierarchy that seems to lend itself to adaptive efficiencies as well (See Appendix D). The Office of the President consists of four Vice Presidents (Administrative Affairs, Academic Affairs (Provost, Development and Student Affairs) and Assistant to the President and Associate Vice President for College Relations and Legal Counsel. This appears to be an organizational model that can lend itself to meeting the needs of those the College serves in a timely and if necessary, dynamic manner.

Although within these various administrative components of the College there are quite a few moving parts, they report directly and are not overly bureaucratic in size nor structure. This leads one to conclude that forthcoming decisions regarding the educational and workforce mission of the College are done within a reasonable and timely manner allowing the College to adapt itself in a manner, shaped by the local environment and the precepts of the New "Innovation" Economy.

League for Innovation in the Community College

Santa Fe Community College is a charter member of the *League for Innovation in the Community College* and is one of 19 League Board colleges. More than 750 institutions from 11 different countries are League affiliate members. The League, founded in 1968, is an educational consortium that functions specifically to stimulate

innovation and experimentation. It is the only organization of its kind in the community college field, and it has achieved national recognition for the quality of its programs and activities. As a national organization with members in all sections of the country, the League influences community college development throughout North America. To this end, the League is not only committed to programs that contribute to the continuing improvement of member colleges, but also to providing opportunities for other community colleges to participate in its workshops, conferences, projects and activities (Santa Fe College Catalog, 2009, p.12).

Accreditation Status

Santa Fe Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the Associate degree. The college's accreditation by the Southern Association of Colleges and Schools was reaffirmed in December of 2002. In addition, Santa Fe Community College is accredited by the Florida State Department of Education. SFC holds membership in the Florida Association of Colleges and Universities and the American Association of Community Colleges. The College has been approved by the State of Florida as an institution in which recipients of general scholarship loans for the preparation of teachers may take their first two years of college work, and from which the State Department of Education will accept work to satisfy various certification requirements. SFC has also been approved by the state approving agency for the training of veterans under the provision of the various public laws relating to such training, and by the United States Office of Education for participation in the student program under Public Law 89-862, National Defense Act of 1958, and for various other programs relating to curriculum and physical facilities development (Santa Fe College Catalog, 2009, p.12).

Academic and Workforce Development Instructional Structure

Santa Fe has a transparent course of study for both its academic and workforce development goals. Students interested solely in pursuing academic training for ultimate transfer to a senior institution can do so via an Associate of Arts two year degree. For those interested in a two year degree followed by employment, the Associates of Applied Science is the preferred option. Finally, an Associate of Science two year degree is offered for those who may not be sure of their ultimate path forward and therefore may go in either a more academic or employment direction.

Each of these degrees requires 60 semester hours of credit and a prescribed course of study. The Associate of Arts and Associate of Science degrees do have a core course requirement while the Applied Science degree requires instruction at one of the College's specialized educational centers.

Course instruction is broadly located in two divisions: 1) the Division of Liberal Arts and Sciences; and, 2) the Division of Career and Technical Education. The former designates the curriculum those students seeking the Associate of Arts two year degree and ultimately matriculation to a senior institution must follow. The latter presents the curriculum to Associate of Science and Associate of Applied Science degree seeking students.

Within the Division of Liberal Arts and Sciences a core general education curriculum is supplemented by a variety of electives that allow the student to become broadly educated while concurrently preparing for future upper grade studies. In the Division of Career and Technical Education, a similar core general education curriculum offers training in one of the many program areas inclusive of:

- Agribusiness and Natural Resources

- Biotechnology
- Business Programs
- Information Technology Education
- Family and Consumer Sciences
- Health Science Programs
- Construction and Technical Programs
- Institute of Public Safety Programs

The intent of these curricula is to provide balanced academic and workforce preparatory program for students pursuing either path forward.

In addition to these offerings, the College offers a vast array of technical certificate programs (See Appendix E) to meet the employment needs of the community within the context of the Associate of Science and Associate of Applied Science degrees ranging from nursing to business development. These are for credit course offerings. The technical certificate programs are offered for non-course credit seeking students as well particularly for those coming out of a prior work experience.

Spatial Profile

Since its inception in 1966, Santa Fe College has established itself relative to the community in six different physical locations all lying within its Alachua and Bradford County Service District. Each of these locations serves to provide an easily accessible profile to the community and has a slightly different orientation in terms of subject focus: The current locations are (see Appendix F):

- Northwest Campus (located in the greater Northwest Gainesville area)
- Blount Center (located in downtown Gainesville)
- Kirkpatrick Center (located in east Gainesville)
- Andrews Center (located in downtown Starke)
- Watson Center (located in Keystone Heights)
- Davis Center (located in Archer)

Within the last year, a seventh location in Alachua is under construction and will serve as the College's Corporate Training Center with a focus on Biotechnology and the

Life Sciences. This location is directly proximate to the Progress Center which currently serves as the University of Florida's focus area for New "Innovation" Economy corporate and economic development.

The following is a brief description of the various locations and their areas of focus in serving the educational and workforce needs of the community (Santa Fe College Catalog, 2009, p.15-16).

Northwest Campus

The main campus lies on 175 acres along NW 83rd Street and is accessible to I-75. It is home to the administrative and major educational and workforce development functions of the College. The College is easily navigable by the general public and those being served by the institution and is centrally located in terms of outreach to the entire two county service district.

Blount Center

The Blount Center is located in downtown Gainesville in the vicinity of University Avenue and NW 6th Street. The Center opened its doors in 1993 following a local fund drive led by the Endowment and private community leaders.

An opportunity for a college education is offered at the Charles L. Blount Center through a variety of college credit classes offered during the week. These college classes, along with the regular day classes, make it easier for individuals to fit a college class into their busy schedules. In 2005 the SFC East Gainesville Initiative and Community Outreach offices were relocated to the Charles L. Blount Center.

In 2006, Santa Fe's offices for administering the Carl D. Perkins Education Act were also relocated to the center. In the spring of 2006 the new Charles L. Blount General Classroom Building opened. It contains approximately10,000 square feet,

seven classrooms, an art classroom, a computer lab, a testing lab, offices for adult education and programs, and offices for faculty and academic advisors. In fall 2006, the college made both interior and exterior upgrades to the old Gainesville Gas Co. building to develop SFC's nexus for business and professional development.

The Charles L. Blount Center for Innovation and Economic Development (CIED) opened in the spring of 2007. The CIED hosts the college's Center for Business and the CIED incubator, and offers rental facilities supporting business innovation and training. The SFC Center for Business provides short-term, noncredit "training for excellence" for people or companies desiring improvement of skills. The center houses the Center for Business and Industry, the Continuing Professional Education division, and the Computer Institute.

Kirkpatrick Criminal Justice Center

The Kirkpatrick Center located on NE 39th Avenue provides the community access to the College's public safety (police and fire) concentrated curriculum and the Institute for Public Safety. The Center provides pre-service, in-service, advanced and specialized training for personnel of the corrections, law enforcement, emergency medical services and fire rescue agencies in the region.

Andrews Center

The Andrews Center in downtown Starke represents the College's principal presence in Bradford County. The historic courthouse in Bradford County, and some of the surrounding properties, were contributed to and purchased by the Endowment Corporation to establish this major academic center in Starke. The Center includes a turn-of-the-century facility that is listed on the National Register of Historic Places. It consists of classrooms, laboratories, offices, a study room and student lounge. In

addition to enhanced educational and cultural opportunities for all citizens of Bradford County, the Andrews Center is an integral part of downtown redevelopment and restoration.

In the spring of 1991 the Andrews Center Cultural Building, a century-old structure in downtown Starke, was renovated by private donations to the Endowment Corporation. The $700,000 renovation project provides the college and the community with a performing arts auditorium/theater seating 155 people, a facility for the Eugene L. Matthews Historical Museum, and additional classroom and office space for a growing Andrews Center.

In the fall of 2002 the Lillian Stump Education Center opened to provide the Andrews Center with an approximately 4,000 square foot new facility that includes four major college classrooms plus faculty and staff office space. The Stump Education Center, a $400,000 project of the Endowment Corporation, enhances the Andrews Center's dual enrollment program with Bradford County High School and provides classroom space for college level courses, as well as community and continuing education classes.

Watson Center

In January of 2005, the Alfred B. Watson, Sr. and Agnes W. Watson Center opened to promote the advancement of higher education for students in southeast Bradford County and the surrounding Keystone Heights-Lake Region area. The Watsons donated $3.4 million to make the facility possible. They also made a gift that resulted in the establishment of the $1.4 million permanently endowed Alfred B. Watson, Sr. and Agnes W. Watson Scholarship.

The Watson Center's first building included six general education classrooms, a computer lab, a community boardroom, faculty and staff offices, community/common meeting area and an office for the Bradford County constitutional officers and sheriff. The second building opened in January 2006 with six additional general education classrooms, faculty offices and a state-of-the-art science laboratory.

Davis Center

In the fall of 2003, the Ron and Norita Davis and Family Davis Center opened to help people in the southwestern part of Alachua County and the surrounding Archer area enroll in classes rather than journey 21 plus miles to the Northwest Gainesville campus. The center promotes advancement and enhancement of higher education and potential vocational training programs locally.

The more than 10,000 square foot facility includes six general classrooms, a computer lab, ITV classroom, a community boardroom, faculty and staff offices, and a community/common meeting room. The Davis Center facility was made possible by a major contribution from Ron and Norita Davis and the Davis family, who made a substantial contribution of in-kind and property totaling approximately $500,000 (20 plus acres of land) and a $600,000 cash gift for a total of $1.1 million. A community-wide leadership of individuals and organizations comprised of more than 26 community leaders provided additional funding for the establishment of the Davis Center.

Alachua Emerging Technologies Center

In 2006, Santa Fe established another satellite campus within the City of Alachua proximate to the UF affiliated Progress Center. This 14 acre campus will build on College synergies with the developing biotechnology and life sciences industry in the area. The land for this campus was donated by the University of Florida Foundation

and will be home to 16,000 square feet of classrooms and associated facilities. Construction of the campus is underway and is programmed for opening within the next year. The project represents another example of a private public partnership that is supported by the University of Florida, Santa Fe College, Private Industry and the City of Alachua.

Impacts of Spatial Profile

The various locations of the campus around the service district provide the physical infrastructure by which the College accomplishes its educational and workforce mission. Thus, the locations provide the tangible platform from which an educated and trained workforce springs out to the community. They provide a visible and active engagement with the local community in terms of building economic development capacity.

Obviously the locations provide some return to the community in terms of the original investment and development associated with buildings and supporting facilities. However the locations themselves will not directly generate revenue over the long term for local jurisdictions in which they operate from an ad valorem perspective due to their public institution and therefore tax-exempt status.

There is an anticipation that the activity that occurs within the various physical locations in terms of salaries/wages generated to College employees, procurement within the community and the spending of attendees will generate revenue within the local community.

Employer Impacts of Santa Fe Graduates

As mentioned, workforce development is one of Santa Fe College's strategic goals and represents a key focus of its operations. The College provides training and skills to

its students that can be applied within the domain of the local and regional economy. Employers are thus an important beneficiary of the College's workforce preparation efforts and are linked to the economic development capacity building efforts for the area.

One manner in which to measure the role of the College in building this capacity is to consider the reaction of employers to the workforce development efforts of Santa Fe. In order to do this, the College has conducted a major employer survey over the last several years. The survey instrument provided by the College's Institutional Effectiveness, Research & Planning Division follows a number of students and their absorption into the workforce both inside and outside of the immediate College area.

Survey results provided for the past four reporting periods (See Appendix G), 2003/04 – 2006/07, show that over the four periods 511, 398, 406 and 520 employers respectively were identified and located; of these located employers over half participated in the survey each year.

The survey instrument generally measures employer satisfaction with the employees' level of training and skills as provided by the College. In fifteen questions, core competencies of the employee are rated as is the perceived quality of the vocational training provided by the College.

Core competencies measured regarding vocational training are Technical Knowledge, Work Attitude and Work Quality. In the four reporting periods, the vast majority of respondents rate the competencies as either very good or good. Core competencies measured with respect to on the job employee skills include Critical Reasoning, Independent Inquiry, Computation Skills and Communication Skills. Again,

the vast majority of respondents rate these skills of Santa Fe graduates as either very good or good.

As a composite, a survey question concerning overall job level preparation provided by the College is indicated as very good or good. Similarly, an overall rating of the vocational training received by the employee indicates an employer rating of very good or good. Interestingly, in a comment comparing workforce preparation provided by Santa Fe College to other institutions, a majority of responding employers report that the College does either a better or similar job as those of other workforce providers.

Results are remarkably consistent over the four year period and seem to indicate a consensus on the part of employers surveyed concerning the quality of graduates produced by the College. This seems evident since in all four years a preponderance of employers indicate they have hired from the Santa Fe College graduate pool on multiple occasions.

Finally, a preponderance of those responding over the four reporting periods indicate that if and when the need arises, they will be willing to hire additional Santa Fe College trained personnel completing similar vocational programs. This bodes well for the entire economic development capacity building continuum, including employers, students and the local economy a reflects a positive contribution by the College to the overall economic environment..

Overall, the employer surveys on a year-to-year basis seem to indicate a high level of employer satisfaction with the workforce development efforts of the College. Graduates possess the requisite core competencies with respect to vocational and general job skills. Employers responding to the survey report that they are not only

generally pleased with the level of employee workforce preparation received from the College but they also seem to be willing to hire additional employees moving through Santa Fe's various program concentrations.

The results for the local and regional economy appear positive. Based upon the data provided by the employer surveys, those hiring in the area feel that the College is providing value to employees and ultimately employers, in workforce development efforts. Santa Fe, relative to surveyed employers, appears to be providing a viable labor product and is thus providing a basis for sustained development of the local and regional economy. This appears consistent over several years and beneficial to the future growth and development of the local economy.

Issuance of Baccalaureate Degrees

Florida State Statutes expressly recognize the institutional link between education and economic development as manifested in the programs of the community college. A specific example of this is the authority provided by the Florida Legislature to Community Colleges to provide baccalaureate degrees. Section 1007.33 FS provides that,

> The Legislature recognizes that public and private postsecondary educational institutions play essential roles in improving the quality of life and economic well-being of the state and its residents. The Legislature also recognizes that economic development needs and the educational needs of place-bound, nontraditional students have increased the demand for local access to baccalaureate degree programs. In some, but not all, geographic regions, baccalaureate degree programs are being delivered successfully at the local community college through agreements between the community college and 4-year postsecondary institutions within or outside of the state. It is therefore the intent of the Legislature to further expand access to baccalaureate degree programs through the use of community colleges.

Thus, the State of Florida has given community colleges the ability to not only offer the traditional Associates Degree track of educational advancement and the Career and

Technical Education track of workforce development, but now also an advanced program represented by the issuance of Baccalaureate degrees.

In May, 2008, Santa Fe College announced its intention to offer two Bachelor of Applied Science degrees (Appendix H) beginning with the 2009-2010 academic year to include:

- Bachelor of Applied Science in Health Services Administration
- Bachelor of Applied Science in Clinical Laboratory Science

Furthermore, based upon the requirements of the Florida Statutes, the College had to provide a basis for offering these degrees, inclusive of a finding by the local workforce development board and other business and industry groups that these programs are necessary and will be supported; that they will establish an unmet need for graduates with the proposed degrees within the service district; and, they can demonstrate that the facilities and academic resources to deliver the program exist within the Community College.

Indeed, Santa Fe College has moved deliberately in the direction of establishing the basis for these degree programs and thus further building institutional capacity for the on-going local and regional economic development these programs will sustain. The contribution of the College in this realm is indicative of its important role in providing a vibrant workforce in developing segments of the local economy.

Bachelor of Applied Science in Health Services Administration

The College's decision to offer this baccalaureate degree is fundamentally based upon the growing need for access to the degree in the Alachua an Bradford Counties Service District; the projected growth of health and medical service sectors within the region; and, the lack of local and regional training programs needed to support these

sectors. Another important factor is the University of Florida's decision to reduce enrollment in transfer and undergraduate admissions.

The College has reported a compelling need in the service district for a baccalaureate program preparing management professionals to serve the health and medical services sector. Furthermore, the demand for these types of positions places this occupational category on the State of Florida and regional target occupation's list as a high skill and high wage opportunity.

Gainesville's position as a health care and medical hub for North Central Florida places it in the position of demanding the development of these opportunities. Facilities such as the Shands Health Care System, the Malcolm Randall Veterans Affairs Medical Center and North Florida Regional Medical Center drive this demand. As these facilities expand, secondary health care providers inclusive of Meridian Behavioral Services, Shands Vista and Upreach Specialty clinics, and various day stay facilities need skilled workers as well. In addition, the area is home to many large physician practices and specialty health care clinics requiring the skills of various levels of administrative and management employees.

According to figures provided by the College, the region employed over 2,000 individuals in the medical and health services field in 2008 and 87 position openings are projected yearly through 2018. Earnings potential, according to the Florida Agency for Workforce Innovation, is $39.25 per hour or over $80,000 annually. A survey conducted by the College found that local employers offer an average entry level salary of $39,250 to baccalaureate prepared employees, and the salaries offered in the College's service district are significantly higher than in Florida overall.

With respect to the institutional capacity of the College to develop the degree, the largest anticipated student population comes from the existing health care workforce currently holding an Associate of Science in a specific health care specialty field. As a result, the College has designed the degree as an online application, thus making it more readily available to working health care professionals. Students in the program can complete the degree through Santa Fe's Open Campus with the exception of a final internship and capstone class.

The framework of the degree is tied into the general education common course prerequisites offered by the College. These core courses will be supplemented with electives within the major focus of study and the capstone provides the opportunity to demonstrate attainment of the degrees learning outcomes.

Accreditation is assured through the College's accrediting agency, the Southern Association of Colleges and Schools (SACS) and through compliance with accreditation standards offered through the Association of University Programs in Health Administration. In terms of faculty resources the College will provide that 25% of the program will be taught by faculty with terminal degrees in the field.

Projected student headcounts are 25 in the first academic year which will rise up to 50 per academic year in 2010-11, 2011-12 and 2012-13.

Bachelor of Applied Science in Clinical Laboratory Science

Similar to the Bachelor of Applied Science in Health Services Administration, the Bachelor of Applied Science in Clinical Laboratory Science is being promoted by Santa Fe for three primary reasons: the need for the degree in the College's service district; the projected growth in the health and medical technology sectors of the local and

regional economy; and, the lack of local and regional training programs to provide the necessary workforce development foundation.

The College did consult with the workforce and industry community on this matter and the intent of the degree is to provide a workforce that can prepare licensed technologists who can serve the needs of biotechnology or diagnostic clinical/medical technology employers. The need for this type of employee is reported as growing locally at a faster rate than within the state overall, and it is on the state and regional Target Occupations list.

As is the case with the prior Bachelor degree, the health care sector of the local and regional economy is supportive of this program, and so are developing biotechnology clusters inclusive of the Banner Center for Biotechnology, the UF Sid Martin Biotechnology Incubator, the Gainesville Technology Enterprise Center and the various firms, technologies and devices that exist within the local landscape.

Locally, entry level baccalaureate prepared Clinical Laboratory Technologists can earn an average of approximately $37,500 annually.

The gap in the provision of this element of the demanded workforce manifests itself in the lack of its offering at the University of Florida, and that has resulted in negative impacts on the local workforce including the fact that Shands Healthcare has been forced to import its technologists from overseas on H1B Visas, adding approximately $5,000 to the cost of each recruited employee and a risk to the hiring process.

With respect to the institutional capacity of the College to develop the degree, the largest anticipated student population comes from graduates of the Associate of

Science in Biotechnology. However, provisions have been made to accommodate those students who have completed an associate degree in another science intensive area. To assure educational quality and workforce alignment, the proposed program adheres to the state's common course prerequisites and curriculum framework. As required, the BAS degree includes 36 hours of General Education, demonstration of foreign language competency, and successful completion or exemption of the College Level Academic Skills Test (CLAST). The program is defined as limited access due to the physical space constraints necessitated by the required laboratory science courses and clinical internships.

As with the Bachelors of Applied Science in Health Services Administration, 25% of the program will be provided by faculty with advanced and terminal degrees in their field of expertise. The College possesses a ready complement of fully credentialed life science faculty, many of whom have already partnered with the University of Florida on the Banner Center for Biotechnology in Alachua. In this case, in addition to accreditation from the SACS, additional accreditation for the degree and program will come from the National Accrediting Agency for Clinical Laboratory Science (NAACLS) and certification as a state approved training program will come from the Board of Clinical Laboratory Personnel.

In terms of physical facilities associated with the program, within the year, Santa Fe College will open the Charles R. and Nancy Perry Emerging Technologies Center in Alachua, directly across from the Progress Corporate Park-home to the Sid Martin Biotechnology Development Incubator, RTI Biologics, and a growing cluster of biotechnology and technology transfer businesses. This facility will be dedicated to the

Clinical Laboratory Science program, offering over 17,000 square feet of laboratory, computer, and classroom space. The College is committing to outfitting the building with nearly $450,000 in cutting-edge technologies and lab equipment so that students learn in an environment that replicates their future workplaces.

The reputation of SFC's current biotechnology and life science programs is such that leading hospitals in the region and the state, including the Shands Health Care System and the Mayo Clinic in Jacksonville have opened discussions regarding serving as clinical affiliates for the proposed BAS program simply on the strength of this application. Santa Fe College's Clinical Laboratory Science program will enroll 25 students per year to provide a significant pipeline of laboratory scientists ready to enter the health/medical technology sector so critical to the region and the state's economic and healthcare future.

Thus, with the development of these baccalaureate degrees, Santa Fe College is filling a gap in the region’s workforce and economic development continuum. These specific degrees are important for another reason; that is they lend support to the effort of the community to diversify its economic base and move towards a more innovation centered economy. The degrees close a gap in programs provided in the region and help to facilitate the growth and development of the important health care and life science clusters.

Interestingly, this effort by Santa Fe College represents a perfect mix of institutional interactions between the State of Florida and a local educational institution designed to develop the region’s economic development capacity. It represents an

acknowledgement on a public policy level of the important link between educational achievement and the development of the State's various local and regional economies.

With respect to Santa Fe's role, it provides further evidence of its pro-active role as a basis for individual employment opportunities while furthering the region's economic diversity and long term prospects for growth and development.

The Economic Impact of the Santa Fe College

In 2006, Santa Fe College had an analysis of its economic contribution prepared by a regional workforce and economic analysis firm. This is a firm created in collaboration with the Association of Community College Trustees (ACCT) to provide economic analysis services to two year technical and community colleges. (Robison and Christopherson, 2006)

The firm employs an input-output model obtained from the US Department of Commerce and produces multiplier effects similar to those of other popular regional Input-Output techniques such as IMPLAN. As a manner in which to examine the economic impacts of Santa Fe Community College, following is an analysis of reported impacts within the aforementioned analysis (See Appendix I).

The analysis presents the economic impacts broadly generated by Santa Fe within its service region and the State of Florida. The analysis is comprised of two components: 1) an investment analysis from the perspective of students and taxpayers; and, 2) an economic growth review to determine the relative contribution of the College to regional labor and non-labor income.

Generally, investment results are reported as resulting in an approximately $10,800 increase in annual income or $434,000 over the course of a lifetime for the typical College graduate in comparison to their counterpart with only a high school

diploma. With respect to taxpayers, the investment analysis indicates a rate of return of approximately 9% based upon economic growth effects and related impacts to state and local government revenues.

With respect to economic growth, economic impacts based upon college operations are discounted by the estimated portion of funding that comes from within the college service region since this funding would likely have been spent by the State regardless and are not attributable to Santa Fe per se. The analysis indicates approximately $39.3 million in regional labor and non-labor income in the State of Florida economy. Importantly, the analysis indicates an approximately $589.1 million dollar workforce development effect derived by reviewing returns to students but other factors of production as well.

These economic impacts substantiate the economic impacts derived from operations of the college in achieving its fundamental mission.

Investment Analysis

The investment analysis proceeds from the perspective of students and taxpayers. Benefits and costs are derived in several different manners. Student (private) benefits are those captured by students and are represented by higher earnings based upon college attendance.

Taxpayer (public) benefits are grouped into broad and narrow components. Broad benefits are those attributable to lower overall public expenditures related to health, crime, welfare and unemployment based upon student attendance. Narrow benefits are those represented by an increase in tax collections by state and local governments.

In terms of costs, student costs are those related to tuition and opportunity costs associated with College attendance. Taxpayer costs are those state and local taxes inclusive of financial aid provided to students.

After deriving the aggregate and per credit hour earned present discounted values of the annual benefits and associated costs the summary investment analysis results indicate a benefit cost ratio to students of 5.9 and to taxpayers of 2.2. A rate of return to students of 16.5% on the investment of time and money in their education is identified and similarly, state and local taxpayers receive a rate of return approaching 9%. Finally, a payback period of 9.1 and 15.2 years is found for students and taxpayers respectively.

Regional Economic Growth

With respect to the effects of Santa Fe College on regional economic growth, the analysis focuses on: 1) local purchases, inclusive of wages paid to faculty and staff; and, 2) human capital effects. The analysis reflects that the second of these effects is the most important. Furthermore, the college spending effect is adjusted to account for taxes and other monies withdrawn from the local economy in support of the College.

Impacts on regional economic growth are reported in terms of labor income (earnings) and non-labor income (the sum of dividends, interests and rents). Earnings are reflected in the local economy through the wages paid to staff and employees ($51 million) that eventually find their way into the local economy. Similarly, the College purchases supplies and services ($53 million) across the board in a local context. In addition to direct effects, there are obviously indirect effects as well that are typically reflected in a regional economic multiplier. Gross effects of college spending are calculated by adding together these direct and indirect benefits.

According to the analysis total income (labor and non-labor) is indicated as approximately $39 million dollars (incorporating an adjustment for alternative use of funds as explained above) and utilizing a multiplier of 1.3.

In terms of the human capital effect, the analysis factors in the total number of credit hours earned over the past 30 years and embodied in the workforce. This figure is converted into a earnings value per credit hour earned and a total net earnings of past College students of approximately $372 million. This result is the estimated portion of current regional earnings that can be directly attributable to Santa Fe and embodied in the current workforce.

This direct effect plus an indirect effect of approximately $83 million based upon the resulting increased consumer and business input spending (reflected in a 1.27 multiplier) leads to a total human capital effect of $456 million dollars.

This human capital effect plus the related income effect described above flowing from faculty and staff earnings leads to a gross income effect of approximately $628 million dollars which in 2006 accounted for approximately .1% of all income in the State of Florida.

Importantly, the regional economic growth analysis explicitly leaves out another effect that is recognized by the literature and that is the effect of educated workers on innovation and technical progress. These “innovation” or external effects have not been incorporated and bear additional examination. This is particularly true within the context of the Gainesville/Alachua regional economy which is heavily impacted by the University of Florida and a growing New “Innovation” Economy.

Summary

The various facets of the Colleges' existing operations examined in this chapter demonstrate that Santa Fe College appears to be a vital institution in fostering community economic development. These core facets: 1) the adaptive efficiency of the College; 2) the College's spatial platform for community engagement; 3) the College's perceived positive effects for area employers; 4) the issuance of Baccalaureate degrees and the role that this plays in filling an important community labor gap; and, 5) the economic impact of the colleges operations collectively seem to lend credence to the notion that Santa Fe College is an important instrument in shaping and moving the local and regional economy.

Furthermore, as articulated in the introduction to this chapter, each of these facets seems to be able to be incorporated into a community college collaborative conceptual framework similar to that developed by the Southern Growth Policies Board for an analysis of institutional efforts leading to economic development in a more typical university setting (See Appendix B).

This framework will be modified and elaborated upon in the following Summary and Recommendations Chapter based upon the College's contribution to local community economic development.

Finally and interestingly, the applicability of this modified model may be beneficial to community colleges seeking their place in the growth and development of the New "Innovation" Economy. This appears an area requiring further examination as highlighted in the reviewed Economic Contributions Report. The role played by the community college as an entity, as well as the students it serves in promoting innovation

and technical progress in the local and regional economy, are proving to be valuable and worthy contributors.

CHAPTER 5
PRESENTATION AND ANALYSIS OF CASE STUDY FINDINGS

In providing a framework for the analysis of the Santa Fe College Case Study findings, the following high level research objectives were alluded to within the Introduction and Research Design and Methods chapters of the dissertation:

- An examination of the characteristics of the New "Innovative" Economy that places a premium on human capital and institutions and how these have driven community economic development policy towards building adequate capacity by utilizing educational institutions and the community college;
- A review of how the community college itself has evolved into a key foundation for the building of a vibrant local and regional economy through its various defining characteristics; and,
- The manner in which Santa Fe College specifically has exhibited these characteristics.

The research for the dissertation has identified a new direction in which the macro-economy is moving. With the advent of a more globalized marketplace, an increasingly instantaneous communication system, the mobility of labor and capital resources, and the reliance on a talented labor pool, an innovative platform for the economic success of place has emerged. Moving forward, this platform will be solidified and the returns to those places that facilitate and nurture innovation will be enhanced.

The place of the educational institution, particularly the post secondary school (colleges and universities) in the foundation of this platform is vital. It is this institution that will shape and refine the dynamism of individual creativity and innovative capacity and translate these into productive outcomes for local and regional economies.

The community college, because it is closer in many ways to the community that it serves and, based upon the research in this dissertation, has a mission and culture that allows it to efficiently adapt to New "Innovative" Economy circumstances. These factors

will increasingly push it to the forefront of those institutions relied upon to assist in community economic development efforts. The research underlying this dissertation establishes this from both an economic and political perspective, and it is political economy that drives operational frameworks for addressing contemporary challenges.

With respect to questions posed earlier in this study that go to the role of Santa Fe College specifically, the following is an analysis based upon the dissertation's contents:

What has been the Role of Santa Fe College in Building Capacity of the Local Economy Over Time?

Santa Fe College has been in existence for over forty years and the history of the institution appears to indicate that since its inception, its role has been to prepare individuals within its service district to pursue either a traditional academic education or one that is designed to provide more immediate entrance into the workforce. The former would result in two years of associate's education at the college, later transferring to a four year college or university; the latter would include either two years of associates education or attainment of a certificate followed by graduation to employment in local industry.

The history and data show that Santa Fe's role therefore has consistently been one of building the workforce capacity of the local and regional economy over time. The changes and evolution in the macro and local economies and the corresponding development in institutional mission that the College has spearheaded over time have provided the circumstances and parameters in which this mission is fulfilled.

How Has Santa Fe College's Role Evolved in Light of Changing Circumstances Confronting Various Levels of The Economy And in Light of State Policy Direction?

The evolution to the New "Innovation" Economy platform and economic sectors has led to a different operating framework from the perspective of state legislative action as well as from the realities of the market. The State legislature's recent action to allow the issuance of baccalaureate degrees is a concrete acknowledgement of changing circumstances in higher education with respect to market dynamics as well as educational policy.

Furthermore, recent policy actions by the University of Florida to reduce the number of undergraduate and transfer students over a period of successive years and the intent to become a larger player in graduate studies has led to refined policy direction at Santa Fe. Again, this is borne out by the rationale utilized by Santa Fe to justify its decision to offer baccalaureate degrees in Applied Science for both Health Services Administration and Clinical Laboratory Science.

The fiscal realities confronting the University of Florida and Santa Fe College have undoubtedly affected the shape of future opportunities offered by each institution, and will continued to be affected by the level of funding each receives from an increasingly financially strapped state government.

Additionally, Santa Fe College's spatial position is being driven by the New "Innovative" Economy platform in terms of location of resources. The imminent opening of the bio-technology oriented campus within the City of Alachua is a direct result of the cluster development opportunity supported by both Santa Fe and the University of Florida relative to the growing Progress Center.

Has Santa Fe College Exhibited North's Concept of "Adaptive Efficiency" in Pursuing its Educational and Economic Mission in the Community?

As introduced earlier, Douglass North provided the notion of adaptive efficiency as opposed to allocative efficiency in order to draw a distinction between traditional economic analysis focused on the right balance of the factors of production and the increasing importance of institutions in their ability to adapt to market dynamics.

The research in the dissertation appears to establish that Santa Fe College has exhibited the tendency to adapt to the circumstances that it confronts as a provider of local and regional economic capacity. This is partially due to leadership but also to the organizational structure of the College and an ability to act when needed. An interesting question for further research is the extent to which the community college in general and Santa Fe College in particular is a mover or a follower in the construction of the New "Innovative" Economy platform. In other words, does the institution have the ability to adapt efficiently to changing circumstances once they have been set in motion (which Santa Fe definitely does seem to do) or does the institution spearhead the direction and then help to shape a supportive landscape?

Has Santa Fe College's Organizational Capacity been Affected by its Membership in the League of Innovation?

As mentioned, Santa Fe Community College is a charter member of the League for Innovation in the Community College and is one of 19 League Board colleges. The League, founded in 1968, is an educational consortium that functions specifically to stimulate innovation and experimentation. It is the only organization of its kind in the community college field and has achieved national recognition for the quality of its programs and activities.

The dissertation did not measure impacts of Santa Fe College's membership in the League of Innovation. However, the fact that it has been a charter member since the League's inception seems to indicate that the concept of innovation has been ensconced in the operational attributes of the College for many years. This seems to further buttress the claims of the College over an extended period of time that it exhibits adaptive efficiency tendencies as an examination of the League's electronic records seems to indicate, and demonstrates a posture towards flexibility and innovation in the implementation of the community college mission and organization.

To what degree and how Successfully does Santa Fe College Interact with the Private Sector as well as Other Partners in Pursuit of Local Economic Development?

With respect to interaction with the private sector and other partners in the pursuit of local economic development, the evidence is strong that this is a priority for Santa Fe College. Santa Fe has a Board of Trustees structure that requires participation from local industry in the primary governance of the institution and its routine activities certainly demonstrate on-going interaction with not only private industry but with the entire gamut of public and non-profit economic development actors community wide. This is inclusive of the College's recent leadership role in the formation of the Heart of Florida coalition as well as its position in providing additional economic development capacity to the community at the aforementioned Alachua Corporate Training Center.

The researcher can establish this fact incontrovertibly through economic development practitioner work within the greater Gainesville Area. Local economic development obviously drives the organization at all levels and provides the impetus for decisions regarding the allocation of resources in terms of physical and employee capacity.

How does Santa Fe College's Community Economic Development Role Mirror or Contrast with Community Colleges (the Great 28) Throughout the State of Florida?

The dissertation has focused on the role of Santa Fe College within Gainesville, Florida and within the context of the New "Innovative" Economy platform. The College's location in north central Florida within the shadow of the state's foremost land grant and research university does place it in a slightly different place with respect to other community colleges in terms of its operating environment.

However, the policy direction set for Santa Fe College by the State legislature affects all of its community colleges on equal terms, as does the intent and funding that flows to these institutions. In addition, although there are some differences in intensity of environment, all of these institutions confront the New "Innovative" Economy platform and thus have the same but potentially slightly different positions.

Santa Fe College benefits from its location and ability to build capacity for the emerging bio-tech, life science and information technology clusters. It has also been at the forefront in economic development efforts in terms of establishment of centers such as those focused on construction and economic development and innovation.

Finally, its recent efforts at providing baccalaureate education to facilitate the workforce development capacity of the community places it at the head of local economic development efforts amongst its peers.

CHAPTER 6
SUMMARY AND RECOMMENDATIONS FOR FURTHER RESEARCH

Introduction

Approximately fifty years ago, Dr. James Wattenbarger helped lay the foundation that the community college would play within the State of Florida. Wattenbarger's plan consisted of twenty eight institutions located within commuting distance of the vast majority of Florida's communities. Originally assigned a primarily educational mission, the community college has become not only an outlet for the academic objectives of students, but also an instrument for fulfilling the workforce development needs of affected communities and the State overall.

Just over forty years ago, Santa Fe College was instituted as the twenty second community college by the Florida State Legislature to meet the needs for the Alachua/Bradford County service district. When Santa Fe opened its doors in September, 1966 approximately 900 students were enrolled in classes dispersed throughout Gainesville at various locations. In 1968, the community college settled on a campus location in the northwest greater Gainesville area on approximately 100 acres and began to establish itself as a presence in meeting the regional academic and workforce development needs of its service district.

In the ensuing forty years, the mission of Santa Fe College has remained essentially the same, with some minor alterations. However, the environment in which the College operates has changed and with it, the College has attempted to adapt itself to the new circumstances. These circumstances have manifested themselves in both a political and economic context: political in that the framework established by the State of Florida has evolved based upon perceived needs of the State's citizens and economic

in that the College has attempted to position itself to take advantage of New “Innovative” Economy realities.

This dissertation has attempted to explore the role that the community college, in general plays in building the capacity of the local and regional economy to meet changing developmental needs. Specifically then, it has focused on Santa Fe College’s responses to these newly created demands and changing circumstances.

The following represents a summary of these findings and the recommendations for future research regarding this most important topic.

Summary of Impacts

Based upon the case study presented in this dissertation, Santa Fe Community College can be seen to impact the local and regional economy in several ways. At its foundation, the College’s mission states that it seeks to, “add value to the lives of our students and enriching the community”. Implicitly, this mission focuses on the academic and workforce development profile the College maintains within the community.

This mission and its supporting Values and Goals are implemented by an institution that exhibits features of adaptive efficiency. That is, the College is able to adapt and evolve in ways that allow it to meet the needs of the community within the framework of its mission and in an efficient and timely manner. This ability to retain substance but to transform the scale and degree of response has become increasingly important due to the breadth and rapidity with which the New “Innovative” Economy changes in an on-going manner.

The platform for implementation of the College’s Mission, Values and Goals occurs throughout Alachua and Bradford Counties and its six campus locations. Each

of these provides outreach to its respective host communities and individually provides an economic impact to the area.

The northwest campus, located in the Greater Gainesville area just east of Interstate 75, provides the central locale for the administrative and programmatic structure of the College. The approximately 175 acre campus anchors northwest Gainesville and provides a significant presence within an increasingly urban setting that is easily accessed by surrounding service district citizens. Provision of additional urban transportation access via the City of Gainesville's Regional Transit Service continues to be a priority for the College and the surrounding community.

In terms of tying into the New "Innovation" Economy, the College is currently in the process of completing its Alachua Corporate Training Center within the City of Alachua. This location will provide support to the implementation of baccalaureate degrees designed to foster growth and development of the medical and life sciences industry cluster in the area. It is located proximate to the Progress Center and brings with it many opportunities for synergy with the existing technology industry base.

This relationship between employers and prospective employees educated and trained by the College is measured by staff on an annual basis. The major employer survey conducted by the College appear to indicate that employers hiring Santa Fe graduates are pleased with the achievement of core competencies received and technical training pursued. This is true for current employees as well as for potential future hires and bodes well for the College's continued workforce development efforts (see Attachment G).

In the Fall of 2009, the College will begin to implement its recently approved baccalaureate programs. These two degrees, the Bachelor of Applied Science in Health Services Administration and the Bachelor of Applied Science in Clinical Laboratory Science, are intended to fill an education gap within important sectors of the local and regional economy and to meet the demands of current and future employers.

This step by the College reinforces its ability to efficiently adapt to the shifting local and regional economic environment and assists the community in positioning itself for economic based diversity and development. As reflected in supporting documentation tied to the baccalaureate application to the Florida Board of Education, Santa Fe is able to accomplish this with minimal impact on existing operations and within the parameters of resources currently available to it.

Finally, these institutional impacts are defined and reflected in the direct investment and regional economic impacts that flow from the College's operations within the community. These findings are reported in an economic study performed for Santa Fe and indicate the economic impacts broadly generated by Santa Fe within its service region and the State of Florida.

The analysis is comprised of two components: 1) an investment analysis from the perspective of students and taxpayers; and, 2) an economic growth review to determine the relative contribution of the College to regional labor and non-labor income. Generally, the analysis seems to indicate that the College does provide returns to both students and taxpayers and also to the regional economy through the generation of income.

Perceived Measurement Gaps

As indicated, the workforce development output or human capital impact of the College does seem to result in beneficial results to the local and regional economy. These can be measured in terms of employers' surveys as well as various income effects. However, additional measures need to be investigated by the author and others over time. Importantly, less successfully analyzed and measured is the degree to which the human capital impact leads to impact on invention and innovation.

As has been reflected throughout this study, the existence and continued movement towards a New "Innovation" Economy means that in order to continue to succeed and thrive, the community's economic development future will hinge on understanding and fostering a hospitable growth and development environment.

It seems imperative then, that the connection between Santa Fe's output and its linkage to facilitation of an increasingly diverse and innovative economy be established. This is particularly true in light of the fact that upon graduation the regional retention rate for graduates from the College is dramatically higher than the University of Florida. Santa Fe's graduates are, and will likely continue to be, the backbone of the employment base of the local and regional economy. Understanding how their efforts can lead to enhanced employment opportunities and an innovative economic base will become increasingly important

As previously discussed, a methodology utilized to examine the degree to which the community college is serving the local economy has been established for California's community college system. This methodology can be replicated using similar but not exactly the same data sources, in order to measure the demand and supply of labor resources and their interplay within important local and regional

economy sectors. For example, a match of graduating and transferring students within various subject areas could be compared against the key economic sectors of the Metropolitan Statistical Area as defined by the Federal Bureau of Labor Statistics. This would serve as a test of the proposition that the Community College is serving the needs of the local and regional economy in which it operates and would buttress any survey instrument currently employed.

In terms of measuring contributions to the New “Innovation” Economy, linkages need to be explored between the activities of the College (as an institution and in terms of its student base) and a set of measurements that define the New “Innovation” Economy paradigm, such as intellectual property filings, research and development activities, and entrepreneurial achievements, etc. Furthermore, aside from revealing the contributions of the College to the New “Innovative” Economy platform, this analysis would reveal whether the College is shaping the environment or reacting to it. This is important as the community college is increasingly seen by policymakers as an institution that can be relied upon to navigate current circumstances.

In Appendix K, such a performance measurement framework matrix is offered that attempts to provide a basis for considering the measurement of local community economic development effects of the community college. This tool is most applicable to community colleges that lie within a similar setting to Santa Fe in that their performance is closely linked to the collaborative relationship with a major university. As was stressed in the Chapter 3 Dissertation Research Design and Methods, this particular case study has some inherent limitations as it analyzes impacts of a specific community college in a specific setting. Although the setting is indicative of the conditions that will

be increasingly prevalent in the New “Innovation” Economy, it cannot be generalized to all community colleges.

The matrix is therefore oriented to those institutions with a similar profile to Santa Fe’s. This tool has its foundation in the systems model developed in Appendix B and the Chapter 2 Review of Related Literature and is an attempt to provide a foundation for implementation of the recommendations for further research discussed below. The intent is to utilize the matrix to frame the performance of the community college in building the local economy’s capacity for substantive economic development. Surveying associated with each of the community college institutional partnership entities regarding the four community economic development evaluation factors provides a robust opportunity for documentation of impacts relative to a community’s New “Innovation” Economy platform.

Recommendations for Further Research

Just over twenty five years ago, Lawrence Tyree reported on *Linking Community Colleges with Economic Development in Florida.* This is important for two reasons. First, it established a benchmark for recommendations designed to move the evolution of the community college’s mission closer to state economic development efforts; and, second, it marked the midpoint between the community college’s establishment in Florida and then its contemporaneous status with the report. Of course, it is important to mention in terms of Santa Fe’s position that eight years after this study was published, Dr. Tyree became the College’s third President.

The study’s recommendations provide a frame for this study’s recommendations for further research and are provided below:

- Accomplishments and/or failures in the last twenty five years with respect to Dr. Tyree's report and its chief recommendations, serving as a baseline for community college policy action on the economic development front, should be analyzed in order to establish the status of the state's commitment (See Appendix J);

- The derived Santa Fe College Local Economic Development Systems Model in Appendix B should be further analyzed, enhanced and provided to community colleges situated similarly to Santa Fe College in terms of assisting in documentation of their economic development efforts, particularly those in area jurisdictions actively engaged in building an innovation economy;

- The perceived gap, formerly identified, regarding the human capital output of the community college and the contribution to the New Innovation Economy should be examined and documented by analyzing activities of community college institutional partnership entities. Contributions to typical measures of innovative economy activity inclusive of research and development investments, intellectual property filings, and entrepreneurial initiatives relative to the innovative economy, are measurable and worthy of tracking. An initial performance measurement framework matrix is contained in Appendix K;

- In terms of the workforce development component of the College's contribution to the local and regional economy, a test can be implemented to assist in measuring the supply and demand dynamic related to the production of labor resources and its alignment with the existing and developing, economic sector base of the local and regional economy;

- Examining more closely the building relationship between Santa Fe College and the developing innovative economy cluster in its service district should occur over time and be accounted for in future surveying and analysis efforts specific to this cluster segment;

- The role that community college baccalaureate degrees play in filling the needs of the New "Innovative" Economy and their effects on the workforce should be examined over time through a longitudinal study of graduates, their employment prospects, and subsequent employment;

- The economic impact of individual campus settings, particularly the soon to be opened Alachua Bio-Technology campus, should be examined in terms of the impact they have on host communities.

- For the economic development practitioner, Santa Fe College should determine its role in regional economic development efforts, particularly in the Heart of Florida

movement, and the degree to which the College as an institution can help this partnership achieve its success.

In summary, the community college is positioning itself as an important institutional player with respect to future local community economic development efforts. It will be relied upon to provide the necessary infrastructure crucial to the capacity building efforts of local and regional economies operating in a New “Innovation” Economy platform context. As a result, its contributions will continue to be open to further important research efforts by those interested in understanding the metrics and performance associated with its operations and functionality. This dissertation has provided a glimpse at the community college’s maturation and an attempt to develop a few tools to measure its progress in the New “Innovation” Economy context.

APPENDIX A
SUMMARY FINDINGS OF FLORIDA TAX WATCH STUDY

Research Report

February 2006

Center for Educational Performance & Accountability
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"Putting Minds to Work" Pays Big Dividends!
The Impact of Florida Community Colleges on Students' Prosperity and the State's Economy: A Solid Return on Investment

Florida's economic, civic, and cultural health is reliant upon an educated citizenry. Community colleges make numerous meaningful contributions toward this end. In this report, Florida TaxWatch examines the impact of Florida's community colleges on students' prosperity and on the state's economy.

Executive Summary

Florida's 28 community colleges have a broad mission and multiple responsibilities. They chiefly provide academic and technical degree education. Most of their students are part-time. Their average age is 27. During the 2004–2005 fiscal year, more than 800,000 students sought educational enhancement through the community college system.

Community colleges are part of the state's new K–20 education system. The Florida Legislature established this system in 2002 as a means of providing, within existing resources, a seamless academic program for the state's kindergarten through graduate school students. It emphasizes a student-centered approach to learning, maximized access to educational offerings, and a focus on institutional accountability.

These basic principles are explicitly demonstrated within Florida community colleges. They offer a variety of programs designed to meet the particular needs and personal objectives of their students. These institutions have formed solid relationships with their communities and partnered with school districts, colleges and universities in an effort to increase student educational access. They have reflected a commitment to accountability through public reporting and funding mechanisms.

Yet the landscape in Florida postsecondary education continues to change. The lines are blurring between programs offered exclusively by universities and those offered by the

community colleges. As tuitions increase and financial aid tightens, more and more students are turning to community colleges as a preferred route. Evidence suggests that Florida community colleges are ready to meet this challenge.

Community colleges receive state funding. In the 2004–05 fiscal year, Florida's community colleges were appropriated $849 million dollars from General Revenue and another $99 million dollars from the Lottery. Student fees provided an additional $459 million dollars in revenue to these institutions. An investment of this magnitude requires an evaluation of its return. It is likewise appropriate to conduct a review of existing literature on community college issues, and to examine relevant state and national data.

It was with these two matters in mind that Florida TaxWatch, in consultation with Florida State University's Center for Economic Forecasting and Analysis, undertook this study of the state's community college system and its impact on the Florida economy.

The Ten Major Findings:

In National Comparisons:

1. **A Florida community college outperformed the average in all seven areas that were studied. (Hillsborough Community College was used for these comparisons.)**

2. **A community college education resulted in higher earnings compared to those from a high school education. Students realized an annual earnings increase of $112 per credit hour and $3,926 per full-time equivalent student.**

3. **An investment analysis found that community college educational benefits outweighed their costs. The average rate of return from national studies on community colleges was 25%, the average benefit/cost ratio was seven, and the average payback was seven years. The rate of return on investment in Florida community colleges was 33.9%.**

4. **The social savings (avoided costs of crime, welfare, and unemployment benefits) due to community college education were significant. They averaged $35 annually per credit hour and $1,353 annually per full-time equivalency.**

In Florida:

5. **A significant majority (60%) of high school graduates who advanced to higher education attended community college, thus generating an ongoing increase in student enrollment. The community college full-time student population increased by 25% from 235,527 in 1999 to 294,818 in 2004. Simultaneously, an increased funding burden was required of students for six out of the seven years. Full-time enrollment is projected to continue to climb, surpassing 320,000 by 2007.**

6. **A majority of the fastest growing jobs will be in occupations that do not require a baccalaureate degree but do require postsecondary education such as that offered at community colleges.**

7. **A community college Associate in Science Degree translated to a lifetime personal income increase of $480,000 when compared with those whose formal education ended at high school graduation.**

8. **A community college Associate in Arts Degree translated to a lifetime personal income increase of $220,000 when compared to those whose formal education ended at high school graduation.**

9. **The projected economic effects of increased personal income associated with a community college degree were found to be dramatic. Over a forty-year career span, the 38,968 students who graduated from community college in 2003 will increase state output by $13.6 billion, and generate wages for others in the amount of $5.5 billion. Additionally, they will create 102,768 jobs, which reflects 2.6 jobs for Florida's economy for each community college graduate.**

10. **Every dollar of public support for a community college graduate with an Associate in Science or an Associate in Arts Degree will generate $13.37 in state output.**

Florida community colleges generate a large number of benefits to both students and the state. Students benefit from higher personal earnings, and the state benefits by having higher employment, enhanced tax revenues, and an increased gross state product. There are additional advantages to the state in the form of social savings through avoided costs of crime, welfare, and unemployment benefits. These elements entice new businesses and industries to come to Florida, which further supports a growing, vigorous economy.

The motto of Florida's community colleges is "Putting Minds to Work." It is paying significant dividends. The study concludes that Florida community colleges play an increasingly vital role in the state and local economies by providing the education necessary for sustainable employment and by elevating the skills and earnings of Floridians. These benefits translate into attractors for new business and industry for the state, thus furthering additional growth.

APPENDIX B
SOUTHERN GROWTH POLICIES BOARD CONCEPTUAL SCHEMA

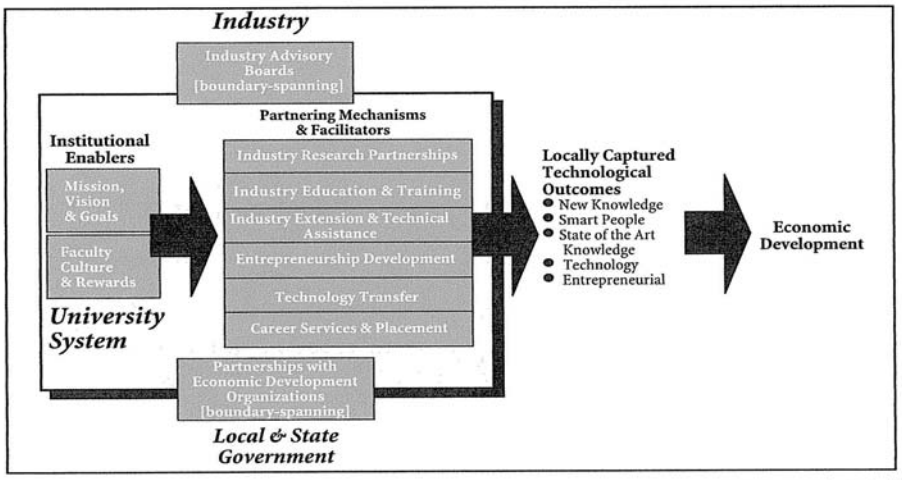
Appendix B - Southern Growth Policies Board Conceptual Schema

subtle markers of organizational culture in the academic world.

For example, universities that are actively involved in state and local economic development and industry partnering will tend to adopt language in mission, vision, and goal statements that reflects that emphasis. They also tend to incorporate different versions of those statements in reports, publications, press releases, and speeches directed at the external world. In effect, the public language and metaphors that are expressed will have a quite different sound than at other institutions.

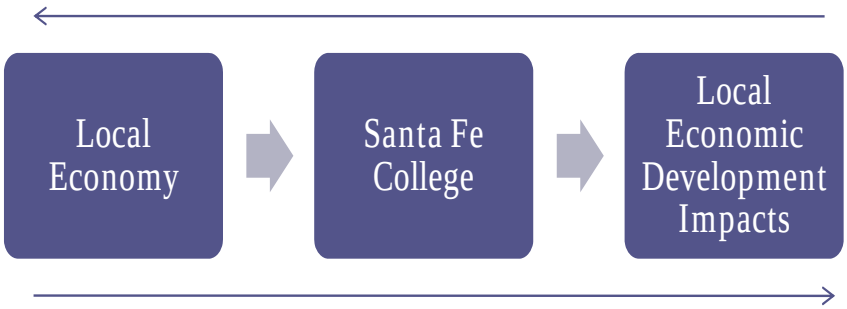
Such statements are typically issued at the institutional level, but may be also be found in somewhat different forms at the college or unit level. They also tend to be aggressively disseminated to various leadership and lay audiences. It is a very instructive exercise to snoop around the Internet Web sites of universities — from the perspective of a technology business executive seeking help or a citizen trying to figure out how "their" university makes a difference in their community — and see how apparent that community linkage might be. Similarly, it is useful to take up reading presidents' speeches, and deans' statements of college mission or goals, looking for stirring phrases about making a difference in firms' chances and creating economic opportunity in a region. When the same phrases are repeated over settings and years this says something about the values, beliefs, and goals that make up the institutional culture.

We have observed that universities with active external links are also likely to have an informal and formal system of rewards that encourages faculty to be involved in these activities. These might include positive weighting of such involvement in tenure and promotion decisions, giving attention in campus and community media, providing symbolic acknowledgement via events and awards, and more subtle and informal approval by peers and colleagues. For example, we have run across senior university administrators who have actually started technology companies, which sends a powerful message about cultural approval (or at least tolerance).



Santa Fe College Local Economic Development Systems Model

Applications Operative within Local Innovation Lifecycle



Industry Political Economy Institutions Workforce Students	Spatial Profile Institutional Capacity Students with Degrees and Cert.	Institutional Impacts Industry Impacts Entrepreneurial and Innovation Impacts

APPENDIX C
SANTA FE COLLEGE MISSION/VISION STATEMENT

Appendix C - Santa Fe College - Mission/Vision Statement

SANTA FE COLLEGE

Strategic Plan 2008-2013

Mission/Vision

Adding value to the lives of our students and enriching our community

Values

Santa Fe College is a dynamic, innovative learning community committed to

- Academic excellence, academic freedom, and intellectual pursuit
- Individual, social, and global responsibility
- Honesty, integrity, and civility
- Cultural diversity and equity
- Collaboration with our community
- Open access
- Life long learning
- Assessment, accountability, and improvement
- Sustainable use of environmental, social, and economic resources

Strategic Goals

- **Outreach and Access**
  Identify, assess, and meet community needs to promote open access to the college.

- **Delivery Alternatives**
  Assess student needs and outcomes and create innovative and flexible learning opportunities.

- **Educational Programs**
  Provide learning opportunities and academic support to ensure the highest levels of academic performance.

- **Student Affairs**
  Provide research-based learner-centered program of services that supports access and student engagement from matriculation to goal attainment.

- **Workforce Development**
  Provide student-centered workforce programs in collaboration with local employers and economic development agencies.

- **Human Resources**
  Recruit, develop, assess, and retain quality full- and part-time faculty and staff.

- **Technology**
  Provide information and communications technology infrastructure and systems to support the college's mission.

- **Resources**
  Develop, obtain, and allocate the necessary resources to implement the college's mission.

- **Sustainability Education and Operations**
  Create, develop, and enhance programs to reduce waste, conserve energy and green space, protect water resources, and promote wellness of students, faculty, and staff.

Update/Revision: July 2008

APPENDIX D
SANTA FE COLLEGE ADMINISTRATIVE HIERARCHY

Appendix D - Santa Fe College - Administrative Hierarchy

www.sfcc.edu

Administrative Staff of the College

Office of the President

President – Jackson Sasser
Provost and Vice President for Academic Affairs – Anne Kress
Vice President for Administrative Affairs – Guy York
Vice President for Development – Charles Clemons
Vice President for Student Affairs – Portia Taylor
Assistant to the President – Lawrence Keen
Associate Vice President for College Relations – Bennye Alligood
Legal Counsel – Patti Locascio

Office of the Vice President for Administrative Affairs

Vice President for Administrative Affairs – Guy York
Associate Vice President for Facilities Services – William Reese
Vice President for Finance/Information Technology Services – Ginger Gibson
Associate Vice President for Information Technology Services and Chief Information Officer –Timothy Nesler
Associate Vice President for College Relations – Bennye Alligood
Assistant Vice President for College Relations and Academic Affairs – Kim Kendall
Director, Information Technology Services – John Chapman
Director, Marketing – Vacant
Director, Purchasing – Daphyne Sesco
Chief of Police/Director, Institute of Public Safety – Daryl Johnston
Comptroller - Vacant
Coordinator, Human Resources – Lela Elmore
Coordinator, Safety and Risk Management – Charles Griggs
Coordinator, Facilities Planning & Construction – Terry Flake
Director, Facilities Operations - Erik Anderson
Director, Facilities Planning and Construction - Rebecca Rogers
Executive Director, East Gainesville Initiative and Community Outreach – Karen Cole-Smith

Office of the Provost and Vice President for Academic Affairs

Provost and Vice President for Academic Affairs – Anne Kress
Associate Vice President for Academic Affairs – Curtis Jefferson
Dean, Educational Centers and Economic Development – Paul Hutchins
Assistant Vice President for College Relations and Academic Affairs– Kim Kendall
Associate Vice President for Academic Affairs – Dave Yonutas, Interim
Associate Vice President for Academic Affairs - Edward Bonahue
Associate Vice President, Institutional Effectiveness, Research & Planning - Mike Droll
Blount Center – Paul Hutchins
Director, Andrews Center – Cheryl Canova
Director, Watson Center – Robert Wolfson
Coordinator, Davis Center – vacant
Director, Business Technology – James Geason
Director, Little School – Karen Bennett
Director, Construction and Technical Programs – James McMullen
Director, Dental Programs – Karen Autrey
Assistant Vice President, Economic Development – Dug Jones
Director, High School Dual Enrollment Program – Linda Lanza-Kaduce
Director, Information Technology Education – Eugene Jones
Director, Institute of Public Safety – Daryl Johnston
Director, Cardiovascular Technology and Sonography – Reeda Fullington
Director, Nursing Programs – Lois Ellis
Director, Radiologic Technology Programs – Bobbie Konter
Director, Health Sciences Counseling – Sheila Baker
Chair, Sciences for Health Programs – Linda Nichols
Director, Respiratory Care and Surgical Technology – Paul Stephan
Chair, Academic Foundations – Carole Windsor
Chair, English – Susan Miller
Chair, Humanities and Foreign Languages – vacant
Chair, Mathematics – Byron Dyce
Chair, Natural Sciences – Sture Edvardsson
Chair, Social and Behavioral Sciences – Doug Diekow
Chair, Visual and Performing Arts – Alora Haynes
Director, Library – Myra Sterrett

Office of the Vice President for Student Affairs

Vice President for Student Affairs – Portia Taylor
Associate Vice President for Student Affairs – Steve Fisher
Assistant Vice President for Student Affairs – John Cowart
College Registrar – Lynn Sullivan
Director, Advisement Center – Emilia Hodge
Director, Records and Admissions – Michael Hutley
Director, Financial Aid – Peggy Werts
Director, Office of Diversity – Elizabeth O'Reggio
Director, Student Development Programs – Bruce Tucker, acting
Director, Student Life – Dan Rodkin
Director, Athletics – Jim Keites

Office for Development

Vice President for Development - Charles Clemons
Associate Vice President for Development, Grants and Projects – Joan Suchorski
Director, Development Services – Mike Curry

Faculty and Professional Staff

Faculty and professional staff are listed on the college Web site. Visit www.sfcc.edu for the most up-to-date information.

6

APPENDIX E
SANTA FE COLLEGE CERTIFICATE PROGRAMS

Appendix E - Santa Fe College - Certificate Programs

UPDATED 4/2/09

Santa Fe College
Short-Term Training Programs in Alachua County

Name of Program Certificate or Training	Program Description	Credential	Program length	Estimated Student Cost	Status	Starting Salary	Contact Person	Capacity	Student Background	Certification	Misc.	Website
Certified Solar Contractor	The Certified Solar Contractor license (CV) covers residential and commercial solar water heating, solar pool heating and photovoltaic (solar electric, or PV) systems. This course is for contractors preparing for the state licensing exam. The CV license also provides credentials for those selling solar systems.	Certificate	Two 8-hour days	Undetermined at this time	PROPOSED	N/A	Jane Parkin, 395-5363	Undetermined	For construction contractors wishing to qualify for state licensing exam	This course helps prepare students to take the Florida Solar Contractor examination		N/A
Solar Hot Water Technician	This course provides the knowledge and expertise to successfully install solar hot water and solar pool heating systems on one's own home or under the supervision of a Plumbing Contractor or Solar Contractor.	Certificate	24 hours total, nine 2-hour sessions, one capstone 6-hour session	Undetermined at this time	PROPOSED	$12-$15/hr.	Jane Parkin, 395-5363	Undetermined	Mechanical ability	College Certificate		N/A
Entry Level Energy Auditor	With the emphasis on green construction jobs and careers in the Building Retrofit sector, upon completion of this one- week training, energy auditors will be able to assist local companies and nonprofit agencies performing energy audits and retrofits by teaching energy conservation and performing simple repairs such as caulking and weatherstripping. [A WeatherizationTechnician would do more advanced repairs and upgrades.]	Certificate	Five 6-hour days in one week	Undetermined at this time	PROPOSED	$10/hr. (Estimated)	Jane Parkin, 395-5363		Interest in green construction or education/green jobs, pass background check	College Certificate		N/A
Solar PV Installation Technician	This course provides the knowledge and expertise to successfully install solar PV systems under the supervision of a Electrical Contractor or Solar Contractor.	Certificate	One 40-hour week	Undetermined at this time	PROPOSED	$10-$12/hr.	Jane Parkin, 395-5363		Basic understanding of electricity, mechanical ability	College Certificate		N/A
Basic Healthcare Worker	This certificate teaches the job skills necessary for healthcare clerical support workers entering the field.	CWE	One 40-hour week	$411.25 for tuition, books and fees	PROPOSED	$8-$10/hr.	Jim Geason, 381-3667	Unlimited	High school math and English. CPT not required.	College Certificate (3 hours)		N/A
Medical Manager	An introductory course to the Medical Manager, a powerful computerized medical office management program.	CWE	One 40-hour week	$415 for tuition, books and fees	Class; exists	$10-$12/hr.	Jim Geason, 381-3667	30	Computer and typing skills	College Certificate (3 hours)		Course is OST 2464
Accounting Software	This course applies accounting principles using popular accounting software such as QuickBooks, Office Accounting, Peachtree, or Dynamics GP to prepare and interpret accounting information.	CWE	One 40-hour week	$578.75 for tuition, books and fees	Existing	$9-$12/hr.	Jim Geason, 381-3667	Unlimited	CPT required	College Certificate (3 hours)		Course is ACG 2450
MS Office Applications	This course is designed to use components of the Microsoft Office suite in common business applications. Students will use Word, Excel, Access, and PowerPoint.	CWE	One 40-hour week	$411.25 for tuition, books and fees	Class; exists	$8-$10/hr.	Jim Geason, 381-3667	Unlimited	Some computer knowledge helpful	College Certificate (3 hours)		Course is CGS 1101
Advanced Energy Auditor	Upon completion of the basic Energy Auditor Certificated Program and after a minimum of 250 hours of work experience as an Energy Auditor, a worker would be eligeble to enroll in the Advanced Energy Auditor Certificated Program. The Advanced Program would go into more technical training such as using duct blasters and infrared scanners, and performing energy analyses.	Certificate	Two 40-hour weeks	Undetermined at this time	PROPOSED	$12-$14/hr.	Jane Parkin, 395-5363		Energy auditor experience and good math skills, pass background check	College Certificate		N/A
Crew Chief	The Crew Chief Training Certificated Program in the field of renewable and sustainable energy efficiency technologies will provide a strong green renovation component for tradespeople with a background in construction. Graduates will be trained to run crews working on energy retrofit projects.	Certificate	Three 40-hour weeks	Undetermined at this time	PROPOSED	$12-$15/hr.	Jane Parkin, 395-5363		Trades experience and an interest in sustainable construction	College Certificate		N/A
Business Specialist	The Business Specialist College Certificate teaches basic business office skills.	Certificate	4 weeks, 40 hours a week	$1,312 for tuition, books and fees	Existing	$10-$12/hr.	Jim Geason, 381-3667	Unlimited	High school math and English. CPT not required.	College Credit Certificate (12 hours)		http://dept.sfcollege.edu/business/PDF/6535.pdf
Business Operations - Accounting	The Accounting College Certificate teaches financial and managerial accounting.	Certificate	6 weeks, 40 hours a week	$1,566 for tuition, books and fees	Existing	$12-$14/hr.	Jim Geason, 381-3667	Unlimited	CPT required	College Credit Certificate (18 hours)		http://dept.sfcollege.edu/business/PDF/6515.pdf
Business Operations - Human Resources	The Human Resources College Certificate teaches human resource management and human relations.	Certificate	6 weeks, 40 hours a week	$1,566 for tuition, books and fees	Existing	$10-$12/hr.	Jim Geason, 381-3667	Unlimited	CPT reading/writing	College Credit Certificate (18 hours)		http://dept.sfcollege.edu/business/PDF/6515.pdf
Office Specialist	The Office Specialist College Certificate teaches general office operations and procedures and prepares students for work as a word processer, clerk, data entry, and general office.	Certificate	6 weeks, 40 hours a week	$1,970 for tuition, books and fees	Existing	$10-$12/hr.	Jim Geason, 381-3667	Unlimited	High school math and English. CPT not required.	College Credit Certificate (18 hours)		http://dept.sfcollege.edu/business/PDF/6577.pdf
Health Informatics	The Health Informatics College Certificate teaches the use of resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of electronic information in health and biomedicine.	Certificate	6 weeks, 40 hours a week	$1,970 for tuition, books and fees	Launcing by fall	$12-$15/hr.	Jim Geason, 381-3667	Unlimited	CPT required	College Certificate (3 hours)		N/A
Certified Nursing Assistant	Upon successful completion of the 105-contact hour course (one semester), the student is eligible to sit for the State Certified Nursing Assistant Exam and prepared for employment in a nursing home or extended care facility.	Certificate	6.5 weeks in summer or 15 weeks in fall or spring	$310.20 tuition, $114 lab fee, $61 background check, $50 books (approx.), shoes and uniform, $40-$60, $170 for immunizations and physical, $40-$60 for CPR - TOTAL = $785.20	Existing	$10-$11/hr.	Scott Fortner, 395-5733	12 in fall and spring terms; 24 in summer; could take up to 24 in fall and spring, and 36 in summer, depending on funding and faculty availability	Strong interest in hands-on, bedside health care, pass background screening, pass physical	Graduates eligible to take the state CNA certificate exam	Good career ladder opportunities	http://inst.sfcollege.edu/~health/nursing/CNA.htm
Software Applications Specialist	With in-depth, technical training in Microsoft software, the user will become the document production expert for a small to medium business, and able to produce documents in Word, Excel, PowerPoint and Access with exposure to the advanced features in macro design; SFC certificate.	CWE	7.5 weeks, 40 hours per week	$1,250 including books, supplies and certification exam voucher	Classes exist	$15/hr.	Eugene Jones, 395-5816	22	Minimum score of 70 on CPE	Graduates eligible to take the MCDST - Microsoft Computer Desktop Technician certification exam; exam fee covered in program cost.	Computer labs are available for students to complete all assignments; however, students may purchase a laptop for $450 through the college	N/A

Appendix E - Santa Fe College - Certificate Programs

Santa Fe College
Short-Term Training Programs in Alachua County

Name of Program Certificate or Training	Program Description	Credential	Program length	Estimated Student Cost	Status	Starting Salary	Contact Person	Capacity	Student Background	Certification	Misc.	Website
Network Specialist	Provide basic network support for a small to medium business; SFC certificate.	CWE	7.5 weeks, 40 hours per week	$1,250 including books, supplies and certification exam voucher	Classes exist	$20/hr.	Eugene Jones, 395-5816	22	Minimum score of 70 on CPE	Graduates eligible to take the A+ and Net+certification exam; exam fee covered in program cost	Same as above	N/A
Web Specialist	Provide online presence and maintenance for a variety of commercial and nonprofit agencies; SFC certificate.	CWE	7.5 weeks, 40 hours per week	$1,250 including books, supplies and certification exam voucher	Classes exist	$20-$22/hr.	Eugene Jones, 395-5816	22	Minimum score of 70 on CPE	Graduates eligible to take the Linux national certification exam; exam fee covered in program cost	Same as above	N/A
Legal Office Management	The Legal Office Management College Certificate teaches the general office operations and procedures for a legal office.	Certificate	9 weeks, 40 hours a week	$2,952 for tuition, books and fees	Existing	$9-$11/hr.	Jim Geason, 381-3667	Unlimited	CPT reading/writing	College Credit Certificate (27 hours)		http://dept.sfcollege.edu/business/PDF/6597.pdf
Medical Record Transcriptionist	The Medical Record Transcribing College Certificate teaches the transcribing of dictated medical reports that document a patient's medical care and condition.	Certificate	10 weeks, 40 hours a week	$3,641 for tuition, books and fees	Existing	Up to $15/hr.	Jim Geason, 381-3667	30	CPT reading/writing	College Credit Certificate (33 hours)		http://dept.sfcollege.edu/business/OST/file
Radiologic Technologist Assistant	Acquire the skills to assist RAD Technologist in medical imaging department. Training includes CPR, oxygen administration, IV pump monitoring, patient transport and basic patient care skills.	CWE	3 months, starting in July	$400 tuition, $25 lab fee, $61 background screening, $170 immunizations/physical, $50 uniform and shoes TOTAL = $706	PROPOSED	$10-$12/hr.	Bobbie Konter, 395-5702	8	Pass CPT for math, background check, pass physical	College Certificate	Online, evening and weekend courses; students would benefit from a transportation allowance for clinicals	N/A
Medical Information Coder/Biller	The Medical Information Coder/Biller College Certificate teaches the coding of medical reports for submission to insurance companies and the government for reimbursement.	Certificate	13 weeks, 40 hours a week	$3,966 for tuition, books and fees	Existing	$12-$14/hr.	Jim Geason, 381-3667	23	CPT reading/writing	Eligible to take CCA (Certified Coding Associate) or CPC (Certified Professional Coder) national certification examination; see www.ahima.org - College Credit Certificate (34 hours)		http://dept.sfcollege.edu/business/PDF/6592.pdf
Patient Care Assistant	Upon successful completion of this 290-contact hour course (one semester) the student is eligible to sit for the State Certified Nursing Assistant Exam, as well as receiving a Patient Care Assistant and additional training in home health care. Employment options include working in a nursing home, extended care facility, home health agency or in a hospital.	Certificate	15 weeks	$547.08 for tuition, $121 lab fee, $50 books, $40-$60 for uniform, $61 background check, $40-$60 for CPR and $170 for immunizations/physical. TOTAL = $1099.08	Existing	$11-$13/hr.	Scott Fortner, 395-5733	12 in fall, 12 in spring	Strong interest in hands-on, bedside health care, pass background screening, pass physical	Graduates eligible to take the state CNA certificate exam (this program differs from NA with the addition of a nursing home clinical, and a hospital and home health rotation)	Good career ladder opportunities	http://inst.sfcollege.edu/~health/nursing/PCA.htm
Central Supply and Distribution Technician	This certificate trains students to inventory, process, and sterilize medical equipment in the hospital or clinical setting. Students may sit for the national examination upon completion.	Certificate	6 months	Undetermined at this time	PROPOSED	$10-$14/hr.	Paul Stephan, 395-5706	10 to 20	HS diploma or GED, pass background screening	Graduates eligible to sit for national certification exam	Occupation in high demand	N/A
EKG and Phlebotomy Technician	Perform all lab draws for inpatient and outpatient services and perform EKG tests for hospital admissions or clinics and MD offices. Graduates eligible to take the national Phlebotomy examination.	Certificate	6 months	Undetermined at this time	PROPOSED	$10-$12/hr.	Scott Fortner, 395-5733	10 to 20	HS diploma or GED, pass background screening	Graduates eligible to sit for national certification exam		N/A
Basic Recruit Law Enforcement	State of Florida certificate for training as a law enforcement officer. Criminal Justice Standards and Training Commission approved curriculum as provided by FSS 943.	Certificate	6 months; Police Academy begins in January, May and August	Program fee is $4,000 for the training and includes tuition, labs, uniforms, etc.	Existing	Starting salaries vary by agency; GPD is $40,000 a year; ACSO and UPD are $35,000 a year	Louis Kalivoda, 271-2925	24 or 30 depending on how many apply and qualify; new recruits enter training in January, May and August	Pass background check for driving, employment and criminal history; pass Florida Basic Abilities Test (FBAT); provide written sample; pass physical abilities test; pass drug test. About 50 percent of applicants are accepted.	Graduates are eligible to sit for State Certification Exam for Law Enforcement Officers; those who pass can work at any law enforcement agency in Florida.	Application fee is $100 for applicants from Alachua or Bradford county; other state residents pay $125; out-of-state applicants pay $150. Financial aid is available as well.	http://www.policecareers.org http://ips.sfcollege.edu/ips/costs.htm
Air Conditioning, Refrigeration and Heating Service Technician	Post-secondary adult vocational certificate in HVAC training with an emphasis on heat load, duct design, and efficiency; good for vets with mechanical ability. Students leave with a minimum of entry level training; can go above and beyond depending on interest level.	Certificate	10 months; starts at the end of August	$2,300 for in-state tuition, books and fees	Existing	$12.50-$18/hr.	Tom Mason, 395-5362	22	Mechanical ability	EPA refrigerant handling certification, universal designation	For all ages and abilities, men and women; some students come in with no mechanical background and do very well.	http://inst.sfcollege.edu/~intech/harv/index.htm
Licensed Practical Nurse	Upon successful completion of this 1350-contact hour course (10.5 months over a 12-month period), a student is eligible to sit for the State Board Exam for LPN. LPNs work in a variety of settings: nursing homes, physician offices, home health agencies, and hospitals. NLNAC and FBON approved program; one of only 12 in Florida.	Certificate	10.5 months (summer A, fall and spring); classes start in summer A	$3,600 includes tuition, lab fees, supplies and books, background check, immunizations, physical, etc.	Existing	$14-$18/hr.	Scott Fortner, 395-5733	20; could take up to 36 this summer depending on funding	Graduates of a nursing-board approved certificate program in patient care or nursing assisting receive maximum points towards admission (not Express Training)	Eligible to take national LPN exam for state license	Admission is highly competitive; last class accepted 25 of 146 applicants	http://inst.sfcollege.edu/~health/nursing/PN.HTM
Biomedical Equipment Engineering Technician	Applied Science Degree (AAS or AS) that prepares students for employment in biomedical electronic equipment field. Students will learn skills in areas of biomedical research and development, manufacturing, and maintenance. Vets with electronic training can forgo the program's first year of basic electronic training.	AS, AAS	12 or 24 months	$6,100 for 2-year program for in-state tuition, books and fees; less for those entering program in second year	Existing	$12.50-$15/hr.	Tom Mason, 395-5362	20	Military electronic training; college-level math skills; CPT	AS degree		http://inst.sfcollege.edu/~intech/electronics/index.htm

Santa Fe College
Short-Term Training Programs - Bradford County

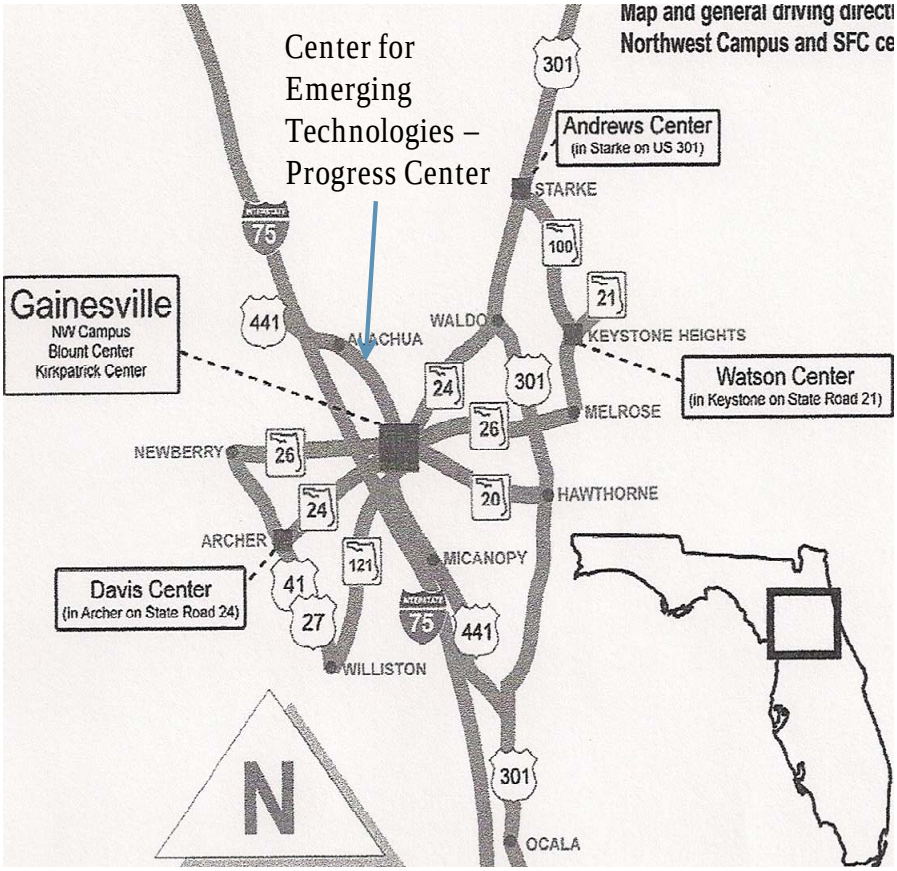
Name of Program Certificate or Training	Program Description	Credential	Program Length	Estimated Student Cost	Status	Starting Salary	Contact Person	Capacity	Student Background	Certification	Misc.	Website
Entry Level Energy Auditor and Weatherization Technician	With the emphasis on green construction jobs and careers in the Building Retrofit sector, upon completion of this one- week training, energy auditors will be able to assist local companies and nonprofit agencies performing energy audits and retrofits by teaching energy conservation and performing simple energy-efficiency repairs such as caulking and weatherstripping. [A Retrofit Technician would do more advanced repairs and upgrades.]	Certificate	Five 6-hour days in one week	Undetermined at this time	PROPOSED	$10/hr.	Jane Parkin, 395-5363		Interest in green construction or education/green jobs, pass background check	College Certificate		N/A
Basic Healthcare Worker	This certificate teaches job skills necessary for healthcare clerical support workers entering the field.	CWE	One 40-hour week	$411.25 for tuition, books and fees	PROPOSED	$8-$10/hr.	Jim Geason, 351-3667	Unlimited	High school math and English. CPT not required.	College Certificate (3 hours)		N/A
Medical Manager	An introductory course to the Medical Manager, a powerful computerized medical office management program.	CWE	One 40-hour week	$415 for tuition, books and fees	Class; exists	$10-$12/hr.	Jim Geason, 351-3667	30	Computer and typing skills	College Certificate (3 hours)		Course is OST 2464
Accounting Software	This course applies accounting principles using popular accounting software such as Quickbooks, Office Accounting, PeachTree, or Dynamics GP to prepare and interpret accounting information.	CWE	One 40-hour week	$576.75 for tuition, books and fees	Existing	$9-$12/hr.	Jim Geason, 351-3667	Unlimited	CPT required	College Certificate (3 hours)		Course is ACG 2450
MS Office Applications	This course is designed to use components of the Microsoft Office suite in common business applications. Students will use Word, Excel, Access, and PowerPoint.	CWE	One 40-hour week	$411.25 for tuition, books and fees	Class; exists	$8-$10/hr.	Jim Geason, 351-3667	Unlimited	Some computer knowledge helpful	College Certificate (3 hours)		Course is CGS 1101
Medical Manager	An introductory course to the Medical Manager, a powerful computerized medical office management program.	CWE	One 40-hour week	$415 for tuition, books and fees	Class; exists	$10-$12/hr.	Jim Geason, 351-3667	30	Computer and typing skills	College Certificate (3 hours)		Course is OST 2464
Business Specialist	The Business Specialist College Certificate teaches basic business office skills.	Certificate	4 weeks, 40 hours a week	$1,312 for tuition, books and fees	Existing	$10-$12/hr.	Jim Geason, 351-3667	Unlimited	High school math and English. CPT not required.	College Credit Certificate (12 hours)		http://dept.sfcollege.edu/business/PDF/6630.pdf
Business Operations - Accounting	The Accounting College Certificate teaches financial and managerial accounting.	Certificate	4 weeks, 40 hours a week	$1,968 for tuition, books and fees	Existing	$12-$14/hr.	Jim Geason, 351-3667	Unlimited	CPT required	College Credit Certificate (18 hours)		http://dept.sfcollege.edu/business/PDF/6619.pdf
Business Operations - Human Resources	The Human Resources College Certificate teaches human resource management and human relations.	Certificate	4 weeks, 40 hours a week	$1,968 for tuition, books and fees	Existing	$10-$12/hr.	Jim Geason, 351-3667	Unlimited	CPT reading/writing	College Credit Certificate (18 hours)		http://dept.sfcollege.edu/business/PDF/6619.pdf
Office Specialist	The Office Specialist College Certificate teaches general office operations and procedures and prepares students for work as a word processor, clerk, data entry, and general office.	Certificate	4 weeks, 40 hours a week	$1,970 for tuition, books and fees	Existing	$10-$12/hr.	Jim Geason, 351-3667	Unlimited	High school math and English. CPT not required.	College Credit Certificate (18 hours)		http://dept.sfcollege.edu/business/PDF/6677.pdf
Health Informatics	The Health Informatics College Certificate teaches the use of resources, devices, and methods required to optimize the acquisition, storage, retrieval, and use of electronic information in health and biomedicine.	Certificate	10 weeks, 40 hours a week	$1,970 for tuition, books and fees	Launching by fall	$12-$15/hr.	Jim Geason, 351-3667	Unlimited	CPT required	College Certificate (3 hours)		N/A
Software Applications Specialist	With in-depth, technical training in Microsoft software, the user will become the document production expert for a small to medium business, and able to produce documents in Word, Excel, PowerPoint and Access with exposure to the advanced features in macro design; SFC certificate.	CWE	7.5 weeks, 40 hours per week	$1,250 including books, supplies and certification exam voucher	Classes exist	$15/hr.	Eugene Jones, 395-5816	22	Minimum score of 70 on CPE	Graduates eligible to take the MCDST - Microsoft Computer Desktop Technician certification exam; exam fee covered in program cost	Computer labs are available for students to complete all assignments; however, students may purchase a laptop for $450 through the college.	N/A
Web Specialist	Provide online presence and maintenance for a variety of commercial and nonprofit agencies; SFC certificate.	CWE	7.5 weeks, 40 hours per week	$1,250 including books, supplies and certification exam voucher	Classes exist	$20-$22/hr.	Eugene Jones, 395-5816	22	Minimum score of 70 on CPE	Graduates eligible to take the Linux national certification exam; exam fee covered in program cost	Same as above	N/A
Legal Office Management	The Legal Office Management College Certificate teaches the general office operations and procedures for a legal office.	Certificate	9 weeks, 40 hours a week	$2,952 for tuition, books and fees	Existing	$9-$11/hr.	Jim Geason, 351-3667	Unlimited	CPT reading/writing	College Credit Certificate (27 hours)		http://dept.sfcollege.edu/business/PDF/6687.pdf
Medical Record Transcriptionist	The Medical Record Transcribing College Certificate teaches the transcribing of dictated medical reports that document a patient's medical care and condition.	Certificate	10 weeks, 40 hours a week	$3,641 for tuition, books and fees	Existing	up to $15/hr.	Jim Geason, 351-3667	30	CPT reading/writing	College Credit Certificate (33 hours)		http://dept.sfcollege.edu/business/CCTAfterITransFwdSlides.pdf http://dept.sfcollege.edu/business/PDF/6661.pdf
Medical Information Coder/Biller	The Medical Information Coder/Biller College Certificate teaches the coding of medical reports for submission to insurance companies and the government for reimbursement.	Certificate	13 weeks, 40 hours a week	$3,968 for tuition, books and fees	Existing	$12-$14/hr.	Jim Geason, 351-3667	23	CPT reading/writing	Eligible to take CCA (Certified Coding Associate) or CPC (Certified Professional Coder) national certification examination; see www.ahima.org - College Credit Certificate (34 hours)		http://dept.sfcollege.edu/business/PDF/6682.pdf
Basic Recruit Law Enforcement	State of Florida certificate for training as a law enforcement officer. Criminal Justice Standards and Training Commission approved curriculum as provided by FS§ 943.	Certificate	6 months, Police Academy begins in January, May and August	Program fee is $4,000 for the training and includes tuition, tabs, uniforms, etc.	Existing	Starting salaries vary by agency; GPD is $40,000 year, ACSO and UPD are $35,000 year	Louis Kalivoda, 271-2925	24 or 30 depending on how many apply and qualify; new recruits enter training in January, May and August	Pass background check for driving, employment and criminal history; pass Florida Basic Abilities Test (FBAT); provide written sample; pass physical abilities test; pass drug test. About 50 percent of applicants are accepted.	Graduates are eligible to sit for State Certification Exam for Law Enforcement Officers; those who pass can work at any law enforcement agency in Florida.	Application fee is $100 for applicants from Alachua or Bradford county; other state residents pay $125; out-of-state applicants pay $150. Financial aid is available as well.	http://www.policecareers.org http://pls.sfcollege.edu/pls/cada.htm

Santa Fe College
Short-Term Training Programs in Alachua County

Name of Program Certificate or Training	Program Description	Credential	Program length	Estimated Student Cost	Status	Starting Salary	Contact Person	Capacity	Student Background	Certification	Misc.	Website
Surgical Technologist	The Surgical Technologist program trains surgical assistants to work with medical teams during the performance of surgical operations.	Certificate	14 months, starts in summer	$2,833 tuition, $165 scrubs, $650 handbook, $170 immunizations, $9 protective eyewear, $40 HIV/AIDS class, $40 CPR class, $4 graduation pin, $25 flash drive, $30 program assessment examination, AST membership with NBSTSA CST Exam Gold Package. TOTAL = $4,257.16	Existing	$13/hr.	Paul Stephan, 395-5706	25; could take up to 30 with additional funding	Pass the CPT in reading, writing and arithmetic; HS diploma or GED	Graduates eligible to take national certification exam		http://inst.sfcollege.edu/health/surgtech/
Applied Welding Technologies - Pipe Welder	Postsecondary adult vocational certificate in welding; good for vets and others with mechanical ability. The Applied Welding Technologies Program consists of training in SMAW, GMAW, GTAW, FCAW, Oxy Fuel Welding/Cutting, blueprint reading and power tool and equipment operation performed on carbon steel, stainless steel, and aluminum. The training helps prepare students to pass nationally recognized plate and pipe welding certification tests.	Certificate	18 months, accepts new students in fall, spring for day or evening classes, and summer A (days only)	$2,300 for in-state tuition, books and fees	Existing	$13-$17/hr.	Tom Mason, 395-5362	18 in day class; 18 in evening class	Mechanical ability, ability to work in confined spaces, physical ability - see essential requirements at http://inst.sfcollege.edu/~mech/welding/WELD_CERT.pdf	State of Florida Certificate of Completion; welder certifications are available through the American Welding Society (AWS) and American Society of Mechanical Engineers (ASME)		http://inst.sfcollege.edu/~mech/welding/

APPENDIX F
SANTA FE COLLEGE CAMPUS LOCATION MAP

Spatial Profile – Santa Fe College



APPENDIX G
SANTA FE COLLEGE MAJOR EMPLOYER SURVEY

All Programs Combined: 49
Reporting Year 2006 - 2007

EMPLOYER SURVEY RESULTS

Number of Students Completed: 909
Number of Employers Located: 520
Number of Surveys Returned: 284

1. Is this employee using the skills acquired in his or her program of study?

262 (92.3%) Yes
14 (4.9%) No
8 (2.8%) No Response

2. Is this position:

238 (83.8%) Full-time
40 (14.1%) Part-time
6 (2.1%) No Response

3. Please rate the vocational training received by this employee in the following areas:

	# %	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR	NO RESPONSE
Technical Knowledge	#	142	101	25	2	1	13
	%	50.0%	35.6%	8.8%	0.7%	0.4%	4.6%
Work Attitude	#	180	61	23	7		13
	%	63.4%	21.5%	8.1%	2.5%	0%	4.6%
Work Quality	#	169	68	28	5	1	13
	%	59.5%	24%	9.9%	1.8%	0.4%	4.6%

4. Please rate the following skills exhibited by this employee's performance for the job:

	# %	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR	NO RESPONSE
Critical Reasoning	#	141	90	35	5	1	12
	%	49.6%	31.7%	12.3%	1.8%	0.4%	4.2%
Independent Inquiry	#	143	91	33	4	1	12
	%	50.4%	32.0%	11.6%	1.4%	0.4%	4.2%
Computation Skills	#	136	94	38	3	1	12
	%	47.9%	33.1%	13.4%	1.1%	0.4%	4.2%
Communication Skills	#	140	90	35	5	3	11
	%	49.3%	31.7%	12.3%	1.8%	1.1%	3.9%

All Programs Combined: 49

5. How would you rate the overall job entry level preparation this employee received at Santa Fe Community College?

132	(	46.5%	) Very Good
99	(	34.9%	) Good
34	(	12%	) Average
2	(	0.7%	) Poor
1	(	0.4%	) Very Poor
16	(	5.6%	) No Response

6. Did this employee's training allow him or her to follow work procedures prescribed for the job?

258	(	90.8%	) Yes
9	(	3.2%	) No
17	(	6%	) No Response

7. How much supervision did this employee require to perform the job?

123	(	43.3%	) Little or no supervision
136	(	47.9%	) About the average amount
11	(	3.9%	) A great deal
14	(	4.9%	) No Response

8. What is your overall rating of the vocational training received by this employee as it relates to the requirements for the job?

135	(	47.5%	) Very Good
98	(	34.5%	) Good
27	(	9.5%	) average
4	(	1.4%	) Poor
1	(	0.4%	) Very Poor
19	(	6.7%	) No Response

9. Do you feel this employee is capable of advancement?

252	(	88.7%	) Yes
18	(	6.3%	) No
14	(	4.9%	) No Response

10. Is there any specific deficiency in this employee's training that you feel is particularly significant?

44	(	15.5%	) Yes **(see individual program comments)**
218	(	76.8%	) No
22	(	7.7%	) No Response

All Programs Combined: 49

11. Is there any specific aspect in this employee's training that you feel is particularly outstanding?

105	(37.0%)	Yes **(see individual program comments)**
144	(50.7%)	No
35	(12.3%)	No Response

12. How would you compare the training of those employees trained elsewhere to the training of your employees from Santa fe Community College?

96	(33.8%)	Better
138	(48.6%)	About the same
10	(3.5%)	Training from other sources is better
40	(14.1%)	No Response

13. Is this the first time you have employed Santa Fe Community College trained personnel?

45	(15.8%)	Yes
225	(79.2%)	No
14	(4.9%)	No Response

14. If and when the need arises, would you be willing to hire additional Santa Fe Community College trained personnel who complete the same or similar vocational programs?

269	(94.7%)	Yes
3	(1.1%)	No **(see individual program comments)**
12	(4.2%)	No Response

15. Please list the occupational areas for which you currently have difficulty finding qualified applicants:
(see individual program)

All Programs Combined: 45
Reporting Year 2005 - 2006

EMPLOYER SURVEY RESULTS

Number of Students Completed: 806
Number of Employers Located: 406
Number of Surveys Returned: 214

1. Is this employee using the skills acquired in his or her program of study?

196	(	91.6%	)	Yes
11	(	5.1%	)	No
7	(	3.3%	)	No Response

2. Is this position:

193	(	90.2%	)	Full-time
17	(	7.9%	)	Part-time
4	(	1.9%	)	No Response

3. Please rate the vocational training received by this employee in the following areas:

	# %	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR	NO RESPONSE
Technical Knowledge	#	94	87	20	0	0	13
	%	43.9%	40.7%	9.3%	0.0%	0.0%	6.1%
Work Attitude	#	123	56	15	7	3	10
	%	57.5%	26.2%	7.0%	3.3%	1.4%	4.7%
Work Quality	#	106	68	21	7	2	10
	%	49.5%	31.8%	9.8%	3.3%	0.9%	4.7%

4. Please rate the following skills exhibited by this employee's performance for the job:

	# %	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR	NO RESPONSE
Critical Reasoning	#	88	81	26	5	1	13
	%	41.1%	37.9%	12.1%	2.3%	0.5%	6.1%
Independent Inquiry	#	94.0%	76.0%	29.0%	1.0%	1.0%	13.0%
	%	43.9%	35.5%	13.6%	0.5%	0.5%	6.1%
Computation Skills	#	91	72	36	1	1	13
	%	42.5%	33.6%	16.8%	0.5%	0.5%	6.1%
Communication Skills	#	99	72	24	5	1	13
	%	46.3%	33.6%	11.2%	2.3%	0.5%	6.1%

All Programs Combined: 45

5. How would you rate the overall job entry level preparation this employee received at Santa Fe Community College?

85	(39.7%)	Very Good
93	(43.5%)	Good
20	(9.3%)	Average
0	(0.0%)	Poor
2	(0.9%)	Very Poor
14	(6.5%)	No Response

6. Did this employee's training allow him or her to follow work procedures prescribed for the job?

195	(91.1%)	Yes
3	(1.4%)	No
16	(7.5%)	No Response

7. How much supervision did this employee require to perform the job?

68	(31.8%)	Little or no supervision
124	(57.9%)	About the average amount
9	(4.2%)	A great deal
13	(6.1%)	No Response

8. What is your overall rating of the vocational training received by this employee as it relates to the requirements for the job?

76	(35.5%)	Very Good
101	(47.2%)	Good
20	(9.3%)	average
1	(0.5%)	Poor
2	(0.9%)	Very Poor
14	(6.5%)	No Response

9. Do you feel this employee is capable of advancement?

180	(84.1%)	Yes
16	(7.5%)	No
18	(8.4%)	No Response

10. Is there any specific deficiency in this employee's training that you feel is particularly significant?

32	(15.0%)	Yes **(see individual program comments)**
168	(78.5%)	No
14	(6.5%)	No Response

All Programs Combined:

11. Is there any specific aspect in this employee's training that you feel is particularly outstanding?

129	(	44.8%	)	Yes **(see individual program comments)**
133	(	46.2%	)	No
26	(	9.0%	)	No Response

12. How would you compare the training of those employees trained elsewhere to the training of your employees from Santa fe Community College?

129	(	44.8%	)	Better
123	(	42.7%	)	About the same
11	(	3.8%	)	Training from other sources is better
25	(	8.7%	)	No Response

13. Is this the first time you have employed Santa Fe Community College trained personnel?

49	(	17.0%	)	Yes
224	(	77.8%	)	No
15	(	5.2%	)	No Response

14. If and when the need arises, would you be willing to hire additional Santa Fe Community College trained personnel who complete the same or similar vocational programs?

266	(	92.4%	)	Yes
6	(	2.1%	)	No **(see individual program comments)**
16	(	5.6%	)	No Response

15. Please list the occupational areas for which you currently have difficulty finding qualified applicants:
(see individual program)

All Programs Combined: 54
Reporting Year 2004 - 2005

EMPLOYER SURVEY RESULTS

Number of Students Completed:	**884**
Number of Employers Located:	**398**
Number of Surveys Returned:	**239**

1. Is this employee using the skills acquired in his or her program of study?

229	(	95.8%	)	Yes
6	(	2.5%	)	No
4	(	1.7%	)	No Response

2. Is this position:

215	(	90.0%	)	Full-time
23	(	9.6%	)	Part-time
1	(	0.4%	)	No Response

3. Please rate the vocational training received by this employee in the following areas:

	# %	VERY GOOD	GOOD	Average	POOR	VERY POOR	NO RESPONSE
Technical Knowledge	#	122	83	29	2	0	3
	%	51.0%	34.7%	12.1%	0.8%	0.0%	1.3%
Work Attitude	#	146	63	21	5	1	3
	%	61.1%	26.4%	8.8%	2.1%	0.4%	1.3%
Work Quality	#	132	73	27	4	0	3
	%	55.2%	30.5%	11.3%	1.7%	0.0%	1.3%

4. Please rate the following skills exhibited by this employee's performance for the job:

	# %	VERY GOOD	GOOD	Average	POOR	VERY POOR	NO RESPONSE
Critical Reasoning	#	99	95	42	2	0	1
	%	41.4%	39.7%	35.0%	0.8%	0.0%	0.4%
Independent Inquiry	#	112	86	35	5	0	1
	%	46.9%	36.0%	14.6%	2.1%	0.0%	0.4%
Computation Skills	#	107	87	35	6	0	4
	%	44.8%	36.4%	14.6%	2.5%	0.0%	1.7%
Communication Skills	#	113	89	30	4	1	2
	%	47.3%	37.2%	12.6%	1.7%	0.4%	0.8%

All Programs Combined: 54

5. How would you rate the overall job entry level preparation this employee received at Santa Fe Community College?

110	(	46.0%	) Very Good
94	(	39.3%	) Good
27	(	11.3%	) Average
5	(	2.1%	) Poor
1	(	0.4%	) Very Poor
2	(	0.8%	) No Response

6. Did this employee's training allow him or her to follow work procedures prescribed for the job?

231	(	96.7%	) Yes
6	(	2.5%	) No
2	(	0.8%	) No Response

7. How much supervision did this employee require to perform the job?

93	(	38.9%	) Little or no supervision
136	(	56.9%	) About the Average amount
9	(	3.8%	) A great deal
1	(	0.4%	) No Response

8. What is your overall rating of the vocational training received by this employee as it relates to the requirements for the job?

111	(	46.4%	) Very Good
95	(	39.7%	) Good
26	(	10.9%	) Average
3	(	1.3%	) Poor
1	(	0.4%	) Very Poor
3	(	1.3%	) No Response

9. Do you feel this employee is capable of advancement?

217	(	90.8%	) Yes
15	(	6.3%	) No
7	(	2.9%	) No Response

10. Is there any specific deficiency in this employee's training that you feel is particularly significant?

27	(	11.3%	) Yes **(see individual program comments)**
208	(	87.0%	) No
4	(	1.7%	) No Response

All Programs Combined: 54

11. Is there any specific aspect in this employee's training that you feel is particularly outstanding?

88	(	36.8%	)	Yes **(see individual program comments)**
131	(	54.8%	)	No
20	(	8.4%	)	No Response

12. How would you compare the training of those employees trained elsewhere to the training of your employees from Santa fe Community College?

104	(	43.5%	)	Better
110	(	46.0%	)	About the same
3	(	1.3%	)	Training from other sources is better
22	(	9.2%	)	No Response

13. Is this the first time you have employed Santa Fe Community College trained personnel?

44	(	18.4%	)	Yes
191	(	79.9%	)	No
4	(	1.7%	)	No Response

14. If and when the need arises, would you be willing to hire additional Santa Fe Community College trained personnel who complete the same or similar vocational programs?

231	(	96.7%	)	Yes
4	(	1.7%	)	No **(see individual program comments)**
4	(	1.7%	)	No Response

15. Please list the occupational areas for which you currently have difficulty finding qualified applicants:
(see individual program)

All Programs Combined:48
Reporting Year 2003 - 2004

EMPLOYER SURVEY RESULTS

Number of Students Completed: 968
Number of Employers Located: 511
Number of Surveys Returned: 288

1. Is this employee using the skills acquired in his or her program of study?

263	(	91.3%	)	Yes
17	(	5.9%	)	No
8	(	2.8%	)	No Response

2. Is this position:

232	(	80.6%	)	Full-time
44	(	15.3%	)	Part-time
12	(	4.2%	)	No Response

3. Please rate the vocational training received by this employee in the following areas:

	# %	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR	NO RESPONSE
Technical Knowledge	#	174	111	3	0	0	0
	%	60.4%	38.5%	1.0%	0.0%	0.0%	0.0%
Work Attitude	#	194	86	0	0	0	8
	%	67.4%	29.9%	0.0%	0.0%	0.0%	2.8%
Work Quality	#	176	88	24	0	0	0
	%	61.1%	30.6%	8.3%	0.0%	0.0%	0.0%

4. Please rate the following skills exhibited by this employee's performance for the job:

	# %	VERY GOOD	GOOD	AVERAGE	POOR	VERY POOR	NO RESPONSE
Critical Reasoning	#	133	123	27	5	0	0
	%	46.2%	42.7%	9.4%	1.7%	0.0%	0.0%
Independent Inquiry	#	150.0%	108.0%	26.0%	4.0%	0.0%	0.0%
	%	52.1%	37.5%	9.0%	1.4%	0.0%	0.0%
Computation Skills	#	114	134	38	2	0	0
	%	39.6%	46.5%	13.2%	0.7%	0.0%	0.0%
Communication Skills	#	132	112	39	5	0	0
	%	45.8%	38.9%	13.5%	1.7%	0.0%	0.0%

All Programs Combined: 48

5. How would you rate the overall job entry level preparation this employee received at Santa Fe Community College?

131	(	45.5%	)	Very Good
126	(	43.8%	)	Good
10	(	3.5%	)	Average
5	(	1.7%	)	Poor
0	(	0.0%	)	Very Poor
16	(	5.6%	)	No Response

6. Did this employee's training allow him or her to follow work procedures prescribed for the job?

253	(	87.8%	)	Yes
22	(	7.6%	)	No
13	(	4.5%	)	No Response

7. How much supervision did this employee require to perform the job?

128	(	44.4%	)	Little or no supervision
135	(	46.9%	)	About the average amount
17	(	5.9%	)	A great deal
8	(	2.8%	)	No Response

8. What is your overall rating of the vocational training received by this employee as it relates to the requirements for the job?

127	(	44.1%	)	Very Good
134	(	46.5%	)	Good
11	(	3.8%	)	average
4	(	1.4%	)	Poor
0	(	0.0%	)	Very Poor
12	(	4.2%	)	No Response

9. Do you feel this employee is capable of advancement?

245	(	85.1%	)	Yes
27	(	9.4%	)	No
16	(	5.6%	)	No Response

10. Is there any specific deficiency in this employee's training that you feel is particularly significant?

40	(	13.9%	)	Yes **(see individual program comments)**
232	(	80.6%	)	No
16	(	5.6%	)	No Response

All Programs Combined:

11. Is there any specific aspect in this employee's training that you feel is particularly outstanding?

129	(	44.8%	)	Yes **(see individual program comments)**
133	(	46.2%	)	No
26	(	9.0%	)	No Response

12. How would you compare the training of those employees trained elsewhere to the training of your employees from Santa fe Community College?

129	(	44.8%	)	Better
123	(	42.7%	)	About the same
11	(	3.8%	)	Training from other sources is better
25	(	8.7%	)	No Response

13. Is this the first time you have employed Santa Fe Community College trained personnel?

49	(	17.0%	)	Yes
224	(	77.8%	)	No
15	(	5.2%	)	No Response

14. If and when the need arises, would you be willing to hire additional Santa Fe Community College trained personnel who complete the same or similar vocational programs?

266	(	92.4%	)	Yes
6	(	2.1%	)	No **(see individual program comments)**
16	(	5.6%	)	No Response

15. Please list the occupational areas for which you currently have difficulty finding qualified applicants:
(see individual program)

APPENDIX H
SANTA FE COLLEGE BACCALAUREATE DEGREES

Appendix H - Santa Fe College - Baccalaureate Degrees

FLORIDA COMMUNITY COLLEGE SYSTEM
ENROLLMENT, PERFORMANCE AND BUDGET PLAN

COLLEGE NAME: Santa Fe College **CONTACT NAME: Ginger Gibson**

DEGREE NAME: Bachelor of Applied Science in Health Services Administration

	PROJECTED	PROJECTED	PROJECTED	PROJECTED
I. PLANNED STUDENT ENROLLMENT	**2009-10**	**2010-11**	**2011-12**	**2012-13**
A. Student Headcount	40	80	80	80
B. Upper Division Student Credit Hours Generated **(Resident)**	720	1,560	1,560	1,560
Upper Division Student Credit Hours Generated **(Nonresident)**	0	0	0	0
Upper Division Total Student Credit Hours Generated **(Resident and Nonresident)**	720	1,560	1,560	1,560
C. Upper Division Student FTE (30 Credit Hours) - **(Resident)**	24	52	52	52
Upper Division Student FTE (30 Credit Hours) - **(Nonresident)**	0	0	0	0
Upper Division Student FTE (30 Credit Hours) - **(Resident and Nonresident)**	24	52	52	52
II. PLANNED PERFORMANCE	**2009-10**	**2010-11**	**2011-12**	**2012-13**
A. Number of Degrees Awarded	0	40	40	40
B. Number of Placements	0	40	40	40
C. Projected Annual Starting Salary	39,520	40,706	41,927	43,185
III. ACTUAL, ESTIMATED AND PROJECTED PROGRAM EXPENDITURES	**2009-10**	**2010-11**	**2011-12**	**2012-13**
INSTRUCTIONAL				
1. Faculty Full-Time FTE	1	2	2	2
2. Faculty Part-Time FTE	0	0	0	0
1. Faculty Full-Time Salaries/Benefits	34,445	118,261	121,810	125,460
2. Faculty Part-Time Salaries/Benefits	0	0	0	0
3. Faculty Support: Lab Assistants, etc	0	0	0	0
OPERATING EXPENSES				
1. Academic Administration	25,813	53,176	54,770	56,413
2. Materials/Supplies	1,245	2,000	2,000	2,000
3. Travel	2,000	2,000	2,000	2,000
4. Communication/Technology	3,500	3,500	3,500	3,500
5. Library Support	27,300	56,238	57,925	59,663
6. Student Services Support	46,933	48,341	49,791	51,284
7. Professional Services	0	0	0	0
8. Accreditation	0	2,000	850	850
9. Support Services	0	0	0	0
CAPITAL OUTLAY				
1. Library Resources	10,272	5,000	5,000	5,000
2. Information Technology Equipment	0	0	0	0
3. Other Equipment	0	0	0	0
4. Facilities/Renovation	0	0	0	0
TOTAL ACTUAL, ESTIMATED AND PROJECTED PROGRAM EXPENDITURES	**151,508**	**290,515**	**297,646**	**306,171**
IV. NATURE OF EXPENDITURES				
1. Recurring	141,236	290,515	297,646	306,171
2. Non-recurring	10,272	0	0	0
TOTAL	**151,508**	**290,515**	**297,646**	**306,171**
V. SOURCES OF FUNDS				
A. REVENUE				
1. Baccalaureate Degree Grants	87,768	190,164	190,164	190,164
2. College Operating Budget	13,772	0	0	0
3. Resident Student Fees	49,968	108,264	108,264	108,264
Nonresident Student Fees	0	0	0	0
4. Federal Funds	0	0	0	0
5. Contributions or Matching Grants	0	0	0	0
6. Other Grants or Revenues	0	0	0	0
B. CARRY FORWARD	0	0	7,913	8,695
TOTAL FUNDS AVAILABLE	**151,508**	**298,428**	**306,341**	**307,123**
TOTAL UNEXPENDED FUNDS (CARRY FORWARD)	**0**	**7,913**	**8,695**	**952**

UPPER DIVISION EXPENDITURES PER TOTAL CREDIT HOUR - **(RESIDENT AND NONRESIDENT)**	210	186	191	196
UPPER DIVISION EXPENDITURES PER FTE (30 CREDIT HOUR)	6,313	5,587	5,724	5,888
UPPER DIVISION STATE REVENUE PER CREDIT HOUR - **(RESIDENT)**	122	122	122	122
UPPER DIVISION STATE REVENUE PER FTE (30 CREDIT HOUR)	3,657	3,657	3,657	3,657

NOTE: STATE REVENUE IS LIMITED TO A MAXIMUM OF $3,657 PER FTE.

FLORIDA COMMUNITY COLLEGE SYSTEM
ENROLLMENT, PERFORMANCE AND BUDGET PLAN

COLLEGE NAME: Santa Fe College **CONTACT NAME: Ginger Gibson**

DEGREE NAME: Bachelor of Applied Science in Clincal Laboratory Science

	PROJECTED	PROJECTED	PROJECTED	PROJECTED
I. PLANNED STUDENT ENROLLMENT	**2009-10**	**2010-11**	**2011-12**	**2012-13**
A. Student Headcount	25	50	50	50
B. Upper Division Student Credit Hours Generated **(Resident)**	600	1,120	1,120	1,120
Upper Division Student Credit Hours Generated **(Nonresident)**	0	0	0	0
Upper Division Total Student Credit Hours Generated **(Resident and Nonresident)**	600	1,120	1,120	1,120
C. Upper Division Student FTE (30 Credit Hours) - **(Resident)**	20	37	37	37
Upper Division Student FTE (30 Credit Hours) - **(Nonresident)**	0	0	0	0
Upper Division Student FTE (30 Credit Hours) - **(Resident and Nonresident)**	20	37	37	37
II. PLANNED PERFORMANCE	**2009-10**	**2010-11**	**2011-12**	**2012-13**
A. Number of Degrees Awarded	0	25	25	25
B. Number of Placements	0	25	25	25
C. Projected Annual Starting Salary	37,544	38,670	39,830	41,025
III. ACTUAL, ESTIMATED AND PROJECTED PROGRAM EXPENDITURES	**2009-10**	**2010-11**	**2011-12**	**2012-13**
INSTRUCTIONAL				
1. Faculty Full-Time FTE	1	2	2	2
2. Faculty Part-Time FTE	0	0	0	0
1. Faculty Full-Time Salaries/Benefits	45,926	118,261	121,810	125,460
2. Faculty Part-Time Salaries/Benefits	0	0	3	0
3. Faculty Support: Lab Assistants, etc	9,000	15,000	15,000	15,000
OPERATING EXPENSES				
1. Academic Administration	0	0	0	0
2. Materials/Supplies	6,000	10,000	10,000	10,000
3. Travel	2,000	2,000	2,000	2,000
4. Communication/Technology	2,000	5,000	5,000	5,000
5. Library Support	0	0	0	0
6. Student Services Support	46,933	48,341	49,791	51,284
7. Professional Services	1,000	2,000	2,000	2,000
8. Accreditation	0	5,000	1,700	1,700
9. Support Services	0	0	0	0
CAPITAL OUTLAY				
1. Library Resources	4,305	5,000	5,000	5,000
2. Information Technology Equipment	0	0	0	0
3. Other Equipment	450,000	20,000	50,000	90,000
4. Facilities/Renovation	0	0	0	0
TOTAL ACTUAL, ESTIMATED AND PROJECTED PROGRAM EXPENDITURES	**567,164**	**230,602**	**262,304**	**307,444**
IV. NATURE OF EXPENDITURES				
1. Recurring	117,164	210,602	212,304	217,444
2. Non-recurring	450,000	20,000	50,000	90,000
TOTAL	**567,164**	**230,602**	**262,304**	**307,444**
V. SOURCES OF FUNDS				
A. REVENUE				
1. Baccalaureate Degree Grants	73,140	136,528	136,528	136,528
2. College Operating Budget	4,305	20,000	50,000	90,000
3. Resident Student Fees	41,640	77,728	77,728	77,728
Nonresident Student Fees	0	0	0	0
4. Federal Funds	0	0	0	0
5. Contributions or Matching Grants	0	0	0	0
6. Other Grants or Revenues	450,000	0	0	0
B. CARRY FORWARD	0	1,921	5,575	7,528
TOTAL FUNDS AVAILABLE	**569,085**	**236,177**	**269,831**	**311,784**
TOTAL UNEXPENDED FUNDS (CARRY FORWARD)	**1,921**	**5,575**	**7,528**	**4,340**

UPPER DIVISION EXPENDITURES PER TOTAL CREDIT HOUR - **(RESIDENT AND NONRESIDENT)**	945	206	234	275
UPPER DIVISION EXPENDITURES PER FTE (30 CREDIT HOUR)	28,358	6,177	7,026	8,235
UPPER DIVISION STATE REVENUE PER CREDIT HOUR - **(RESIDENT)**	122	122	122	122
UPPER DIVISION STATE REVENUE PER FTE (30 CREDIT HOUR)	3,657	3,657	3,657	3,657

NOTE: STATE REVENUE IS LIMITED TO A MAXIMUM OF $3,657 PER FTE.

Economic Impacts

Table 3.5. Present Value of Net Benefits and Costs, Narrow Taxpayer Perspective

	Aggregate	Per CHE
PV of increased state and local govt. tax receipts	$ 92,235,000	$470
PV of state and local govt. savings from improved health		
PV of absenteeism savings	$ 630,000	$0
PV of tobacco and alcohol abuse medical savings	$ 921,000	$0
PV of state and local govt. savings from reduced crime	$ 6,023,000	$30
PV of reduced welfare rolls	$ 603,000	$0
PV of state and local government benefits	$ 100,412,000	$ 520
PV of state and local contribution to college budget (public costs)	$ 46,265,000	$ 240

Source: Computed from data supplied by Tables 2.4, 2.1, and Tables 19 and 20 in Volume 2: Detailed Results.

With respect to the social savings, we showed in **Table 3.4** that employers would lose some $5.6 million (present value of future loses) to health-related absenteeism were it not for our single year's state and local government support of SFCC. Only a small fraction of these savings is counted in the narrow taxpayer perspective, however, reflecting only the portion of state and local government that benefits directly from this saving—the present value of their savings is estimated at roughly $630,000 (**Table 3.5**). State and local government savings from reduced tobacco and alcohol abuse are computed based on overall costs multiplied by an estimate of state and local government's subsidy of general health care, for a net present value of $921,000.

Not surprisingly, state and local government's greatest source of savings stems from the reductions in crime. **Table 3.4** shows total future savings from reduced incarceration with a present value of $13.0 million (including victim costs and added productivity from people who would otherwise be incarcerated absent the education).[37] We arrive at the state and local government portion of this figure by deducting the cost of federal crimes from the incarceration savings. Added to this is the added productivity of persons not incarcerated, adjusted to include only the portion that accrues to state and local government (in this case, 15.6%, equal to the composite state and local tax rate). Victim cost savings are not counted as taxpayer benefits, since none of these accrue to the taxpayer. All told, state and local government acquires an asset in the form of reduced future incarceration expenditures and added productivity with a present value of roughly $6.0 million.

Reduced future welfare expenditures, with a present value of about $603,000, complete our estimation of state and local government savings from SFCC support. Combining all of the items of increased income and avoided costs in **Table 3.5** provides the total

[37] Recall that incarceration is defined broadly to include costs associated with police, prosecution and incarceration.

overall asset value stemming from a year's support of SFCC. As indicated in the table, this value is roughly $100.4 million.

We can therefore say that in return for their $46.3 million support of SFCC, state and local governments are annually rewarded with a stream of increased future tax payments with an equivalent capital asset value of roughly $100.4 million. This alone yields an investment benefit/cost ratio of 2.2 (=$100.4 million/$46.3 million), indicating a most profitable investment.

Summary of Investment Analysis Results

In the previous section we examined the present value of benefits attributable to SFCC, and characterized these in terms of various benefit/cost ratios. In this investment analysis summary we consider these ratios again and augment them with two other standard investment measures: the rate of return and payback period. These are simply alternative ways of assessing the effectiveness of given investments. The investment effectiveness measures appear in **Table 3.6.**

Table 3.6. Summary of Investment Analysis Results

RR, Student Perspective	16.5%
B/C Ratio, Student Perspective	5.9
Payback Period, Student Perspective (years)	9.1
B/C Ratio, Taxpayer Perspective: Broad	13.6
RR, Taxpayer Perspective: Narrow	8.6%
B/C Ratio, Taxpayer Perspective: Narrow	2.2
Payback Period, Taxpayer Perspective: Narrow (years)	15.2

Source: Computed from data supplied by Tables 2.1, 2.4, 3.4 and 3.5.

Investment Rate of Return

The rate of return is perhaps the most recognized indicator of investment effectiveness. Given the cost of college and the stream of associated future benefits, the rate of return indicates how much a bank would have to pay a depositor of like amount to yield an equally rewarding stream of future payments.[38] **Table 3.6** shows SFCC students earning average returns of 16.5% on their investment of time and money. This is indeed an

[38] We compute our rates of return using the familiar "internal rate of return" calculation. Note that, with a bank deposit or stock market investment, the depositor puts up a principal, receives in return a stream of periodic payments, and then recovers the principal at the end. A college investor, on the other hand, receives a stream of periodic payments that include the recovery of the principal as part of the periodic payments, but there is no principal recovery at the end. These differences notwithstanding, comparable cash flows for both bank and college investors will yield the same internal rate of return.

Economic Impacts

to otherwise would-be crime victims, and some $266,000 in added productivity, i.e., persons working who would otherwise be incarcerated. As before, additional details on our calculations appear in **Volume 2: Detailed Results**.

Welfare and Unemployment Savings

As shown in **Table 3.1**, one year's operation of SFCC results in an estimated average annual reduction in people on welfare and unemployment in the State of Florida of approximately 180 and 60 respectively. The corresponding annual dollar savings amounts to roughly $254,000 for welfare and about $55,000 in unemployment savings. See **Volume 2: Detailed Results** for additional detail.

Total Social Savings

All told, we estimate that a year's operation of SFCC annually generates around $2.6 million in public savings (avoided costs)–the sum of all health, crime, and welfare/unemployment benefits.

ANNUAL BENEFITS PER CHE AND PER FULL-TIME STUDENT

To get a different perspective on the results, the aggregate benefits reported in **Table 3.1** are expressed in **Table 3.2** on per CHE and per full-time equivalent student bases. The upper two rows of the table refer to student benefits. The remainder of the table summarizes the public benefits, with the bottom row showing total public benefits.

Table 3.2. Annual Benefits Per CHE and Per FTE Student

	Per CHE	Per FTE Student
Increased Student Earnings, **gross**	$142	$4,273
Increased Student Earnings, **after tax**	$85	$2,536
PUBLIC BENEFITS		
Income Growth	$161	$4,832
Absenteeism Savings	$2	$56
Medical Cost Savings	$5	$160
Incarceration Savings	$2	$70
Crime Victim Savings	$1	$22
Added Productivity	$1	$41
Welfare Savings	$1	$39
Unemployment Savings	$0	$8
Total	$174	$5,228

Note: The annualized values exclude benefits from retired students.

Source: Computed from data supplied by Table 2.3, 2.4, 3.1 and Tables 17-18 in Volume 2: Detailed Results.

APPENDIX J
RECOMMENDATIONS FROM DR. LAWRENCE TYREE

In addition to the colleges' willingness to work with existi industries and businesses, the institutions show considerable enthusiasm toward the recruitment of new industries into their are Both Daytona Beach Community College and Edison Community College to their readiness to perform needs assessment studies, market analyses, wage and salary surveys and, in general, to act on an advisory or consultant basis with industry prospects. The college appear to work frequently with the Florida Industry Services Trai Program in preparing presentations and seminars for targeted industries. Florida Junior College says that its representatives travel to meet with prospective industries, and several other coll provide resource personnel and materials for "contact teams" of th chambers of commerce.

There is a pervasive awareness within Florida that a broadene diversified economic base must be developed in the near future. Colleges provide cultural enrichment as well as nuts-and-bolts tra which are sought after in equal measure by the sophisticated indus which comprise much of what the state has targeted for recruitment Central Florida Community College (CFCC) this year created the full-time position of coordinator of business and industry with it sole responsibility being to act as the liaison between CFCC and governmental agencies and businesses and industries. This positio others like it are destined to have increasingly prominent roles i future curriculum planning at Florida's community colleges.

Suggestions for Linking Florida's Community Colleges More Closely With Future Economic Development

These suggestions emanate from the experiences of such states as North Carolina and California and take into consideration the unique history and contributions of Florida's community college system. In general it is felt that government at the highest levels should recognize community colleges as the logical providers of diverse, flexible, and low-cost training programs. Specialized training programs should be funded only when they are consistent with the state's overall economic development plan and not when they merely relieve a single industry of meeting its work force requirements. When state funds are allocated to worker training, the amount should be sufficient to provide for programs of the highest quality; furthermore, these funds should reward innovative and efficient cooperative ventures. Flexible application of funds is to be expected and allowed. Government agencies should be prepared to share economic data with business and industry, and vice versa, so that planning might be realistic and regularly updated. Educators should be more aggressive in involving business, industry, and government in program development and implementation and should remain alert to opportunities to join with business development interests at the local and state levels.

To accomplish these general objectives, the following strategies should be considered:

(1) Florida's economic development plan must be made known to, and fully embraced by, educators so that they might take an aggressive and proactive posture through the Department of Education with the Department of Commerce and related agencies regarding industrial/business expansion and recruitment.

(2) Community colleges should work for, and must have, support from the highest levels of government coupled with a clear legislative mandate and funding to be the primary deliverer of occupational education. To attain this status, community colleges must earn public support from business and industry who have become, through direct participation, convinced that community colleges can react quickly and competently to their training needs. The establishment of Cooperative Skill Training centers might prove most helpful in attaining this goal.

(3) Community colleges must provide community and state funding sources with quantifiable evidence of the effectiveness of their training programs. Possibly much of industry's training budget could be re-routed via college foundations or direct institutional grants to in-plant and other cooperative education ventures.

(4) Community colleges must be prepared to dovetail training programs exactly to industry needs rather than to insist on supplying stock responses to unique training questions. For this to evolve, faculty must work regularly within industrial and business settings or at least participate frequently in industry seminars and join their professional associations.

(5) The Florida Chamber of Commerce as well as local chambers should be made fully aware of the community colleges' abilities to respond to economic development needs and their eagerness to help formulate state and local economic goals. Many colleges are able to assist chambers with needs assessment and other surveys vital to industrial growth and development.

(6) Career education consortia based on the Tucson model should be established throughout Florida at the local level to promote and ease the relocation of industry and business to the Sunbelt.

(7) Greater use should be made of contractual agreements between community colleges and business/industry whereby facilities and equipment could be shared and training experiences could be better integrated to the benefit of both the student and the teacher.

ECONOMIC DEVELOPMENT AND POSTSECONDARY EDUCATION

IN FLORIDA (DRAFT)

12/16/81

Recommendations

To reach Florida's goals of increased economic development and stable economic growth, the postsecondary education sector must provide high quality educational programs and must foster the initiative and the flexibility to respond to special needs when they appear. Based on the above considerations, the Commission recommends the following:

Vocational Education

(1) There should be close interaction between industry and vocational educators in curriculum development and skills training throughout the vocational education system.

(2) The resources of the Departments of Commerce and Labor and the business and industrial communities should be brought to bear upon the problem of predicting manpower needs in Florida. The available data continues to be inadequate and new and more timely methods for predicting change needs to be developed.

(3) Vocational education should work with the local staff of the new Bureau of Area Development in the Department of Commerce to stay informed about changing vocational training needs on the local level.

(4) Local school boards and community college boards of trustees as well as vocational administrators should receive labor market projection information from the Division of Vocational Education.

(5) Appointment authority to vocational education advisory councils should be shared between business people and educators.

(6) Articulation between area vocational centers and community colleges should be facilitated and articulation between public vocational programs and proprietary programs should be explored.

Higher Education

(1) Florida must develop programs of national renown and excellence particularly in the fields of engineering and science and the state must fund these programs at a level commensurate with such goals.

(2) The skills and expertise of the teaching and research facilities at Florida's colleges and universities should be applied to aid the state's economic development aims through contracts, grants, consultation, and public service projects.

(3) Regional governmental agents who act to broker information and to serve as a point of access between business and postsecondary education communities should be appointed.

(4) Cooperative education ventures should be encouraged at all levels of postsecondary education.

(5) A special administrative unit should be set up which would be responsible for maintaining current data from all areas of postsecondary education for the use of economic development recruiters.

(6) More flexible contractual arrangements allowing for use of adjunct and clinical faculty should be developed to attract faculty members in areas of critical shortages such as engineering, science, and mathematics.

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Interview.

Stated that he must verbally guarantee training to new industry looking to settle in Florida and then go and haggle with the various educational institutions to actually provide such training. Some institutions respond more readily than others. Recommendation: The Governor should call the presidents of community colleges and vocational schools together and charge them with providing such training when needed, thus making it a high priority for the respective institutions.

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Documents the success which North Carolina, Georgia, and California have had with economic development planning. Attributes this success to the clear delineation and funding of community colleges as the primary providers of occupational education.

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Cuyahoga Community College has developed a program to assist in training the local governmental workers. A detailed model is presented for developing and maintaining a body of manpower. This program benefits the college and the county.

APPENDIX K
COMMUNITY COLLEGE PERFORMANCE MEASUREMENT FRAMEWORK

Community College Performance Measurement Framework for New "Innovation" Economy Platform*				
Community College Institutional Partnership Entities	***Four Community Economic Development Evaluation Factors***			
	Institutional Adaptive Efficiency	Accessible Spatial and Virtual Profile	New "Innovation" Economy Impacts	Local Economic Development Capacity Building
Industry (Employers)	Student achievement leading to productivity/profit gains	Ability to access workforce and programmatic support	New Work, Business model or Product line	Innovative and productive workforce
Students	Fulfillment of educational and workforce aspirations	Efficient achievement of educational objectives	Entrepreneurial activities based upon educational program	Retention within local and regional economy
Faculty	Professional fulfillment derived from academic research and teaching	Spatial and virtual platform launching productive teaching and community building outcomes	Research dollars derived from product development or outside business activities	Contributions within context of Santa Fe and within service district more broadly
Non-Industry Partners - Educational - Economic Development - State/Local Gov.	Effective partnerships leading to desired community economic development outcomes	Spatial and virtual platform that leads to desired community economic development outcomes	Collaborative outcomes derived from New "Innovation" Economy platform	Activities leading to local community economic development and diversification

* The intention would be for each of the Community College Institutional Partnership Entities to be surveyed regarding the Four Community Economic Development Factors and their specific application within the community college's service district providing an assessment of New "Innovative" Economy performance.

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BIOGRAPHICAL SKETCH

Erik A. Bredfeldt was born in 1966, in Passaic, NJ and resided in northwestern New Jersey for the first twenty four years of life. He grew up in the suburbs of New York City with his parents, John and Sandy, and younger sister, Robin. Manhattan, with its many and varied urban environments, was important in Erik's upbringing due to a family connection and frequent visits, and may have unwittingly led him to his current professional and academic standing. Erik graduated from Indian Hills High School in Oakland, NJ in 1984 and attended Muhlenberg College in Allentown, PA. He received his BA in Economics in 1988 and showed an interest in political economy, history and religion.

In 1990, along with his family, Erik landed in Florida and in Gainesville more particularly. At the time, Erik enrolled in the University of Florida's Urban and Regional Planning program and received his MA in 1993 with a focus on economic development.

Erik began his planning career with the City of Largo in Pinellas County in 1993 and rose through the ranks to become acting Director upon his departure in 2002. In 2003, he accepted a position with the City of Gainesville as Economic Development Director and in 2007 was promoted to Planning and Development Services Director. In this position, he manages a staff of forty five in the functional areas of Planning, Building Inspections and Economic Development. When called upon, Erik assists his University of Florida alma mater as adjunct faculty in teaching economic development and/or providing practicum advice to students.

Erik A. Bredfeldt currently lives in Gainesville with his wife Kathy and their children, Shearod and Emma Grace.