

**NEOLIBERALISM IN HIGHER EDUCATION?:
A CASE STUDY OF THE INSTITUTE FOR ADVANCED
LEARNING AND RESEARCH**

BY: SANDRA ELIZABETH VIA

**THESIS SUBMITTED TO THE FACULTY OF
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF**

**MASTERS OF ARTS
POLITICAL SCIENCE**

**THESIS COMMITTEE:
PROFESSOR WOLFGANG NATTER, CHAIR
PROFESSOR TIMOTHY LUKE
PROFESSOR KAREN HULT
PROFESSOR PATRICIA MOONEY NICKEL**

**DEFENSE DATE:
MAY 11, 2007
BLACKSBURG, VA**

**KEYWORDS: INSTITUTE FOR ADVANCED LEARNING AND RESEARCH
(IALR), NEOLIBERALISM, SOUTHSIDE VIRGINIA, APPLIED RESEARCH,
INNOVATION ECONOMY, ECONOMIC DEVELOPMENT, HIGHER
EDUCATION, OUTREACH**

**NEOLIBERALISM IN HIGHER EDUCATION?:
A CASE STUDY OF THE INSTITUTE FOR ADVANCED
LEARNING AND RESEARCH**

BY: SANDRA ELIZABETH VIA

ABSTRACT

According to David Harvey, neoliberal ideology has emerged as the current hegemonic economic discourse. Therefore, Harvey contends that neoliberalism has permeated every aspect of society, including institutions of higher education. However, the role of neoliberal ideology is perceived as a form of common sense, and thus proponents of neoliberal policies often do not realize that the programs and policies that they are implementing are neoliberal. Furthermore, Harvey argues that another aspect of neoliberalism is its propensity to exclude or ignore society. This thesis explores the relationship between neoliberal ideology and higher education, as well as the tendency of neoliberalism to depict universities and other forms of higher education as catalysts for economic development. In order to examine this relationship, this thesis examines an institution of higher education located in Southside Virginia, the Institute for Advanced Learning and Research (IALR). More specifically, this thesis takes an in depth look of the academic, research, and outreach/community programs offered by IALR. Moreover, this thesis explains how some of IALR's programs fit within a neoliberal framework and others do not, and how these programs are characterized as mechanisms of economic revitalization in Southside Virginia. Finally, this thesis demonstrates the ways in which IALR has embraced aspects of neoliberal ideology while resisting neoliberalism's tendencies to exclude the community from decision-making processes, yet also inculcate neoliberal ideology into the community's perceptions of economic development and higher education.

ACKNOWLEDGMENTS

I would like to thank my committee, Wolfgang Natter (Chair), Tim Luke, Karen Hult, and Patricia Mooney Nickel for their comments, criticisms and support throughout this entire process. Thank you to Dr. Natter for his constant support. I would also like to thank Dr. Luke and Dr. Nickel for providing their continuous feedback and pushing me to finish this thesis. Thank you to Dr. Hult for providing advice about my methodology, obtaining IRB approval, and constructing interviews. I would also like to thank my undergraduate advisor, mentor and friend from Ferrum College, Dr. Frederic Torimiro, who without his advice and guidance I would not be at Virginia Tech or pursuing a career in academia. You taught me how to think critically and challenge myself. You also sparked my interest in the political side of higher education.

Finally, I would like to thank my family and friends. To my Mama and Daddy, your love and encouragement has been the most valuable thing in my life. Thanks to my brother, Matthew, who read drafts and was there to listen when I needed to vent. To my grandmother, you are one of the biggest inspirations in my life. You are the strongest woman I know, and I only hope that one day I will be able to live up the example you have provided. To Sabrina and Corri, thank you for your advice, friendship, and support. I would have never made it through this process without you. And finally, I have to thank Courtney and Chris. Not only did they provide me with a place to work (the majority of this thesis was written on their couch), they each had an instrumental role in my in my survival while writing my thesis; Courtney kept me sane and Chris kept me fed and caffeinated.

IN LOVING MEMORY
OF
WATT D. CASSELL

TABLE OF CONTENTS

I. Title Page.....	i
II. Abstract.....	ii
III. Acknowledgements.....	iii
IV. Dedication.....	iv
V. Table of Contents.....	v
VI. Introduction.....	1
VII. Chapter 1.....	10
<i>Neoliberalism, Higher Education, Economic Development, and the Role of the Land Grant University in University-Community Partnerships</i>	
VIII. Chapter 2.....	23
<i>Educational and Research Structure at the Institute for Advanced Learning and Research</i>	
IX. Chapter 3.....	38
<i>Reaching out to the Community: Assessing IALR's Community and Outreach Programs</i>	
X. Chapter 4.....	52
<i>Working as a Catalyst for Economic Development</i>	
XI. Conclusion.....	58
XII. References.....	64
XIII. Appendixes	
a. Keywords and Phrases for Identifying Elements of Neoliberal Ideology..	72
b. Acronyms.....	73
c. Organizational Descriptions.....	74
d. Interview Question.....	75

Introduction

In recent years, many communities and countries have suffered economically due to the growing grip and spread of neoliberalism, which most attribute to the spread of globalization. In the book *Alternatives to Economic Globalization*, the authors and participants of the International Forum on Globalization describe the ill effects of globalization, while also outlining alternative strategies to economic globalization. According to this group of individuals, economic globalization essentially circumvents democracy by favoring the corporate sector. These individuals state, “It [Globalization] was designed and created by human beings with a specific goal: to give primacy to economic—that is, corporate—values above all other values and to aggressively install and codify those values globally” (Cavanagh and Mander 2002, 33).

Globalization is perpetuated, in part, by neoliberal ideology, which can be defined in multiple ways. However, I will derive my definition from David Harvey, author of *A Brief History of Neoliberalism*. Harvey states neoliberalism is “a theory of political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade” (Harvey 2005, 2). The United States and some Western nations, such as Great Britain, have taken measures to ensure that these practices of neoliberalism flourish with as little government intervention as possible. In order to accomplish this, Harvey (2005) contends that the state provides military and police structures to guarantee private property rights and an open market.

Even though many countries and communities have been devastated by neoliberalism, political leaders continue to support the neoliberal agenda. Harvey points out that neoliberalism has become “common sense”; thus neoliberal economic reforms are made by regional and local policy makers in accord with what appears to be common sense (Harvey 2005, 39). Furthermore, neoliberalism has become embedded in public institutions, including universities and colleges.

Research Justifications

The existing literature pertaining to neoliberalism and globalization tends, as can be expected, to provide a global perspective. The examination of the local impact of neoliberalism has tended to foreground neoliberalism's effects in the Second and Third Worlds. An examination of neoliberalism's consequences in a locally situated context within the First World would meaningfully augment this literature. In addition, it would be beneficial to the field of political science as well as other fields to examine neoliberal economic policies in rural areas as opposed to urban or metropolitan areas. Therefore, this thesis examined the educational and economic development policies associated with the Institute for Advanced Learning and Research (IALR)¹ in Southside Virginia.

Many scholars have stated that higher education has been transformed under a new corporate model in ways consistent with neoliberal aims. This occurs primarily because higher education is often viewed as a principal motivator of the economy. Southside Virginia has adamantly endorsed the involvement and creation of institutions of higher education in the area. As a result, IALR was created by local businesspeople, local and state politicians, Virginia Tech, and other educational partners (particularly Danville Community College and Averett University) to revive the economy of Southside Virginia. Therefore, this thesis examines IALR's educational, research, and outreach program to determine if it too endorses and promotes the neoliberal agenda.

Methodology

This thesis primarily employs a case study. However, descriptive research is employed in order to explain and document neoliberalism, the relationship of neoliberalism and economic development policy, and the relationship of neoliberalism

¹ I chose IALR as my case study because I was initially interested in the economic revitalization of Patrick and Henry County in Southside Virginia and the role that higher education would play in that revitalization process. Patrick and Henry County are two of IALR's target areas and the institution has been working towards the revitalization for a longer period of time than other institutions of higher education in the area (particularly the New College Institute in Martinsville and the Southern Higher Education Center in South Boston). IALR is located in Danville and primarily serves the Dan River Region, but its target area includes six counties and two cities: Patrick, Henry, Franklin, Pittsylvania, Halifax, and Mecklenburg Counties and the cities of Danville and Martinsville.

and higher education. A heuristic/exploratory case analysis is used to gain an understanding of the mission and involvement of IALR in the economic revitalization of the area through educational, research, and outreach programs.

Two research methods are employed in this thesis: content analysis and elite interviewing.² I developed a list of terms and phrases, which was informed by the descriptive research used to ascertain the historical and theoretical background of neoliberalism in economic development policy and higher education, to identify statements and/or elements of neoliberal ideology in the information obtained through the course of the content analysis and coding of interview transcripts.³ More specifically, I constructed the list of terms and phrases used to identify elements of neoliberal ideology from a content analysis⁷ of David Harvey's (2005) *A Brief History of Neoliberalism* and Jennifer Washburn's (2005) *University, Inc.: The Corporate Corruption of American Higher Education*. Before conducting interviews, I conducted a content analysis of primary and secondary sources that pertain to the development and programs associated with IALR. I examined multiple newspaper and magazine articles from the *Martinsville Bulletin*, *Enterprise*, *Roanoke Times*, *Richmond Times Dispatch* and other periodicals that are local to Southside Virginia.⁴ Additional information obtained from IALR's website also was examined.

I underwent the training prescribed by the Institutional Review Board in order to receive permission to conduct the elite interviews needed for this thesis. Once I received IRB approval, and conducted elite interviews with individuals who have expertise in the involvement and development of IALR. In the preliminary stages of my research, I identified the following individuals for interviews: Dr. Timothy V. Franklin, Nancy

² I have chosen to employ multiple research methods for this thesis because each method allowed to gather different information, while also helping to corroborate and/or build upon the data gathered with the use of other methods.

³ A list of the terms and phrases used to identify elements of neoliberal ideology can be found in Appendix A.

⁴ These newspaper and magazine articles supplied further information regarding the IALR's educational, research, and outreach programs.

Franklin, Dr. Anne Moore, Dr. John Dooley, and Ben Davenport, Jr.⁵ These individuals were specifically identified due to their affiliations and expertise⁶.

The interviews conducted were semi-structured. Therefore, I had a set of specific questions that were asked, but the interviewees were encouraged to speak freely. Interview questions were informed data gathered from my content analysis. Interview questions were also divided into three categories—educational programs, research, and outreach programs. The questions asked during the interviews were dependent upon the category in which the interviewee was classified, which was again determined by the interviewees' affiliation with IALR.

Limitations

There are several limitations I encountered throughout my research. First, an obvious limitation includes time constraints. Time constraints limited the number of interviews I conducted to five. I did contact six individuals, but did not receive a response back from one individual. In addition, I had to schedule interviews at times and places that were convenient for the interviewees. Three (two interviews were held on the same day at IALR, which did help to cut my travel time) of the interviews were conducted in locations (Chatham, Virginia and Danville, Virginia) that are located approximately two to three hours away from Blacksburg, Virginia. The time it took to travel to these locations reduced the time that I had to transcribe and analyze the

⁵ Interviews with these individuals went very well. Each of the interviewees were extremely cooperative. Most of the interviewees indicated that they did not know what neoliberalism is and requested that I explain the concept. Some interviewees conveyed information that was already available on the Institute's website or in news articles. However, other interviewees expanded on the information that is available to public and gave elaborate responses to the questions asked. Three of the interviews were short, while the other two were longer. In addition to responding to the questions posed, three interviewees also gave me documents about IALR that are not available to the public and other information about the Future of the Piedmont Foundation and the economic state of the Dan River region. All of the interviews instructed me to contact them if I had any further questions or needed clarifications. They also asked that I provide them with a copy of my thesis once it is completed.

⁶ The affiliation and expertise of each individual will be discussed as each individual is introduced throughout this thesis. The times, dates, and locations of each interview will also be presented as each individual is introduced throughout this thesis.

interviews. Another limitation arose as two of my interviews were rescheduled due to conflicts with the interviewees' schedules. As a result, the last two interviews for this thesis were performed during the last week in March and the first week in April. Conducting these interviews so late in the semester limited the amount of time that I had to analyze the transcripts of the interviews. Furthermore, I had to take into consideration response set bias when analyzing interview transcripts.

The number and type of documents that I analyzed was limited by their accessibility. I was able to gain access to general information and news articles about IALR through the Institute's website, but these sources are also subject to bias and are typically used for marketing purposes. Additional documents were obtained from individuals associated with the Institute or Virginia Tech. Therefore, my analysis was limited to the information obtained through IALR's website, news sources, and the documents that were provided to me by individuals associated with the Institute (interviewees).

While analyzing data, I faced an additional limitation. There were times when I found it difficult to determine whether a program, statement, or action is representative of a neoliberal agenda. For instance, a program seemed to be neoliberal because of the actions that could ensue as a result of its implementation. However, the rhetoric and motivation surrounding the implementation of the program was oriented around community development. Therefore, I had to specifically identify programs, statements, and actions that are not easily defined as neoliberal.

Brief Overview of the Economic History of Selected Areas in Southside, Virginia

The economy of Southside Virginia has suffered due to the loss of several textile, furniture, and apparel industries in the area, as well as the decline of tobacco and other agricultural crops. According to Governor Tim Kaine's 2006 Economic Development Strategic Plan, unemployment rates in Southside Virginia double the statewide rate and poverty continues to be higher than more metropolitan areas in Virginia ("Virginia Leading the Way: Governor Kaine's Economic Development Strategic Plan" 2006, 4-5).

In previous decades, such as the 1960s and 1970s, Southside was industrial bedrock for the textile, apparel and furniture industry. However, in the early to mid

1990s and into the twenty-first century that began to change. For example, major industries in Patrick County, such as Vaughn Bassett Furniture and United Elastic, either closed or downsized their manufacturing plants in the area. Henry County has also suffered economically due to factory closings and the downsizing of several industries. The area has seen several companies leave throughout the 1990s and early 2000s, such as DuPont, 5B's, Tultex, Bassett-Walker, Pulaski Furniture, VF Corporation, and Pillowtex Fieldcrest (a major textile industry in the region). In January and March of 2007, Hooker Furniture and Bassett Furniture respectively announced the closure of their wood furniture manufacturing plants in the region. Both factories laid off 280 employees each, which is 27% of Hooker's workforce and 15% of Bassett's workforce. Other industries, such as CP Films, has either downsized their workforce or reduced many of their workers hours.

Throughout most of the twentieth century, Danville/Pittsylvania County (where IALR is located) was a hub for textile and tobacco production. However, tobacco production has severely declined and the majority (if not all) of the region's textile mills have vanished; all that remains is empty tobacco warehouses or vacant textile mills. Between 1997 and 2005, Dan River Inc., Durham 2000, Bassett-Walker, Inc., Diebold, Inc., and Dimon closed their manufacturing plants in Danville⁷ (*Textile Plant Closings and Layoffs in Virginia* 2006, "Diebold Realigns Manufacturing Capacity; Closing Plant in Danville, Va" 2005, and "Virginia Businesses in the News: Cutbacks and Closings" 2004, par. 1 and 4).

One of the primary reasons why Southside Virginia has difficulty attracting businesses to the area is due to the lack of a well-educated workforce. A 2005 State Council of Higher Education for Virginia (SCHEV) report states 30-40% of the working population in Southside Virginia has not completed high school ("HJR197 Report" 2005, 6). It is estimated that only 5-10% of adults in Southside Virginia have obtained a Bachelor's degree or higher ("HJR197 Report" 2005, 6). However, it is extremely

⁷ Dan River Inc., Durham 2000, and Bassett-Walker, Inc. are produce textiles. Diebold, Inc. provides "integrated self-service delivery and security systems and services" (*Diebold Realigns Manufacturing Capacity; Closing Plant in Danville, Va* 2005, par. 4). Dimon is a tobacco processor (*Virginia Businesses in the News: Cutbacks and Closings* 2004, par. 1 and 4).

difficult for many residents in this area to enroll in college. A SCHEV report published in 2005 indicates that the median family income is under \$40,000 per year. Therefore, many families do not have the funds to enroll their children in college. To be more precise, the cost attendance to college is approximately 26-34% of the median family income in Patrick County and 20-26% of the median family income in Henry County/Martinsville⁸.

Brief Overview of the Institute for Advanced Learning and Research (IALR)

The IALR has been seen as one of the major factors in the revitalization of Southside Virginia.⁹ Currently located in Danville, Virginia—one of the most economically devastated areas in Southside Virginia—the IALR was created in 2002 as a “Subdivision of [the] Commonwealth Research, Technology, and Education Center.” It initially had a nine-member board, which was expanded in 2004 to include 15 people. The governor of Virginia or the Virginia General Assembly has appointed each of these board members.

According to many of its advocates, the IALR will bring Southside Virginia into the “information economy.”¹⁰ These advocates contend “By focusing on bringing advanced technology and recruiting top-notch talent to the region, the IALR is a catalyst for economic and community transformation” (*What is the IALR?* 2007, par. 2). Furthermore, the mission statement of the IALR states that economic and community transformation will be achieved by “strategic research, advanced learning programs, advanced networking and technology, commercial opportunity development, and community outreach” (*IALR Mission* 2007, par. 1).

⁸ Patrick and Henry County/Martinsville City (located in Henry County) are located in Southside Virginia.

⁹ Those who have viewed IALR as a catalyst for economic revitalization includes each of the individuals and groups listed in footnote 9.

¹⁰ Advocates of the IALR included several politicians, such as former Governor Mark Warner, Governor Tim Kaine, former Senator George Allen, Congressman Virgil Goode, Senator John Warner, Delegate Daniel Marshall, and Delegate Charles Hawkins. Advocates of the IALR also include academics such as Charles Steger, President of Virginia Tech.

Three different institutions coordinate the facility: Virginia Tech, Averett University, and Danville Community College. However, Virginia Tech is the primary manager of the facility. More specifically, the facility has enticed several Virginia Tech faculty to relocate to Southside to conduct research in areas such as polymers, unmanned systems, high value horticulture, and motorsports engineering (*What is the IALR?* 2007, par. 3). The IALR now has five strategic research centers: 1) Advanced and Applied Polymer Processing Institute; 2) Institute for Sustainable and Renewable Resources; 3) Joint Unmanned System Test, Experimentation and Research Site; 4) Virginia Institute for Performance Engineering and Research; and 5) Facilities at Virginia International Raceway (*Research* 2007, par. 4-7). The facility has also been designed to entice small to mid-size industries to the area. In addition, the IALR offers educational opportunities at both the undergraduate and graduate levels to students who demonstrate an interest in the research conducted at the facility.

Chapter Outline

Chapter one presents a theoretical overview of the discourse of neoliberalism in both economic development and higher education. The historical and theoretical context of neoliberalism is derived from David Harvey's (2005) definition of neoliberalism. Moreover, this chapter provides a detailed overview of the integration of neoliberal ideology into economic development theory and institutions of higher education. This chapter also includes an overview of the history of higher education programs that have been initiated by the federal government and state programs that have gained attention nationwide, which have shaped the missions and goals of institutions of higher education since the enactment of the Morrill Act of 1862.

Chapter two provides an overview of the educational and research programs offered by IALR. This overview will present a detailed account of the courses and degree programs offered by the Institute to individuals in Southside Virginia. In addition, this chapter will give an overview of the research programs and centers that are coordinated by IALR and faculty from Virginia Tech. This chapter demonstrates the relationship between IALR's educational programs and its applied research centers. Moreover, it imparts an account of the role of faculty, students, corporate sponsors, and

intellectual property in the context of these two areas. Finally, the chapter illustrates the aspects of each in the context of neoliberal discourse.

Chapter three discusses some of the outreach and community based programs that are offered by the Institute to residents throughout Southside Virginia.¹¹ This chapter will supply a detailed account of specific programs and workshops offered to the community, including teacher education workshops, youth programs, senior citizen programs, farmers, and workshops designed to enhance the entrepreneurial and business skills of local business owners. Furthermore, this chapter addresses two programs, one national—AmeriCorp and one community-based—SCALE UP,¹² that have developed a relationship with the Institute. This chapter will also examine how the community is included in the governance structure of the institute and thus focuses on the community’s capacity to participate in the decision-making process at IALR. Finally, this chapter will discuss which of IALR’s outreach programs exhibit elements of neoliberal ideology. For those programs that do not exhibit such characteristics, it will examine how such programs do not fit within the scope of neoliberal ideology.

Chapter four describes how IALR’s academic, research, and outreach programs are designed to contribute to the economic revitalization of Southside Virginia. This chapter will examine how each of these programs is intended to create a “culture of learning” in the region, to prevent “brain drain,” create jobs, and transform the region into a “destination location.”¹³ A critique of these initiatives will demonstrate how they fall within the scope of neoliberal ideology.

¹¹ IALR offers numerous workshops and outreach programs, and it would go beyond the time frame for this thesis to discuss each outreach program that is, has been, or will be offered by IALR; therefore, only the most visible outreach programs will be discussed in chapter three.

¹² Southside Community Advocates for Learning Excellence, United for Progress

¹³ Each of the phrases or terms that appear in quotations will be explained in later chapters.

Chapter One:
**Neoliberalism, Higher Education, Economic Development, and the Role of the Land
Grant University in University-Community Partnerships**

Introduction: An Overview of Neoliberalism:

Neoliberalism did not emerge as the predominant economic discourse overnight; it had a slow evolution. After the Second World War, economic policies in the United States and Western Europe were altered as a means of preventing the economic conditions that had threatened capitalism during the 1930s and 1940s. Political leaders wanted to help prevent the “re-emergence of inter-state geopolitical rivalries that had led to the war” (Harvey 2005, 10). These policies were specifically crafted as a means of balancing the state, market, and democratic institutions in an effort to ensure peace, international stability, and the well being of individuals.

In order to accomplish this goal, the Bretton Woods agreements were drafted, which created various institutions, such as the World Bank, the International Monetary Fund (IMF), and later the General Agreement on Tariffs and Trade (which eventually became the World Trade Organization) (Cavanagh and Mander 2002, 33). These institutions and agreements were created to encourage free trade and the free flow of capital. Free trade was encouraged “...under a system of fixed exchange rates anchored by the U.S. dollar convertibility into gold at a fixed price” (Harvey 2005, 10). In addition, the U.S. military protected this system of fixed exchange rates and free trade.

This economic system gave way to what is typically referred to as Keynesian economics. Under these economic policies, states were allowed to intervene in the market in order to secure full employment, economic growth, and the welfare of its citizens. As states introduced industrial policies, they were able to establish several welfare programs. Harvey (2005) refers to this type of economic policies as “embedded liberalism.” Harvey writes that embedded liberalism signaled “...how market processes and entrepreneurial and corporate activities were surrounded by a web of social and political constraints and a regulatory environment that sometimes restrained but in other instances led the way in economic and industrial strategy” (Harvey 2005, 11).

During the 1950s and 1960s, many advanced capitalist countries experienced high levels of economic growth. However, by the end of the 1960s embedded liberalism began to wane. Many countries, especially developing countries, experienced high levels of unemployment and inflation. Tax revenues declined, and social expenditures became overwhelmingly high.

To avoid economic collapse, political leaders considered two options. First, they considered tightening state control and regulation of the economy. Several socialist and communist countries, as well as the United States, adopted this notion. However, capitalist countries rejected the idea because it was seen a direct political threat to economic elites and the ruling class (Harvey 2005, 15). Instead, these countries turned to neoliberalization. Neoliberalism was seen as a project that could restore class power to the economic elites.

Neoliberal theory was initially introduced by a group of economists, historians, and philosophers who gathered around Austrian political philosopher Friedrich von Hayek to create the Mont Pelerin Society in 1947 (Harvey 2005, 20). These individuals referred to themselves as “liberals” because of their beliefs in personal freedom. “The neoliberal label signaled their adherence to those free market principles of neoclassical economics that had emerged in the second half of the nineteenth century...” (Harvey 2005, 20). These individuals adhered to Adam Smith’s invisible hand theory. In the words of John Rapley, neoliberalism can be viewed as a marriage between neoclassical economic theory and neoclassical political thought (Rapley 2004, 75). These individuals also opposed state intervention and Keynesian economics. They claimed that state intervention was bound to be “...politically biased depending upon the strength of the interest groups involved (such as unions, environmentalists, or trade lobbies). State decisions on matters of investment and capital accumulation were bound to be wrong because the information available to the state could not rival that contained in market signals” (Harvey 2005, 21).

The theory of neoliberalism gained academic respectability after Hayek and Milton Friedman received the Nobel Prize in economics in 1974 and 1976 respectively. In addition, government officials began to take notice of the theory. For instance, President Jimmy Carter turned to neoliberal theory during his presidency. It was during

this time that deregulation of the economy was seen as the solution to the global economic stagnation that had plagued the United States and other countries throughout the 1970s. In addition, Paul Volcker, chairman of the U.S. Federal Reserve during the Carter administration, furthered neoliberalism by “engineering a draconian shift in U.S. monetary policy” (Harvey 2005, 23). This shift, which eventually became known as the Volcker Shocks, sought to reduce inflation without regard to the effects that it might have on employment. Consequently, the nominal rate of interest was raised, factories closed and moved elsewhere, and trade unions lost their bargaining power vis-à-vis a tripartite model of partnership with capital and the state. In addition, countries, notably those in the Third World, experienced massive amounts of debt that led to bankruptcy (Cavanagh and Mander 2002, 57).

The U.S. was not alone in articulating and pursuing a neoliberal agenda. Margaret Thatcher and the British government advocated the use of neoliberal economic policies as well. Thatcher confronted trade unions and attacked all forms of social solidarity that hindered competitive flexibility (Harvey 2005, 23). Thus, welfare programs were eliminated, while public goods were privatized, taxes were reduced, and foreign investment was highly encouraged. To emphasize her disapproval of various forms of social solidarity, Thatcher declared that there is “no such thing as society, only individual men and women” (Harvey 2005, 23). Harvey remarks, “All forms of social solidarity were dissolved in favour of individualism, private property, personal responsibility, and family values” (Harvey 2005, 23).

The Reagan administration marked a further advance of neoliberal economic policies. The Reagan administration continued to support Volcker’s policies, promoted further deregulation and additional tax and budget cuts, and continued to attack trade unions. Harvey writes:

The deregulation of everything from airlines and telecommunications to finance opened up new zones of untrammelled market freedoms for powerful corporate interests. Tax breaks on investment effectively subsidized the movement of capital away from the unionized northeast and Midwest and into the non-union and weakly related south and west. (Harvey 2005, 26)

Deindustrialization began to occur, which resulted in the closure and move of production to foreign markets. As markets expanded, emphasis is placed on exploited, cheap labor (Cavanagh and Mander 2002, 8). In addition, emphasis is placed on corporate interests by dramatically reducing corporate taxes for the sole purpose of promoting competition and concentrating power in the hands of the corporate elite and upper class.

Starting in the 1970s and still continuing, various institutions, such as the World Bank and the IMF, have also helped to perpetuate neoliberal ideology throughout the world. Cavanagh and Mander claim these institutions:

...Work together to be sure that all countries adopt identical visions, policies and standards and keep in line. And they share all the overall goals to deregulate corporate activity, privatize whatever is public, prevent nations from protecting natural resources of labor or safety laws or standards, and open all channels in every country for a free flow of investment and trade (Cavanagh and Mander 2002, 55).

In order to accomplish this goal, these institutions opened credit to Third World countries and encouraged them to borrow heavily; thus these countries accumulated large amounts of debt. Eventually, these countries were (and still are) no longer able to pay their debts. The lending institutions offered to rollover the debt, but only if these countries agreed to implement neoliberal economic reforms, such as cutting welfare programs and turning to privatization. “The IMF and the World Bank thereafter became centres for the propagation and enforcement of ‘free market fundamentalism’ and neoliberal orthodoxy” (Harvey 2005, 29). Again, this practice helped (and continues) to restore power to the upper classes.

Neoliberalism and Economic Development:

As neoliberal ideology has evolved, it continues to be the dominant economic discourse that influences economic development policy. Neoliberalism has been able to circulate through corporations, the media, and public institutions, such as churches and universities. It has permeated all aspects of politics, thus taking control over political parties, especially the Republican Party (Harvey 2005, 50). It should be noted, however,

that the Democratic Party has not been immune to the effects of neoliberalism. Thus state power and economic policy have become dominated by a neoliberal agenda.

According to Martin Saiz and Susan Clarke, “state policy makers face an emergent new economy, a knowledge based economy which wealth is created through skills, information, technology, and innovation capacity rather than through the physical assets...important in the past” (Saiz and Clarke 2004, 419). Harvey indicates that this practice is needed to propagate neoliberal economic policies. He writes that neoliberal economic policies need “...technologies of information creation and capacities to accumulate, store, transfer, analyse, and use massive databases to guide decisions in the global marketplace” (Harvey 2005, 3-4).

Saiz and Clarke define economic development policy as “those policies intended to encourage new business investment in specific locations in the hopes of developing the economy by producing jobs and enhancing and diversifying the local tax base” (Saiz and Clarke 2004, 422). Yet in order to fully understand economic development policy, we must first distinguish between economic growth and economic development. Economic growth is primarily concerned with increasing the size of the local population and economy (Blair 1995, 14). This can occur without an explicit economic development policy. Economic development, on the other hand, is primarily concerned with income growth and the enhancement of equity and improving the welfare of individuals (Blair 1995, 14).

However, many individuals assert that economic growth and development can only occur when the market controls the economy (Blair 1995, 6). This falls directly within the scope of the neoliberal agenda. Harvey contends that today neoliberal ideology places emphasis on consumer choice and open markets, which has empowered corporations and helped to dissolve most aspects of civil society. With corporations rearing more power, wages are restricted and cutbacks are made in public employment and social expenditures (Harvey 2005, 43).

Governments in areas that have suffered from economic decline now turn to neoliberal practices in order to entice corporations to locate to their communities. These governments provide incentives that are often derived from public resources to these businesses and corporations. For instance, many governments (national, state, and local)

build infrastructures, such as telecommunications and highways, to entice businesses. In addition, these governments offer business tax subsidies and expenditures, as well as grants to locate a business or corporation to the area. Saiz and Clarke write:

States offer low interest loans, loan guarantees, special tax breaks and outright grants of cash and land to attract and retain private businesses.... If a company's site needs improvement, some state governments will prepare the ground for development, bring utility lines to the site, or link it to the transportation system by building roads and tracks. If labor is a problem, they will train workers for individuals firms or reimburse them for the costs of customized job training (Saiz and Clarke 2004, 420).

Harvey also contends that many governments engage in campaigns to sell their community as a cultural center or tourist attraction as a form of economic development (Harvey 2005, 47).

Neoliberalism and Higher Education:

Public institutions are not immune to the effects of neoliberalism. One of the many institutional structures that neoliberalism and neoliberal globalization have penetrated is higher education, which is also seen as an economic booster. As Jennifer Washburn points out, neoliberal globalization prompts universities and colleges to alter the way they educate students and use language to define their missions and purposes (Washburn 2005, ix). She argues that this transformation began to occur during the 1970s when competition between nations began to accelerate causing political, economic, and industrial forces to push "America's universities to forge closer ties with private industry, convert themselves into engines of economic growth, and pump out commercially valuable inventions" (Washburn 2005, x).

David F. Noble (2002) contends that the transformation of higher education has also resulted in the commodification of higher education. Karl Marx states a product becomes a commodity when the purpose of its existence is to be exchanged, not used; thus the commodity is characterized by exchange-value rather than use value (Marx 1867, par. 6). Noble makes a similar claim. He states that a commodity is something created or produced for the purpose of being exchanged on the market (Noble 2002, par.

8). At this point Noble discusses the three manners in which higher education becomes a commodity. However, he also makes the distinction between a commodity and what Karl Polanyi called a “fictitious commodity.” According to Noble, a “fictitious commodity” is created and produced but not for the purpose of exchange (Noble 2002, par. 8). He states that most educational offerings are “fictitious commodities,” but he indicates that higher education has become a commodity that is now produced for commercial transaction (Noble 2002, par. 8).

Noble discusses three steps that a university must take before the educational programs it offers become commodified. He states, “The commodification of education requires the interruption of this fundamental educational process and the disintegration and distillation of the educational experience into discrete, reified, and ultimately saleable things or packages of things” (Noble 2002, par. 9). Noble’s steps are as follows:

- First, attention is shifted away from the experiences of the people involved in the educational process (i.e. students) to the production of course materials, such as syllabi, lessons, and exams.
- Second, these course materials are “alienated from the educational process and the teachers, and are constructed as courses, which exist independently from the instructor who created the course” (Noble 2002, par. 9).
- Finally, the courses offered by the university are exchanged for a profit on the market, which determines the value of the course. (Noble 2002, par. 9)

The ultimate result is that teachers become the producers of commodities, and as Washburn (2005) observes, universities begin referring to their students as consumers. Moreover, the students begin to see themselves as consumers and become primarily concerned with the cost of benefits of their educations.

In addition, Raymond A. Morrow observes that education opens itself to commercialization, which then allows the market to take control of and undermine the autonomy of higher education. Neoliberalism provides “a theoretical basis for undermining the original intentions of science and research policy by subordinating them to the rhetoric of privatization and global competitiveness” (Morrow 2006, xxv). Institutions of higher education create measurable performance standards, placing emphasis on standardized tests. Robert Rhodes and Carlos Alberto Torres note that many

universities and colleges introduce new teaching and learning methods that lead to the expectation that students will do better at a lower cost (Rhodes and Torres 2006, 11).

With neoliberal ideology dominating institutions of higher education, market forces provide the main criteria for distributing knowledge to students or “consumers.” Washburn claims that universities first eliminate the boundary between academia and commerce, and then begin to engage in commercial and market activities (Washburn 2005, x). The university becomes concerned with efficiency and accountability, leading to the reduction of university expenditures. For example, colleges begin increasing teaching loads without raising salaries, and teaching assistants become more prominent in classrooms. Moreover, the university increases the number of part-time faculty.

With the boom of information technology, the university is able to turn to an additional means of reducing its expenditures—distance or online learning. Of course, Internet-based courses have their advantages. For example, they have the potential to enhance a course, whether it is in mathematics or history, by helping students to connect course material with online historical archives or generate virtual graphics. Furthermore, online degree programs bring higher education into the homes of many working people who would normally be unable to pursue a college degree. Therefore, individuals who work and/or have children do not have to travel to an institution to take courses, and other individuals do not have to travel to another city or state to pursue a specialized degree.

However, Washburn (2005) and Noble (2002) contend that distance learning can easily become commodified, and the learning process is subordinated by the university’s desire to make a profit, reduce costs, and reduce the need for full-time professors. Noble claims that in order for universities to make distance learning profitable “they have been compelled to reduce their instructional costs to a minimum, thereby undermining their pedagogical promise” (Noble 2002, par. 12). Often these distance learning and Internet based courses emphasize technological and vocational training, which are designed to promote the image that higher education will help the economic well being of individuals by providing them skills and training in areas that will make them more marketable to businesses, thus furthering the commodification of higher education.

The influence of neoliberal ideology on U.S. higher education has prompted universities and colleges to become more entrepreneurial. Therefore, universities and

colleges seek to enhance their revenue by engaging in profit-oriented endeavors. According to Rhodes and Torres (2006), this includes universities and colleges creating satellite campuses and extension programs around the world (Rhodes and Torres 2006, 12). This has had profound implications for how higher education's use to perform sprawl in educating students.

Washburn (2005) suggests that universities and colleges that have been deeply affected by neoliberal ideology will place more emphasis on the entrepreneurial and research endeavors of their faculty rather than on teaching students. Clark Kerr (2001) makes a similar observation. He writes, "Teaching is less central than it once was for most faculty members; research has become more important. This has given rise to what has been called the "nonteacher—' [sic] the higher a man's standing, the less he has to do with students'" (Kerr 2001, 32). According to Washburn, the professors that are the most valued are those who receive research grants and have commercially lucrative ideas (Washburn 2005, xii). Therefore, the result has been the push for faculty to produce intellectual property that yields patents and licenses. Other faculty members are pressed to publish books or in scholarly journals about their intellectual achievements and the roles of corporate or government/military sponsorship (if any) in the endeavor, thus perpetuating the "publish or perish" mentality often associated with academia.

Much of the corporate and government/military funding provided to universities and individual faculty members often is concentrated in areas such as the life and physical sciences, information technology, and engineering. For example, in *University Inc: The Corporate Corruption of American Higher Education*, Washburn (2005) describes many instances in which faculty members have received funding for research in the areas of pharmaceuticals and biotechnology. In addition, Cavanagh and Mander (2002) contend that capitalist globalization and neoliberalism foster the need for research in popular or trendy areas of scientific research, such as genetic engineering (i.e. the creation of genetically modified organisms (GMOs)). Cavanagh and Mander (2002, 114) also contend that these are fields in which further commodification will occur, particularly in areas of plant and animal genetics.

As university research becomes more concentrated in areas such as the life sciences and technology, the social sciences, humanities, and fine arts are minimized and

do not receive as much funding. Washburn contends that during the five-year period between 1998 and 2003, the social sciences had a decrease in federal funding, while the life sciences had an increase in funding (Washburn 2005, 8). In addition, many departments, such as political science, philosophy, history, and religion, are considered to be less marketable; thus funding in these departments is reduced. According to James C. Hearn, “faculty in those areas tend to be less well positioned for substantial revenue generation...” (Hearn 2006, 99). The lack of funding in these areas sometimes prompts the university to engage in discretionary funding for these departments. However, these departments cannot expect discretionary spending each year (Priest and Boon 2006, 186).

Faculty who receive funding from corporate sponsors sometimes become further embedded in the corporate sector. It is becoming more common to find university faculty sitting on the boards of various companies and organizations that sponsor their research (Washburn 2005, 81). Washburn also states that many universities and colleges have reinvested endowment money into start-up firms that are founded by faculty (Washburn 2005, xi).

Washburn (2005) also states that some universities and colleges have created industrial and research parks and other projects that will bring in revenue and attract businesses to the area. Harvey A. Goldstein and Michael I. Luger (1992) provide a detailed discussion of university research parks in nonmetropolitan areas, which aids in illustrating Washburn’s point. Goldstein and Luger contend that research parks are seen as a form of economic development because they can provide tools for regional economic restructuring (Goldstein and Luger 1992, 251). They state:

Universities or government labs can serve as the seedbed for attracting further R&D [research and development] activity to a nonmetropolitan region, in conjunction with a research park, by providing an initial concentration of scientists and engineers, R&D activity, and a socio-cultural milieu that can make the area attractive for highly paid and highly skilled professionals (Goldstein and Luger 1992, 251-252).

Goldstein and Luger (1992) also contend that nonmetropolitan research parks that are funded by universities have three primary goals: diversify the region’s economic base, help to develop new-technology based businesses in the region, and provide jobs for local

university graduates (Goldstein and Luger 1992, 256). Ultimately, university research parks located in nonmetropolitan areas are designed to promote many of the practices that Harvey (2005), Washburn (2005), and others contend that neoliberalism seeks to implement—place an emphasis on technology and further corporate aspirations.

The Role of Land Grant Universities in a Neoliberal Economy:

It is likely that the scope and mission of land-grant universities will also be affected by the emergence of neoliberalism. The birth of the land-grant university arrived with the enactment of the Morrill Act of 1862, which was a response to industrialism and agricultural development. The Morrill Act of 1862 was drafted with the purpose of benefiting agriculture and the mechanical arts. The Act specifically states that the “leading object” of a land grant university is as follows:

...The leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanics arts, in such a manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life. (Morrill Act of 1862, Section 4)

Kerr writes that the land grant university was to the development of industry and agriculture through training “that went beyond the creation of ‘gentlemen,’ and of teachers, preachers, lawyers and doctors; through research related to the technical advance of farming and manufacturing; through service to many and ultimately to almost *all* [emphasis added] of the economic and political segments of society” (Kerr 2001, 35-36). Yet despite the Act’s role in furthering industrialization, it also implied that the university had a responsibility to the community, particularly the agricultural community, to work with them and provide services to the region and state in which it is located.

During World War I, the notion of the land grant university was further elaborated upon with the introduction of the Wisconsin Idea. While the Wisconsin Idea was designed for the state of Wisconsin, it gained national acclaim and was imitated by other universities across the nation. The most agreed upon definition of the Wisconsin Idea suggests that the purpose of the university is to serve the state or, more specifically, “the

boundaries of the University are the boundaries of the state” (Stark 1996, 2). Jack Stark (1996) states that in the 20th century conception of the Wisconsin Idea, the university contributes to the state in two capacities: ‘first, to the government the university serves in office, offers advice regarding public policy, provides information and technical skills; and secondly, to the citizens the university provides research designed to solve problems for the state and conducts outreach activities” (Stark 1996, 2). Thus, the university has an obligation to create an educational partnership with the state government and communities. These partnerships are often referred to as extensions or public service (Knox and Corry 1996, 81).

However, the advancement of technology and the university’s push to “go global,” provoked a shift in the definition and functions of the Wisconsin Idea, which Alan B. Knox and Joe Corry (1996) refer to as the “Wisconsin Idea for the 21st century.” The Wisconsin Idea for the 21st century contends that the university (land grants and other public universities) must provide its students and the local community, state, and nation with the opportunity to seek continuing education by fostering lifelong learning. In addition, Knox and Corry (1996) state that the 21st century version of the Idea is influenced by technology, multidisciplinary ideas, addressing the decline of agriculture, and alter the parochial scope of the Idea itself; in other words, the university is now influenced by national and international forces and extension activities must now go beyond the state (Knox and Corry 1996, 83-84). Thus the Wisconsin Idea now stresses the need to produce a competitive and constantly changing edge with knowledge, which is accomplished with the adoption of applied research and outreach programs.

Conclusion: Moving Away from the Community:

As previously stated, Harvey asserts that neoliberalism excludes society. One of the primary dangers of neoliberalism and the expansion of the market into the university system is the possibility of excluding the community and public. Frank Newman, Lara Couturier and James Scurry, authors of *The Future of Higher Education: Rhetoric, Reality, and the Risks of the Market*, contend that competition and market forces will exacerbate the “growing gap between the public purposes that need to be served by colleges and universities and the reality of how higher education is functioning”

(Newman, Couturier, and Scurry 2004, 3). Therefore, one could contend that neoliberalism prompts universities to move away from the initial mission of the land grant university to help the community and *all* segments of society.

Chapter Two:
Educational and Research Structure at the
Institute for Advanced Learning and Research

Introduction

Many scholars contend that neoliberalism has become imbedded in institutions of higher education. As a result, universities and colleges become more focused on courses that emphasize the physical and natural sciences, mathematics, and technology. Moreover, the role of faculty and students can be transformed to fit into a neoliberal framework. Jennifer Washburn (2005) claims that universities begin to concentrate on training their students for specialized jobs rather than educating them. Universities' academic missions become focused on furthering corporate endeavors and promoting market-driven programs through sponsored research. In addition, educational programs often are aligned with this sponsored research conducted by the university, which is primarily performed for corporations.

In many respects, IALR reflects these changes. Virginia Tech plays an extremely important role in the continual development of IALR. Administrators at Virginia Tech have indicated that the university's relationship with IALR is mutually beneficial to both institutes. At the opening ceremony, Charles W. Steger, president of Virginia Tech, stated: "The institute is providing Virginia Tech with many new opportunities for cutting-edge research and real-world collaborations, which would not have been possible in Blacksburg. There are already a number of exciting initiatives underway that build on Virginia Tech's research strengths" (Felker 2006, par. 8). Therefore, IALR provides further research capacity for Virginia Tech and brings an economic plan grounded in research and development to a region that was once dominated by manufacturing.

The educational and research programs associated with IALR were specifically identified because of their relevance to IALR's applied research programs. According to Virginia Tech's 2000-2001 Annual President's Report, IALR was designed with the intent to provide training in areas such as advanced network technology maintenance, advanced degrees and certification programs in technology-related disciplines, and courses in polymers, aerospace, biotechnology, bioinformatics, and information and

communication technologies (“2000-2001 Annual President’s Report: Tech Applies Technological Expertise to Southside Economy” 2001, par. 3). Students who do not pursue degrees or certificates in these programs at IALR are most likely attempting to obtain a degree in more vocational fields, such as nursing, criminal justice, and education.¹⁴ Graduate students typically pursue in degrees that align with IALR’s research programs, which usually results in the use of their talents to conduct research for corporate sponsors as designated by faculty at the institute.

This chapter provides information about IALR’s educational programs, including details regarding its educational pathways and the degree and certificate programs offered by the institute. It will examine IALR’s reasoning for offering degree and certificate programs online and via video conferencing. Moreover, it will provide a short description of IALR’s relationship with the Southside Higher Education Coalition. The Institute’s educational programs are intertwined with its applied research programs. Therefore, this chapter will also examine each of the IALR’s applied research programs, the role of faculty and students in these programs, the production of intellectual property, and the relationships (as they can be assessed thus far) maintained between IALR and the corporate and commercial sector.

“Educational Pathways”

The academic programs offered by IALR are designed to meet three specific goals: “preparing a core economy workforce for the future, meeting current employer needs, and expanding access to higher education opportunities” (*Academics* 2007, par. 1). First, the Institute is devoted to developing “educational pathways” in areas that parallel the research being conducted by IALR’s research centers. The purpose of these educational pathways is to aid in the mobility of workers in the region and help build local expertise in emerging economic sectors (*Educational Pathways Initiative* 2007, par. 1). The pathways on which IALR places particular attention include: Performance Engineering, Unmanned Systems and Robotics, Forestry and Horticulture, Applied

¹⁴ The majority of these courses and the IALR’s other degree programs are provided online by various institutions of higher education located throughout Virginia. These degree and certificate programs will be analyzed in more detail in later portions of this chapter.

Polymers and Materials Sciences, Information Technology, and Nanotechnology and Electrical Systems.

Second, IALR provides “market-driven programs” that meet the needs of the community and businesses. Finally, the institute provides opportunities for continuous education, which are intended to help individuals further their market-dictated growth and development (*Academics* 2007, par. 4). Ultimately, each of the educational opportunities offered by IALR has been identified based on their applicability to the emerging global economy; thus they are concentrated in areas that are relevant to IALR’s applied research programs.¹⁵

Distance Learning

In order to augment the lack of educational opportunities in Southside Virginia, IALR offers the majority of academic courses, degrees, and certificate via distance learning. As chapter one noted, distance learning is often viewed as an additional means of commodifying education. However, IALR primarily frames the offering of distance learning courses as a means of convenience for individuals in Southside Virginia. Nancy Franklin states: “...the goal is for people to be able to drive within 30 to 45 minutes to get to a learning center because if they have to drive one, two, or more hours it makes it pretty tough if you are taking a class or classes, work, and have a family and everything” (Franklin, N. 2007).¹⁶ Franklin also contends that the technology associated with IALR’s

¹⁵ IALR’s applied research programs will be discussed in more detail later in this chapter.

¹⁶ Virginia Tech named Nancy Franklin, former director of distance education and faculty development at Indiana State University, to the position of Virginia Tech’s Southside’s regional director of information technology. In this position, Franklin has the responsibility of overseeing the information technology in the Southside region that is associated with Virginia Tech. In addition, her duties include assisting local schools and universities to integrate technology into their classrooms, provide teacher development activities, provide assistance for distance education, help create an advanced communications network, and help businesses and local governments in the Southside region integrate information technology into their daily operations (“2000-2001 Annual President’s Report: Tech Applies Technological Expertise to Southside Economy,” par. 6). The interview with Franklin was conducted on March 9, 2007 at 10:00 a.m. in her office at IALR located in Danville, Virginia. The interview lasted approximately one hour to one and a half hours.

distance learning programs will aid individuals in Southside who are absent from class due to work, illness, or family-related issues. She stated, "...we are actually using some special equipment to actually capture and stream, as well as store the video conference classes; so if a student misses a class for whatever reason, he or she can catch up with it later or maybe they were in class but didn't quite get a part of it so they can go back over that segment" (Franklin, N. 2007).

Course and Degree Offerings

The Institute's educational programs and specialized training opportunities are outlined in Virginia Tech's 2000-2001 Annual President's Report. According to the report, IALR is designed with the goal of providing training in areas such as advanced network technology maintenance, advanced degrees and certification programs in technology-related disciplines, and courses in polymers, aerospace, biotechnology, bioinformatics, and information and communication technologies ("2000-2001 Annual President's Report: Tech Applies Technological Expertise to Southside Economy" 2001, par. 3).

Many of the Bachelor's degrees offered by IALR focus on providing vocational or specialized training. For example, IALR offers Bachelor's of Science degrees in Criminal Justice, Emergency Management, and Nursing. IALR also offers a Bachelor's of Science in Interdisciplinary Studies. IALR offers numerous Master's degrees—many of which can be classified as vocational, such as criminal justice, elementary and secondary education, and dental hygiene. However, the majority of the Master's degrees offered through IALR are concentrated in the areas of mathematics, engineering, and technology. There are several certificates offered through IALR as well. Again, these certificates are primarily focused on technology.

The courses offered onsite at IALR are concentrated in the physical and natural sciences, mathematics, engineering, and technology studies. For example, IALR's 2007 Spring Course Schedule indicates that courses offered onsite range from Engineering Math to Aerodynamics to Chemical Reaction Engineering ("IALR Spring 2007 Course Schedule (tentative) 2007). The Course Schedule also reveals that no courses in the social

sciences or humanities are offered onsite at IALR. The only mention of social sciences or humanities is found on IALR's website, which indicates that individuals can obtain one degree in the social sciences, a Master's in Political Science, and one certificate in liberal arts through the institution (*Bachelor Degree Programs 2007, Certificate Programs 2007, and Master Degree Programs 2007*). Otherwise, the social sciences and humanities are completely excluded.

However, Nancy Franklin explains that there is a place for the social sciences at IALR, but there is little to no funding to bring those courses to the Institute. She noted, "Other than the tobacco commission funding, that we just received, we don't have any budget to make courses available, to bring courses in; so we do a lot where there is not a price tag associated" (Franklin, N. 2007). In other words, many of the courses that are offered by the institute, whether on-site or through distance learning, are courses and programs that local and state colleges and universities have approached IALR about offering, or they are courses and degree programs that have been funded by Tobacco Commission grant money designated for specific programs that align with the Institute's applied research programs. Additionally, she indicated that many faculty members at Virginia Tech (in several disciplines) have expressed interest in offering courses on-site at IALR. Yet they are unable to do so because of the lack of funding.

The lack of funding and interest of other colleges and universities in wanting to offer courses and perhaps the generally underdeveloped nature of such offerings at Virginia Tech in the social sciences can be construed as a symptom of neoliberalism. As noted in chapter one, the social sciences, humanities, and liberal arts more generally are typically pushed to the side and receive little, if any, funding. In addition, it is often perceived that these disciplines do not produce workers or jobs that can contribute to the emerging global economic structure; thus the jobs that are often associated with these fields are less lucrative. Therefore, it is not very surprising that IALR lacks funding to provide courses in the social sciences or humanities, or that the colleges and universities that are providing online based programs through IALR are only offering programs that are categorized as emerging fields in the new economy or can be easily or appropriately taught online.

Southside Higher Education Coalition (SHEC)

The Southside Higher Education Coalition is a consortium of three institutions of higher education located in Southside Virginia: the New College Institute (NCI) in Martinsville, the Southern Virginia Higher Education Center (HEC) in South Boston, and IALR. The Coalition was formed following legislation passed by the Virginia General Assembly mandating that the three institutions work together and provide an annual report of their collaboration. According to Nancy Franklin, the Coalition has cross marketed its educational programs and pursued funding together. However, the primary purpose of the Coalition is to provide baccalaureate degrees in the area. Franklin states:

And what that essentially does is allow the region to build on existing educational assets, which of course include K-12 and community colleges, but then by adding on the baccalaureate completion piece we don't have to send people out of the region to finish their bachelor's degree. So essentially what we are doing is partnering with accredited four-year institutions around the state to bring junior and senior level coursework here to the region... (Franklin, N. 2007).

Each facility is supposed to offer differing degree programs to avoid duplication and competition. Therefore, Franklin notes that IALR has aligned its degree programs with its research activities. Anne Moore¹⁷ provided further clarification of the Coalition's separate educational focal points. She stated, "And so at the institute, since IALR was already focused on advanced education and research retained that focus; in Martinsville, the New College Institute decided to focus on undergraduate education and the Southern Virginia Higher Education Center in South Boston decided to focus on K-12 and the arts" (Moore 2007).

¹⁷ Anne Moore is the Associate Vice President of Learning Technologies at Virginia Tech. She is no longer directly involved with the Institute, but she stated in her interview that she was one of the individuals who drafted the proposal for the creation of IALR. My interview with Dr. Moore was conducted on March 8, 2007 at 3:30 pm in Dr. Moore's office at Virginia Tech in Blacksburg, Virginia. The interview lasted approximately 30 minutes.

Applied Research Programs

One of IALR's main functions is to provide research expertise and develop research that will benefit the dwindling economy in Southside. In July 2005, IALR opened its research labs.¹⁸ Each of the academic programs and the majority of the courses offered online and onsite at IALR have relevance to IALR's applied research programs. According to administrators and supporters of IALR, the Institute's primary focus is research because it has the potential to attract jobs, promote retention of local talent, and attract outside talent to the area. The presence of educational programs is not enough to meet the needs of the community. In an article in *Nano Investor News*, John R. Morrow, Jr., writes:

There is a recognition that simply infusing money into improved education will not solve the problem, since educating the local population without providing them careers with which to utilize their newly developed skills will simply drive them out of the community to better opportunities and make matter[s] worse.

(Morrow 2005, par. 3).

Therefore, the Institute and its supporters found it necessary to marry IALR's educational goals with its research programs, which are as follows:

Advanced and Applied Polymer Processing Institute (AAPPI)

According to IALR's website, AAPPI "serves as a virtual incubator for development of entrepreneurial polymer-related businesses and strengthening established polymer-based corporations in the region" (*The Advanced and Applied Polymer Processing Institute (AAPPI) 2007*, par. 2). AAPPI specifically targets small and mid-sized polymer companies. Moreover, the program's facilities and expertise are available to corporations for contract research; thus indicating that the institute, which is primarily funded by the federal government and the Commonwealth of Virginia, and the expertise Virginia Tech, a state-funded university, and its faculty can enter into contracts with

¹⁸ As previously stated, IALR's primary research programs include: Advanced and Applied Polymer Processing Institute (AAPPI), Institute for Sustainable and Renewable Resources (ISRR), Joint Unmanned Systems Test, Experimentation, and Research (JUSTER) center, and the Virginia Institute for Performance Engineering and Research (VIPER).

corporate bidders or other entrepreneurs (*The Advanced and Applied Polymer Processing Institute (AAPPI)* 2007, par. 3).

In 2004, IALR's AAPPI program received \$1,592,000 in funding from the Small Business Administration under the terms of the Consolidated Appropriations Act of 2004 (Owczarski 2004, par. 1). Virginia Tech research scientist and professor of engineering, Ron Moffitt serves as director of the AAPPI program. Yet Moffitt's responsibilities extend beyond simply conducting research and teaching students. Tim Franklin indicates that Moffitt "has been cultivating business and research contracts..." (Owczarski 2004, par. 3).¹⁹ One of the goals of AAPPI is to develop polymer-processing technologies to license for local commercial development. In other words, IALR hopes to help revitalize the economy by developing entrepreneurial, new polymer-related businesses, as well as strengthen existing polymer-based corporations to create new jobs (Owczarski 2004, par. 4). Furthermore, AAPPI is designed to provide educational opportunities and training to the polymer industry.

Joint Unmanned System Test, Experimentation, and Research (JOUSTER)

JOUSTER is dedicated to the "scientifically based evaluation, comparison, and development of unmanned systems" (*Joint Unmanned Systems Test Experimentation, and Research Site (JOUSTER)* 2007, par. 1). IALR's interest in developing such technology has emerged with the Department of Defense's emphasis on the use of unmanned systems on battlefields. However, JOUSTER's infrastructure and expertise are available to private robotics firms and defense contractors; thus JOUSTER contracts with defense

¹⁹ Virginia Tech named Timothy V. Franklin, former associate president for government relations and planning at Indiana State University, as Director of IALR. In this position, Franklin must build Virginia Tech's presence in the area, attract funding to the institute, find ways to help develop the region's economy, and collaborate with educational institutions and businesses to "identify and meet the area's educational needs" ("2000-2001 Annual President's Report: Tech Applies Technological Expertise to Southside Economy" 2001, par. 5). The interview with Dr. Franklin was conducted on March 9, 2007 at 11:00 a.m. in his office at IALR located in Danville, Virginia. The interview lasted approximately one hour to one and a half hours.

corporations and the military to produce unmanned vehicles and other robotics. In addition, IALR houses Michelle Kalphat, chief engineer and the United States Army's project director for JOUSTER, which signifies the program's commitment to supporting and pursuing defense contracts.

Institute for Sustainable and Renewable Resources (ISRR) and Biotechnology

While ISRR has the potential to be extremely beneficial to farmers in the Southside area, there are again some aspects of the program that are often associated with a neoliberal agenda. For example, several corporations have begun developing and promoting the spread of genetically modified crops, which the authors of *Alternatives to Economic Globalization* contend promotes the commodification of genetic material.

IALR has framed ISRR's role as one that will help Southside's economy and agricultural sector shift from one based in tobacco to one based in new horticulture and forestry industries (*The Institute for Sustainable and Renewable Resources (ISRR) 2007*, par. 2). Utilizing Virginia Tech's Departments of Horticulture and Forestry, IALR uses biotechnology to develop new high-value crops for the farmers in the region.²⁰ In addition, "The IRSS will create biotechnology and tissue culture laboratories, greenhouses and field-testing facilities, and a bioinformatics center, all focused on the future of agriculture in Southside" (*The Institute for Sustainable and Renewable Resources (ISRR) 2007*, par. 2).

One of ISRR's initial projects includes the production of cloned trees. While references to the production of these trees never specifically mention genetically modified trees, there is some evidence to indicate that the trees produced from these projects are genetically modified. For instance, in an article in the *Danville Register & Bee*, John Hale reports that the project involved a partnership between Virginia Tech and CellFor, a Canadian high-technology seed company (Hale 2005b, par. 4). According to CellFor's website, its high-technology seeds are produced by a process known as somatic embryogenesis. Through this process, the company is able to produce "large quantities

²⁰ Tim Franklin characterizes high-value crops as crops that are cost effective. He states, "So what you are doing when you talk about high-value what you are trying to do is have plants that are, there is a high premium. Producing them costs a lot less than what they can be sold for" (Franklin, T. 2007).

of improved seeds and seedlings” with “improved genetic gain, improved wood uniformity and quality, increased resistance to disease and pest infestation, and most importantly, greater yield” (*The Seeds of a Successful Business* 2003, par. 3-4).

Additional research projects conducted at IALR include the creation of an Innovation Center for Biotechnology-based Economic Development.²¹ In a *Virginia Tech News* article, Craig Nessler stated that the research center, which would be housed in the ISRR at IALR, would produce new bio-based products and provide training to workers in the region to attract additional biotech research and industry to the area (Greiner 2005, par. 3).²² The research in this center specifically focuses on genomics and genetic engineering research. As a result additional genetically engineered crops are produced as a means of identifying alternative crops for the region. Genetically engineered crops that have been researched thus far include several ornamental crops such as orchids ("Finding Alternatives: Settlement seen as a 'Marshall Plan' for tobacco communities" 2002, par. 35). Furthermore, the center will focus on the development and production of “high-value pharmaceuticals and other plant- or microbe-derived chemicals as feedstocks for industrial use” (Greiner 2005, par. 8).

Virginia Institute for Performance Engineering and Research (VIPER) and the Virginia International Raceway (VIR)

In conjunction with Virginia Tech’s Advanced Vehicle Dynamics Laboratory (AVDL), IALR’s VIPER program was created to make strides in vehicles dynamics and engineering. Moreover, VIPER is seen as an essential component to IALR’s educational goals. According to IALR’s website, VIPER provides graduate students a unique learning experience; they have the opportunity to take courses that focus on vehicle dynamics and engineering and will receive hands on training from Virginia Tech faculty (*Virginia Institute for Performance Engineering and Research (VIPER)* 2007, par. 3).

²¹ Virginia Tech’s College of Agriculture and Life Sciences received an award of \$890,000 from the Virginia Tobacco Commission to create the center (Greiner, par. 1).

²² According to Lori Greiner, Craig Nessler is the director of the Virginia Agriculture Experiment Station and associate dean for research for the College of Agriculture and Life Sciences (Greiner 2005, par. 2).

The Institute also hopes to provide K-12 and undergraduate programs in the VIPER program.

VIPER is viewed as a vital component of IALR's applied research program because of its commercial and corporate potential. A press release from the Institute claims that VIPER is "designed to be a vehicle testing facility available to racing teams and the automotive industry as well as researchers and students" (Callaway 2005d, par. 2). Amandian states, "VIPER is expected to achieve breakthroughs for our clients in the automotive and motorsports industries" (Callaway 2005d, par. 4). Yet not all of VIPER's research is sponsored by corporations or the automotive and motorsports industry; much is funded by or contracted with federal government agencies such as NASA and the military. In the summer of 2005, Congressman Virgil Goode (R-5th district) announced that NASA had provided the program with a \$3 million grant to conduct research (Callaway 2005d, par. 6).

The majority of the testing performed by VIPER is conducted at the Virginia International Raceway (VIR) in Halifax County (one of IALR's target areas for economic development). Yet VIPER is not the only program that takes advantage of the facilities at VIR. JOUSTER, which conducts defense research, tests unmanned vehicles for military applications at the raceway (Ruff 2004, par. 2).

Center for Toxicogenomics Research (Bioinformatics)

Although the Center for Toxicogenomics Research is not listed on IALR's website as one of its current research programs, James C. Ruff, a journalist for *The Richmond Times-Dispatch*, indicates that this center initially was listed as one of IALR's key research centers. In this program, researchers are provided the opportunity and equipment to "process huge data sets relating to mapping the human genome for studying the effect of toxins on genetics and the relationship to human health" (Ruff 2006a, par. 11)

Ultimately, each of these research programs/centers has been identified by administrators at IALR and Virginia Tech because of their applicability to the emerging

innovation economy²³ and due to the existing assets and businesses that the region has to offer. Nancy Franklin stated, “I would say that the research centers that are here are here because of assets the community had to offer; so these were not ideas that were just plucked out of the sky. They were created here because there was faculty at VT who saw a lot of value in those assets that were here” (Franklin, N. 2007). Utilizing the assets in the region, funding contributed by various private and public contributors, and the faculty provided by Virginia Tech, IALR is able to offer research labs and facilities that are available for outsourcing to commercial and corporate bidders. According to IALR’s Fall 2005 Quarterly Update, the facility will “provide lab space to commercial entities that locate to this area or are spin-offs of IALR related research” (“IALR Quarterly-Fall 2005” 2005, par. 1).

Entrepreneurial Faculty

The growing partnerships between universities and corporations have greatly altered the function and role of university faculty. The faculty members at IALR are no exception. Indeed, IALR administrators and press releases often refer to the faculty at the institute as “entrepreneurial faculty members.” Faculty located at IALR (and Virginia Tech) are encouraged to forge research partnerships with corporations and local businesses as well as attract funding. Tim Franklin stated that the characterization of entrepreneurial faculty “...implies that they would return in competitive research funds more, perhaps as much as a five to one return on their base investment, which is...we are trying to create a distinction between that kind of research and perhaps more of a core academic research that could be going on, on campus that would be of equal importance

²³ When IALR or Virginia Tech officials refer to the innovation economy, they are most likely referring to what has been dubbed the “new economy.” As stated in chapter one, the “new economy” is “a knowledge-based economy in which wealth is created through skills, information, technology, and innovation capacity rather than through the physical assets...important in the past” (Saiz and Clarke 2004, 419). According to Sandra E. Black and Lisa M. Lynch the “new economy” also can be characterized “by firms increasing their capital investments, especially in information-technology software and hardware. In addition...more firms have adopted work processes in which an increasing proportion of non-managerial workers are involved in problem solving and identifying opportunities for innovation and growth” (Black and Lynch 2004, F97). Therefore, when I reference the innovation economy, I am alluding to the “new economy.”

to the academy, but of less importance to the community” (Franklin, T. 2007).

Therefore, it is expected that these faculty members attract funding that provide a return on the Institute’s investment in those faculty members.

In addition, the administrators at IALR typically are not the contacts for corporations that wish to develop a relationship with the institute or take advantage of the research programs at IALR. For example, the contacts for AAPPI, VIPER, ISRR, and JOUSTER are Dr. Ron Moffitt, Dr. Mehdi Amandian, Dr. Barry Finn, and Dr. Andy Kurdia, respectively. Each of these individuals is employed by Virginia Tech as research and/or teaching faculty; thus the notion of these faculty members serving as contacts for commercial contracts illustrates Washburn’s (2005) contention that neoliberalism can transform the role of university faculty.

Once contracts with corporations have been established, faculty then concentrates their research on projects designated by the corporate sponsor. In addition, many contracts with businesses or corporations require that faculty provide testing and manufacturing advice. Tim Franklin stated: “So they [faculty] either help with testing materials that they [businesses] use in the manufacturing process, they [faculty] give them [businesses] business advice about process, manufacturing process advice about how to do something more safely or with different technical processes would be more productive, analytical testing” (Franklin, T. 2007). Therefore, IALR research programs cater to both local and out-of-the-area corporations and businesses. The first “commercially-sponsored, university research” conducted at IALR was performed by the AAPPI program in 2005 for Applied Felts, Inc. of Martinsville, Virginia (Callaway 2005b, par. 1).

Faculty at IALR also are encouraged to create intellectual property that yields patents and licenses, which can then be outsourced for commercial and corporate purposes. However, the rights to or ownership of those patents and licenses can become contested. According to Tim Franklin, ownership and control of intellectual property produced by faculty at IALR is subject to the criteria set forth in the contracts between the faculty, IALR, and the business or corporation (Franklin, T. 2007). In addition, Franklin noted that faculty are evaluated on their production of intellectual property. He states, “Our faculty, certainly on the research side, are evaluated on developing new

knowledge and that generally takes a couple of forms—one is either in a research article or the other is in defining new intellectual property, you know a patent, process, new invention, reducing something to practice” (Franklin, T. 2007).

The Learning Environment: The Role of Graduate Students at IALR

The majority of the students at IALR are graduate students who have been selected to serve as research or graduate assistants. These students were primarily chosen to work at IALR because their research interests aligned with the research conducted in the Institute’s applied research programs. These students have the opportunity to take courses at IALR with the research faculty, and they are able to take online or videoconference courses at IALR.

The students who serve as research and graduate assistants typically perform research in areas that have been identified by the faculty; this is not to say, however, that graduate/research assistants are not given an opportunity to conduct their own research. Nonetheless, the research performed by these students is usually research that has been contracted to a corporate or government sponsor that will result in the production of marketable intellectual property. Tim Franklin told me, “The faculty are often developing the relationship and the students are very involved in providing the deliverables” (Franklin, T. 2007). In other words, students play a central role in the research process and thus contribute to the research produced for corporations.

Conclusion

A major challenge still facing IALR is the inclusion of other “educational pathways” and research endeavors that are not concentrated in the physical and natural sciences, engineering or mathematics. As previously stated, IALR does not offer, with the exception of one Master’s program and a certificate program (both administered online), any courses or degrees in the social sciences, humanities, or the fine arts. While it understandable that funding is scarce for these subject areas, there is still a need to try to incorporate them into the curriculum at IALR and introduce the Southside community to fields in the areas. An economy cannot grow by only educating future scientists and engineers. Southside cannot survive or (become revived in this case) with the majority of

its educational and research opportunities concentrated in research and development, nor is there any guarantee that the research performed at IALR will spillover into other sectors of the economy.

It is necessary to educate individuals in the community who will pursue careers that are counter to or inconsistent with the innovation economy. While careers in biotechnology or engineering are becoming more prominent and often yield higher paid workers, the fine arts, humanities, and social sciences should not be ignored. These subject areas knowledge about world political structures, the appreciation of other IALR's focus on vocational training and degrees, such as nursing, teaching and criminal justice, also can be somewhat problematic. There is no denying that there is a shortage of good teachers, nurses, police officers and emergency workers in Southside Virginia and the nation; thus offering courses in these particular areas is logical to say the least. Yet there is the risk of simply training a workforce rather than educating individuals.

IALR's research endeavors are particularly characteristic of a higher education institution that has been enveloped by a neoliberal framework. First, the areas in which IALR has chosen to focus its applied research programs are directly linked to their applicability to the innovation economy, which is shaped by neoliberal discourse. Second, the majority of the research conducted at IALR is performed by researchers with the hope of producing intellectual property that will yield products for technology transfer. Additionally, the majority of this research is funded and coordinated specifically to meet the needs of corporate, commercial, and government sponsors. Of course, some of this research is conducted for local corporations and businesses. Nonetheless, state employed researchers and graduate students conduct this research with the primary intention of generating a product that is lucrative and marketable for commercial and corporate entities. Furthermore, researchers at IALR are evaluated on their production of intellectual property either in the form of scholarly, peer-reviewed publications, patents, and/or licenses.²⁴

²⁴ Admittedly, the production of intellectual property by faculty is a requirement of by most research universities. Yet, as Washburn (2005) points out, it is still considered to be a symptom associated with the corporatization of higher education.

Chapter Three
Reaching out to the Community:
Assessing IALR's Community and Outreach Programs

Introduction

Economic development is the primary purpose of IALR. However, one means of altering the economic makeup of the region is to promote community development and cultural transformation. Therefore, IALR offers various outreach programs to the community in hopes that these programs will not only connect the community to IALR, but also introduce various populations in the community to the innovation economy. The outreach programs at IALR are intended for multiple groups: K-12 teachers, students, current and aspiring business owners and entrepreneurs, farmers, racial and ethnic minorities, and the elderly.

In order to introduce these populations to the innovation economy, many of the outreach programs at IALR are concentrated in areas such as science, technology, engineering, and math.²⁵ Therefore, IALR's outreach programs are made relevant to the Institute's academic endeavors and applied research programs. This strategy is seen as a means of creating a "culture of learning" in the region. John Dooley²⁶ stated, "part of our objective of the outreach program is to develop a learning environment or learning culture in Southside...One of the attitudinal issues that we need to address is the value of education for economic and social well being, so we need to continue to work on that" (Dooley 2007).

This chapter will examine several of IALR's outreach programs, such as its teacher education programs, summer camps and other youth related activities,

²⁵ Nancy Franklin stated in an interview conducted on March 12, 2007 that the areas of science, technology, engineering, and math were the primary focus of IALR's outreach programs.

²⁶ John Dooley is the Vice Provost for Outreach and International Affairs at Virginia Tech. Dooley was appointed to IALR's board of trustees by Virginia Tech president Charles Steger. According to Dooley, the executive director of IALR (Tim Franklin) reports to him regarding IALR's activities. The interview with Dr. Dooley was conducted on April 6, 2007 at 11:15 a.m. in his office at Virginia Tech in Blacksburg, Virginia. The interview lasted approximately 30-45 minutes.

AmeriCorps, and technology-based endeavors. In addition, this chapter will study outreach programs that have been developed to enhance entrepreneurial activities and assist tobacco farmers in the region with finding alternative crops and developing marketing strategies. Finally this chapter will examine whether the described outreach programs are neoliberal in nature.

Educating Teachers

Several of the teacher education workshops offered through IALR's outreach programs have neoliberal undertones. For instance, many of the programs offered to teachers and school administrators in the Dan River region are specifically designed to enhance teachers' technology, science, and math skills. Dooley stated: "We are becoming a partner—we have become a partner with public education in Southside, and where we are particularly relates to science, technology, engineering and mathematics to increase and enhance the delivery of quality of science, technology, engineering and mathematics programs in the public school systems" (Dooley 2007). In K-12 teacher education workshops, IALR provides teachers with training to develop technology skills and enhance their abilities to teach specific subjects, particularly math and the sciences.

Of course, the offering of such workshops is not in and of itself neoliberal. However, the IALR website stresses that these programs are offered to teachers and school administrators to help the "creation of seamless pathways to IALR strategic academic programs" (*Teacher Education* 2007, par 1). In other words, these programs are offered so that teachers will be more equipped to incorporate technology, the physical and natural sciences and math into their classroom curricula in hopes that doing so will prompt children to pursue educational paths that correspond with the educational opportunities offered at IALR, which are concentrated in applied research programs that were specifically identified because of their growing importance and role in the innovation economy.

IALR offers educators with the opportunity to participate in a program known as the Cutting Edge. "The Cutting Edge is a series of four symposia for teachers, combining an opportunity to hear about the newest topics in science and mathematics with practical help on integrating the subject into the classroom to meet Virginia Standards of

Learning” (*Teacher Education* 2007, par. 2). The first symposium offered in this program focused on bioinformatics, while later sessions were devoted to topics such as biotechnology, robotics, and nanotechnology.

Another program offered to educators via IALR includes the Southside Educators’ Development Institute (SEDI). The SEDI program again focuses on providing educators with assistance in incorporating technology into their curricula. In addition, the SEDI program is designed to provide math and sciences teachers with the information regarding emerging advances in those subjects. Math and science teachers are informed about emerging fields, such as nanotechnology, biotechnology, bioinformatics, and robotics.

These outreach programs focus on areas such as mathematics, technology, and science that have been identified as areas that children need to emphasize in order to secure a flexible and available job in the emerging economic structure. Moreover, the areas of nanotechnology, biotechnology, bioinformatics, and robotics are fields in which IALR has developed or is in the processing of developing research centers. As previously noted, these are research areas that are perceived to have more economic viability in the Dan River region and in the overall global economy.

Connecting to Southside’s Youth

One of the ways in which IALR attempts to connect to the younger residents in Southside Virginia is through after school activities and tutoring programs and a summer camp known as Southside Summer Adventure (SSA). The SSA is a series of educational programs in subjects such as science, technology and mathematics (*Southside Summer Adventure* 2007, par. 1). However, the camp also has been used a medium for computer software. During the summer of 2006, Sycom, a vendor of Microsoft products, selected camp attendees to test Microsoft’s most recent software program, Microsoft Vista (Elzey 2006, par. 2). A corporation, in this case Sycom, has taken advantage of a free pool of test subjects and used it to test their product.

In order to connect to high school students, IALR devised the Dan River Information Technology Academy (DRITA). The DRITA program “is a three-year program for high school students who are interested in pursuing IT [information

technology] and STEM [science, technology, engineering, and mathematics] careers” (*K-12 Student Programs 2007*, par. 2). It appears that these students are encouraged to pursue careers in fields that directly relate to IALR’s applied research programs. These students develop information technology skills and are provided guidance for pursuing careers in areas such as engineering, science, technology, and mathematics.

IALR also offers a field trip program to schools in Southside Virginia. Nancy Franklin elaborates:

We have a field trip program where we encourage schools within our region to bring kids here, bus loads of kids so they can get a sense for science and technology in action, talk with scientists or IT people, get a feel for what they do, why they are excited about their careers. And then we talk to kids...and they often make the links between where they are with what they have to study in school to get there and education is really important (Franklin, N. 2007).

These children are introduced to fields in which IALR concentrates its research and educational pathways. Therefore, these children have the potential of connecting their future career aspirations to fields that are endorsed by the innovation economy and that may provide IALR with future researchers and students.

However, not of all the information provided to children on these fieldtrips is focused on IALR’s research areas and associated educational opportunities. While at IALR, the students also are provided information about college financial aid. IALR sponsors similar workshops for students in the area that conveys information about college financial aid. During these workshops, students are given information about loans, scholarships, grants, and work-study. The institute provides additional assistance to aid students and their families in filling out Free Application for Student Aid (FAFSA) forms for college admission. Offering workshops and information regarding financial aid to college bound students cannot be construed as a neoliberal activity. The area in which most families cannot even assist, let alone pay for, is helping their children attend college; thus simply informing students who wish to pursue a college degree of funding options to attend college should not be considered to be a neoliberal endeavor. Moreover, interviewees for this thesis and the Institute’s website did not mention that

students who attend these workshops are encouraged to pursue a certain field in pursuit of their degree.

One of the more interesting programs offered at IALR for younger individuals in the Dan River region include the Computer Refurbishing Program. The program provides old computers that need refurbishing, which are donated by Goodwill Industries in Danville to young individuals who are interested in learning more about technology. Through the program the young person is given the opportunity to repair, upgrade, and refurbish computers. Goodwill then sells these computers at low costs to “underserved homes and teachers” (*K-12 Student Programs* 2007, par. 3). Again this program cannot necessarily be placed within the framework of neoliberal discourse. While the skills that are provided to these individuals are vocational and relate to the importance of a technology-based society, there was no indication given that participants are encouraged to pursue a career in a field that related to IALR’s applied research programs.

Including Senior Citizens

One portion of the general population that typically is ignored or forgotten in the intellectual and economic revitalization of a region is the senior citizen population. However, IALR has attempted to provide senior citizens in the Dan River region with some background on the types of technologies that the Institute seeks to bring to the area and in the topics and issues that its applied research programs focus in. In 2005, IALR began coordinating the Lunch & Learn Seniors Program. The initial topics discussed during these sessions “focused on new industries such as nanotechnology and IALR research efforts such as horticulture” (“IALR Quarterly-Fall 2005” 2005, par. 9).

Reaching out to the senior population is a distinctive attribute of IALR’s outreach programs. It is interesting that the topics of the Lunch & Learn Seniors Program include sessions on nanotechnology, for instance. It appears as if IALR is attempting not only to inform the senior population about the projects and activities that are being conducted at IALR to revitalize the community, but also to develop support for such programs. As a result, the senior citizen population in the Dan River region becomes aware of the aspects of the innovation economy and thus maybe more willing to support endeavors taken to incorporate the region into that economic model.

Connecting Residents to Information Technologies and Entrepreneurial Programs

Global connectivity and technological/computer skills are seen as vital assets in the innovation economy. IALR created the Community Network Center (CNC), which provides residents with access to the Internet and Microsoft software. For those who do not have knowledge about using such programs or the Internet, IALR offers several workshops to the community in hopes of enhancing computer literacy in the region. The institute also provides workshops concentrated in areas specific to business owners. For example, in the fall of 2006, IALR offered workshops such as Microsoft Excel for Business and Microsoft PowerPoint for Business (*Outreach 2007*, par. 3-4). In addition, the institute provides residents in the region with access to “high-end computer applications,” such as programs that aid in “graphics authoring, digital video editing, scanning, and still and video cameras” (*Public Computer Facilities 2007*, par. 3).

IALR’s outreach mission does not exclude local businesses or entrepreneurs. On the contrary, the Institute offers several outreach programs offered designed primarily to enhance business productivity and/or aid in business startup ventures. One such program is IALR’s e-Commerce program. The e-Commerce program provides business owners who are interested in trading goods and services via the Internet with practical training and assistance (*Learning Liftoff 2007*, par. 2). According to Virginia Tech’s 2007 Application for the C. Peter Magrath/W.K. Kellogg Foundation Engagement Award, 115 local business owners and employees have utilized IALR’s e-Commerce program (Virginia Polytechnic Institute and State University 2007, 6).

Providing individuals with access to the Internet does not necessarily fit within the purview of neoliberalism. However, IALR frames its justification for doing so as a means of providing global connectivity. Nancy Fraser argues that this could be problematic because global media and communication have the potential to fracture and hybridize cultural forms (Fraser and Honneth 2003, 91). In addition, she argues global communication has the potential to simplify and reify group identities (Fraser and Honneth 2003, 91).

IALR’s eCommerce program and the use of various software and technology employed to enhance the community’s dependence on the Internet and other advanced

forms of production also could fit within the framework of a neoliberal agenda. This is derived from the notion that technological advancements will aid in the development and enhancement of entrepreneurial activities. As a result, there is a need to search and provide new products (software), new production methods (offered through these workshops) and new organizational forms. Harvey contends, “This drive becomes so deeply embedded in entrepreneurial common sense, however, that it becomes a fetish belief: that there is a technological fix for each and every problem” (Harvey 2005, 68).

Engaging the Farmers of Southside

For years tobacco farming was the backbone of Southside’s economy, but with the decline in tobacco prices tobacco has become a scarce and unprofitable crop. As a result, farmers in the area have either abandoned farming or turned to alternative crops. Once again tapping into its applied research programs (specifically ISRR), IALR has sponsored several workshops and conferences at the Institute specifically for farmers seeking alternative crops to tobacco. One such conference was held in the Fall of 2005; at this conference, agriculture experts from universities throughout the nation (particularly in the South), provided farmers in the region with ideas regarding the transformation of tobacco greenhouses into greenhouses equipped with hydroponic systems that would allow for the continual growth of vegetables, fruits, and ornamental plants (Chestnut 2005, par. 7).

IALR’s desire to help the farmers of Southside is commendable. Moreover, farmers in this region are an essential part of the community and are often forgotten. This effort to include a typically forgotten population runs counter to the contention that neoliberalism ignores the community. Yet there is still a potential problem that may arise from these and other outreach programs—the role of expertise. It is necessary for farmers to find alternative crops to replace tobacco, but experts from universities must be careful not to import their expertise in agriculture without recognition of the expertise of the farmers whom they are attempting to assist. Frank Fischer contends that professionals possess an elite expertise and thus have a tendency to “define the client’s problems (whether those of an individual or a whole community), often impose definitions and meanings that speak at least as much to the system’s imperatives as to the

client's needs" (Fisher 2002, 31). Therefore, the expertise of the client, or in the case of Southside Virginia the local tobacco farmer, is subordinated to the expertise of the university professor who possesses a degree in agriculture, horticulture, or some other related field.

Southside Community Advocates for Learning Excellence, United for Progress (SCALE UP) and the involvement of Non-Profit Organizations at IALR

One of the more community involved outreach initiatives at IALR is the collaborative effort between the Institute and the racial and ethnic minorities in the community, which resulted in the development of SCALE UP. SCALE UP was created to help support the economic revitalization effort in Southside Virginia (particularly the Dan River region) and provide greater representation of racial and ethnic minorities in the community. Moreover, Dooley contends that one cannot talk about the Institute without mentioning SCALE UP. SCALE UP introduces portions of the population to IALR that would not normally develop a relationship with it.

The organization has six specific goals in the area:²⁷

1. Raise the expectations and involvement of the community, students, and parents in educational programs and activities;
2. Improve the perception and reality of the availability of accessible educational and training opportunities for residents in the community;
3. Promote the concept of continuing education to adult populations; and
4. Create partnerships that will allow for the dissemination of information regarding educational and training programs'
5. Identify, develop, and/or promote "exemplary educational and training programs for the community" (*SCALE UP*, par. 5); and
6. Promote awareness about IALR ("Southside Community Advocates for Learning Excellence United for Progress" 2003, 5).

²⁷ The goals listed above, with the exception of number 6, are paraphrased and can be found at IALR's website, http://www.ialr.org/outreach/scale_up.html. The sixth goal can be found in SCALE UP's strategic plan.

An additional objective of SCALE UP, though not identified as such, is its inclusion of various racial and ethnic groups. Dooley stated, “You know, the whole intention here is to engage the whole community, and accepting its leadership responsibilities in advancing the goals and objectives of the community. And it is particularly, SCALE UP is, particularly focused on those within the community who for whatever reason may or may not feel enfranchised to be participants in determining the community’s future” (Dooley 2007). The inclusion of such groups is distinctly uncharacteristic of an Institute that is beholden to a neoliberal discourse that promotes capitalist globalization.

AmeriCorps

One of IALR’s outreach programs involves collaboration with AmeriCorps. In 1993 President Bill Clinton signed into law the National and Community Service Trust Act, which established the Corporation for National and Community Service. The role of the Corporation for National and Community Service is to oversee the Volunteers in Service to America (VISTA) program, the National Civilian Community Corps (NCCC), and the then newly created AmeriCorps program (*History, Legislation, and Budget 2007*, par. 3). The purpose of the AmeriCorp program was to develop a network of national service programs that engage Americans in intensive service to meet the country’s critical needs in education, public safety, health, and the environment (*History, Legislation, and Budget 2007*, par. 2).

In July 2005, IALR received a \$75,461 grant from the Virginia Commission on National and Community Service and \$88,000 from the United Way of Danville-Pittsylvania County to develop the first national AmeriCorps program in Southside Virginia. The AmeriCorps volunteers at IALR focus their attention in three distinct areas:

1. Volunteers participate in Danville Public Schools’ “Book Buddies” program, which helps first graders who are not reading at grade level to improve their reading skills.
2. Volunteers are involved in IALR’s “Learning Liftoff” program, which is a math literacy programs designed to help individuals of all ages enhance their math skills. In this program, AmeriCorp volunteers serve as on-site coordinators and tutors in IALR’s Computer Emporium. In the Emporium, adults have the

- opportunity to study for a General Education Degree and the COMPASS exam (community college placement exam), or to enhance their math skills. In addition, children and teenagers have the opportunity to practice for the Virginia SOL tests or take advanced mathematics courses such as calculus (*Learning Liftoff* 2007, par. 1); and
3. Volunteers help coordinate and conduct after-school and summer programs. (Callaway 2005a, par. 3).

According to a press release issued by IALR announcing the grant, two AmeriCorps volunteers have also been assigned the task of creating a “Volunteer Center” in the Dan River region (Callaway 2005a, par. 4). The Volunteer Center has the responsibility of working in coordination with the United Way of Danville-Pittsylvania County and the Danville Pittsylvania County Chamber of Commerce. The goals of the Center include providing services that will allow the volunteers to better connect with community organizations and helping community organizations develop effective methods for managing volunteers and their organizations.

The presence of AmeriCorp at IALR does not place the Institute into a neoliberal framework. Based on accounts from Nancy Franklin and information presented on the Institute’s website, the AmeriCorps program at IALR is present primarily to provide and improve reading and math literacy among students in the area. The need to improve literacy in these areas is one that is found nationwide and represents a basic intellectual need and right within public and private education and in the citizenry.

Yet it is possible to contend that some AmeriCorps programs do have the potential to promote some aspects of a neoliberal agenda, particularly the exploitation of its participants. AmeriCorps is a national service program that is considered to be a means through which younger individuals can better the nation as a whole while receiving compensation in the form of scholarships or loan deferments. AmeriCorp participants are often placed in communities that require assistance in development. However, the primary goal of AmeriCorps is to provide communities with “volunteers”²⁸ to help the

²⁸ In *National Service, Citizenship, and Political Education* (1992), Gorham defines three types of service: coercive, compulsory, and voluntary. Gorham’s definition of voluntary service does not entail any form of compensation or incentive for services rendered

development of a region into the “ideal” American community. The participants, as Eric Gorham²⁹ would suggest, become only a means of labor and thus participants do not receive the full benefit of committing themselves to a community service endeavor. Yet this is not a claim that IALR views AmeriCorp “volunteers” as free labor. Instead, the AmeriCorp program (and its members) at IALR is viewed as an integral part of the Institute that performs important tasks that will help transform the community’s conception of education and educational attainment.

IALR’s Governance Structure

According to Timothy Franklin, IALR’s governance structure is the cornerstone of the community’s involvement with IALR and Virginia Tech. He asserts that the governance structure allows for a process of shared priority setting. Franklin stated, “You have a process for shared priority setting [by the university] with community leadership, so you essentially have a reciprocal process in deciding what you are going to do together, what the money is going to be spent on, which is a lot more sympathetic in its effect than having money sent to campus” (Franklin, T. 2007). Therefore, the community (through its representatives) has the ability to designate the allocation of funds among IALR programs based on community interests.

Franklin does not view IALR’s position in the community as an ivory tower situation either. He contends that individuals from the university such as administrators

(Gorham 1992, 31-51). AmeriCorp members, however, receive stipends for their work, as well as monetary compensation for educational expenses, such as tuition and/or student loans (*Benefits of AmeriCorps Service* 2007, par. 4-5). Since some form of compensation is received for the services performed by AmeriCorp members, they do not meet the criteria set forth by Gorham to be considered as performing voluntary service; thus the term volunteer is placed in quotations.

²⁹ Gorham does not directly address AmeriCorps since it did not exist when he wrote *National Service, Citizenship, and Political Education*. However, throughout the book he analyzes the history and theoretical underpinnings of national service, civic education, and citizenship in the United States. One of his many conclusions is that national service programs have a tendency to exploit its participants by placing them in positions they do menial work or tasks often associated with vocational jobs. While AmeriCorps has changed since its inception in 1993, there is still a tendency for the participants to at times be put in service placements that require them to perform only clerical work or other menial tasks rather than interacting with the community in which they are placed.

and faculty are located at IALR to create and “package” ideas. The community is then able to “buy” those ideas. He states:

We have got university leaders in research or economic development or organizational development, like me, or the research leaders who are providing opportunities and kind of packaging ideas, programs or projects and ways to spend money for/in the community. But the community is in a position to buy [these ideas]...and so it is very much a pull model versus a push model as they talk about it (Franklin, T. 2007).

Such a description characterizes the community as a consumer of ideas. Moreover, he characterizes the community as a user of IALR’s infrastructure and equipment. For example, Dr. Franklin stressed that the building in which IALR is housed is owned by the community; it was built with money granted to the community by the Virginia Tobacco Commission³⁰. The Institute also received grant money from the Tobacco Commission to purchase a seven-post rig, which the VIPER program uses to “accurately simulate the stresses and strains of the road or a racing track on vehicles, but in a controlled, laboratory environment” (Callaway 2005c, par. 1).

IALR’s has an interesting definition of and relationship with the community. One typically thinks of the community in the same manner that one might conceive civil society—separate from the government and corporate interests. Yet when Tim Franklin referred to the community, he described community interests as “some of which are corporate and some of which are the government’s,” thus indicating that the community (from IALR’s perspective) does not exclude the government or corporate interests (Franklin, T. 2007).

Franklin does concede that community involvement with IALR has been minimal in the early stages of the institute’s existence. He notes that elite community leaders, who are still extremely active with the Institute, approached Virginia Tech.³¹ However, there is a need to incorporate individuals from the general population into IALR’s governance structure. Community leaders that serve on IALR’s Board of Trustees are the

³⁰ Refer to Appendix B for information regarding the history of Tobacco Commission.

³¹ Elite community leaders typically refers to members of the Future of the Piedmont Foundation. For information regarding the Future of the Piedmont Foundation refer to Appendix B.

elite community leaders in the region. In addition, the Virginia General Assembly and IALR's educational partners appointed many of these individuals to the institute's Board of Trustees. The Board does include three individuals who were appointed by either the Future of the Piedmont Foundation, the Pittsylvania County Board of Supervisors, and the Danville City Council. Therefore, among the challenges facing IALR is including board members who will be more representative of the general population in the Dan River region; according to Ben Davenport, Jr.,³² garnering community support "...is probably the most difficult aspect of this whole thing. It is a real dilemma on how to get the community involved, and it would also be the, I would say, the greatest failure we have had to this point" (Davenport 2007).

Conclusion

Overall, IALR's outreach programs do exhibit some neoliberal tendencies. For example, IALR's teacher education programs, youth activities, such as its summer camps, and programs for the elderly have been crafted to promote educational subjects and careers that are grounded in research areas (math, science, technology, and engineering) that are considered to be privileged by a neoliberal economy. (There is a need for IALR to offer community and outreach programs in areas like the arts.) For example, IALR is a beautiful, spacious structure. The lobby of the Institute could easily serve as a location for a community art show, which could feature local artists as well as aspiring student artists from in the region. On a monthly basis, the facility could feature artwork from a local artist. In addition, the facility could host lectures on the history of

³² Ben Davenport, Jr. is one of the founders of the Future of the Piedmont Foundation, which initially approached Virginia Tech about locating a facility in Southside Virginia to help assist in the economic revitalization of the region. In addition, Davenport is the former Rector of the Virginia Tech Board of Visitors, on which he still serves. Although Davenport is not on IALR's Board of Trustees, he stated that he acts, as "an ally and someone who more or less on an ad hoc basis works wherever needed dealing with political matters or promoting the institute." The interview with Mr. Davenport was conducted on March 27, 2007 at 2:00 p.m. in his office located in Chatham, Virginia. The interview lasted approximately 30-45 minutes. Mr. Davenport was provided a copy of the transcript from the interview and was asked to review the copy for accuracy, but he did not respond. I did not feel it appropriate to contact him again considering recent events.

the area. There are many possibilities for incorporating the arts, humanities, and social sciences into the institution's outreach programs.

Meanwhile, some programs are not necessarily neoliberal. IALR's attempt to offer financial aid workshops for college bound students in the region is in no way neoliberal. Developing programs that aid individuals to simply attend college cannot be construed as an aspect of neoliberalism because (particularly in the case of IALR) there is not evident intention to necessarily profit from such programs. Of course, IALR does hope that students who benefit from such programs will return to the area after obtaining their college degree(s), but this is a hope that most communities possess. The AmeriCorps program located at the Institute also cannot be considered to be necessarily neoliberal. The focus of AmeriCorps is primarily to provide reading and math literacy to children. Moreover, simply coordinating math tutorial sessions or maintaining the computer lab at IALR does not qualify the AmeriCorps program or its volunteers as objects of a neoliberal discourse.

Despite the fact that many of the outreach and community programs IALR offers have some neoliberal undertones due to their concentration in fields related to the Institute's applied research programs, the community is not a realm that the Institute has ignored. David Harvey (2005) contends that neoliberal ideology dictates that society and communities be ignored for the sake of unregulated market expansion. Furthermore, critics of globalization argue that neoliberal policies and capitalist globalization marginalize and exclude certain populations from decision-making processes. IALR's attempts to provide programs to farmers and the elderly as well as its unique relationship with SCALE UP, a community organization dedicated to the inclusion of minority groups, demonstrates the opposite of or at least inconsistent with that contention. IALR (as a neoliberal institution) would not include any population of the community in any of its activities in the region. On the contrary, IALR is making strides in connecting with and including the community in its programs. Many of the programs offered are designed to get the community more involved with the Institute and to learn more about the goals and opportunities that the Institute has to offer. Of course, IALR still faces the daunting task of involving larger portions of the community.

Chapter Four

Working as a Catalyst for Economic Development

Introduction

IALR's overarching goal is to serve as a catalyst for economic development in Southside Virginia. In order to accomplish this goal, it has developed multiple academic, research, and outreach programs designed to bring Southside into the innovation economy (and bring the innovation economy to Southside). Furthermore, these programs are enhanced by the relationship that IALR maintains with its educational partners, Virginia Tech, Danville Community College, and Averett University. In particular, IALR is perceived to be a model for university-led economic development in "distributed research" and a Virginia Tech innovation (Greer 2005, par. 4).

This chapter examines how IALR uses its academic, research, and outreach programs to foster a "culture of learning" and helps prevent "brain drain." It introduces other aspects of IALR's economic revitalization plan such as the development of fiber optic and high-speed telecommunications. In addition, this chapter explores how IALR's is envisioned as a means of transforming the region into a destination location and ultimately becoming a symbol of economic revitalization for the region.

eDan and the Development of Regional and Global Connectivity

The first step that was taken in Southside Virginia to revitalize the economy was the development of a communication and information technology infrastructure. The primary incentive to create a fiber optic and high-speed telecommunications infrastructure occurred as a result of the continual loss of prospective businesses locations in the area. According to Kevin Miller, a journalist for the *Roanoke Times*, the biggest setback for the region (particularly Danville and Pittsylvania County) occurred when America Online decided to locate a facility elsewhere because of "insufficient high-speed Internet access in the area" (Miller 2003, par. 7). In response, representatives from

Virginia Tech began to develop programs such as eDan³³ in the region; eDan provides “high-bandwidth, next generation Internet infrastructure and protocols that marry optical fiber and wireless technologies” (Koelemay 2002, par. 9). With the development of information technologies in the area, it is hoped that the region will become a “producer and not just a consumer of electronic products and services” (Koelemay 2002, par. 10). Ultimately, IALR anticipates that the creation of broadband access and high-speed Internet will result in the development of technologies and information technology programs that will connect residents and local businesses to the world wide web, which could possibly contribute to the creation of technology-based startup companies and prompt technology-based businesses to locate to the region (Institute for Advanced Learning and Research 2007, slide 9).

Promoting IALR’s Research, Academic and Outreach to Create a New Economic Base

In order to enhance the economic base of Southside Virginia, IALR is determined to mold itself into a center for research and development. In the initial stages of the development of the Institute *Blue Ridge Traditions* reported that Curtis Callaway commented, “Eventually, the IALR research center will develop spin-off companies and attract firms to relocate to Southside to complete the vision for the region’s future...” (Greer 2005, par. 16). In a presentation crafted by Nancy Franklin, she asserted that the capital accrued from IALR’s research and development activities, awards received, and the production of intellectual property will result in the creation of high wage jobs, startup businesses, business recruitments, and venture capital investments (Institute for Advanced Learning and Research 2007, slide 5). She explained that the Institute is:

...contributing faculty and all kinds of students and so forth who are then bringing in competitive research money and contract research that is driving publications, licenses, patents, commercial support services. We are doing all of these things. This set of activities will provide a base that will contribute to venture capital investments, business recruitments, business starts and high wage jobs.

³³ eDan is a form of fiber optic technology that allows for the creation of high-speed Internet connections from Gretna (a town in Pittsylvania County) to Danville (also located in Pittsylvania County).

Thus far, IALR has been able to attract some businesses and corporations to the area, as well as develop contractual research relationships with local businesses. For instance, Luna Innovations, Inc has recently located a site in Danville, Virginia.³⁴ Luna's business endeavors include "manufacturing process control, next generation cancer drug development, analytical instrumentation, novel nanomaterial, advanced petroleum monitoring systems and wireless remote asset management" (Morrow 2005, par. 4).

IALR's educational and outreach programs, on the other hand, are specifically designed to create a highly trained workforce in areas that are beneficial to corporations and businesses that will be locating to the region to interact and develop contractual partnerships with the institute. The offering of these programs also is intended to help promote an increase in overall wealth in the region. The degree programs and the educational outreach programs offered by the institute are intended to help increase the educational level in the region and thus increase per capita income (Institute for Advanced Learning and Research 2007, slide 7).

Preventing "Brain Drain"

While one of IALR's primary foci is on enticing jobs and businesses to the area, proponents of the Institute are hoping to attract college students to locate to the area and encourage those who leave to return after obtaining college degrees. One goal is, of course, to develop an economic base that young individuals will want to return to; therefore, this mission falls in line with the Institute's goal to attract businesses and jobs that will be appealing to local residents. Tim Franklin explained, "One of the critical strategies that we have been involved with has been to build the innovation and research programs first because the labs and technical infrastructure are not going to go anywhere and they serve as a magnet to bring or keep talented people to Southside" (Franklin, T. 2007).

For example, several students (particularly graduate students) and faculty come to the Institute to conduct research in one of its applied research programs. During the time that these individuals spend in the Dan River region, it is hoped that they will become attached to the region and the institute and decide to pursue a career there. In a

³⁴ IALR also is located in Danville Virginia.

discussion on the topic, Nancy Franklin stated, “The research programs that we have here at the institute bring graduate students into our region. What we hope we could do over time is to create enough stickiness so that those graduate students will want to stay here after they graduate and work in local companies, start their own companies, and so forth” (Franklin, N. 2007). Moreover, it is hoped that research faculty will want to continue to conduct research in the area, thus adding to the region’s intellectual base.

In addition to attracting students and faculty to the area, the Institute has a goal to keep students in the area or at least provide incentive for the students to return after completing their college educations. IALR crafted an internship program for college age students that will connect students with local businesses. Nancy Franklin stated:

...What we are trying to do is connect kids who are in college or people who are in college with local employers who need engineers, scientists, technologists and provide that summer experience so they can each get to know each other, try each other on for size and it’s a good experience for the college student, it is good for the employer and if the relationship is a good relationship it might mean there is an opportunity to bring that college student here after graduation (Franklin, N. 2007).

However, she again implied that these students must have an interest in subjects/topics that align with IALR’s applied research endeavors.

The Dan River Region and Southside Virginia as a Destination Location

Currently, Southside Virginia is not the ideal setting for many businesses. IALR has made it an economic objective to transform Southside into a “destination location.” The research and educational opportunities are viewed as the primary factors that will attract individuals and businesses to the region. Several research projects are focused on making the region a “destination location.” For example, the VIR and VIPER programs are marketed to automotive and motorsports industries as well as NASCAR as ideal for conducting automotive and equipment testing

In addition to the institute’s promotion of its research and educational opportunities, it provides a physical space for businesses, researchers, and academics to conduct conferences, host business events, or hold meetings. The Institute Conference

Center (ICC) serves as a commercial venue for conferences and symposia. In 2005, NASA used the facility as a base of operations while it conducted a four-day demonstration at Danville Regional Airport (“IALR Quarterly-Fall 2005” 2005, par. 19).

Overall, the Institute is relying on combination of each of all of its academic, research, and outreach initiatives to develop the region into an area that will attract travelers from the business and academic sectors. Nancy Franklin indicates that the contribution that each of IALR’s three program areas (academic, research, and outreach) and its commercial endeavors (more specifically, the location of businesses to the region and conferences), such as locating faculty and students to the region, and attracting outside business personnel and possible conference attendees will provide the region with hotel bookings and possible housing construction and real estate sales (Institute for Advanced Learning and Research 2007, slide 11).

However, transforming the region into a “destination location” will require a boost in the region’s social infrastructure, which primarily includes the establishment of facilities that provide entertainment, such as restaurants museums, theaters, clubs, etc. Moreover, there is a need for the development of facilities and activities that target younger populations; this is an especially important consideration if the region hopes to attract and retain younger people. The location of businesses to the area has been extremely difficult due to Southside’s lack of such infrastructure. Charles Gause, vice president of Luna NanoWorks, notes that before the region can become a magnet for business and “the creative class” it needs to build its places for people to gather (Hale 2005a, par. 7).

IALR as a Symbol/Icon

Not only is IALR conceived to be an Institution that will aid in the economic revitalization of the region; it is also viewed as a symbol—a symbol of rebirth for the area. Susan Booth, director of institutional advancement for IALR, told Greg Esposito, a reporter for the *Roanoke Times*, that the Institute is a symbol of “the hope and dreams, the future, of the region” (Esposito, par. 3). However, IALR is depicted not only as a symbol for the community, but also as an icon for potential investors. When discussing the institute, Ben Davenport stated, “And the reality is that the institute has been an icon that

when people come to Danville they are taken away with the structure and design of the building” (Davenport 2007). He went on to state that the Institute serves as an icon of the region’s potential economic viability for investors.

Conclusion

While each of the areas that IALR has identified has the potential to boost the economy in Southside, they tend to be concentrated in spheres that can be considered neoliberal in nature. IALR’s mission is to generate economic development primarily through research and development. While research and development are areas that have the potential for growth, there is the risk of sectoral concentration in that particular field.

In addition, it is difficult to build an economy when there is a little to no infrastructure. The creation of eDan does provide for the development of a telecommunications infrastructure, which allows individuals in certain areas to become connected via the Internet. Yet there is still a need for affordable public transportation and other forms of social infrastructure in the area. For example, many of the programs offered by IALR are conducted at the Institute or nearby locations; many individuals in the region do not have transportation or are unable to afford to drive to these locations due to the increase in fuel prices. As a result, there become a need for the development of a public transportation system.

Conclusion

This thesis has sought to determine if the Institute for Advanced Learning and Research promotes a neoliberal agenda. First, chapter one provided an overview of the historical and theoretical framework of neoliberalism and this ideology's alleged effects on economic development policy and higher education. Chapter two demonstrated the scope of IALR's intertwined educational and research programs, and elaborated on aspects of those programs that fit within a neoliberal framework. Chapter three provided an overview of some of IALR's outreach programs, which were critiqued in terms of their viability in neoliberal discourse. Chapter four then illustrated how IALR's programs have been utilized to promote the economic revitalization of Southside Virginia and any links to neoliberalism.

This chapter explains how IALR is neoliberal through the emphasis it places on applied research and corporate sponsorship. In addition, this chapter discusses how the Institute's inclusion of the community in decision-making is contradictory to a neoliberal framework, but how this relationship also can inculcate with neoliberal ideology. This chapter briefly depicts how a community-based organization could develop an alternative model to neoliberalism and how that organization and a university, IALR, or the local government should respond and interact with that group. The chapter concludes with the presentation of suggestions for future research about IALR, neoliberalism, and higher education and economic development in Southside Virginia.

Overarching Conclusions

Neoliberal ideology has permeated multiple, if not all, aspects of U.S. society. Institutions of higher education succumb to the politics of globalization, the interests of corporations, and therefore focus on areas of productivity that are market-driven and have the capacity to produce higher yields of profit. Timothy W. Luke illustrates the result of this economic trend:

...The diffuseness of intellectual labor in traditional university or college settings, as shown by the rise of many new corporate or municipal research campuses dedicated to highly applied scientific missions, weakens old humanistic norms

of critical thoughts and practice by injecting highly subjective commercial considerations into what was once more objective scholarship, transmuting its many intrinsic rewards into the superficial simplicities of “knowledge production,” “patent generation,” or “fundable research.” (Luke 1999, 17)

In other words, the politics of neoliberalism prompts a shift in university policy that privileges applied scientific research and the production of various forms of intellectual property.

IALR fits into a neoliberal framework, particularly considering its educational, research, and some outreach programs. IALR identified several research areas that not only would utilize the resources in Southside Virginia, but also have been identified as leading research fields in the innovation economy. As a result, IALR established several applied research programs and then molded educational and outreach programs that aligned with and promoted those research areas. These educational and research programs are focused almost exclusively in the areas of mathematics, physical and natural sciences, engineering and technology, and exclude the social sciences, fine arts, and humanities. Furthermore, the Institute encourages the development of intellectual property that can be marketed and contractual partnerships with corporate sponsors, which are typically established by IALR’s “entrepreneurial faculty.” Once these contractual relationships are created, researchers and graduate students perform research for the corporate sponsors.

However, one important element that does not align with the neoliberal agenda—IALR intends to incorporate the local community into its decision making processes and makes an active effort to reach out to the community. The inclusion or intent to include the community in such processes and programs runs counter to David Harvey’s (2005) contention that neoliberalism excludes society. The Institution was initiated by community leaders, albeit elite community leaders, who have continued to be active with the program. The Institute is supported by at least one community organization, SCALE UP, and offers several programs that would not otherwise be available to individuals in Southside Virginia.

With that said, it should be noted that proponents of and administrators at IALR unknowingly and unintentionally are promoting a neoliberal framework. They believe

that the programs at IALR will help revitalize the economy by making the region more attractive to corporate investors and thus propelling them into the innovation economy (which is the current hegemonic economic discourse). Ultimately, this demonstrates that neoliberalism has become so engrained in institutions of higher education and society that, as Harvey (2005) posits, the discourse has become a form of common sense. Therefore, those supporting IALR unknowingly support and encourage a neoliberal agenda through the institutions academic, research and outreach initiatives.

Yet despite IALR's intent to include the community in many of its decision-making processes and to provide programs to the community, there is the risk of the institute inculcating neoliberal ideology in the community. This is particularly evident not only in the analysis of the Institution's academic, research, and some outreach programs but also in IALR's mission as it is framed by administrators at the Institute, Virginia Tech, and elite community leaders.³⁵ For example, everyone interviewed for this thesis stated that the goal of IALR was to serve as a catalyst for economic transformation that would bring Southside into the innovation economy. Furthermore, the programs that have been initiated by the Institute are designed to create a "culture of learning," which is reinforced by programs that have been identified as characteristic those included in a neoliberal framework. Again, this occurs as neoliberalism has become "common sense." Harvey states:

Common sense is constructed out of longstanding practices of cultural socialization often rooted deep in regional and national traditions. It is not the same as the "good sense" that can be constructed out of critical engagement with the issues of the day. Common sense can, therefore, be profoundly misleading, obfuscating or disguising real problems under cultural prejudices (Harvey 2005, 39).

Universities and colleges are considered to be facilities that are supposed to impart longstanding practices of cultural socialization; therefore, it is not surprising that institutions of higher education have begun conveying neoliberal rhetoric to the students and communities they seek to serve. To frame this somewhat differently, Henry Giroux

³⁵ Again, it should be noted that IALR does not realize that it is promoting a neoliberal framework.

argues that institutions of higher education are perpetuating corporate culture, which he refers to as “an ensemble of ideological and institutional forces that functions politically and pedagogically to both govern organizational life through senior managerial control and to produce compliant workers, spectorial consumers, and passive citizens” (Giroux 1999, 9). As a result, the corporate culture has a potential to absorb the community into “impulses within market logic” (Giroux 1999, 9).

The Possibility of a Bottom-Up Alternative to Neoliberalism in Southside

While it may appear that the spread of neoliberalism is inevitable in Southside Virginia, there is the opportunity for the development of community-based organizations (CBO) that can develop an alternative to neoliberal ideology. However, this is more difficult than one may think. First, it would require that individuals in Southside themselves acknowledge that there are other ways of revitalizing their community. But these alternatives must be developed by the community in bottom-up fora rather than propelled by the “ivory tower.” Individuals in a region possess local-based knowledge that too frequently is ignored by top-bottom approaches, however well intended. Next, a single individual or a community organization could introduce an alternative that is not being pursued by the local government or IALR at a local county supervisor’s meeting or a meeting held by the Board of Trustees at IALR. According to John Gaventa, these community organizations create spaces in which the community introduces the problems and ideas that they have identified for the community (Gaventa 2007). In addition, Gaventa notes that organizations like IALR can create spaces for CBOs to introduce their thoughts at the Institute’s meetings (Gaventa 2007). Yet this would require that the individual or group was aware of the time and place of such meetings and that these meetings be made open to the public at times that would be convenient for the larger population to meet. In addition, IALR could hold a monthly meeting that is open to the public and is conducted in the evening after most people have left work for the day.

Moreover, existing CBOs in the area such as SCALE UP could also take on this role while still working in conjunction with IALR. SCALE UP already has an existing relationship with a portion of the population that is marginalized in the region—racial and ethnic minorities. These groups of people have the opportunity to harness the

organization's existing relationship with IALR and present economic alternatives and community initiatives that differ from those created by IALR.

Once a group(s) has presented an idea to IALR or the local government, local politicians, IALR administrators, and academics must use caution when interacting with CBOs and implementing any ideas presented by these organizations. In any partnership, but particularly a university-community partnership such as one that would be created with IALR or is already in existence, there is the potential for academic experts and administrators to inadvertently curtail or alter the ideas of the community in the absence of ongoing deliberation and engaged stakeholders.³⁶ Thus representatives from the university, Institute, or local governments should listen to the ideas of the community and finds ways that help the community initiate those ideas. If the university, Institute, or local government develops a means of what they believe will improve upon the community's idea, representatives from these organizations should present it to the community for approval before implementation. Of course, this is a long process and any outcomes yielded from such endeavors will occur slowly. However, this process will not only allow the community to have a more vocal role in the revitalization and reshaping of their home, but will also allow the university, Institute, and local government to fulfill their goal to aid in the revitalization of Southside.

Future Research

This thesis opens the door for a great deal of future research on neoliberalism and IALR. It included the perspectives primarily of administrators at IALR and Virginia Tech and a member of the Future of the Piedmont Foundation. It would be beneficial if future research included the perspectives of various populations in Southside Virginia, which also implies that such research should not be limited to the Dan River region; it should include views of individuals in each of the six counties and two cities that the

³⁶ This is only a possibility, and has the potential to occur in any university-community partnership. When this does occur, it often is done inadvertently in an attempt by university representatives to aid the community in its revitalization efforts or community initiatives. I am not implying that administrators or academics at IALR or Virginia Tech have marginalized the community in Southside Virginia. I am only presenting a hypothetical issue.

Institute serves. Additional research could assess how the community views IALR or what programs they would like to see offered by the institute. Future research could also gauge how the community perceives its role as a partner with IALR in the economic revitalization of the region.

The study of IALR and neoliberalism can expand beyond the realm of the institute itself. For instance, this thesis briefly discusses IALR's relationship with the Southside Higher Education Coalition; thus future research could focus on IALR's role within the Coalition. One could research the role that neoliberal ideology may or may not play in the Coalition. Admittedly, the Coalition is relatively young and therefore would have to develop more fully before it is studied. The methodological and theoretical framework of this thesis also could be applied to the other institutions that comprise the Coalition—the New College Institute (NCI) and the Southern Virginia Higher Education Center (SVHEC), as well as other institutions of higher education. Once again, however, a study of the NCI or SVHEC should probably be conducted several years in the future due to their newness.

Finally, it would be beneficial to re-examine IALR in several years. IALR, like the NCI and SVHEC, is a relatively new institution. Although it is not as young as the other two institutions, it is still maturing and changing; therefore, it is likely that many of the institute's programs will be altered and other programs will be added. Future research could examine the scope of those changes, examine the impact of IALR's programs on the local economy, and possibly discern whether neoliberal ideology does become fully inculcated into the community's perceptions of economic development.

REFERENCES

- "2000-2001 Annual President's Report: Tech Applies Technological Expertise to Southside Economy." 2001. Virginia Polytechnic Institute and State University [cited January 16, 2007]. Available from <http://www.president.vt.edu/presreports/pres0001/08.html>.
- Academics* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/academics/index.php>.
- The Advanced and Applied Polymer Processing Institute* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/research/polymers.html>.
- Bachelor Degree Programs* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/academics/BachelorDegreePrograms.php>.
- Benefits of AmeriCorps Service* 2007. AmeriCorps 2007 [cited March 27, 2007]. Available from http://www.americorps.org/for_individuals/benefits/index.asp.
- Black, Sandra E. and Lisa M. Lynch. 2004. "What's Driving the New Economy?: The Benefits of Workplace Innovation." *The Economic Journal* 114: F97-F116.
- Blair, John P. 1995. *Local Economic Development: Analysis and Practice*. Thousand Oaks: Sage Publications.
- Callaway, Curtis W. 2005a. "AmeriCorps Program Comes to Southside." Institute for Advanced Learning and Research 2007 [cited January 22, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=2&news_ID=55.
- . 2005b. "Applied Felts Contract Represents Milestone for AAPPI and IALR." Institute for Advanced Learning and Research 2007 [cited January 22, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=3&news_ID=39.
- . 2005c. "VIPER Breaks Ground on New Facility." In *Institute for Advanced Learning and Research* [cited January 22, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=2&news_ID=73.

- . 2005d. "VIPER Reaches Agreement with FCS COM to Purchase Seven-Post Rig." In *Institute for Advanced Learning and Research* [cited January 22, 2007]. Available from <http://www.vtnews.vt.edu/plainstory.php?relyear=2005&itemno=889>.
- Cavanagh, John and Jerry Mander. 2002. *Alternatives to Economic Globalization: A Better World is Possible*. 1st ed. San Francisco: Berrett-Koehler.
- Certificate Programs* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/academics/CertificatePrograms.php>.
- Chestnut, Lauren. 2005. "IALR Helping Farmers to Find Alternative Crops: Institute conference focuses on alternatives for tobacco farmers." In *Danville Register & Bee* [cited January 22, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=2&news_ID=70.
- Davenport, Jr., Ben, interview by author, Chatham, Virginia, March 27, 2007.
- "Diebold Realigns Manufacturing Capacity; Closing Plant in Danville, Va" 2005. Self Service & Kiosk Association [cited May 4, 2007]. Available from <http://www.selfservice.org/article.php?id=894>.
- Dooley, John, interview by author, Blacksburg, Virginia, April 6, 2007.
- Educational Pathways Initiative* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/academics/EducationalPathways.php>.
- Elzey, Susan. 2006. "Summer camp kids test high-tech tools." In *Danville Register & Bee* [cited March 2, 2007]. Available from http://www.ialr.org/news_events/news_details.php?news_ID=102.
- Esposito, Greg. 2006. "Model for Rebound." *Roanoke Times* September 24, 2006.
- Fellker, Susan. 2006. "New Carnegie Foundation classification for Curricular Engagement and Outreach & Partnerships." In *Virginia Tech News* [cited March 2, 2007]. Available from http://www.vtnews.vt.edu/news_print/index.php?relyear=2006&itemno=673.

- "Finding Alternatives: Settlement seen as a 'Marshall Plan' for tobacco communities."
 2002. In *Virginia Bioinformatics Institute* [cited June 29, 2006]. Available from
https://www.vbi.vt.edu/public_relations/press_releases/marshall_plan.
- Fischer, Frank. 2002. *Citizens, Experts, and the Environment: The Politics of Local Knowledge*. Durham, NC: Duke University Press.
- Franklin, Nancy, interview by author, Danville, Virginia, March 9, 2007.
- Franklin, Timothy, interview by author, Danville, Virginia, March 9, 2007.
- Fraser, Nancy. 2003. "Social Justice in the Age of Identity Politics: Redistribution, Recognition, and Participation and Axel Honneth." In *Redistribution or Recognition?: A Political-Philosophical Exchange*, by Nancy Fraser and Axel Honneth. New York : Verso.
- Gaventa, John. PHIL 6324 Class Lecture. March 1, 2007.
- Giroux, Henry A. 1999. "Corporate Culture and the Attack on Higher Education and Public Schooling." Bloomington: Phi Delta Kappa Educational Foundation.
- Goldstein, Harvey A. and Michael I. Lugar. 1992. "University-Based Research Parks as a Rural Development Strategy." *Policy Studies Journal* 20: 249-63.
- Gorham, Eric C. 1992. *National Service, Citizenship, and Political Education*. Edited by P. Green. Albany: State University of New York Press.
- Greer, Ibby. 2005. "New Future for Southside: Institute for Advanced Learning and Research." In *Blue Ridge Traditions* [cited March 27, 2007]. Available from
http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=2&news_ID=63.
- Greiner, Lori. 2005. "Agriculture and Life Sciences receives grant for economic development in Southside Virginia." In *Virginia Tech News* [cited June 29, 2006]. Available from <http://www.vtnews.vt.edu/plainstory.php?relyear=2005&itemno=987>.
- Hale, John. 2005a. "Affordability and push to attract technology land Luna nanoWorks." In *Virginia Business* [cited January 1, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=3&news_ID=44.
- . 2005b. "Institute Successfully Clones Trees." In *Danville Register & Bee* [cited August 5, 2006]. Available from http://www.ialr.org/news_events/news_details.

- php?vw_news_categoriesPage=2&news_ID=58.
- Harvey, David. 2005. *A Brief History of Neoliberalism*. New York: Oxford University Press.
- Hearn, James C. 2006. "Alternative Revenue Sources." In *Privatization and Public Universities*, ed. D. M. P. a. E. P. S. John. Bloomington: Indiana University.
- History, Legislation, and Budget 2007*. AmeriCorps 2007 [cited March 27, 2007]. Available from <http://www.americorps.org/about/ac/history.asp>.
- "HJR197 Report." 2005. State Council of Higher Education for Virginia [cited January 16, 2007]. Available from <http://www.schev.edu/Reportstats/SouthsideUniversity/HJR197-1-10-2005.pdf>.
- IALR Mission 2007*. Institute for Advanced Learning and Research 2007 [cited October 15, 2007]. Available from <http://www.ialr.org/about.mission.html>.
- "IALR Quarterly-Fall 2005." 2005. Institute for Advanced Learning and Research [cited January 22, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=2&news_ID=68.
- "IALR Spring 2007 Course Schedule (tentative)." 2007. Danville, VA: Institute for Advanced Learning and Research [cited January 22, 2007]. Available from <http://www.ialr.org/academics/documents/IALRSpring2007CourseSchedule.pdf>.
- Institute for Advanced Learning and Research. 2007. *A Catalyst for Community and Economic Transformation*.
- The Institute for Sustainable and Renewable Resources (ISRR) 2007*. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/research/horticulture.html>.
- Joint Unmanned Systems Test Experimentation, and Research Site (JUSTER) 2007*. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/research/robotics.html>.
- K-12 Student Programs 2007*. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from http://www.ialr.org/outreach/student_programs.html.
- Kerr, Clark. 2001. *The Uses of the University*. Cambridge: Harvard University.
- Knox, Alan B. and Joe Corry. 1996. *Wisconsin Blue Book*: Legislative Reference Bureau.

- Koelemay, Doug. 2002. "Stargate on the Dan." In *Bacon's Rebellion*, August 5, 2002.
- Learning Liftoff* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from http://www.ialr.org/outreach/adult_programs.html.
- "Learning. Working. Winning.: Bringing the New Economy to the Dan River Region." 2000. Danville, Va: The Future of the Piedmont Foundation.³⁷
- LeClaire, Jennifer. 2005. "Tobacco Settlement Funds Transform Southwest and Southside Virginia: The Virginia Tobacco Commission is changing the face of the industrial landscape with grants designed to stimulate the infrastructure, workforce, innovation and technology." In *Southern Business & Development* [cited March 2, 2007]. Available from http://www.sb-d.com/issues/Fall2005/features/rural_virginia.asp.³⁸
- Luke, Timothy W. 1999. *Capitalism, Democracy, and Ecology: Departing From Marx*. Urbana: University of Illinois Press.
- Marx, Karl. 1867. "The Fetishism of the Commodities and the Secret Thereof." In *Capital*: Marxist Internet Archive [cited January 16, 2007]. Available from <http://www.marxists.org/archive/marx/works/1867-c1/ch01.htm#S4>.
- Master Degree Programs* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/academics/masterDegreePrograms.php>.
- Miller, Kevin. 2003. "Tech has Role in Center to Help Economy in Southside." In *The Roanoke Times* [cited January 22, 2007]. Available from http://www.ialr.org/news_events_details.php?vw_news_categoriesPage=4&news_ID=18.
- Moore, Anne, interview by author, Blacksburg, Virginia, March 8, 2007.
- Morrill Act of 1862* [cited February 27, 2007]. Available from <http://www.ourdocuments.gov/doc/doc.php?doc=33&page=transcript>.
- Morrow, K. John. 2005. "Biotechnology in the Tobacco Belt: Danville Weighs In." In *Nano Investor News* [cited January 22, 2007]. Available from http://ialr.newcitymedia.com/news_events/news_details.php?news_ID=47.

³⁷ Citation located in Appendix C.

³⁸ Citation located in Appendix C.

- Morrow, Raymond A. 2006. "Critical Theory, Globalization, and Higher Education: Political Economy and the Cul-de-Sac of the Postmodernist Cultural Turn." In *The University, State, and Market: The Political Economy of Globalization in the Americas*, ed. R. A. R. a. C. A. Torres. Stanford: Stanford University.
- Newman, Frank, Lara Couturier and Jamie Scurry. 2004. *The Future of Higher Education: Rhetoric, Reality, and the Risks of the Market*. San Francisco: Jossey-Bass.
- Noble, David F. 2002. "Technology and the Commodification of Higher Education." *Monthly Review* (March).
- Outreach* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/outreach/CommunityComputerWorkshops.php>.
- Owczarski, Mark. 2004. "\$1.6 Million in Federal Funds to go to Institute for Advanced Learning and Research." In *Virginia Tech Magazine* 2004 [cited January 22, 2007]. Available from <http://www.vtmagazine.vt.edu/spring04/ontheweb.html>.
- Priest, Douglas M. and Rachel Dykstra Boon. 2006. "Incentive-Based Budgeting Systems in the Emerging Environment." In *Privatization and Public Universities*, ed. D. M. P. a. E. P. S. John. Bloomington: Indiana University.
- Public Computer Facilities* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from http://www.ialr.org/outreach/computer_facilities.html.
- Rapley, John. 2004. *Globalization and inequality : neoliberalism's downward spiral*. Boulder, Colo.: Lynne Rienner.
- Research*. 2007. Institute for Advanced Learning and Research 2007 [cited October 15, 2006]. Available from <http://www.ialr.org/research/index.php>.
- Rhoads, Robert A., and Carlos Alberto Torres. 2006. *The University, State, and Market : The Political Economy of Globalization in the Americas*. Stanford, Calif,: Stanford University Press.
- Ruff, James C. 2004. "Southside has high hopes for high-tech renovations." In *Richmond Times-Dispatch* [cited March 2, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=3&news_ID=15.

- . 2006a. "Institute Backers Think Big." In *Richmond Times-Dispatch* [cited March 2, 2007]. Available from http://www.ialr.org/news_events/news_details.php?vw_news_categoriesPage=4&news_ID=16.
- Saiz, Martin and Susan Clarke. 2004. "Economic Development and Infrastructure Policy." In *Politics in the Americas*, ed. G. Hansen. Stanford: Stanford University Press.
- SCALE UP* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from http://www.ialr.org/outreach/scale_up.html.
- The Seeds of a Successful Business* 2003. CellFor [cited March 27, 2007]. Available from <http://www.cellfor.com/home.html>.
- "Southside Community Advocates for Learning Excellence United for Progress: Strategic Plan." 2003.
- Southside Summer Adventure* 2007. Institute for Advanced Learning and Research 2007 [cited January 16 2007]. Available from <http://www.ialr.org/outreach/ssa.html>.
- Stark, Jack. 1996. "The Wisconsin Idea: The University's Service to the State." In *Wisconsin Blue Book*: Legislative Reference Bureau.
- Teacher Education* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from http://www.ialr.org/outreach/thinking_technology.html.
- Textile Plant Closings and Layoffs in Virginia* 2006. National Council of Textile Organizations 2007 [cited May 4, 2007]. Available from <http://www.ncto.org/closings/VA.htm>.
- "Virginia Businesses in the News: Cutbacks and Closings" 2004. In *Virginia Business Online* [cited May 4, 2007]. Available form http://www.virginiabusiness.com/magazine/yr2004/aug/04/record/record_cutbacks.shtml.
- Virginia Institute for Performance Engineering and Research (VIPER)* 2007. Institute for Advanced Learning and Research 2007 [cited January 16, 2007]. Available from <http://www.ialr.org/research/motorsports.html>.
- "Virginia Leading the Way: Governor Kaine's Economic Development Strategic Plan" 2006. Virginia Secretary of Commerce and Trade [cited March 2, 2007]. Available from <http://www.commerce.virginia.gov/EconomicDevelopment/>

EconStratPlan-2006.pdf.

Virginia Polytechnic Institute and State University 2007. "2007 Application: C. Peter Magrath/W.K. Kellogg Foundation Engagement Award."

Washburn, Jennifer. 2005. *University, Inc.: The Corporate Corruption of American Higher Education*. New York: Basic Books.

What is the IALR? 2005. Institute for Advanced Learning and Research 2007 [cited October 15, 2006]. Available from <http://www.ialr.org/about/index.html>.

APPENDIX A: KEYWORDS AND PHRASES FOR IDENTIFYING NEOLIBERAL IDEOLOGY

Industry (ies)
For-profit
Profit
Capital accumulation
Military
Defense
Online education
Distance learning
Company (ies)
Applied research
Corporate
Corporate funding
Licenses
Private welfare/sphere
Research alliance
Private/corporate sector
Patent
Royalties
Market-driven (curriculum)
Tax break
Tax credit
Innovation
Innovation economy
New economy
Corporate matching grants
Cost sharing
Cooperative research arrangements
Commercial collaboration
Academic inventions
Commercial
Commercial interests
Lucrative investment
Nonexclusive license
Exclusive license
University income
Corporate-sponsored
Commercial joint venture
Venture capital
Business incubation
Intellectual property ownership
Enterprise
Entrepreneurial faculty

APPENDIX B: ACRONYMS

IALR: Institute for Advanced Learning and Research

SCHEV: State Council of Higher Education for Virginia

NCI: New College Institute

HEC: Southern Virginia Higher Education Center

SHEC: Southside Higher Education Coalition

AAPPI: Advanced and Applied Polymer Processing Institute

ISRR: Institute for Sustainable and Renewable Resources

JOUSTER: Joint Unmanned System Test, Experimentation and Research Site

VIPER: Virginia Institute for Performance Engineering and Research

VIR: Virginia International Raceway

SCALE UP: Southside Community Advocates for Learning Excellence, United for
Progress

IMF: International Monetary Fund

GMO: Genetically modified organism

R&D: Research and development

SEDI: Southside Educators' Development Institute

SSA: Southside Summer Adventure

DRITA: Dan River Information Technology Academy

IT: Information technology

STEM: Science, Technology, Engineering, and Mathematics

FAFSA: Free Application for Student Aid

CNC: Community Network Center

VISTA: Volunteers in Service to America

NCCC: National Civilian Community Corps

ICC: Institute Conference Center

CBO: Community-Based Organization

APPENDIX C: ORGANIZATION DESCRIPTIONS

Tobacco Commission

The Virginia Tobacco Indemnification and Community Revitalization Commission (Tobacco Commission) was created in 1999 to “make payments to farmers to compensate for the decline of tobacco quotas and to promote economic growth and development in tobacco-dependent communities” (*The National Tobacco Settlement*, par. 1). The Virginia Tobacco Commission is IALR’s primary source of funding. The Tobacco Commission has provided financial support to the Southside region of Virginia because the organization would like to provide economic development initiatives to an area that was once economically based in the production of tobacco. The primary goal of the Tobacco Commission is to “build out technology infrastructure, provide workforce training, and offer various grants that are causing telecommunications, biotechnology and software companies to take a second look at Virginia” (LeClaire, par. 2). The institute also receives funding from federal agencies, Virginia Tech, the Commonwealth of Virginia, and the Future of the Piedmont Foundation.

Future of the Piedmont Foundation

Seven business owners and community leaders in the Dan River Region created the Future of the Piedmont Foundation. Ben Davenport told me that these individuals “came together to try to figure out what would be a key investment in the community for revitalization of our economy” (Davenport 2007). In October 2000, the foundation published “Living, Working, Learning,” which outlined three-prong plan to help aid in the revitalization of the community:

1. Educate a workforce qualified for high skill, high wage work, particularly information/high tech industry jobs.
2. Create a climate that will attract and support high skill, high wage employment, and particularly high tech jobs.
3. Cooperate in a way that maximizes community assets and inspires confidence and civic participation. (“Learning. Working. Winning.: Bringing the New Economy to the Dan River Region” 2000).

In addition, the members of the foundation approached administrators at Virginia Tech about creating an institution that would help with the revitalization of the area. Members of the foundation are still involved with the continual development of IALR.

APPENDIX D: INTERVIEW QUESTIONS

Anne Moore Interview Questions:

What is your affiliation with IALR?

What is IALR's role in Southside?

What is the Southside Higher Education Coalition?

Do you think that IALR and the Southside Higher Education Coalition have been effective thus far?

Is IALR specifically focused on the Dan River Region?

What is its role commitment and role to neighboring areas, such as Martinsville, Henry County, and Patrick County?

How does the IALR fulfill VT's commitment to public service (as land grant institution)?

What is the IALR doing to help worker and population retention and the prevention "brain drain" in Southside Virginia?

What is the role of the community in the development of academic and/or research endeavors provided by the institution?

How much emphasis is placed on research and education (separately) at IALR?

It has been said that IALR will propel VT into top 30 university status? How will IALR propel VT into top 30 university status?

What is the ongoing role of the Tobacco Commission in the continual growth of IALR?

Is the production of inventions and/or intellectual property that yield patents and licenses a goal of the IALR?

Nancy Franklin Interview Questions:

What is your affiliation with IALR?

What is the IALR's role in Southside? What are the goals of the IALR?

What is the Southside Higher Education Coalition?

Do you think that IALR and the Southside Higher Education Coalition have been effective thus far?

Is IALR specifically focused on the Dan River Region? What is its role commitment and role to neighboring areas, such as Martinsville, Henry County, and Patrick County?

How does the IALR fulfill VT's commitment to public service (as land grant institution)?

What role does the private sector play in the IALR (in terms of curriculum development and research)?

What is the IALR doing to help worker and population retention and the prevention "brain drain" in Southside Virginia?

What is the role of the community in the development of academic and/or research endeavors provided by the institution?

It has been said that IALR will propel VT into top 30 university status? How will IALR propel VT into top 30 university status?

What is the role of distance/online learning at IALR?

What is the criteria for the curricula offered at IALR? Does it simply have to be based in technology studies, math, and/or science?

After reviewing the list of available degrees through the IALR, it is apparent that there are not any courses (online or onsite) offered in the humanities or social sciences, with the exception of a MA in political science and a certificate in Liberal Arts from VT. Why? Do the humanities and social sciences have a role at IALR?

How does the IALR directly contribute to the economic revitalization of Southside Virginia?

Could you tell me about the IALR's outreach programs?

What is the role of AmeriCorps in IALR's outreach plan?

I have read that SCALE-UP, an NPO, works through IALR. Are there other NPOs that work through or with IALR?

Tim Franklin Interview Transcripts:

What is your affiliation with IALR?

What is the IALR's role in Southside? What are the goals of the IALR?

What is the Southside Higher Education Coalition?

Do you think that IALR and the Southside Higher Education Coalition have been effective thus far? Why or why not?

Is IALR specifically focused on the Dan River Region?

What is its role commitment and role to neighboring areas, such as Martinsville, Henry County, and Patrick County?

How does the IALR fulfill VT's commitment to public service (as land grant institution)?

What role does the private sector play in the IALR (in terms of curriculum development and research)?

What is the IALR doing to help worker and population retention and the prevention "brain drain" in Southside Virginia?

What is the role of the community in the development of academic and/or research endeavors provided by the institution?

It has been said that IALR will propel VT into top 30 university status? How will IALR propel VT into top 30 university status?

IALR has been described as a "new model for land grant universities." How so?

It has been quoted that researchers at IALR are focused on "high-value horticulture and forestry," "high-value pharmaceuticals," and "low-input crops." What is meant by "high-value horticulture and forestry?" And "high-value pharmaceuticals?" What is meant by "low input crops?"

What is the ongoing role of the Tobacco Commission in the continual growth of IALR?

The faculty and staff at IALR are often referred to as "entrepreneurial research faculty and staff." How would you characterize this description?

Is IALR considered to be an enterprise?

What types of corporations, individuals, small businesses, etc. typically contract with JOUSTER, VIPER, AAPPI, and ISRR?

What does a commercial partnership with IALR entail?

What is IALR's relationship with these contractors? What is the extent of the relationship of the contractors with IALR?

What is the relationship of faculty and students with private contractors?

Is the production of inventions and/or intellectual property that yield patents and licenses a goal of the IALR?

What kinds of licenses are sought?

Ben Davenport, Jr. Interview Questions:

What is your affiliation with the Institute of Advanced Learning and Research?

What is the IALR's role in Southside? What are the goals of the IALR?

Do you think that IALR and the Southside Higher Education Coalition have been effective thus far? Why or why not?

You may or may not be able to answer this question, but I will ask anyway. How does the IALR fulfill VT's commitment to public service (as land grant institution)?

What is the role of the community in the development of academic and/or research endeavors provided by the institution?

Is IALR considered to be more of an institute of higher education or a research center?

It has been said that IALR will propel VT into top 30 university status? How will IALR propel VT into top 30 university status?

How does the IALR directly contribute to the economic revitalization of Southside Virginia?

John Dooley Interview Questions:

What is your affiliation with the Institute of Advanced Learning and Research?

What is the IALR's role in Southside? What are the goals of the IALR?

Do you think that IALR and the Southside Higher Education Coalition have been effective thus far?

How does the IALR fulfill VT's commitment to public service (as land grant institution)?

IALR has been described as a “new model for land grant universities.” How so?

What is the role of the community in the development of academic and/or research endeavors provided by the institution?

It has been said that IALR will propel VT into top 30 university status? How will IALR propel VT into top 30 university status?

How does the IALR directly contribute to the economic revitalization of Southside Virginia?

What has been the result thus far of IALR’s outreach program?

Could you tell me about the IALR’s outreach programs?

What is the role of AmeriCorps in IALR’s outreach plan?

Okay, I have read that SCALE-UP, an NPO, works through IALR. Are there other NPOs that work through or with IALR?