



SUNDOWN ON THE SUNBELT?

GROWTH WITHOUT DEVELOPMENT
IN THE RURAL SOUTH



A report to the Ford Foundation prepared by:

Donald Tomaskovic-Devey, Ph.D.
Department of Sociology,
North Carolina State University
Raleigh, NC 27695-8107



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Donald Tomaskovic-Devey
Department of Sociology
North Carolina State University
Raleigh, N.C. 27695-8107
(919) 515-3291

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Executive Summary

This report produces a series of policy proposals designed to address the shortcomings and comparative disadvantages of rural Southern economic development. The policy proposals are based on careful social science research described in the body of this report. While the research is largely based on the North Carolina case, the policy recommendations should be carefully considered throughout the Southern region where the political and economic division between sunbelt blessed urban areas and poor rural places is evident. This executive summary first outlines the central research findings and then lists the policy proposals. The reader interested in the basis for reaching these recommendations needs to read the research reported in Chapters One through Five. If your interest is confined to further details on the policy proposals Chapter Six might be a good place to start.

Research Findings

Among full-time, full year workers in the South twenty percent of all jobs pay poverty level wages.

In rural North Carolina forty-five percent of all jobs and twenty-three percent of full time, full year jobs pay poverty level wages. Sixty-five percent of all jobs and forty-five percent of full time, full year jobs, held by black females in rural North Carolina pay poverty level wages.

The low wage, low skill economic development pattern, as well as the poverty and inequality it gives rise to, which is characteristic of the rural South is directly tied to the degree of traditional elite control over the local economy.

The presence of large African American populations is only linked to poorer economic conditions when there is substantial control over the local economy by traditional elites.

Outside firms, the mainstay of branch-plant recruitment strategies, pay higher wages than comparable local firms, recognize and reward skilled workers at higher rates than local firms, but pay poverty level wages to the low skilled labor force at about the same rate as local firms. Thus outside firms raise average earnings but do not reduce poverty level earnings.

Businesses report that the lack of skilled labor is the most serious threat to future economic expansion. The skilled labor crunch is more important than highway or other infrastructure development, tax levels, government regulation, capital availability, or technology transfer.

Although some jobs would be lost from capital flight if wages rose in North Carolina, the vast majority of businesses would continue to locate their production in the state. In addition, the vast majority of businesses would support higher taxes in order to increase the quality of life in their communities.

POLICY PROPOSALS

The report comes to policy conclusions in three general areas: industrial recruitment strategies, growth-from-within practices, and the upgrading of the rural human resource base.

Industrial Recruitment. The recruitment of branch plants by state and local governments has been seriously overemphasized in local economic development policy in the past. This strategy has encouraged state governments to ignore the weaknesses in the skill levels of the population and the injustices in the organization of labor markets, precisely because it was weak regulation and low wages that formed the basis of the advertising schemes behind the recruitment strategy. The internationalization of investment and production activity has undermined the comparative advantage of all U.S. locales that hope to trade plentiful, docile, low skilled labor for jobs. While outside firms do pay higher wages, those wages go to the more skilled jobs that require more education. Many of those jobs are filled by non-natives. Branch plants exploit the low wages of the working poor and near-poor as ruthlessly as local entrepreneurs.

The report concludes with five specific policy orientations to improve the practice of branch plant recruitment:

Reduce State and Local Reliance on Branch Plant Recruitment

Refocus Industrial Recruitment to Include Higher Wage Producer Service Firms

Refocus Industrial Recruitment to Include Already Existing Local Firms

Skill Enhancement Guarantees for the Working Poor Should Become a Central Requirement in Return For Investment Incentives

Refocus "industry specific" Training in the Community College Systems from Plant Specific Skills to Transferable Skills

Growth-From-Within. To succeed growth-from-within local development strategies must be sensitive to the historical failure of local employers to lead the rural South away from the traditional low wage, low skill labor market model. In addition, rural areas lack the agglomeration advantages of urban areas. Specifically this means that professional services and cooperation among firms is difficult to achieve. Finally all small firms in competitive markets are at risk to fail and pay low wages. The results will be disappointing unless the programs designed to nurture small businesses take into account the constraints of organizational resources.

The report concludes with seven specific policy proposals to strengthen growth-from-within development strategies:

Do Not Focus Development Strategies on Existing Rural Economic Leadership

Strengthen the Institutional Capacities of Social Groups with High Wage, High Skill Development Agendas

Strengthen the Class Capacities of Social Groups with High Skill and Non-Exploitative Development Agendas

Incorporate Business Service Support Into Rural Economic Development

Help Firms Set up Training Consortia

Be Sensitive to Market Power Issues

Encourage Firm and Worker Cooperatives

General Human Resource Issues. The failure of Southern rural economic growth has been its continued inattention to the development of human resources. The internationalization of economic relations deprives the rural South of the competitive advantages derived from low wage labor. Policy initiatives to upgrade the skills of entire regions require long term commitment and broad based political mobilization. They also require putting aside traditional prejudices that certain populations, particularly minorities and rural residents, can be neglected. The following proposals are general policy and political initiatives that may facilitate this transition:

We Need to Upgrade Considerably Public Education in the Rural South

Reform the Community College Systems to Focus on General Skills

Literacy Initiatives in Multiple Sites Should be Encouraged

CHAPTER ONE

RURAL ECONOMIC DEVELOPMENT IN THE SUNBELT SOUTH

The U.S. South presents the student of economic development with a basic contradiction. This region of the United States has sustained a truly remarkable pace of economic growth over the last thirty years. At the same time some of the poorest places in the industrialized world can be found within the borders of the region. The paradoxes can be quite striking. Cities like Atlanta and Houston have achieved world class status. Smaller Southern cities such as Charlotte, North Carolina or Huntsville, Alabama can boast both enviable records of economic growth and a level of livability that few U.S. cities can match. These places provide the central images of what Americans have come to regard as the Sunbelt boom. At the same time other areas in the south, particularly in the "black belt" region which stretches from the Maryland outer-peninsula through the Virginia tidewater, the coastal plains of the Carolinas, the panhandle of Florida, and much of the deep South states of Georgia, Alabama, Mississippi, and Louisiana are still mired deeply in poverty and economic deprivation. This "black belt" region constitutes the heart of the slave based plantation economy of the old South. The natural resource extraction areas of Appalachia have also been largely left behind in the Sunbelt growth spurt.

This report focusses on one Southern state, North Carolina. North Carolina represents both the best and the worst in recent Southern growth and development experiences. It's black belt regions remains deeply mired in poverty, while the urbanizing areas of the Piedmont region boast some of the most livable cities and development successes of the sunbelt boom. In trying

to understand the process of rural economic development in the South North Carolina is a good case study because it contains clear cut examples of areas where economic development seems to have been successful and others where it has been frustratingly elusive.

It is useful to make a distinction between growth and development. Economic growth is a process of economic change which leads to increased employment and production activity. Economic development, on the other hand, is a growth process which leads to increased standards of living for the people in a region. There are many rural areas of the United States where economic growth is elusive and economies and population are contracting. In the rural South this was the case from the late nineteenth century through the mid-twentieth century. Since World War II, but particularly since the mid-Sixties, the South including the rural south has had tremendous economic growth. The problem with this growth is that real economic development in living standards has been limited in rural, particularly black belt, areas.

Table 1. Percent of all poor individuals in the United States that live in the South, by race and residence, 1987 ^a				
RACE	REGION	United States Total	Metropolitan Areas	Nonmetropolitan Areas
Percent of total U.S. population in the South		33.6%	29.7%	43.8%
Percent of all U.S. poor in the South		40.8%	35.5%	54.5%
Percent of all U.S. white poor in the South		34.7%	31.7%	41.5%
Percent of all U.S. African American poor in the South		58.3%	46.8%	95.6%

^aThe South in this source includes: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

Source: Hoppe (1989)

Table 1 helps to demonstrate the disproportionate poverty of the contemporary rural South. The rural South remains the poorest region of the United States. The South has a third of the U.S. population, but two-fifths of the poor. The rural South has two-fifths of the U.S. rural population but over half of the rural poor. Almost all poor rural African Americans live in the South.

Branch Plant Recruitment Versus Growth-From-Within

Current local economic growth and development strategies tend to contrast growth-from-within versus branch plant recruitment strategies for creating economic growth and development in standards of living and employment opportunities. In the South in general, and North Carolina in particular, most of the formal energies of state governments as well as local economic development councils has been concentrated on the branch plant recruitment strategy. As a strategy for economic growth it seems to have been an at least partially successful approach. The South has gone from a predominantly agricultural region with high labor surpluses before World War II, to a heavily industrialized region with relatively low unemployment overall. On the other hand the enduring high rates of poverty, especially in some rural areas of the South, suggest that the strategy has been more successful in fostering economic growth than it has been in promoting economic development. The Southern Growth Policies Board in its report on the 1986 Commission on the Future of the South, characterized this development pattern as "halfway home and a long way to go" (Southern Growth Policies Board 1988).

There are two general criticisms of the branch plant recruitment strategy. The first is that it is a strategy which sells the region based on the comparative advantages of a low wage, low

skill labor force. While this approach has been successful in luring investment to the South, that investment has tended to create low wage jobs. By focussing on recruitment linked to low skilled jobs, state and local governments have been able to ignore or at least downplay human capital development in the region. Thus the South has the lowest literacy levels, lowest educational quality, and highest high school drop out rates of any region in the United States. Branch plant recruitment is a strategy it would seem that is likely to produce growth without development.

The second criticism of the branch plant recruitment strategy is that it has always been a buffalo hunt. Like the hunt for buffalo on the United States great plains in the beginning of the last century it was once easy because there were many plants looking for low wage domestic economies to expand into. But now there are few buffalo left and the competition for them is great. In this formulation, states and local governments are in an increasingly feverish struggle for a declining form of employment generating investment. One reason for the decline is that the wave of industrial regional diversification that large national firms embarked on in the post World War II period has already happened. More importantly, perhaps, for the U.S. South is the argument that the internationalization of the economy, has given corporate managers making investment decisions a vastly expanded playing field. The South could compete with the U.S. North and Mid-West and West for jobs on the basis of it's underemployed low wage, non-union workforce. This gave the South, and states like North Carolina in particular, credible comparative advantages in the competition for routinized production facilities. With internationalization of investment decisions, the South loses it's comparative advantages since the relatively poor nations of Latin America, Asia, and Africa also have large supplies of low

skill, non-union labor but at much lower wage rates. At the same time the history of neglecting basic education, and workplace education has recreated a workforce not equipped to compete for higher skilled, technology centered production methods.

The growth-from-within approach suggests that local firms making investments in both local production and local human resources might be a more solid base for promoting economic development. The growth-from-within strategy becomes, of course, the only local development strategy in the absence of any comparative advantages in attracting outside investment. What growth-from-within means concretely varies from analyst to analyst. For some it means state sponsored capital programs and/or business incubators for local entrepreneurs. For others it means long term investment in human resources in order to enhance the skill level of the local population. As we will see in this report the evidence in support of a simple growth-from-within strategy is weak at best.

Two Theories, a Historical Narrative, and a Better Theory

The tension between a growth-from-within and branch plant recruitment strategy parallels two typically unconnected social science theories about economic development and the quality of jobs.

The first theory has typically been called *dependency theory*. Dependency theory argues that poorer regions within a nation or in the world economy, remain poor because of their dependence on outside firms for expertise, technology, access to world markets, and, of course, capital investment. This dependency it is argued sets up unequal capital flows so that the majority of profits, as well as the decision making power as to how capital is reinvested reside outside of the region. Firms from economies more central to the world economy invade and

exploit poor regions, leaving them underdeveloped, dependent and poor. Because these international firms come to the dependent region for their disciplined low wage labor force the presence of these firms encourages the perpetual recreation of low wage, unorganized labor markets. The implications for local economic development strategy in the South, particularly the rural South, is that branch plant development strategies create underdevelopment and dependencies and should be rejected in favor of a more indigenous growth model. We will see in Chapter Three that when firms in nationally strong industries locate in North Carolina they do not have the poverty reducing effect we might expect. In Chapter Four we find out that the reason for this is likely to be that outside firms, although they pay on average higher wages than local firms, pay as low or lower wages for the least skilled jobs. They came to the South, particularly to rural areas, for the low wages and the low skilled workforce. While they pay their managers and professionals and craftworkers well, production workers are paid the going low local wage.

The second theory goes by a variety of names including *economic segmentation*, *sectoral development strategies*, and *organizational resource theory*. In this approach firms are recognized to have different capacities to control the profits generated in the economy. There are two faces to this control. The first, is control over the market. Some firms, usually based on industrial sector and organizational resources (such as oligopolistic product markets, size, vertical integration, conglomerate structure) are stronger in their transactions with other firms as well as governments. Firms operating in concentrated markets, or with access to scarce technology, or with superior distribution systems, or products, or vertically integrated structures are more profitable. This power in their markets makes these firms more stable sources of employment

and affords them the organizational resources to pay higher wages. Branch plant recruiters are aware that large national firms operating in international markets are likely to pay higher average wages than local firms currently do. The courting of branch plants from this point of view is not an exercise in dependent development but an attempt to create real local growth in standards of living. If local firms do not have the expertise, technology, distributions systems or capital to enter the most profitable markets then why not focus on those firms that are already in those markets?

The second face of this market power approach to organizational resources has to do with the relative power of employees and employers to make effective claims on the money the firm makes. Where workers are more powerful because of unionization, labor market factors or individual skill they can get a larger share of the value produced by the firm. That is, wages are higher when workers have bargaining resources. The key insight is the linkage to firm resources. Firms with relatively abundant resources respond more quickly to worker claims for higher wages. Conversely, small firms in competitive markets are structurally unable to create higher wage jobs. Thus, for industrial recruiters outside firms with superior organizational resources are more likely than less secure local firms to foster high wage jobs. We will see in Chapter Four that outside firms do bring superior organizational resources to North Carolina and that this accounts, in fact, for part of the reason why they pay higher wages.

At this point the two approaches to private sector economic development may seem incompatible. They are not. They share, however, two important limitations. First, they are both relatively static views of the resources of firms and the dependencies of regions. Second, they both tend to neglect the historical relationships within the local economy that effect the unfolding

of both inter-regional economic relationships and the relationship between firm resources and compensation practices.

If we turn for a moment from the theory and practice of local economic development to the history of Southern economic development a whole new set of actors emerge. Social historians of Southern economic development do not begin their narrative with discussions of the organizational resources of local versus outside firms. Nor do they focus on the insidious role of outside capital in creating dependent economic development conditions which syphon capital and control from the region. When social historians look at the development of the Southern economy they invariably emphasize the central role of local economic elites, often with a heritage in the plantation economy. Yankee capital, or more recently European and Japanese capital did not create the low wage, low skill, labor surplus economies of the U.S. South. Those economies were the legacy of the legally sanctioned racist economy of the pre- and post-Civil War periods. That economy was formed around the combination of the exploitative sharecropping agricultural system and textile industrialization that followed the demise of the slave economy of the nineteenth century. It is wrong to emphasize the role of outside capital in economic development without recognizing the important role of local capital in the creation of a low wage non-union economy. Similarly, it is naive to suggest a growth-from-within economic strategy without taking into account the central role of local economic elites in fostering the poverty and racial inequality that such strategies are meant to ease. The next chapter introduces this historical analysis in greater detail. Chapter Three demonstrates the central role of local elites in fostering the high poverty and inequality found in rural North Carolina. Chapter Four shows that local elites continue to create lower quality jobs than outside firms. One interesting aspect of this job

creation and compensation process is that local firms do not share organizational resources or compensate worker skill to the extent that outside firms do.

If we introduce this historical account to our two approaches to local development we change the story from one of dependent development to one of uneven development. In the new story national firms look for promising production sites. A production site is promising to the extent that the already existing labor market organization is compatible with their needs. In other words, local elites had already created a low wage non-union economy before outside capital came to the South. Local elites allowed the further industrialization of the South as long as it was compatible with existing social relations in labor markets. As we will see in the next and subsequent chapters the sunbelt boom and civil rights legislation written and enforced by the federal government have to some extent undermined traditional labor market organization in the urban areas of the South. Change has been absent or at least weaker in the rural, particularly "black belt", areas. The notion of *dependency* is misleading. There is a mutuality of interest between local and national and international capital in the maintenance of a low wage non-union economy. If economic growth creates uneven development outcomes it cannot be simply blamed on outside investment.

The historical record encourages us to pay attention to the role of local capital in the creation of local labor market conditions. If, in addition, to this historical sensitivity we make the two theories discussed above more dynamic than we begin to have a useful frame of reference for understanding the local growth process.

Firms, with national and international scope, make investment decisions that conform to their perceived production, distribution and labor cost needs. The South has in the past had

considerable comparative advantages when investment decisions concerned routinized production processes and labor cost pressures. When products are new and the production process non-routinized firms need highly skilled labor that is accessible to management, investment sources, and engineering talent. As the product matures its production becomes routine, the market gets stable and future profits are based on lowering the cost of production. Thus routinized production in low wage markets becomes attractive. This produced the industrialization of the South after World War II. The comparative advantages of the South are increasingly lost, however, in an internationalized economy in which wages are even lower throughout most of the world. Thus branch plant recruitment gets increasingly difficult. It was always bound to be unsatisfying as a growth strategy, since it was premised on the mutual exploitation of low wage, low skill labor by both local and outside capital.

Similarly, organizational resources are not fixed. The internationalization of the economy has reduced the power and profit of even the largest U.S. firms. This means that the pressure on keeping costs low has increased, and it has increased most dramatically in precisely the large internationally oriented firms that branch plant recruiters have always treated as their prime targets. In routinized production costs are kept low by seeking out low wage labor. In more skill based production processes, cost savings tend to be achieved through productivity enhancing technology and managerial innovations. The rural South, because of its history simply does not have the literate flexible workforce for such production.

It is also the case, that even resource rich firms rarely share their wealth with employees in the absence of some compelling labor market resource among employees. Unionization in the non-South United States has been strongest and most effective in those industries where larger

firms and concentrated markets predominate. These firms came to the South partly, at least, to avoid the power and profit sharing that unionization fosters. The relatively strong earnings growth in urban areas of the South can be in part attributed to the reduction in unemployment in those areas which drove up wages in all firms, including those both locally and outside owned. Outside firms came to the South for the low wage, low skill economy, they did not come to share their resources but to preserve them. The historical record of a weak, racially divided, working class has lead to low commitment on the part of many employers to raising standards of living.

Because both local and outside firms are enmeshed in a low wage, low skill production economy the infrastructure for a higher skilled development strategy are weak at best. The South, but particularly the rural South, has a very poorly educated labor force. This poorly educated labor force is not a simple result of neglect but is a direct reflection of the limited importance of skill in the dominant economic projects of both local and outside capital. Illiteracy and poor public school systems are no handicap if economic growth is built around routinized production processes. They become, however, extraordinary handicaps when the internationalization of the economy creates the conditions where the rural South has to compete with the poverty of the Third World for low skill jobs. In Chapter Five we will see that the low skills of the native population are a central barrier to future economic expansion in North Carolina. The low wage, low skill labor market formulae is beginning to break down for both local and outside employers in North Carolina.

Thus to think well about local economic development strategies requires us to take into account the goals of both local and outside capital investors in a region, the changing organizational resources of firms, as well as the strengths and weaknesses of the local labor

market. We can think of this approach as a *theory of dynamic uneven development*. In this approach local economic development responds to the sometimes competing but generally complimentary actions of local and outside capital, as well the capacities of other local actors (e.g. the state, labor, the civil rights movement) in a historically changing pattern of uneven regional comparative advantages. Some urban areas in the U.S. South have made a partial transition to higher wage, diversified internationally competitive economies. Both historically and in the future that transition is elusive in the rural regions of the U.S. South. Unless some method of transformation to a skill based economy is found for that region, the further relative and even absolute worsening of conditions in the rural South is likely.

Plan of the Report

This report summarizes the research done by the author under a grant from the Ford Foundation, through the Aspen Institute's Rural Poverty Program. This chapter has introduced the main ideas discussed in the research.

Chapter Two documents the problems of low wage industrialization in the South in general, and North Carolina in particular. It also introduces the reader to the historical argument that the low wage industrialization strategy was the product of local elite economic projects based on the low wage, low skill, non-union racially organized Southern post-slavery economy.

Chapter Three formally tests this historical argument and finds that it continues to be a useful description of the plantation economy of rural, particularly black belt, regions of the state. The urban Piedmont, which has lower levels of local elite power and is historically less tied to the race based organization of the labor market seems to have achieved a more healthy industrial diversity, higher education levels, lower unemployment, and most importantly lower levels of

poverty and inequality.

Chapter Four contrasts the quality of jobs produced by local and outside firms in the rural and urban areas of North Carolina. In doing so it confronts the two approaches to local economic development. Does local growth require outside firms to provide high quality jobs or do outside firms come to the South to exploit the low wage labor force? The results suggest that both are the case, and that organizational and skill resources are important sources of wages. In addition, while outside firms pay more and reward skill at higher levels, like local firms they pay very low wages for the low skill jobs that form the heart of the Southern rural economy. The wage advantage of being in the urban areas of North Carolina far outweigh the organizational advantages of outside firms. Thus the real issues may not be local versus outside firms, but labor market organization, firm resources and the quality of jobs.

Chapter Five shows that it is not simply the skill level of jobs that matters but also the skills of the local population, Native North Carolinians are less skilled workers than are immigrants from other states. They read less, have less education, and are paid less for their skills. Employers, consistently, report great skill shortages among the workforce that make future business expansion problematic. In addition, employers report that it is human resource deficits, rather than infrastructure, technology or capital availability that currently are the central barriers to future economic growth. Finally, most employers do not plan to relocate their businesses elsewhere, despite the problems of finding a sufficiently skilled labor force to make the transition from low skilled routinized production to a more flexible, technology enhanced production system.

Chapter Six develops the policy implications of this research.

First, the branch plant recruitment strategy is fundamentally flawed. Because of the internationalization of the economy it is an increasingly expensive hunt for the few remaining buffalo. Also because of internationalization even the low wages of the rural South are high and so Southern states will increasingly lose in the competition for routinized manufacturing plants. To the extent that branch plant recruitment continues to be pursued, local government must demand generalized skill enhancing training and production processes. State and local subsidies to encourage outside investment should be tied to the skill of the workforce rather than land or tax subsidies.

Second, the growth-from-within strategy is a dangerous but probably necessary path. It is dangerous in two ways. History and much of the research in this report show that local employers, particularly in the (overlapping) rural and black belt regions are part of the problem. It seems hard to believe they can be trusted to provide the solution. Nurturing new entrepreneurs, on the other hand, will be a very weak and disappointing strategy if it does not meet head on the relationship between organizational resources and both earnings and security. Small firms in competitive markets often don't survive, when they do they pay low wages.

Finally, the internationalization of the economy requires the entire United States, but particularly the rural South to move toward a higher skilled, flexible production system. The rural south has made substantial but disappointing progress based on the comparative advantages of poor places. These comparative advantages are gone. The alternative to developing the skills of the labor force is increased poverty and a downward spiral of wages.

CHAPTER TWO

LOCAL ECONOMIC DEVELOPMENT AND LOW WAGE JOBS: THE NORTH CAROLINA CASE

State and local governments can promote economic growth in many ways. During the 1970's and 1980's most local development strategies in the U.S. South focussed on aggressive efforts to attract new businesses. These efforts often result in large costs which local governments and communities have to absorb. In return communities hope to gain a stable and higher waged job base than they had in the past. Thus, communities trade infrastructure development, tax breaks and the comparative advantages of their local labor force for new jobs. In the South, where the comparative advantages have largely been based on plentiful supplies of low wage non-union labor, the branch plant recruitment strategy has tended to mean low wage job creation. Tax exempt status for firms is another type of incentive. While encouraging investment, it undercuts the local tax base and the ability of local governments to provide basic services.

Having one of the lowest average manufacturing wage rates and the lowest unionization rate in the nation are the most obvious incentives that North Carolina has used to attract industry. North Carolina heavily recruits outside firms, is a right-to-work state, has laws that allow local city and county government's to issue revenue bonds to finance branch plant recruitment, and allows counties to negotiate property tax abatements with potential industrial recruits. While this list of incentives seems impressive it is a relatively short list compared to the activity in many

Southern states. In other Southern states state governments provide loans for building construction, revenue bonds for infrastructure, monetary incentives for locating in specific high unemployment regions, corporate income tax exemptions, tax incentives for job creation, and even free land to potential industrial relocations (Falk and Lyson 1988).

Property tax abatements, the most widely used recruitment incentive, are no small cost to local communities. In North Carolina property taxes provide about three-fourths of the revenue raised by county governments (Hall 1986). This makes local governments extraordinarily dependent on property taxes. For example, in McDowell County, part of a textile factory owned by Burlington Industries, valued at \$2.3 million, would normally pay \$14,000 in property taxes, but was exempted from paying any property taxes (Hall 1986). In 1986 and 1987 the inventory tax on manufacturers, which is a tax collected by counties, was reduced by twenty and forty percent respectively by the state legislature (Hall 1986). It was eliminated altogether in a package to lure a single cookie plant to the state a few years later. These efforts reduce the capacity of local governments to provide quality education and other services for their communities and local industries. The low fiscal capacity of local government in the present serves to maintain traditional local labor market organization, since the upgrading of infrastructure and local education are fiscally as well as politically difficult.

In theory branch plants once successfully recruited should enhance local fiscal capacity by raising property values and so providing a larger tax base for the community. The research evidence seems to indicate that this is not always the case. In a review of the costs and benefits of rural industrialization Summer, Beck and Snipp (1979) conclude that net gains from industrialization tend to be small, and confined to the private sector. There is a positive weak

association between manufacturing plant growth and public spending but it is confined to police spending and largely the result of population growth as people move into the rural area to take the new jobs. Traditional economic models predict multiplier effects in the range of three times plant payroll for manufacturing establishments. Actual multiplier effects for branch plant recruitment of low wage routinized production produce small multiplier effects because the linkages with the local economy are limited to the small paychecks of workers. Business services such as financing, legal, accounting, advertising, engineering, and research and development are done in more advanced economies either in urban areas of the South or more commonly in the corporate headquarter cities of the U.S., Europe, and Japan (Logan and Molotch 1987; Markusen 1985). In addition, those small paychecks are often spent outside of the rural areas where they are earned. Except for their groceries, many rural residents drive to suburban shopping malls and urban areas to make their purchases (Shaffer 1979).

In the competition to pursue jobs and capital, state and local governments sell their resources (i.e. labor and infrastructure) at bargain basement prices with no guarantees that the jobs or capital will stay (Goodman, 1979). The limits of the branch plant industrial recruitment strategy is increasingly apparent, not only to critical policy advocates (Goodman, 1979; Rosenfeld, 1985) but also to establishment politicians even in North Carolina (Hall, W.R. 1988).

Table One produces estimates of the proportion of total employment in 1989 that could be attributed to firms headquartered outside of North Carolina and the growth in employment between 1983 and 1987 that might be attributed to outside firms.¹ What is clear in the table is

¹ The comparison years in this table are close, but do not match exactly because of the rarity of estimates of employment by headquarter location of establishments. These are the only two estimates for North Carolina that I am aware of.

that outside firms are producing new jobs at a much lower rate than local firms. Stated another way, outside firms are a declining source of employment expansion in North Carolina. Since North Carolina has the highest rate of manufacturing employment in the South (and the nation), relatively low unemployment and one of the strongest records of employment expansion in the South (and the nation) it seems reasonable to conclude that the branch plant recruitment strategy, although not dead, is significantly weaker now than it has been in the past.

Table 1. The Level and Growth in North Carolina Employment Attributable to Outside and Local Firms.		
Firm Type	Percent of Private Sector Employment in 1989	Percent of Net New Employment 1983-87
Local Firms	80.6	86.1
Outside Firms	19.4	13.9
SOURCE:	North Carolina Employment and Health Survey	Kasarda and Birch (1988)

A Historical Perspective

The source of North Carolina's current attractiveness to business is found in its history and economic structure. Like other Southern states, North Carolina's economy had (and still has) an agricultural base, expanding later to include its first manufacturing industry, cotton production. A mixture of slave-based plantations, smallholdings, and sharecropping combined with racial segregation comprised a unique land tenure system. In addition, North Carolina's plantation economy was not as far-reaching as in other Southern states. There was, therefore, a higher percentage of subsistence and small white farmers in the central Piedmont and western Mountain regions of the state that could serve as a rural industrial work force.

The initial patterns of land tenure and industrial development set the tone for future land tenure systems. North Carolina has a very concentrated pattern of land ownership. Less than 1.5 percent of the population owns 41 percent of the land in North Carolina. An even smaller number, forty-five entities (including: corporations, government agencies, and families) own twenty percent of the land (Hall, 1986). Figure 1 shows that forty-seven of the one hundred North Carolina counties have land ownership concentration of forty percent or more (land concentration is the percent of land in the county owned by people with more than 300 acres). Most of these are rural counties. The urban central Piedmont area clearly stands apart (clustered white shading in center of map) with the lowest concentration. This pattern of land ownership reflects the presence of a strong local elite in rural areas, particularly in the eastern "plantation" region. Later we will show that this elite has to some extent controlled the pattern of rural economic development to their own advantage.

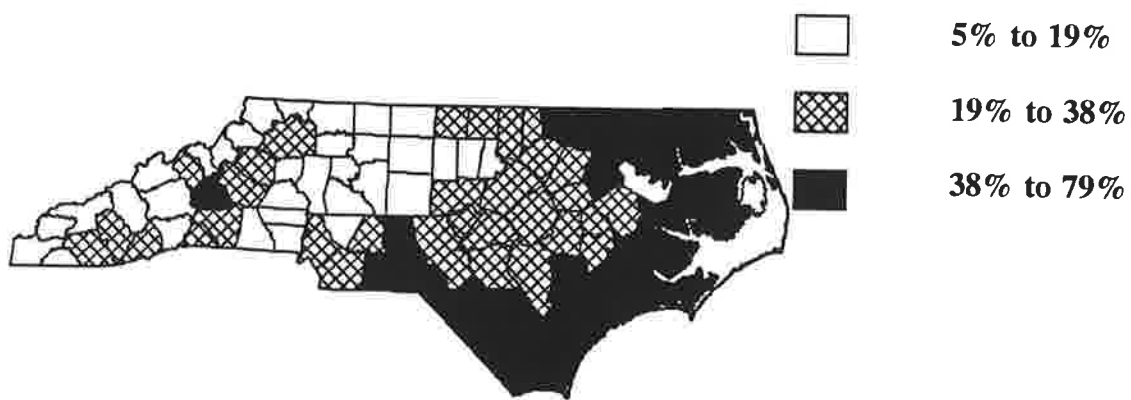


Figure 1 Percentage of all land in North Carolina counties owned by large (300 or more acres) landowners in 1986

Elite control and influence over the development of the North Carolina political economy has been given a good deal of attention in recent years (Billings 1979, 1982; Wood 1986; Curran

and Tomaskovic-Devey 1989; Luebke 1990). The general argument is that there is a historical record of continuity between landed plantation elites, and early industrialists (Billings 1979, 1982; Wood 1986; Luebke 1990) who have effectively controlled both local and state level politics, particularly around issues of economic development and control over business activity (Wood 1986; Luebke 1990). Until the Civil Rights movement, this rural elite also created and maintained the racial caste system from which they profited (Bloom 1987; Reich 1981).

The only effective challenge to capitalist elite rule occurred during the populist period in which black and white farmers created a populist party, the Farmers Alliance. The Populist and Republican parties created a fusion alliance in the 1890s, in 1894 won two-thirds of the seats in the General Assembly, and in 1896 elected a reformist Republican governor (Crow 1984). Democrats, the party of the planter-industrialist elites, countered with a violent white supremacy campaign, successfully institutionalizing Jim Crow legislation that disenfranchised blacks (and many poor whites) and led to nearly complete conservative pro-business, anti-labor Democratic control of the state for the entire twentieth century (Key 1950; Crow 1984; Bloom 1987; Luebke 1990). Wilson (1978), following Woodward (1951), argues that the white working class played a more central role in the creation of the twentieth century racial caste system in the South. They do not dispute, however, the importance of that system to the political economy of plantation agriculture.

It is this historical pattern, of elite concentration, racial exclusion, and the absence of effective progressive politics, that lead to the particularly Southern and conservative pattern of economic development in North Carolina. The pattern has included the encouragement of low wage job growth, the active sometimes violent discouragement of unionization by the state as

well as employers, high levels of racial inequality, and very low levels of protective legislation for workers, transfer payments to the poor, and controls over business activity (Wood 1986). At the federal level North Carolina legislators joined other Southern Democrats in insuring that states had control over the implementation of New Deal policies, so as not to disrupt their local low wage political economy (Wood 1986; Skocpol and Weir 1985). Key (1950) and Bloom (1987), among others, suggest that these patterns are general to the Southern political economy.

This somewhat monolithic view of elite control over the political economy may be somewhat less true of North Carolina than other Southern states. Key (1950) points out that North Carolina had a smaller plantation system and fewer slaves in the antebellum period than other states. This led to more political space in North Carolina for the growth of a modern industrial business class in the non-plantation regions of the state. Both Key (1950) and Bloom (1987) characterize North Carolina as the only Southern state in which the more modern capitalist elite had wrested a level of political influence, perhaps even control, of state politics from the landed elite.

Wood (1986) and Billings (1979) see substantially more continuity between industrial based and land based capitalist elites in North Carolina. Billings (1979) documents substantial familial overlap between agrarian and capitalist elites. A pattern better interpreted as one class diversifying its portfolio of economic activities. Wood (1986) is not concerned with the inheritance of class but with the actions of class interest. He sees very little to distinguish the two types of capitalist elites and the North Carolina pattern of rural industrialization as cementing their common interest in creating a low wage, slack labor economy.

Luebke (1990) writes that since the mid Seventies there have been disputes among elites

as to the proper role of the state in fostering social and economic change. He distinguishes between "modernizers" and "traditionalists." Both are economically conservative, anti-union and pro-business in their orientation. They differ in that modernizers are willing to tolerate an erosion of the race based caste system of the pre-Civil Rights era, and are less reluctant to attract higher waged industries and to foster a more diverse economic development strategy. Traditionalists are more rooted in the eastern part of the state with its still recent tradition of share cropping agriculture coupled with single industry labor intensive low wage manufacturing and are resistant to racial equality and any industrial development which threatens their access to a low wage labor force. Bloom (1987) argues that it was the Civil Rights movement which effectively drove a wedge between the more modern urban, industrial elite and the landed rural elites of the South.

This bifurcation of elite politics, while still quite economically conservative by national standards, reflects historical and contemporary differences in land holding patterns among North Carolina industrialists. Rural industrialists, particularly in the eastern coastal plain, were tied by tradition as well as capital ownership to a merger of share cropping agriculture, and locally controlled industrialization which reserved industrial jobs for whites. Modern industrialization has encouraged outside capital investment as long as it does not interfere with the traditional low wage, unorganized political economy. In the central Piedmont region the pattern of industrial development was somewhat different. Based originally on tobacco, which gets its input from small farmers, rather than sharecropped plantations, Piedmont industrialization was not tied directly to plantation agriculture. It is in the Piedmont where we see the emergence of North Carolina's version of the "sunbelt boom." Here we see economic diversification, substantial

capital investment from other parts of the United States and overseas, rapid declines in poverty, and the rise of a middle class (Rosenfeld et al 1985; Wood 1988; Curran and Tomaskovic-Devey 1989). Thus modernizer elites, while still committed to very conservative development policy, are no longer tied to the race based, agricultural/industrial pattern of low wage industrialization.

Wood (1986) sees the pattern of economic development in North Carolina as essentially regressive in that new industrial development has been encouraged only to the extent that it did not threaten local social relations of production. To quote Wood:

"State economic policy has been formulated in such a way as to minimize the potential disruptive impact of new capital accumulation (increased labor market competition, higher wages, and the threat of unionization) on the production of surplus value by preserving, as far as possible, existing social relations of production" (Wood 1987 p. 159).

Concretely, this has led to a pattern of geographically dispersed industrialization consistent with rural agricultural production. In particular, he argues, that most industrial development efforts have been led by local elites and tied to the preservation of the local political economy. Wood seems to see the continuity between rural elites and industrialization patterns as general to North Carolina. The writings of Key (1950), Bloom (1987), and Luebke (1990) suggest a marked discontinuity between the traditional land based elites and the more urban modern industrial elites of the Piedmont region. For Bloom (1987) and Luebke (1990) the central political difference between these two sets of conservative capitalist elites has revolved around their commitment to the defense of the racial caste system.

Throughout the history of North Carolina, attempts to organize workers have been actively opposed by both the industry owners and the state. In the 1920's and 1930's state police and the

National Guard were often called in to protect strike-breakers and arrest strike leaders. However, more recently, industrialist and state opposition to unions and workers' rights has become more subtle. For example, there is very little legislation in North Carolina protecting workers. Conversely, North Carolina industrial recruiters proudly display its right-to-work law. Also, both the state and semi-private organizations, such as local Chambers of Commerce, have resisted plant relocations which might disrupt traditional capital-labor relations. In 1974, the Xerox Corporation canceled plans to locate in Raleigh as a result of pressure from the Raleigh Chamber of Commerce. The plant would have employed fifteen hundred to two thousand unionized workers. The Raleigh Chamber of Commerce has a written policy against recruiting companies that do not agree to resist unionization. In 1977, the Brockway Glass Company of Pennsylvania wanted to locate in Roxboro (Person County) and was rejected by the Person County Economic Development Commission. The plant would have created three hundred unionized and relatively high-wage jobs in a small rural community (Wood, 1986). As recently as 1991 groups of businessmen actively discouraged United Airlines from locating a major maintenance facility in Greensboro, North Carolina for fear that the 1500 unionized high skill jobs would drive up wages and increase unionization (Kenneson 1991).

Indigenous unionization efforts have also been hampered by the rural and dispersed nature of North Carolina's workforce. North Carolina currently has the lowest rate of unionization in the United States. Local employers strongly resist unionization on both the plant and state level. Unionization has been so successfully resisted by local employers that there are currently no measurable income benefits to unionization among local employers, although out of state firms do pay higher wages to union members (see Chapter Four).

Examining North Carolina's Economic Development

State development policy has developed upon this historical structure of local elite power, incentives for industrial profits and discouragement of workers' organization. At the federal level, North Carolina's representatives worked hard to maintain state control over New Deal legislation. The "Southern Block" was particularly concerned about the potential disruption New Deal legislation would have upon production relations. The key fear was that the South would lose both its traditional local economic formula and the regional comparative advantage derived from the low wage economy. Nationally administered unemployment, welfare, labor and retirement regulations were expected to raise Southern wages to national standards. They were successful in their efforts and much of the New Deal legislation was left to the states for implementation (Skocpol, 1985). This hard fought, hard won battle resulted in state control over economic development and the welfare state resources of the working class. The "new federalism" of the Reagan-Bush era has exacerbated this trend by leaving economic, labor, and civil rights policy up to state governments.

Although various modernizer politicians have made public commitments to raise per capita income in relation to other states, state policy continues to reproduce the basic factors which businesses attribute to a "good" business environment. In particular state policy maintains extremely low transfer payment levels, low workman's compensation payments (with very restrictive rules), a right-to-work law, a near absence of workplace safety enforcement, works hard to maintain a union-free environment, and is committed to low wages.

Today, industry expansion and new businesses continue to make headlines, and the state's low wages and lack of unions are widely advertised. A recent editorial in *The News and*

Observer (located in the state capital Raleigh), which criticized the lack of quality jobs, quoted F. Douglas Byrd, president of a regional development planning association: "The state advertises the quality of its work force. We have an ethical work force that gives you \$1.50 of work for \$1.00" (News and Observer, 1988). The irony of the statement was apparently unnoticed by Mr. Byrd. In addition to low wages, the state has also done little to improve health and safety standards. A more recent editorial in The News and Observer once again criticized the state for its low quality jobs: "For too long North Carolina's government and businesses have pushed the health and safety needs of workers to the back burner. It is long past time for change." (The News and Observer, 1989). This editorial preceded by two years the disastrous fire at the Imperial Foods chicken processing plant in Hamlet, North Carolina where twenty-five workers died and over a hundred were injured. The ten year old plant paid workers \$8 an hour, locked the fire doors in order to control the labor force, had never been inspected by the state run OSHA program, and, in fact, had never received a license to operate in the state.

Despite the evidence that the jobs created are poor jobs, state policy, primarily through the Department of Community and Economic Development (formerly the Department of Commerce) continues to aggressively pursue jobs by advertising the state's compliant and cheap labor force. A recent North Carolina Department of Commerce publication claimed nearly \$5.4 billion invested in new and expanding businesses and the creation of 76,600 new jobs in 1987 (North Carolina Department of Commerce, 1988). A national trade journal, the Industrial Development and Site Selection Handbook, ranked North Carolina first in the nation in 1987 for new manufacturing plant announcements by U.S. industries. According to the handbook, 113 major new manufacturing plants and 64 manufacturing plant expansions were announced in North

Carolina (North Carolina Department of Commerce, 1988).

As a testament to the state's initiatives, North Carolina has been ranked favorably among the fifty states on some socio-economic measures. North Carolina ranks 6th in the number of colleges and universities. North Carolinians' per capita personal income grew by 54.4 percent between 1980 and 1985, the tenth fastest growth in the nation. From 1980 to 1986, North Carolina had a 34.4 percent increase in service sector employment, ranking it 15th in the country. Unemployment rates in North Carolina are among the lowest in the nation.

However, other socio-economic indicators of progress suggest that North Carolina has a long way to go in meeting the needs of its people. The poverty rate in the state is 1.8 percentage points above the national average. In rural areas the poverty rate is over 10 percentage points above the national average. Life expectancy in North Carolina is among the ten worst in the country, and infant mortality among the five worst in the country (Sher, 1988). Even though North Carolina ranks first in the nation in the percentage of the workforce employed in manufacturing, the state ranks last among the fifty states in terms of average manufacturing wage. The state also ranks last or next to last (depending on the year) in the percentage of unionized workers. Median family income is \$3000 less than the U.S. average, placing it 44th in the nation. It ranks this high because the low wage branch plant recruitment strategy has produced lower unemployment than in other Southern states, so many families exist by combining multiple low wage jobs. The importance of an educated workforce is undenied among state legislators, however, the state ranks 46th in the percentage of adults who are high school graduates and 40th in per capita spending on elementary and secondary education. Compounding these factors, one out of five North Carolina adults is illiterate (Sher, 1988).

Table 2. Regional Differences in the Percent of all Employment that is Low Wage Employment (Less than \$10,000 a year) Among Full-Time Full-Year Labor Force Participants and the Ratio of Black to White Low Wage Earnings Within Gender, Current Population Survey, 1987-88.

Region	All %	White Male %	White Female %	Black Male Ratio % to WM		Black Female Ratio % to WF	
New England	10.8	7.8	15.4	11.7	1.5	11.6	0.75
Middle Atlantic	10.2	6.9	15.6	11.6	1.68	15.3	0.98
East N. Central	12.5	8.0	19.7	12.4	1.55	18.0	0.91
West N. Central	18.9	14.9	25.4	15.4	1.03	26.0	1.02
South Atlantic	16.1	10.0	20.9	18.9	1.89	28.3	1.35
North Carolina	19.0	11.7	24.1	25.2	2.15	37.0	1.54
East S. Central	20.9	11.2	29.2	31.6	2.82	39.7	1.36
West S. Central	18.9	13.5	25.2	20.5	1.52	35.3	1.40
Mountain	16.7	12.2	23.3	10.9	0.89	23.7	1.02
Pacific	12.8	10.5	17.2	10.9	1.03	12.5	0.73

SOURCE: Current Population Surveys, 1987 and 1988

Race, Sex and Low Wage Jobs

Table 2 gives a comparative perspective on the incidence of low wage employment by race and sex. Low wage employment, even among the full time, full year labor force, is widespread in the U.S. South, accounting for a fifth of all employment. These low wage jobs

Table 3. Percent Income Penalty of Being Black In Metropolitan and Non-Metropolitan Areas by Region, Controlling for Human Capital Characteristics, Current Population Surveys, 1987-88.

Region	Metropolitan	Non-Metropolitan
New England	n.s.	n.s.
Middle Atlantic	-.05	n.s.
East N. Central	-.07	n.s.
West N. Central	n.s.	n.s.
South Atlantic	-.08	-.17
North Carolina	-.16	-.16
East S. Central	-.16	-.24
West S. Central	-.11	-.20
Mountain	n.s.	n.s.
Pacific	n.s.	n.s.

These results are from a multiple regression equation for all positive earners, where logged earnings are regressed on race, sex, education, experience and experience squared, weeks worked last year, and normal hours worked last year. A n.s. indicates a non-significant race difference.

SOURCE: Current Population Surveys, 1987 and 1988

are disproportional filled by white women and African American men and women. The pattern in North Carolina is more similar to the deep South (East and West South Central) than it is to it's own region (South Atlantic). In North Carolina and the rest of the deep South the ratio of black to white low wage job incidence is particularly high. Employment is no guarantee against poverty in any region, in the South, particularly for white women and African Americans between a quarter and two-fifths of all jobs pay poverty level wages to full-time full year workers.

These regional racial differences do not simply reflect historical black educational

disadvantages. As Table 3 shows there are substantial earnings penalties to being black in the U.S. South even after statistically controlling for education, experience and the level of labor market activity. In metropolitan areas of the South being black reduces average earnings by eleven to sixteen percent irrespective of education, experience and work activity. The pattern in the rural South is even worse. There the earnings penalty to being black is between sixteen and twenty-four percent.

Economic development in North Carolina has been of central concern to North Carolina's decision-makers and citizens since before the Civil War. Recently, rural development and especially rural industrial development has become a particular focus. Rural areas have suffered the results of the agricultural crisis, decline of the U.S. textile industry, and plant relocations to third world nations (Rosenfeld, 1985). During the 1970's, North Carolina, along with the rest of the Sunbelt, enjoyed unprecedented economic growth. Several factors have been identified that contributed to this growth: weak labor unions coupled with strong right-to-work laws; a regionally underemployed workforce; cheap resources (labor and land); a climate which attracted skilled workers from outside the region; and aggressive self-promotion campaigns (Bullard, 1987; Niemi, 1975). It is now clear, however, that the benefits this growth has brought to North Carolina have been primarily confined to the urban Piedmont region (Rosenfeld, 1985).

Recent reports have pointed out that North Carolina is a state in which many of the poor hold paying jobs. This contradicts the common perception of poverty as the result of unemployment. State development policy typically assumes that job creation, rather than the quality of jobs, is the primary economic goal. At the minimum wage a single parent must work fifty-eight hours per week for fifty weeks to reach the U.S. poverty line for a family of three. Working full-time,

full-year at the average manufacturing wage in North Carolina would bring a family of four to only about three thousand dollars above that poverty line. Slightly more than half of all manufacturing jobs pay below the average wage. The failure of local development policy is directly associated with these low wage jobs.

Table 4 displays the incidence of low earnings among employed North Carolinians for rural and urban areas. Among all earners the incidence of low earnings is high across the state.

Table 4. North Carolina Incidence of Low Earners (Less than \$10,000) by Sex and Race, 1987-88						
	All Employed			Full Time Full Year		
All Employed	All	Metro	Non-Metro	All	Metro	Non-Metro
Total	41.3	37.8	45.9	19.0	16.1	23.0
White Male	27.6	24.6	31.7	11.7	9.3	14.8
White Female	51.0	46.8	56.9	24.1	21.0	29.0
Black Male	45.7	43.9	47.4	25.2	26.1	24.0
Black Female	60.1	55.8	64.5	37.0	28.3	45.3

SOURCE: Current Population Surveys, 1987 and 1988

Even among full time, full year workers nineteen percent of the labor force brings home less than \$10,000. This is more than \$1000 lower than the federal poverty line for a family of three. In non-metropolitan areas of North Carolina low earnings is over forty-five percent among

all earners, and almost a quarter among the full time, full year labor force. These numbers jump to a horrifying sixty-five percent among African American women in the labor force and forty-five percent among those African American women who can find full time, full year work. Even white males are not exempt from poverty level employment. Among all white males in the rural labor force almost a third earn less than \$10,000 a year. To be female, black or live in rural areas in North Carolina means that low wage work is plentiful.

Table 5. Reported Incidence of Financial Hardship for Families of **EMPLOYED** North Carolinians in 1989.

"During the past twelve months, how often did you not have enough money to afford the food/clothes/medical care that you thought your household should have?"

	OFTEN	SOMETIMES	NEVER
FOOD	4.8%	12.1%	83.9%
CLOTHES	6.8%	18.0%	75.2%
MEDICAL	5.6%	10.3%	84.1%

SOURCE: North Carolina Employment and Health Survey

If low wage jobs are an important part of the North Carolina economy, what consequences do they hold for North Carolina's citizens? One way to approach this question is to explore the concrete financial hardships experienced by the families of North Carolina's labor force. We can explore this issue by asking how often in the last year a worker's family did not have enough money to afford the food, clothing, and medical care that the respondent thought that they should have. Table 5 indicates that four percent of the households of employed North Carolinians often do not have enough money to buy food and that an additional twelve percent sometimes lack the resources to purchase food. Adding those two numbers together we see that fully sixteen percent,

or one-in-six households of employed North Carolinians did not have enough money to purchase adequate food at least sometimes in the previous year. The comparable figure for black households is thirty-two percent, and for female-headed households is forty-four percent. The numbers are quite similar for access to medical care and quite a bit higher for the purchase of clothing.

What can we make of these financial hardship data? Most importantly, low wage employment is not merely an abstract statistical category, but has concrete consequences for access of the population to food, clothing, and medical care. This list of items no doubt represents a larger list of items that families consume such as quality housing, educational opportunities and the ability to participate fully in society.

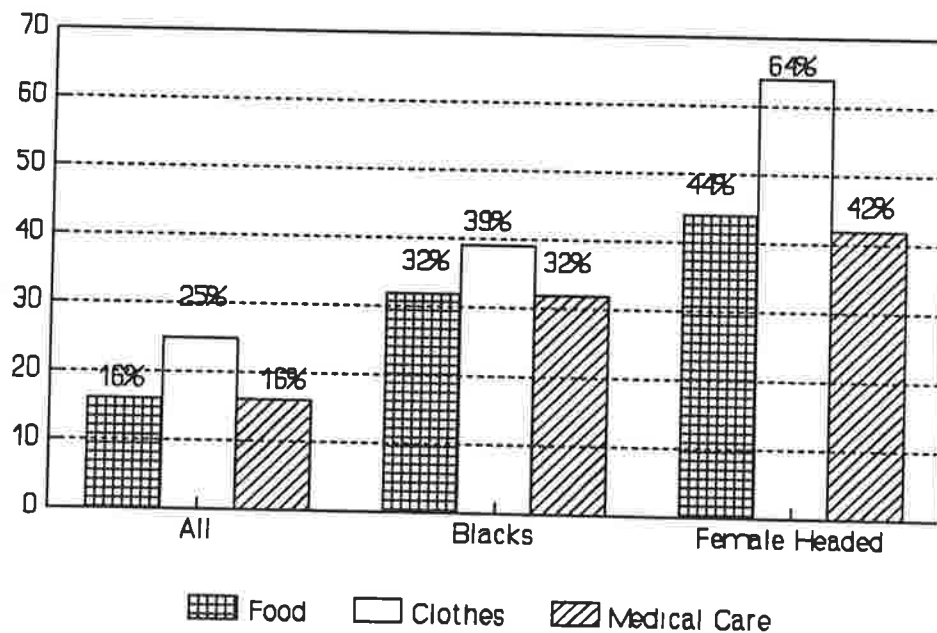


Figure 2 Percent of households of EMPLOYED North Carolinians reporting often or sometimes not having the money to purchase needed food, clothing or medical care

Recent economic growth in North Carolina has increased the prosperity of some North Carolina residents. High skilled people who have moved to North Carolina have certainly benefitted. Some native North Carolinians that live in the urban Piedmont have benefitted as well from the higher waged jobs generated by the "sunbelt" boom. It is becoming quite clear, however, that the "sun" in the sunbelt shines brighter in the city. Rural North Carolina presents an exaggerated form of the picture just outlined. Rural North Carolinians have lower levels of education and literacy, as well as lower waged jobs and more financial hardship than the residents of the urban Piedmont. In many ways the traditional state economic development formulae has been most consistently applied in rural areas. It is here that low wage/low skill jobs created by branch manufacturing plants are most common. Not only is North Carolina the most heavily manufacturing oriented state in the nation, its manufacturing is far and away the most rural. It is in rural areas that the neglect of education, illiteracy and high school drop out rates are at their worse. If North Carolina is at a crossroads in its economic and social history it is in the rural areas, where half of all North Carolinians live, that the problems are most acute.

CHAPTER THREE

ELITE CONCENTRATION AND THE POLITICAL ECONOMY OF DEVELOPMENT IN NORTH CAROLINA

This chapter examines the adequacy of the general historical description of Southern, particularly North Carolina's, political- economic development outlined in the first and second chapters. The argument is that dominant local elites, particularly in the "black belt" counties of the east, through control of local and state government as well as the local economy, and in concert with practices of race based discrimination and segregation encouraged the development of a low wage, non-unionized economy. This lead in turn to high rates of poverty and income inequality, in the rural South in general, and in North Carolina in particular.

Post 1960 economic growth, including growth in per capita income and declines in poverty, popularly referred to as the "Sunbelt Boom" cast some doubt on this historical interpretation. The chapter shows that the historical pattern described in the literature is more applicable to rural, non-Piedmont areas of the state. It is precisely in this region, and regions like it throughout the South where the problems of rural poverty seem particularly resistant to change. It is in these regions where we can say there has been economic growth, but without sufficient human development.

Examining the Historical Interpretation

The basic argument to be examined here is that elite landholding concentration and the racial character of the political economy lead to patterns of economic development, which in turn determine the current stratification structure in North Carolina. In the Piedmont land

holding concentration was lower and the size of the black population smaller making the low wage, homogeneous industrialization economic development pattern less necessary to business elites. This does not mean that because they were modern they did not desire a low wage, unorganized labor force -- they surely did. It does mean then there were other ways to make money such as tobacco and banking--two very concentrated and relatively (by North Carolina standards) higher waged industries that played a prominent role in Piedmont industrialization. In other areas of the state the historical picture of local elites playing whites off against blacks to create an unorganized working class to labor on their farms and in their mills, and a resultant high level of poverty and inequality seems more plausible. This interpretation of regional differences in elite interests and resultant patterns of economic development is also consistent with the rise of modernizer politics (Luebke 1990) in the Piedmont region, the early success of the Civil Rights movement in the cities of North Carolina (Bloom 1987), and with the sunbelt economic boom being largely confined to the (now urban) Piedmont (Rosenfeld et al 1985).

We use observations from the 100 North Carolina counties to model the proposition that elite landholding concentration and the racial composition of the county are fundamental determinants of the pattern of economic development, which in turn determines the level of inequality and opportunity in the local economy.

Ideally, historical data on changing elite landowning concentration would be used to test this model. One might expect initial lower levels of landowning concentration in the Piedmont region, which both allows and is progressively eroded by the pattern of mixed industrialization in that region. The pattern of heterogenous industrialization would lead to

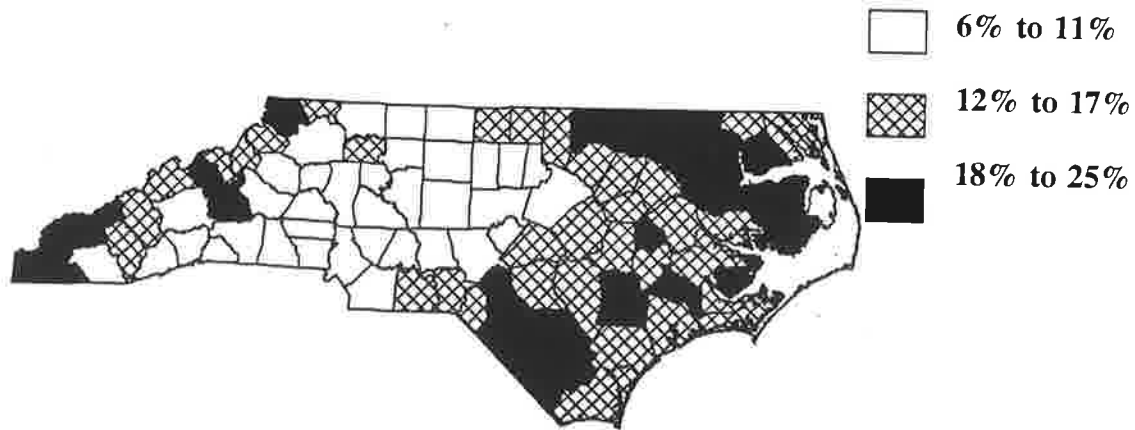


Figure 1. Family poverty rates in 1980 for North Carolina counties

lower levels of poverty and inequality. In areas with high initial landholding concentration, and relatively large black populations we would expect a more homogenous pattern of industrialization, continued agricultural production, and high levels of poverty and inequality.

Unfortunately, historical data on landholding concentration does not exist for North Carolina counties. It is the case that plantation agriculture was largely an Eastern North Carolina phenomena (Key 1950). We do have data on landowning concentration for the 100 North Carolina counties that was collected in 1985 (Hall 1986). Researchers went to the property tax roles for each county and tabulated the total acreage owned by any person, family or private corporation with more than 300 total acres of land in the county. The land owning concentration ratio used in this research is the percent of total land in the county that is owned by landowners with more than 300 acres. This ratio ranges from a low of 5 percent in Swain county to a high of 74 percent in Pamlico county. Average statewide landowning concentration by this measure is 31.5 percent. Figure 1 in the preceding chapter showed the regional distribution of landowning concentration. It is highest in the eastern coastal plain

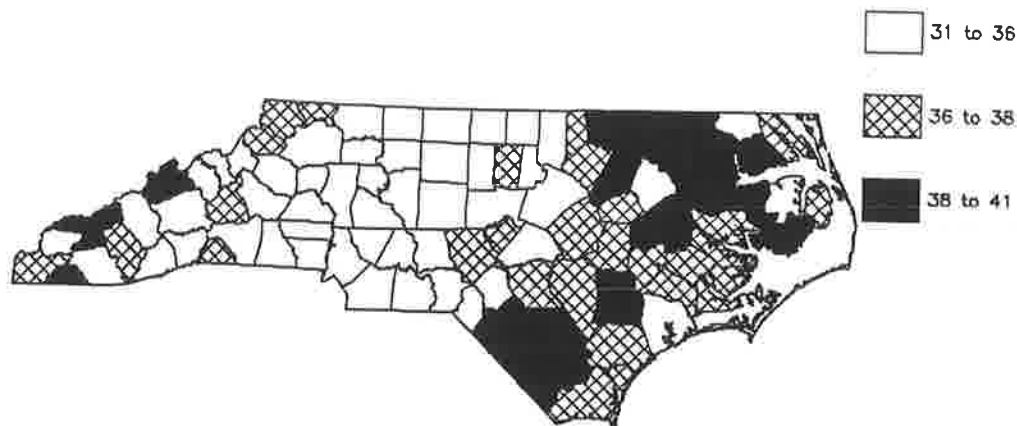


Figure 2. Household income inequality (Gini coefficients) in 1980 for North Carolina counties

region, lowest in the west-central Piedmont, and at intermediate levels in the far western mountains. Figures 1 and 2 in this chapter show the distribution of poverty and inequality in 1980 across North Carolina counties. These three maps show similar distribution patterns.

The analysis plan is to see if an empirical model of contemporary economic development and inequality in North Carolina is consistent with the historical argument that concentrated elites, exploiting racial divisions within the working class, encourage the development of homogenous labor intensive, low wage local industrialization. Concretely we expect in areas with high elite land concentration and high minority composition less industrial diversity and an enduring agricultural sector.

We measure the fundamental political economic baseline (landowning concentration and race composition) in the same time period as their hypothesized outcomes (economic structure, poverty and inequality). This is an unfortunate constraint of data availability. The models

discussed below use the percent minority in the county in 1980 and the proportion of land owned by large landowners in 1985 to model the effects of these fundamental aspects of the local political economy. Since they are measured contemporaneously with the outcome measures, they may produce underestimates of the historical consequences of elite concentration and racial composition on the developing economy and local income opportunities. On the other hand the relative magnitude of race and elite concentration effects can probably be assessed through these models.

The theory of uneven development outlined briefly in Chapter One (and addressed more directly in the next chapter) leads to some additional expectations. We might expect that areas with low wage labor forces should have been more successful in recruiting outside "core" investment (Markusen 1985). There is good evidence, however, that national and international firms avoid locating their plants in areas with large black populations (Bellamy and Parks 1990; Colclough 1988, 1989). The exception seems to be in the lowest education, lowest wage markets of the South (Bellamy and Parks 1990). These labor markets are also characterized by high unemployment and a low skilled working population.

Elite concentration and large African American populations are expected to be associated with underdeveloped economies. In turn where we find industrial homogeneity, high agricultural employment, high unemployment, and low levels of high school graduation among adults we expect to find higher levels of inequality and poverty. Although core sector employment is generally associated with less poverty in national models (Tomaskovic-Devey 1991, 1988), in these models where core employment is largely the result of outside capital investment in search of cheap labor (Markusen 1985; Wood 1986), we would not be surprised to find no effect on

poverty and inequality.

Figure 3 outlines the causal model that is being examined here. In terms of the historical record this is Wood's (1986) picture of North Carolina economic development made less monolithic by acknowledging possible variation in elite interest and behavior associated with the degree of landowning concentration and the racial character of the local political economy (Key 1950; Bloom 1987; Luebke 1990). Appendix 1 presents the definitions, means and standard deviations of all variables used in the models.

We will proceed by first modeling the effects of elite land concentration and minority composition on the economic structure of the 100 North Carolina counties. Then we will look at the effect of elite land concentration and minority composition on the levels of poverty and inequality in the

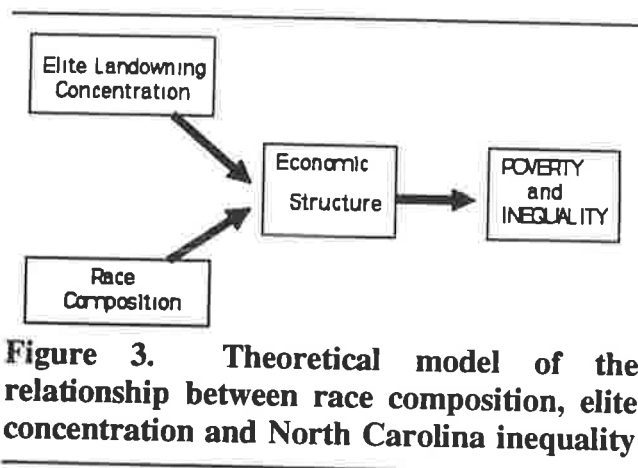


Figure 3. Theoretical model of the relationship between race composition, elite concentration and North Carolina inequality

counties. Finally we will explore the process by which the economic structure mediates between the political economic fundamentals of elite concentration and racial competition and the creation of those patterns of inequality and poverty. These final models will contain a series of control variables as well which are reported in the tables.

Economic Development Patterns

Table 1 reports multiple regressions of current economic structure measures upon the racial composition and land owning concentration measures for the 100 North Carolina counties.

Table 1 Regression of Community Economic Structure on Land Owning Concentration and Percent Black for 100 North Carolina Counties.¹

		Percent		Land/Race Interaction	Intercept	R ²	F-Test ²
		Land Owning Concentration	Population Black				
Industrial Homogeneity	1	.19 (.03)+	.16 (.03)+	---	.86	.103	0.3
	2	.28 (.05)+	.26 (.05)+	-.18 (-.06)+	.85	.106	
Core Sector Size	1	.04 (.02)	-.40 (-.17)**	---	.29	.138	11.0***
	2	-.57 (-.24)*	-1.03 (-.45)***	1.18 (.90)**	.36	.226	
Agricultural Sector Size	1	.56 (.15)***	.01 (.004)	---	.01	.330	8.3**
	2	.10 (.03)	-.46 (-.13)*	.89 (.44)**	.04	.379	
Unemployment Rate	1	.43 (.06)**	-.14 (-.02)	---	.05	.123	5.3*
	2	-.01 (-.001)	-.59 (-.09)*	.85 (.21)*	.07	.169	
Percent Adults H.S. Graduates	1	-.19 (-.09)+	-.06 (-.03)	---	.53	.056	19.3***
	2	.63 (.30)**	.79 (.39)***	-1.58	.43	.214	

(-1.36)***

1 All measures are for 1980 except Landowning Concentration which was measured in 1985. Standardized regression coefficients with metric coefficients in parentheses.

2 This is an F test for a significant increment to R² when the interaction term is included in the equation. The incremental F test:

$$F = \frac{(R_2^2 - R_1^2) / (K_2 - K_1)}{(1 - R_2^2) / (N - K_2 - 1)}$$

+ p ≤ .10 * p ≤ .05 ** p ≤ .01 *** p ≤ .001

The multiple regression results reported in Table 1 help highlight which variable (as currently measured) is more strongly related to a certain economic outcome, and what the metric magnitude of those relationships are.¹ The interaction of race composition and elite land owning concentration provides a superior modeling of the process of economic development for all variables except industrial homogeneity. The additive models are discussed first. They can be interpreted as the average effects of land owning concentration and percent black on the character of economic development. The interpretation of the conditional effects models is not so straight forward. In a multiplicative interaction model the slope (or effect) of a predictor variable varies with levels of the conditional variable. Figures 5 through 12 display the results of the interaction models, which most readers should find more interpretable than the raw estimates in Table 1.²

Homogeneity of industrial structure increases with both increased land owning concentration and proportion black in the county as predicted. While the model is highly significant, the individual item effects are weak, only statistically significant at the .1

¹ The use of tests of statistical significance are not, strictly speaking, appropriate here because this is not a sample of cases from some larger population. Since the entire population of 100 North Carolina counties are in the analysis, the estimates are accurate descriptions of the processes for North Carolina to the extent that the measures are good measures, and the models correctly specified. The tests of statistical significance are useful, however, as a gauge of the stability of the effect across cases.

² These figures report estimates of conditional effects based on the interaction models in Table 1. The equations for interaction models in Table 1 all have the following form: $y = b_0 + b_1x_1 + b_2x_2 + b_3x_1x_2 + e$. This is a bilinear interaction model and the interpretation of b_3 is the number of units that the slope of y on x_1 changes, given a one-unit change in x_2 . To find the value of b_1 at some value of x_2 we use the following equation: b_1 at $x_2 = b_1 + b_3x_2$. Similarly, to solve for the value of b_2 at some value of x_1 we use: b_2 at $x_1 = b_2 + b_3x_1$. The medium, high and low values of land owning concentration and percent black refer to their mean values across the 100 North Carolina counties, and plus and minus one standard deviation respectively. Those values are:

	Mean	+1 sd	-1 sd
Land Owning Concentration	.315	.488	.142
Percent Black	.231	.397	.065

probability level. The interaction model is not a significant improvement over the additive model.

Core sector size is strongly related to the race composition of counties. As the proportion black in a county increases the probability of developing a relatively high wage industrial sector falls. Land owning concentration is not related to core sector size in the additive model, although it is at the zero-order level, and has interesting effects in the interaction model (discussed below).

The size of the agricultural sector is very strongly related to land owning concentration. The size of the black population is not strongly related to agricultural sector size in the additive model.

Unemployment rates are strongly positively related to elite concentration in the additive model. On average, for every one standard deviation increase in elite land owning concentration, the unemployment rate rises by .43 of a standard deviation. Unemployment rates are not substantively related to the race composition of the county, in the additive model. Nor were they at the zero-order level. The proportion of county residents who are high school graduates declines as elite land concentration rises, and is not significantly related to race composition in the additive models..

Overall, the argument that elite land owning concentration and large minority populations create the political economic preconditions for a certain form of economic development are confirmed. Where elites are concentrated and the black population is large (and these places overlap considerably) then we see more homogenous industrial structures, less high wage industrial development, more enduring agricultural production, lower

educational achievement, and higher levels of unemployment. In general, elite land owning concentration is slightly more strongly associated with these measures of economic structure than is the racial composition of the county (four of five comparisons).

The graphic displays of the interactions between percent black and landowning concentration reported in Figures 4 through 11 help us identify the essential historical linkage between elite power and the racial caste system.

Figure 4 diagrams the conditional relationship between land concentration and educational achievement. In the presence of large black populations, elite concentration dramatically reduces local educational achievement. There is no relationship between elite concentration and educational achievement at medium black populations and the slope actually turns positive when there is a small black population.

Although most studies show that the size of the black population is associated with lower educational achievement, the model diagrammed in Figure 5 clarifies that relationship by putting it in a political-economic context. Where land concentration is high, percent black is associated with very low levels of educational achievement. Where elite concentration is weak, the opposite relationship holds.

Figures 6 and 7 display the conditional effects of land concentration and percent black on local unemployment levels. Land concentration tends to increase unemployment, but

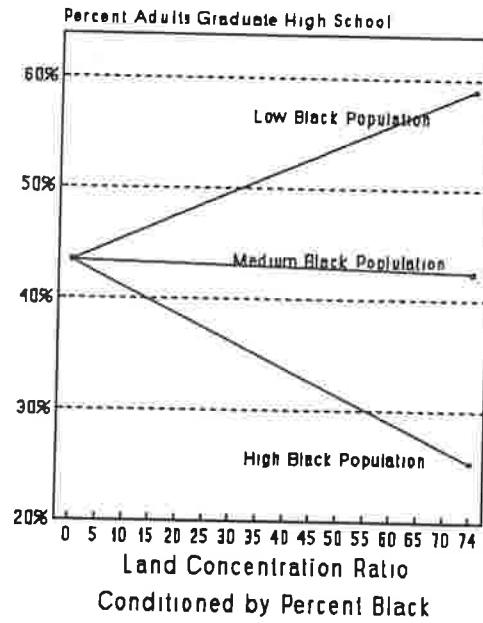


Figure 4. Effects of elite land concentration on county high school graduation rates, conditioned by low, medium, and high African-American population

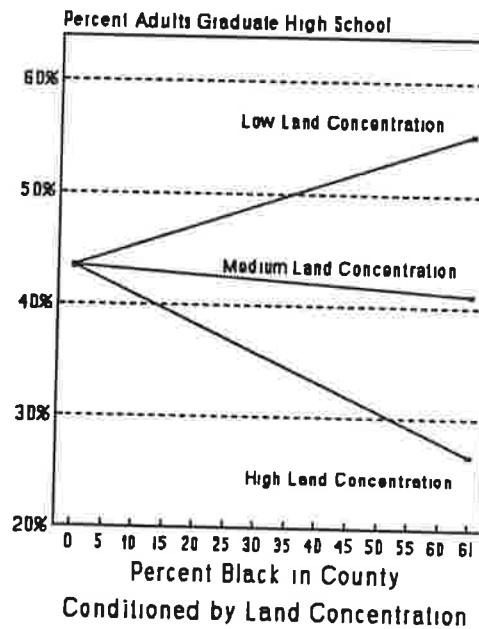


Figure 5. Effects of percent African American on county high school graduation rates, conditioned by low, medium, and high land concentration

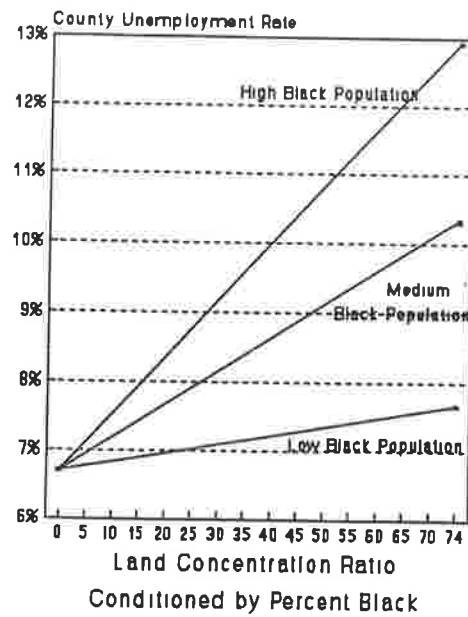


Figure 6. Effects of elite land concentration on county high school graduation rates, conditioned by low, medium, and high African American population

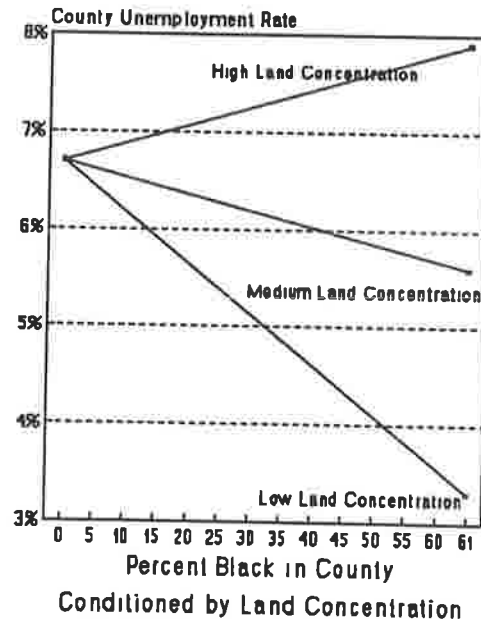


Figure 7. Effects of percent African American on county unemployment rates, conditioned by high, medium and low land concentration

much more dramatically in counties with large black populations. A rise in percent black in the locality is associated with lower unemployment in areas without high elite land concentration.

A large agricultural sector, remains as it has been historically, closely tied to the availability of black labor and land owning elites (Figure 8). Similarly, the percent black in counties with high land concentration is associated with a larger agricultural sector (Figure 9). In counties with low land concentration, percent black is associated with a smaller agricultural sector, and in average land concentration counties there is no effect of race composition on agricultural activity.

Figures 10 and 11 diagram the conditional effects of land concentration and percent black on core sector size. Land concentration is associated with lower core sector size in the absence of large black populations, but higher core sector size in the presence of large black populations. This represents, no doubt, the transfer of the most routinized production in core industries to these elite controlled, racially organized labor markets.

Figure 11 suggests that, in general, outside investment by core firms avoids large black populations, except in those areas of the black belt that reproduce traditional low wage labor relation systems. Areas with large black populations but without concentrated elites have very small core industry sectors. The presence of concentrated elites seems to counterbalance the tendency of core firms to avoid areas with large black populations. As we will see, the typical finding in national studies that core sector size is associated with less inequality and poverty (Tomaskovic-Devey, 1988, 1991; LoBao 1990; Jacobs 1988) is not

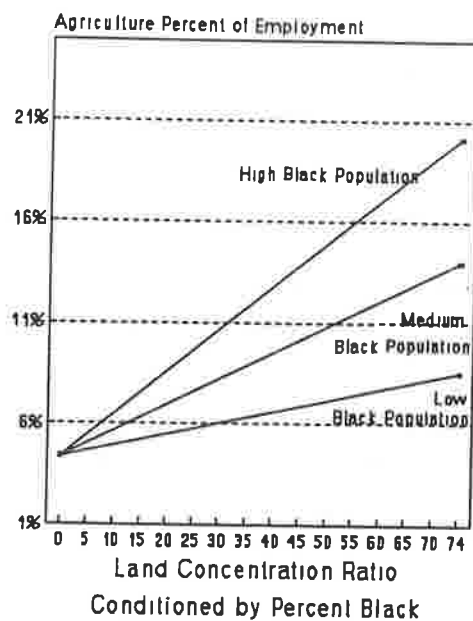


Figure 8. Effects of elite land concentration on county agricultural sector size, conditioned by high, medium and low African American population

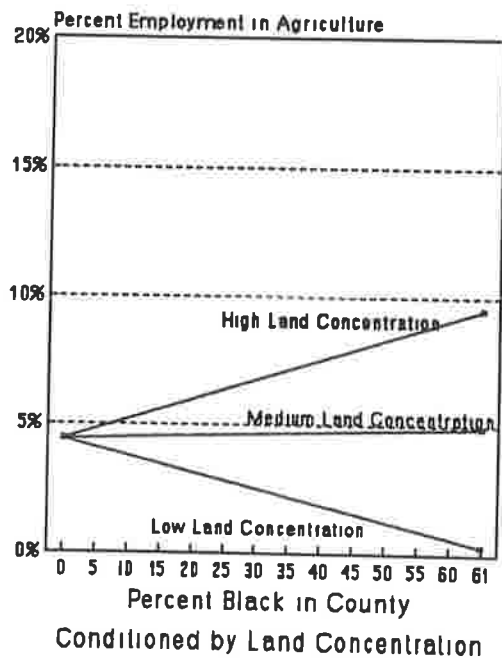


Figure 9. Effects of percent African American on county agricultural sector size, conditioned by high, medium and low land concentration

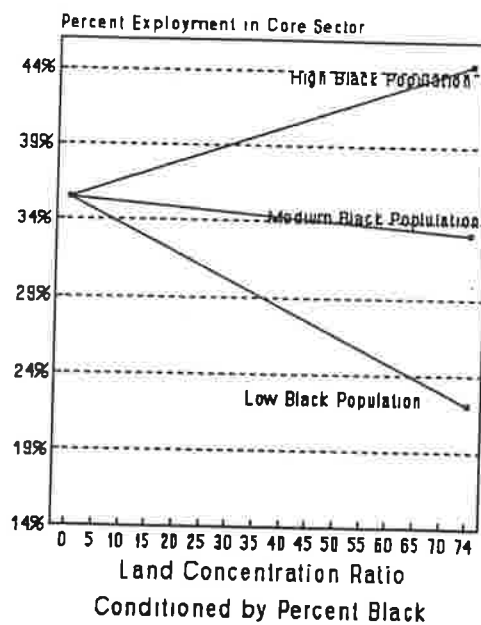


Figure 10. Effects of elite land concentration on county core sector size, conditioned by high, medium and low African American population size

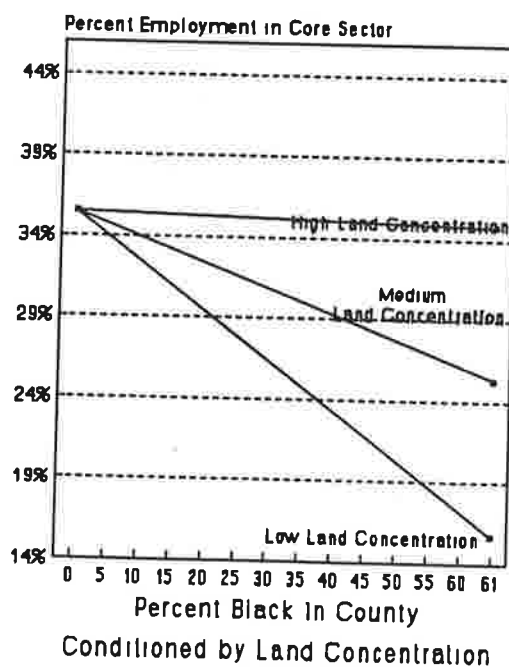


Figure 11. Effects of percent population African American on core sector size, conditioned by high, medium and low land concentration

replicated in this North Carolina sample. Outside investment comes to North Carolina, particularly to areas of high elite concentration and black population in order to minimize labor costs (Markusen 1985; Wright 1987).

Many researchers have found that race composition profoundly conditions the pattern of economic inequality. The addition of a measure of elite concentration allows us to see that it is not simply, or even primarily race composition alone, but a general political economic structure in which elites control the pattern of economic development. In North Carolina at least, but probably in much of the southern U.S., the creation and maintenance of a racist segregated society was a key ingredient in the recipe by which strong local elites controlled the pattern of economic development so that it was consistent with their own interests. But what effect have these political economic preconditions had on the structure of inequality in their communities?

Poverty and Inequality

Equation 1 of Table 2 Reports the regression of the 1980 family poverty rate for the 100 North Carolina counties upon land owning concentration and the racial composition of the county. Poverty rises significantly with land owning concentration and with percent black in the population. The effect is stronger for land owning concentration than it is for racial composition. For each one percent rise in landowning concentration there is on average a one-tenth of a percent increase in poverty. For a one standard deviation increase in land owning concentration (17 percent) there is almost a two percent increase in poverty, which represents .38 of a standard deviation in observed poverty rates across the 100 counties. The race composition effects are

Table 2 Regression of the Poverty Rates in 1980 on the Race Composition and Land Owning Concentration, Community Economic Structure and Female Headed Households for 100 North Carolina Counties.¹

	1 ²	2	3	4
Land Owning Concentration	.38 (.11)**	-.29 (-.08)	.01 (.003)	-.18 (-.05)
Percent Population Black	.23 (.069)*	-.46 (-.14)*	-.07 (-.019)	-.30 (-.09)+
Land * Race	---	1.27 (.69)***	---	.42 (.22)+
Industrial Homogeneity	---	---	.23 (.365)**	.22 (.35)*
Core Sector Size	---	---	-.01 (-.01)	-.04 (-.03)
Agricultural Sector Size	---	---	.17 (.18)*	.15 (.16)+
State Sector Size	---	---	.20 (.17)*	.19 (.16)*
Low Service Sector Size	---	---	.01 (.01)	.01 (.01)
Unemployment Rate	---	---	.30 (.63)***	.30 (.62)***
Percent Adults with High School Degrees	---	---	-.42 (-.25)***	-.37 (-.23)***
Percent Population Working Age	---	---	-.15 (-.25)	-.14 (-.23)***
Percent Households Headed by Women	---	---	.24 (.34)*	.24 (.33)*
Intercept	.134	.137	-.03	-.02
Adjusted r ²	.296***	.413***	.750***	.786***
F Test for Significant Interaction Effect	1 vs. 2 F=19.5***		3 vs. 4 F=14.7***	

¹ All measures are for 1980 except Landholding Concentration which was measured in 1985.

² Standardized Coefficients, Metric Coefficients in parentheses.

+ $p \leq .10$ * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

similar but only about two-thirds as large.

Equation 2 reports the results of the interaction model. The R^2 for the interaction model is more than fifty percent larger than for the additive model ($F=19.5$) suggesting a very strong interaction effect. Figure 12 shows that the consequences of land concentration for poverty creation are dramatically positive in areas with large black populations and marginally negative where there is a small black population. Similarly, Figure 13 shows that black population size is associated with higher local poverty rates only where there is medium to high land concentration. Where most of the land is owned by a few elites, percent black in the country is very strongly associated with rising poverty.

Equation 3 of Table 2 adds the hypothesized intervening economic structure variables, as well as four control variables that previous research has shown to be important determinants of the structure of poverty (Sanders 1988, 1990; Tomaskovic-Devey 1987, 1988a, 1988b; Maume 1985, 1989; Reif 1987; Gotsch-Thomson 1984; Bloomquist and Summers 1982). As expected, the additive effects of landowning concentration and racial composition are completely mediated by the intervening economic structure variables.¹ The key intervening variables are industrial homogeneity, agricultural sector size, the unemployment rate and the percent of the adult population graduating from high school. The control variables for female headship and state

¹ The additive effect of percent black on poverty is reduced to a probability level below .10 but above .05 when the economic structure variables are entered without the control variables. When the control variables, particularly the percent of households head by women are included the effect basically disappears. The high association between race and female headship is well known.

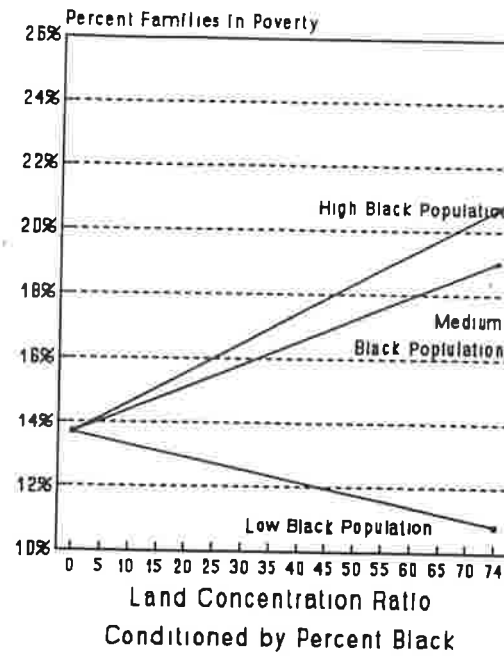


Figure 12. Effects of elite land concentration on county poverty rates, conditioned by high, medium and low African American population

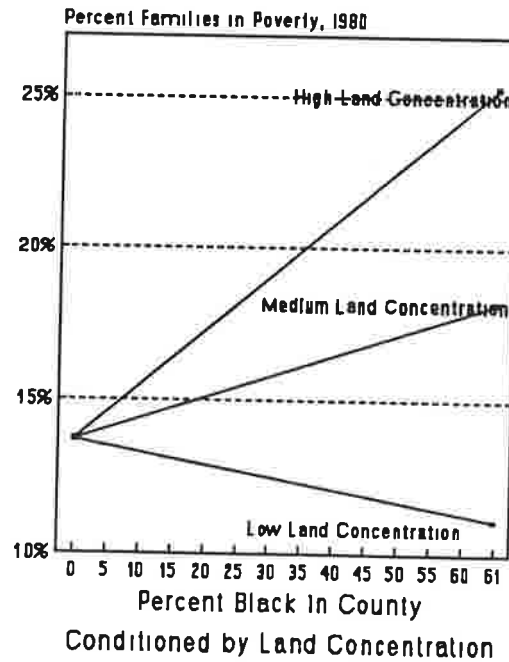


Figure 13. Effects of percent African American on county poverty rates, conditioned by high, medium, and low land concentration

sector size are more modestly associated with increased poverty. Core sector size is not associated with reduced poverty, reflecting the dependent development pattern of North Carolina's political economy (Wright 1987; Wood 1986).

It is apparent that the organization of the economy is strongly influenced by the concentration of landed elites in a county in a dynamic interaction with the racial composition of the county. The organization of the economy, in turn, is linked to the extent of poverty in the community.

Equation 4 of Table 2 adds the interaction between land concentration and race composition to the poverty model reported in equation 3. This model has a significant ($F=14.4$) increment in R^2 over equation 3, although the R^2 only increases by .036. This suggests that some of the processes by which land concentration and race composition effect the pattern of economic development and so poverty is not measured entirely by the intervening variables included in equation 3.¹

Equation 1 of Table 3 regresses the Gini Coefficient of household income inequality upon land owning concentration and the racial composition of North Carolina counties. The two variables have almost identical additive effects upon inequality. In both cases for a one standard deviation increase (in concentration and percent black) there is about a quarter of a standard deviation increase in household inequality.

Equation 2 of Table 3 reproduces the now familiar interaction model with similar results.

¹ A three-way interaction between core sector size, elite land concentration and percent black was modeled as well but the increment to R^2 over equation 3 in Table 2 and 3 were nonsignificant.

Table 3 Regression of the Gini Coefficient of Household Income Inequality on the Race Composition, Land Owning Concentration, Community Economic Structure and Female Headed Households for 100 North Carolina Counties.¹

	1 ²	2	3	4
Land Owning Concentration	.27 (.038)*	-.17 (-.02)	-.07 (-.01)	-.39 (-.05)*
Percent Population Black	.26 (.037)*	-.18 (-.03)	-.03 (-.01)	-.41 (-.06)+
Land * Race	---	.85 (.22)*	---	.69 (.18)*
Industrial Homogeneity	---	---	-.28 (.22)*	.27 (.21)*
Core Sector Size	---	---	.04 (.01)	-.01 (-.00)
Agricultural Sector Size	---	---	.29 (.15)*	.26 (.14)*
State Sector Size	---	---	.24 (.10)*	.23 (.09)+
Low Service Sector Size	---	---	.13 (.08)	.13 (.08)
Unemployment Rate	---	---	.11 (.11)	.10 (.10)
Percent Adults with High School Degrees	---	---	-.07 (-.02)	.10 (.10)
Percent Population Working Age	---	---	-.20 (-.16)	-.02 (-.01)
Percent Households Headed by Women	---	---	.24 (.16)+	-.18 (-.15)
Intercept	.353	.358	.220	.225
Adjusted r ²	.216***	.277***	.542***	.615***
F Test for Interaction Effect	1 vs. 2 F = 8.1**		3 vs. 4 F = 16.6***	

¹ All measures are for 1980 except Landholding Concentration which was measured in 1985. Metric Coefficients for Landowning Concentration are multiplied by 100 to make their interpretation consistent with the other variables.

² Standardized Coefficients, Metric Coefficients in parentheses.

+ $p \leq .10$ * $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

The increment to R^2 is significant. Figures 14 and 15 help clarify the process by which elite land concentration and racial composition combine to create the high inequality for which the South, particularly the black belt South, are well known. In counties with large black populations, elite landowning concentration leads to dramatically higher household income inequality. Where there are few blacks, the effect of elite concentration on inequality is negligible, perhaps mildly negative. Figure 15 shows a similar pattern for race composition. Where land concentration is high, increases in the black population lead to higher household income inequality. Where it is low, there is no relationship between percent black and the degree of household income inequality.

Equation 3 of Table 3 adds the intervening economic structure variables and the same set of control variables we saw in Table 2. Again, the additive effect of land owning concentration and racial composition is mediated by economic structure, particularly industrial homogeneity and agricultural sector size. The percent of households headed by women and the size of the state sector are positively associated with inequality. The inequality models show patterns consistent with expectations but the relationships are generally weaker than they were for models predicting poverty variation across the 100 North Carolina counties. Still, higher landowning concentration and higher percent black are associated with economic development patterns that lead to higher inequality in communities.

Equation 4 adds the interaction term and significantly increases model fit (the increment to $R^2 = .063$, $F = 16.6$). Again, we see that the interaction of race and elite concentration produce some additional effects on inequality which have not been captured by our modeling of

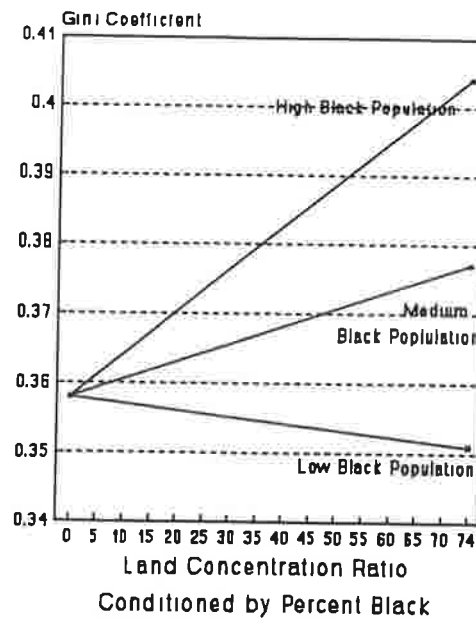


Figure 14. Effects of elite land concentration on county income inequality, conditioned by high, medium and low African American population size

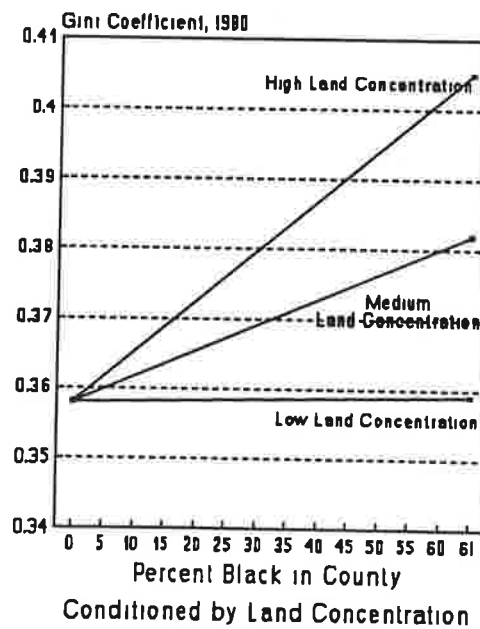


Figure 15. Effects of percent African American on county family income inequality, conditioned by high, medium and low land concentration

the intervening processes. This does not effect our conclusions, although it suggests that some additional dimensions of political economic structure not measured here, such as the quality of education, industrial recruitment strategies, and perhaps local repression, also mediate the relationship between the elite controlled racially divided labor market and household income outcomes.

Conclusion

The data analyzed here is generally consistent with the causal model outlined in Figure 3. Concentrated local elites and high proportion black in the community tend to be associated with more homogenous industrial structures, more agricultural employment, and more surplus labor. Conversely, concentrated elites and a large black population are associated with a smaller core sector and lower skill levels among the population. For these five aspects of economic development both race composition and land concentration show strong zero-order associations. For four of the five, the association with land owning concentration is higher than the association with race composition. Given that direct measures of the association between elite concentration and economic development are unique to this project, the strong findings here are particularly striking. In most cross-sectional studies of geographical units race composition is the best predictor of inequality outcomes. Here we find that in additive models both poverty and inequality are more strongly associated with land owning concentration than they are with race composition.

Most importantly, the study shows that the political economy of uneven development within North Carolina is the joint product of elite control and the modern racially exploitative system of southern development. *Race is associated with more poverty and inequality only when*

there are sizable levels of elite concentration. Similarly, the inequality and poverty enhancing nature of concentrated elites is at its most devastating where there is a large black population to be exploited.

This pattern holds true for four of the five aspects of economic structure which were hypothesized from the social-historical literature to mediate between elite growth strategies and contemporary household inequalities. Where there are high levels of elite concentration and black population we find large agricultural sectors, low levels of education and high unemployment rates. The negative effects of percent black in the county on the character of economic development and household inequality, disappear where traditional elites do not control the local economy.

The one exception to this pattern has to do with core sector size. In general, as the size of the black population increases, core sector employment -- which is almost entirely the result of outside capital investment -- declines. The exception to this generalization is in areas with high elite concentration. In these areas core sector size and race composition are unrelated. Presumably the process is one in which national and international investment capital avoids large black populations, except where the general political economy produces an exploitable very low wage, low skill labor force. This result is consistent with the findings of Colclough (1988;1989) and especially Bellamy and Parks (1990). All three of these articles found a tendency for high wage outside investment to avoid areas in the South with large black populations. Bellamy and Parks (1990), however, found that the exception to this rule is when the local population has very low educational levels. From this research it would seem that the high level of labor exploitation possible in areas with strong traditional local elites, and impoverished labor markets is

inducement enough to lure some national and international investment to areas with large black populations.

While the cross-sectional results in this chapter are consistent with historical interpretations a healthy skeptic might worry that contemporary concentration is at least partially determined by contemporary events. This is a criticism we cannot refute, nor are we predisposed to spend very much time with it.¹ The contemporary pattern of land owning concentration closely mirrors the extent of plantation agriculture in post-bellum North Carolina (see Key 1950). The historical picture painted by authors such as Wood (1986) or Billings (1982), and modified to reflect the elite diversity pointed out by Key (1950), Bloom (1987) and Luebke (1990), is consistent with the data presented here. The special role of the racial caste system in the Southern United States can be understood, however, with more clarity in light of these analyses. Race is important, but largely as it is tied up in the general political economy of elites control over the pattern of economic and social development. Bloom's (1987) and Luebke's (1990) observations of the lower commitment of urban elites to racial inequality is consistent with the findings here. That is, where elites' capital is based on land ownership, race is a key element in the development of the local political economy. When modern free labor markets are the source of labor, the caste system can be broken down (Wilson 1978).

The power of the gentry is not absolute. There is a great deal of variation in land owning concentration across North Carolina. The urban Piedmont stands out for its low levels of

¹ Additional models were examined in which ten year lagged measures of poverty and household income inequality were included. The lagged dependant variables control for any unmodeled historical variation in the creation of poverty and inequality. If the interaction of landowning concentration and percent black were actually measuring some unexplained contemporary events, they should remain significant in the presence of lagged dependent variables. They did not, which suggests that their contribution to poverty and inequality are the result of the historical political economy of local development outlined in this and the last chapter.

concentration and increasingly diverse and higher waged employment structure. As Luebke (1990) points out, this does not mean that the economic elite of the Piedmont are more progressive in their politics or their goals for the working class, but they are more moderate in how deeply they dig in their heels to forestall change. It may well be that the sun shines in the urban Piedmont's 'sunbelt' because elites had more to gain and less to lose from heterogenous, higher waged economic development.

It may also be, however, that the concentration of political power necessary to forestall, or at least direct, change was weaker in the Piedmont with its much smaller black population and less concentrated elites. The modern defense of racism, which so effectively divided the working class in the rural eastern part of the state, has played a less visible role in the political economy of the Piedmont. North Carolina's reputation among Northern industrialists as the "progressive" southern state may be at least in part derived from less vigorous defense of tradition, lower elite concentration, and weaker commitment to the racial caste system among Piedmont industrialists. As Key (1950) pointed out in his now classic work, this progressive appearance no doubt reflects as well that the plantation economy was smaller in North Carolina than in much of the rest of the U.S. South.

The last twenty or so years have seen an undermining of racial apartheid, particularly in the urban Piedmont, largely because of changes forced on the South by the Civil Rights movement and supporting national legislation and administrative rules (Bloom 1987). It is difficult to say which came first, the undermining of traditional race relations or the economic 'sunbelt' expansion which accompanied it. That is, the new economic heterogeneity of the sunbelt south is part of a package of increased democratic politics, elite deconcentration and

reductions in poverty and inequality.

In the next chapter we evaluate the character of that sunbelt boom. In this chapter we have seen that traditional development patterns have led to inadequate patterns of economic development and high poverty and inequality. If local elites are connected to this pattern of growth without development, should the South look to outside firms for better jobs?

CHAPTER FOUR

JOB QUALITY DIFFERENCES BETWEEN LOCAL AND OUTSIDE FIRMS

with Sara Curran

Before wholeheartedly pursuing growth-from-within strategies policy makers should understand the limitations presented by the political economy of the region and the quality of employment opportunities provided by different types of firms. This chapter uses current survey data for North Carolina to examine the relative quality of employment (measured by wages and benefits) generated by both locally owned and externally owned firms. Hypothesized differences between the two types of firms are framed within a theory of uneven development and the history of economic change in North Carolina. While the data is specific to North Carolina, results may generally be applied to other Southern states that have similar political economic histories.

Theories of Uneven Development

Further examination of the nature of economic development requires a theoretical framework to organize the analysis. A modified theoretical version of uneven development or dependency provides such a framework (Baran 1957; Cardoso and Faletto 1979; Evans 1979; Frank 1969; Gereffi 1989; Markusen 1987).

Theories of uneven development have been used primarily to describe conditions in less developed countries (Amin 1976; Baran 1957; Caporaso and Zare 1981; Cardoso and Faletto 1979; Evans 1979; Frank 1969; Malizia 1985). Attempts have also been made to apply these theories to regional differences in industrial nations (Billings 1982; Lovejoy and Krannich 1982; Markusen 1987; Wood 1986; Wright 1987). These theories and research provide useful tools for

an analysis of economic development outcomes in North Carolina.

Theories of dependency attempt to explain socioeconomic differences within and between regions. An economic system is dependent when the ability of capital to expand, innovate, or create new technologies is possible only through external support (Cardoso and Faletto 1979). Traditional multiplier effects associated with manufacturing are lost because production moves to the dependent region only after the technology involved has become routinized (Evans 1979; Markusen 1987; Norton and Reese 1979). At this point, uncertainties are small and savings from cheap labor make a difference (Evans 1979; Markusen 1987). Windfall profits associated with new products remain in the center and the periphery is forced to rely on the low cost of its labor for its comparative advantage in the international market (Evans 1979). As a result, peripheral economies are 'disarticulated' because firms within the periphery region are not connected to each other, but depend on center firms for markets, technology and capital (Evans 1979).

In the past dependency theories did not explain why capital chooses to locate in one area versus another with similar labor market characteristics. This failure of dependency theory is a result of an overemphasis upon external international relations and an under emphasis upon local class relations and local labor market organization. More recent attempts to apply dependency theory address this theoretical gap (Evans 1979; Lovejoy and Krannich 1982; Markusen 1987). Understanding the role of local capital, the state, and the working class becomes central to analyses of the impact of outside capital on a locality's economy. Local capital, often synonymous with local elites, generally condition the nature of local economic development and the type of investment made by outside capital (Evans 1979). In general a mutuality of interest between local and outside capital is founded on their shared needs for an unorganized and cheap

local labor market. Because of local capital's dependence on outside capital the state is particularly interested in meeting the needs of outside capital. This may include investment incentives for outside capital as well as repression of working class interests to maintain a low wage work force (Evans 1979). Consistently, state governments in the South tend to define economic development primarily in terms of recruiting outside manufacturing. The pattern of urban-rural resource flows depends on the political and economic context within the peripheral region (Lovejoy and Krannich 1982).

The historical literature suggests that similar social relations of production, especially in labor market organization, should exist for both outside and local firms. The process by which the skill levels of jobs and of individuals are rewarded should be quite similar. Outside firms, however, will often have access to more organizational resources through their position within national and global markets. Outside firms, as a result, should provide marginally better jobs than local firms. If outside firms pay a wage premium over and above skill levels, or reward certain skill characteristics more highly, then they may disrupt local labor market conditions, and undermine the profitability of local capital by raising the wages of labor.

The potential rewards associated with the jobs firms create will partially depend on the amount of control firms have over their environment and their position within a sector of the economy (Baron 1984; Hodson 1983; Markusen 1987; Tomaskovic-Devey 1988). Differences in market power and organizational structure make some firms more profitable or secure than others. It is these organizational resources that are particularly attractive to industrial recruiters in underdeveloped regions. Firms in core industries generally have more resources with which to pay wage premiums to their employees. In addition, industries characterized by larger firms

pay higher wages, as do larger firms within industries (Bailey 1980; Kalleberg, Wallace and Althauser 1981; Baron and Bielby 1984; Villemez and Bridges 1988).

This modified theory of uneven development suggests that outside firms will tend to pay wage premiums to attract the more skilled work force in the low wage peripheral economy. Outside firms take advantage of the low wages of peripheral regions and create dependency relations but, historically, they also provided marginally superior employment opportunities compared to local capital. Spatial location theories (Jacobs 1984; Markusen 1987) suggest as well, that outside firms are more likely to have structural power in concentrated product markets which creates this potential for higher real wages.

Traditional uneven development theories posit a geographically fixed center and dependent peripheral regions. Economic trends and recent theories suggest that this dichotomy may no longer represent reality. Instead, capital has become somewhat autonomous from all regions through advances in telecommunication and technology (Gereffi 1990; Markusen 1987). Capital investment moves at will to places that offer the best returns on investment. Manufacturing networks of production are increasingly globalized (Gereffi 1990). Previously rich regions are now vulnerable to this capital mobility. This modified version of uneven development theory incorporates the role of a region's political economy in determining the nature of capital investment. Markusen (1987) describes the Southern boom as a result of the relocation of older economic sectors in response to the relative underdevelopment of the regional political economy. Long term growth prospects may be illusory, however, when the new corporate presence helps push wages up. Given the internationalization of the economy the region may turn out to be a stepping stone for outside capital on its way to other low wage economies (Markusen 1987).

Uneven Development in North Carolina

A number of social scientists have concluded that this modified theory of uneven development is a useful description of the process of economic development in the U.S. South (Markusen 1987; Wright 1987) in general, and in North Carolina in particular (Billings 1982; Wood 1986). Lovejoy and Krannich (1982) have made a similar argument for U.S. rural areas. In general, the attribution of the theory of uneven development to the U.S. South has been based on case study and historical evidence and has down played urban/rural differences in the development process.

In order to industrialize the post-bellum South and its large, relatively unskilled labor force required access to existing technologies but the region lacked the local technological expertise to accomplish this task. Local governments and developers turned instead to outside sources of technical expertise and capital, setting the conditions for dependent economic relations (Wright 1987). Wood (1986) demonstrates that rates of surplus value in the textile industries were consistently higher in North Carolina than in other regions of the country from the late 19th century throughout most of the 20th century. The effect was to attract substantial outside investment and encourage companies seeking low wage labor to relocate in the state.

The historical record in North Carolina suggests that the social contract between North Carolina's local capital interests and outside corporate interests seems to have been premised on the maintenance of a low-skilled, unorganized, low wage workforce (Wood 1986). In the last chapter we saw, however, that the characterization of all of North Carolina as underdeveloped is misleading. The urbanized Piedmont area has developed a more characteristically core economy. It is more industrially diverse, has higher wages and much lower poverty (see also

Rosenfeld et al 1985).

Data and Methods

The data for this analysis come from a random sample telephone survey administered to employed persons in North Carolina in 1989, as part of the North Carolina Farm and Rural Life Study. In a comparison of the general characteristics of this sample with a North Carolina subsample from the Census Bureau's 1988 Current Population Survey little difference was found. Gender, race, age, educational attainment, industry, and occupation distributions were virtually identical, suggesting that this sample is a representative sample of the North Carolina employed population.

The data for these analyses were limited to employees of private profit-making establishments. Private sector growth is the primary focus of most economic development efforts and this study as well.

In order to obtain measures of origin of firm ownership respondents were asked to indicate whether the owner of the company they worked for lives in their community, and if not, whether the owner lives in the state of North Carolina or outside of the state. Respondents were asked to consider an owner as someone who really runs the company, making the ultimate financial decisions.¹

The two measures of job quality include a respondent's yearly income on the job

¹ This interpretation of ownership seemed broad enough to include a Chief Executive Officer (CEO) of a company owned by stockholders. In the case of a branch plant, employees are assumed to know where the company headquarters are and therefore the location of the CEO. Ownership was then coded as a dummy variable where the included category represents an owner living outside of the state (Outside). A dummy variable is a measurement device that allows the researcher to analyze essentially qualitative information (e.g. inside/outside, metro/non-metro) with statistical routines developed for inherently ranked information. The included category, in this case Outside, is given a score of one (1) and the reference category, here local ownership, is coded zero (0).

(Earnings) and the number of benefits (Benefits) associated with that job. The income measure asked respondents to include all sources of income from their job, including regular wages, overtime pay, bonuses, and commissions, before taxes and other deductions. The benefits measure is an additive scale of five different components of a possible benefits package. These include: medical insurance coverage for illness or injury while off the job, sick leave, retirement plan other than social security, a profit sharing or stock option plan, and a paid vacation.

There are several levels of intervening factors which may help explain the effect of firm origination on job quality. Intervening constructs are sequentially added to job quality models. These include location in the urban Piedmont, organizational resources, job characteristics, and employee's characteristics. Identical models predicting earnings and benefits are estimated using ordinary least squares regression.

The first intervening variable measures the location of the firm in the urban Piedmont (Piedwrk). Respondents were asked to identify the county location of the firm they work for. The variable was coded as a dummy variable with all counties within the urban Piedmont as the included category.¹ If outside firms were more likely to locate in the Piedmont region this might explain their higher wages and better benefit packages.

The second level of intervening factors include three measures of organizational resources. The sectoral or industry position of the firm has often been used to identify a firm's access to

¹ The classification of counties was based on the Rural Economic Development Center's publication North Carolina Rural Profile (1988). The Piedmont classification includes 33 of North Carolina's 100 counties. The Piedmont region incorporates 19 of North Carolina's 24 metropolitan statistical areas as defined by the Census Bureau in 1983. Charlotte, Raleigh, Greensboro, Winston-Salem, and Durham are some of the major cities included in the region. While there are other urban areas in the state, it is only in the Piedmont region where labor markets seem to be organized in a more characteristically modern fashion.

resources and markets (Averitt 1968; Hodson 1983). Following Hodson (1983) we distinguish core and periphery sector (Core). Location in a core industry is the included category.¹ A second organizational measure is the number of establishments owned by the company (Multi). This measure has also often been included as an organizational resource measure in past research (Hodson 1987; Lincoln and Kalleberg 1985). Response categories include single establishment, 2-4; 5-10; 11-30 and over 30. A final organizational measure is establishment size (Size). Respondents were asked how many people worked for their organization on site. This question was coded for seven size categories. These three variables measure the external resources a firm has to draw upon, which in turn have the potential of creating opportunities for employees within the firm. In this case, these effects are hypothesized to explain some of the job quality differences between local and outside firms.

Internal relations of production, or the organization of work, are also important factors in determining job quality. Internal labor markets, unionization, job autonomy, supervisory power, job complexity, and production processes have been found to affect wages (Hodson 1983; Kalleberg and Lincoln 1988; Lincoln and Kalleberg 1985). Finally, wages and benefits tend to be higher for more favored workers, although much of these advantages are tied to the characteristics of jobs.

The third level of variables included in this analysis are characteristics associated with a

¹ The justification of this two category schema is based on an analysis of mean income scores for Hodson's (1983) six categories with the North Carolina Employment and Health Survey. Oligopoly, core, and core utilities establishments offered almost identical mean incomes among employees. Likewise, periphery utilities, periphery, and trades firms had similar mean incomes.

job. These variables measure a respondent's managerial responsibility (Jobpwr), whether the job is attached to an internal labor market (ILM), the degree of autonomy on the job (Autonomy), the task complexity of the job ($\text{Ln}(\text{Complex})$)¹, whether the job is a union job (Union), whether or not the job is associated with frequent hirings and firings (Vulnrble), and the number of hours spent on the job (Hours). All of these characteristics are expected to have an impact on job quality and are fairly standard in the literature (Price and Mueller 1986; Lincoln and Kalleberg 1985; Hodson 1987). This set of variables encompasses the broad concept of internal relations of production. The literature strongly suggests that the organization of work structures the opportunities available to employees. The addition of this set of variables is hypothesized to further reduce the differences between local and outside firms. In general this set of variables reflects the potential that outside firms may create a better mix of employment opportunities than are present in the local economy.

The fourth and final level of intervening variables are individual characteristics. Gender (Male), race (White), age (Age, Age*Age), firm tenure (Tenure), and educational attainment (Educ) are used as measures of individual labor market power.² Age is modeled as having a curvilinear relationship with earnings and benefits. A final variable included in the analysis is the origin of the respondent, that is whether or not they were born in North Carolina (Native).

¹ This variable is logged because of a non-normal distribution.

² For this research it is only necessary to assume that labor markets evaluate all of these individual characteristics as legitimate claims on wages. To the extent that labor markets reward tenure, experience, and education and penalize women, blacks and natives then they represent potential intervening factors between firm origination and job quality. We do not assume that productivity in the workplace is the only or even the major source of labor market power.

Logan and Molotch (1987, see also Lovejoy and Krannich 1982) suggest that the employment generated by outside firms is captured by previously unemployed non-natives from center economies. This relieves the pressures on center economies from the potential problem of unemployment. In addition, recent research suggests that non-native North Carolinians receive higher quality jobs (Tomaskovic-Devey and Ritzman 1990).¹ Much of the literature suggests that human capital is an important hiring consideration for establishments with greater organizational resources, and employee empowering work structures. If this is the case then the addition of individual characteristics to the model should reduce any residual advantage of outside firms on job quality. To confirm the hypothesis that outside firms do not disrupt local relations of production we expect that outside firm effects on job quality would be non-significant in these final models.

Analysis and Results

Outside firms pay on average \$6896 more per year than local firms, and also have significantly better benefits packages for their employees. Comparisons of means for all variables across local and outside establishments are presented in the Appendix. Outside firms are neither more or less likely than local firms to be located in the urban Piedmont. This is consistent with Woods' (1986) historical writings. Outside establishments are significantly better off in terms of organizational resources. The mean size of an outside establishment is significantly larger than local establishments, as is the number of establishments, and whether or not the outside firm is located in a core industry. Although only a few job and human capital attributes are significantly

¹ The question asks respondents whether they were born in North Carolina. Some people may not have been born in North Carolina but moved to North Carolina at a relatively young age. Although their move may not have been in response to better jobs and Sunbelt growth, it is probably an adequate measure of nativity.

Table 1. Regression models of LN(EARNINGS) for all firms (N=450)

	<u>Model 1^a</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>
Outside	.23886**	.24306**	.156203*	.11593*	.05579
Piedwrk		.28178**	.28484**	.15141**	.09759**
Core			.25473**	.15581**	.14307**
Multi			.00730	-.00242	-.01083
Size			.05963**	.05592**	.03439
Autonomy				.07977**	.03574**
ILM				.02028	.03327
Vulnrble				-.07977	-.00225
Union				.34988**	.23202*
Jobpwr				.02679**	.01446**
Ln(Complex)				.55936**	.29634**
Hours				.03038**	.02562**
Native					-.03815
White					.14255**
Male					.27877**
Age					.04904**
Age2					-.00053**
Educ					.04955**
Tenure					.00906**
Constant	9.6274**	9.4622**	9.1239**	6.2302**	5.3854**
R2	.02552	.07423	.17227	.54145	.65072
Adj. R2	.02334	.07008	.16295	.52885	.63527
F =	11.7250**	17.9086**	18.4695**	42.9720**	42.1335**

^a Metric regression coefficients and one-tailed tests of statistical significance reported.

*p<.05 **p<.01

different between local and outside firms, the general pattern is that outside firms create marginally better jobs, and hire marginally more favored workers consistent with the modified uneven development approach.

Table 1 presents the results of five regression models for the log of yearly job earnings for the entire sample of jobs. The effect of outside firms is positive and maintains a significant effect on earnings until human capital factors are included in the model. Initially, outside firms raise an individual's logged earnings by more than \$4,000.¹ Controlling for Piedmont location does not appreciably change the earnings advantage of outside firms, although Piedmont location raises wages by even more than does outside firm employment. This means that the urban-rural differences in the quality of jobs are larger than the local-outside firm contrasts.

A third of the original outside firm earnings advantage is a function of the superior organizational resources of these firms. As expected the establishment's organizational resources have positive effects on an individual's earnings (Model 3). Both core sector placement and large size increase employee earnings. Piedmont earnings advantages are not affected by the addition of organizational resources to the model. This is an important finding since it suggests that the urban earnings advantage is a result of local labor market organization rather than difference in organizational and industrial composition.

Both Piedmont and outside firms create more skilled jobs which further explains earnings advantages. The effect on earnings of location in the urban Piedmont is reduced by about a half

¹ Logging earnings has the effect of reducing the size of the right tail of the income distribution, thus the dollar equivalent of logged earnings produces a much smaller gap between local and outside firms (\$4000), than does actual earnings (\$6896).

Table 2. Regression models of job benefits for all firms

	<u>Model 1^a</u>	<u>Model 2</u>	<u>Model 3</u>	<u>Model 4</u>	<u>Model 5</u>
Outside	.57807**	.58298**	.20956	.11460	.11237
Piedwrk		.32971*	.33798*	.17264	.16299
Core			.49335**	.44591**	.42475**
Multi			.13453*	.11424*	.11893**
Size			.26938**	.25184**	.20493**
Autonomy				.04741	.04002
ILM				.19416*	.16677*
Vulnrble				-.10040	-.05343
Union				.13700	.09933
Jobpwr				.03566*	.02369
Ln(Complex)				-.25981	-.30963
Hours				.03955**	.04076**
Native					.16747
White					.00088
Male					-.10924
Age					.01998
Age2					-.00043
Educ					.06535*
Tenure					.03361**
Constant	8.1248	7.9314**	6.48272**	4.192841*	3.41742**
R2	.02175	.03146	.21084	.29305	.32090
Adj. R2	.01957	.02712	.20194	.27363	.29087
F =	9.95471**	7.25395**	23.70860**	15.08564**	10.68695**

^a Metric regression coefficients and one-tailed tests of statistical significance reported.

*p<.05 **p<.01

and the outside establishment effect is reduced by another third with the addition of these variables (Model 4).

Finally, outside firms hire a more advantaged, higher skilled labor force and this explains the remainder of the advantage of outside firms in earnings in the last model. Piedmont earnings advantages still remain, although two-thirds of the urban wage advantage is explained by the presence of higher skilled jobs and more favored workers. In addition, the model appears to be well specified and exhibits unusually high predictive capabilities ($R^2=.64$).

Table 2 presents the results from the estimation of the regression model for benefits associated with an individual's job. The results show that substantially enhanced job benefit levels are available in outside and Piedmont establishments. The striking result of this analysis suggests that benefits enhancement in an externally owned firm are entirely a product of the firm's organizational resources. A firm tends to offer better benefit packages if it is in the core sector of the economy, is large, and has several establishments. Also, the significant effect of the Piedmont disappears when internal relations of production variables are added to the model. Piedmont benefits advantages are not tied to organizational resources but to the superior mix of job characteristics found in the urban regional economy. These results suggest that outside firms provide extra benefits because they have superior organizational resources, but do not provide higher benefits than comparable local organizations. In addition, employees in the Piedmont economy receive additional benefits because they are more likely to be in a job associated with an internal labor market, work long hours, have greater managerial capacities, and have longer establishment tenure.

The above analyses suggest that there are substantial job quality differences between

outside and local firms, but that those differences are a function of organizational resources, job organization, and the types of labor employed. It remains to be seen if there are different processes leading to job earnings and benefits in local and outside firms. In order to do this, the employee sample was divided into two sub-samples of employees that work for local firms (N=346) and employees that work for outside firms (N=104). The same regression models were estimated using the divided samples.

In order to test for significant differences in the process of creating higher quality jobs, equivalent coefficients were compared across the two sub-samples. The results suggest that different factors are important determinants of job quality in local and outside firms. Table 3 reports significant slope differences between the two types of firms. Placement in the core sector was a significantly stronger determinant of earnings advantages in outside firms than in local firms. This suggests that organizational resources are more likely to be shared with workers in outside firms.

Job characteristics were also important factors in the differences between local and outside firms. Unionization and the complexity of the job were significantly stronger determinants of earnings advantages in outside firms than local firms. *Unionization has strong wage enhancing effects in outside firms but none in locally owned firms.* In addition, experience and educational attainment were more important in outside firms than local firms. This suggests that outside firms reward at a significantly higher rate skilled jobs and skilled workers than do local firms.

In comparing the benefits models there are also differences in the process of distributing rewards. Educational attainment is much more important in external firms. This conforms to the previous earnings interactions. On the other hand, in local firms job autonomy is a

Table 3. Significant slope differences between external and local firms

<u>Variables</u>	<u>External Firms</u>		<u>Local Firms</u>		<u>t-test^b</u>	<u>Corresponding Table & Model</u>
	<u>b</u>	<u>s.e.b</u>	<u>b</u>	<u>s.e.b</u>		
EARNINGS						
Core	.5954	.1302	.1680	.0644	3.48	Tbl. 1 Mdl. 3
Union	.6440	.2078	.1318	.1201	1.82	Tbl. 1 Mdl. 4
Ln(Cplx)	.9981	.2092	.3878	.0903	2.55	Tbl. 1 Mdl. 4
Age	.0835	.0254	.0342	.0107	9.19	Tbl. 1 Mdl. 5
Age2	-.0009	.0003	-.0004	.0001	7.39	Tbl. 1 Mdl. 5
Educ.	.0850	.0222	.0366	.0100	1.69	Tbl. 1 Mdl. 5
BENEFITS						
Multi	-.0122	.0907	.2014	.0631	2.15	Tbl. 2 Mdl. 3
Size	.1423	.0742	.3119	.0454	2.33	Tbl. 2 Mdl. 3
Autonomy	-.1413	.1068	.0942	.0513	2.38	Tbl. 2 Mdl. 4
Educ.	.1466	.0800	.0345	.0376	1.72	Tbl. 2 Mdl. 5

^a T-test is calculated from Steele and Torrie (1980) p. 258.

^b T-test compares the difference in slopes between the two samples. Significance is determined by a one-tailed .95 probability or below.

Table 4. Benefits level outcomes: interaction between organizational resources and firm origination

	LOCAL		OUTSIDE	
	<u>Core</u>	<u>Periphery</u>	<u>Core</u>	<u>Periphery</u>
1 Estab.				
Small ^a	7.47 ^b	7.18	8.61	8.09
Medium	8.21	7.91	8.85	8.33
Large	9.19	8.89	9.17	8.65
1-5 Estab.				
Small	7.68	7.37	8.55	8.02
Medium	8.41	8.11	8.79	8.26
Large	9.40	9.09	9.11	8.58
5-10 Estab.				
Small	7.88	7.57	8.48	7.96
Medium	8.62	8.31	8.72	8.20
Large	9.60	9.30	9.04	8.52
10-30 Estab.				
Small	8.08	7.78	8.42	7.89
Medium	8.82	8.51	8.66	8.13
Large	9.80	9.50	8.98	8.45
Over 30 Estab.				
Small	8.28	7.98	8.35	7.83
Medium	9.02	8.72	8.59	8.07
Large	10.00	9.70	8.91	8.39

^a Firm Size Categories: Small=less than 10 employees

Medium=51-100 employees

Large=more than 100 employees

^b All figures computed from the pooled sample model of all variables including interactions of outside ownership with multiple establishments, p, and size.

significantly stronger determinant of benefits.

Although core placement is significant for both sub-samples, it is size and multiple establishments which differentiate the two groups. Interestingly, the benefits advantage of large size and multiple establishment are significantly stronger for employees of local firms. Local firms will offer greater benefits than outside firms if they have additional organizational resources. This somewhat complex effect is decomposed in Table 4. Small outside establishments offer better benefits packages than comparable local firms. Large outside establishments that are part of multi-establishment firms offer worse benefit packages than comparable local firms. This apparent contradiction between the earnings and benefits models may be partially explained by the nature of the sample and the distribution of firms. Most local firms are located in the periphery, are small, and have few establishments. This does provide some evidence that even though large outside firms are willing to pay wage premiums to attract skilled workers, they are not willing to make broader commitments to their workforce. It may be that one of the primary cost savings of outside firms in the low wage North Carolina labor markets is savings on the cost of benefits.

Theories of uneven development lead us to expect that outside firms should not disrupt the low wage pattern of the underdeveloped economy (Wood 1986). Our historical review of the North Carolina case suggests that this pattern of labor market mutuality may be strongest in rural areas. Figure 1 helps to clarify some of the central processes occurring in the dependent development of North Carolina. Outside firms in both rural and metropolitan areas provide higher returns to skill, in this case on the job training, than do local firms. For the very lowest skilled jobs, however, outside firms provide lower wages than local firms. In general outside

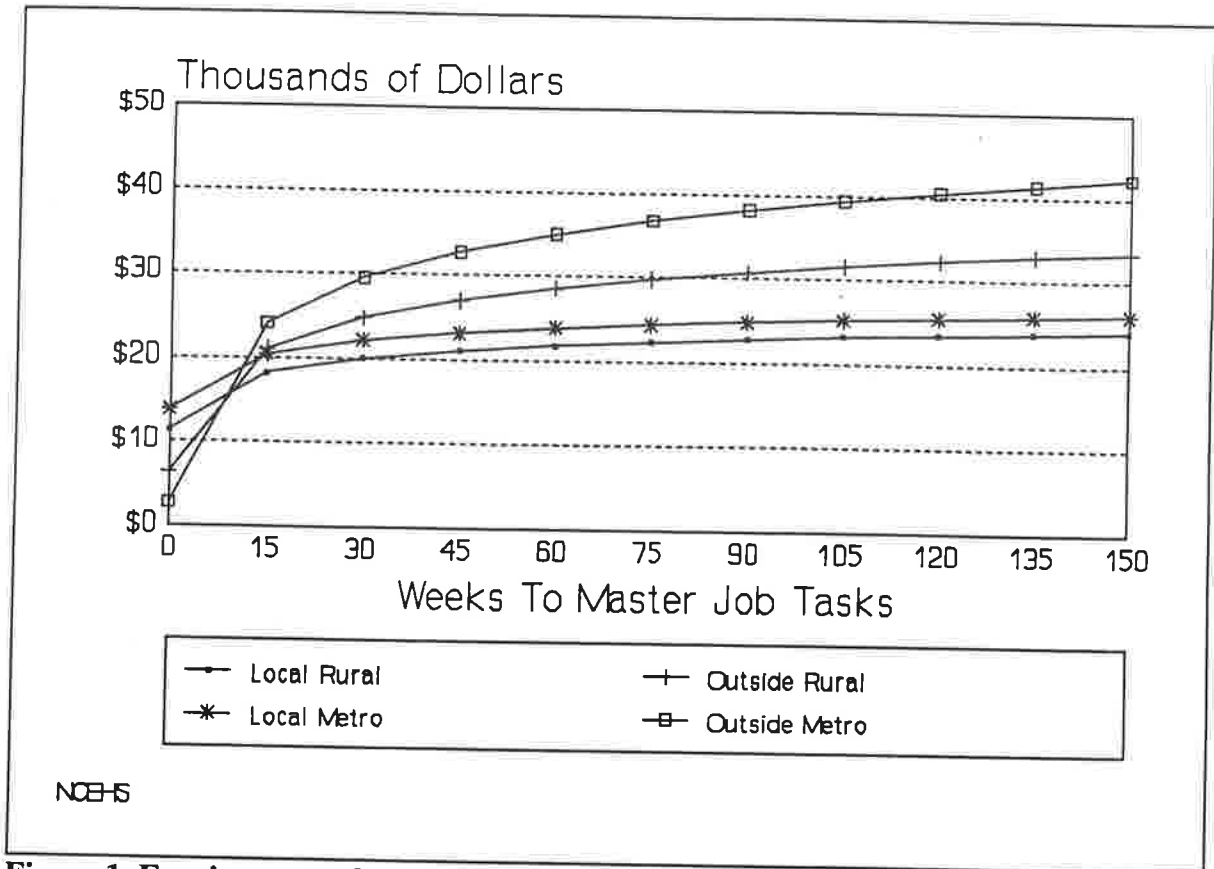


Figure 1. Earnings growth with increased job skill in North Carolina, local and outside firms by region

firms reward skill and simultaneously come to North Carolina, and probably much of the South in order to profit from the low wage low skill labor force.¹

Figure 2 reports similar differences in returns to skill when skill is measured as educational credentials. Interestingly, outside rural firms actually pay the highest wages for college and post-bachelors degrees. This high wage is no doubt extra compensation to draw

¹ Figures 1 and 2 are the result of a slightly different regression equation than is reported in Table 1. These equations include the same organizational variables, as well as a simplified set of job skill variables (required education, training time, and prior experience required), dummy variables for outside-metro, outside-non-metro, local-metro (local-non-metro as the reference category) and interactions between required education and training time and the region-origin dummy variables. Income is not logged. Table 1 represents a very conservative model for looking at income differences. It also includes both supply and demand characteristics. In order to get a cleaner picture of the skill*firm interaction a pure demand side model with real earnings is utilized in Figures 1 and 2.

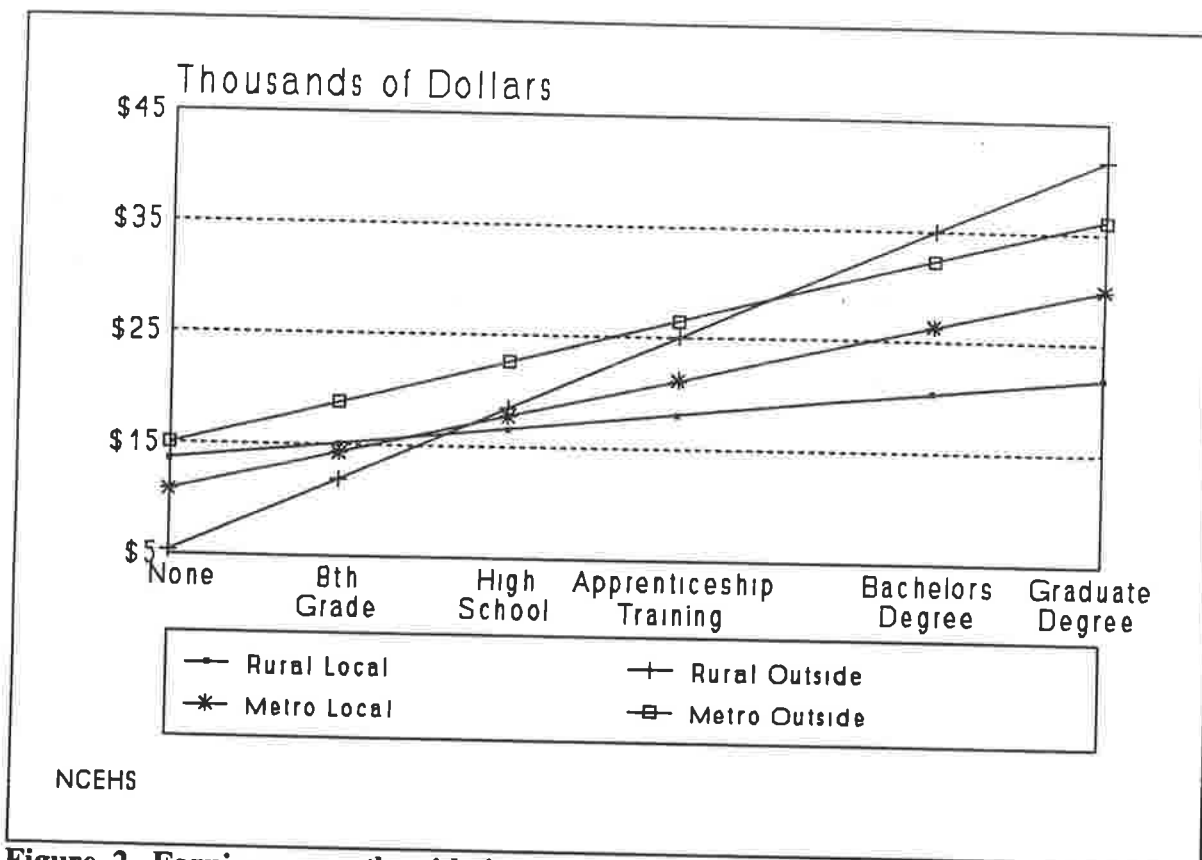


Figure 2. Earnings growth with increased education in North Carolina, local and outside firms by region

educated workers into rural areas that might otherwise be undesirable places to live. Outside rural firms, however, pay even lower wages than local firms for workers with less than a high school degree. While outside firms, in rural and urban areas, pay higher returns to increased skill than do local firms, they pay the same or lower for low skilled workers. Thus, outside firms can be accurately described as coming to North Carolina for the low wage, low skill labor force. While these firms do not seem to be increasing the wages for the lowest skilled workers, they probably are forcing up wages in the labor market for the more skilled.

Conclusions

Can North Carolina be characterized as a state whose development is characterized by outside and local capital taking mutual advantage of the low wage local labor force? For the answer to be affirmative we would expect that even though outside firms produce higher wage employment than local firms, those wages would not disrupt local labor market organization. This means that after controlling for firm differences in organizational resources and the skill levels of jobs and characteristics of workers there will be no job quality advantage in outside firms.

In general, the pattern of results for earnings and benefits were similar; outside firm advantages in job quality disappear when organizational, job and individual characteristics are added to the models. Outside firms pay substantially more than local North Carolina firms. This earnings advantage is largely a function of the superior organizational resources of outside firms and their increased likelihood of creating and compensating higher skilled jobs and hiring skilled or otherwise favored workers. This suggests that outside firms take advantage of the opportunities in the North Carolina economy without deviating from local patterns of labor market organization.

The interactions between outside firms and some of the intervening variables suggest, however, that outside firms may be disrupting traditional patterns of labor market organization. Outside firms value skilled work and skilled employees more highly than local firms. In addition, outside firms pay wage premiums to union members and provided higher wages with core sector membership. These last two findings suggest that outside firms may be more likely to reward workers for being corporate citizens, both when the resources are there and when

unionized workers demand it. On the other hand, large outside firms provide fewer benefits than comparable local firms.

The comparison of wages between firm type within the Piedmont and non-Piedmont region suggests that outside firms disrupt local employment patterns primarily in the traditional rural economy rather than the urban Piedmont region. Even there their wage enhancing effect is limited to skilled jobs. In rural areas a simple dependency analysis is not adequate. The development policy approach of growth-from-within, which is consistent with a simple dependency model, does not seem very attractive given the low wages and low returns on skill and organizational resources in locally owned rural firms. Outside firms, however, provide little or no advantages for workers with less than some college education or low skilled jobs.

The pattern of local labor market disruption caused by outside firms is not a strong one, nor does it effect low skilled jobs. The findings suggest that, to the extent that there is a traditional low wage, anti-union labor market in North Carolina it is strongest in rural areas and among local employers. This finding is consistent with the findings in the last chapter. It is also consistent with Woods (1986), insistence that local capital interests have controlled economic development in order to reproduce traditional low wage, low skill, unorganized labor markets in North Carolina. Outside capital, especially capital from older economic sectors, is attracted to these regions particularly because of their underdeveloped characteristics. While these findings do call into question a static regional dependency model, they are quite consistent with a theory of uneven development which sees core capital as regionally flexible (Gereffi 1989; Markusen 1987). If outside investment significantly disrupts the low wage labor market in a dependent region, outside capital retains the capacity to move to other low wage regions in the future.

CHAPTER 5

THE SKILLED LABOR CRUNCH AND THE NEED FOR A NEW GROWTH MODEL

We have already seen the limits of the industrial recruitment approach that has dominated the economic strategy of Southern U.S. states for the post-war period. Even in North Carolina, where the results of the low wage, low skill labor strategy have been most successful, the best you can say is that there has been some movement toward a modern high skill economy in urban areas. Rural areas are still characterized by poverty level employment, industrial homogeneity and labor markets dominated by the economic projects of rural elites. Outside firms have made little impact on the quality of jobs for the less skilled, although they have probably forced up the wages of the skilled and educated.

As in many Southern states, the extreme levels of poverty and agricultural dependence before and just after World War II has meant that the low wage industrial recruitment strategy has lead to an increased quality of life. As we have seen outside firms pay significantly higher wages than local firms. North Carolina has low wages, low unemployment and the largest proportional manufacturing sector in the United States. Relative to the past this has meant a successful transition from the extreme poverty of sharecropping agriculture. Relative to other states and to the future the low wage, low skill industrialization process, most successful in rural areas, leaves much to be desired.

This chapter documents that the low wage, low skill economic formulae increasingly does

not work for businesses. It should be clear by this point that it was always a mixed blessing for the working population. During the transition out of sharecropping agriculture state government could deliver better jobs through industrial recruitment without disrupting traditional labor relations. Now the combination of civil rights and industrial diversification in urban areas has begun to undermine the low wage economy. Rural areas and rural elites have been able to resist the wage premiums that skilled and educated labor are beginning to receive in the urban South.

New Rules

Currently, the rules of the game are changing again. This time it is not federal intervention either through infrastructure or civil rights enforcement, but new realities being imposed on manufacturing by the internationalization of the U.S. economy. This internationalization is quickly undermining the comparative advantage of the rural South and is forcing employers to choose between high skilled manufacturing workforces for technology intensive production and low skilled low wage workforces for labor intensive applications. The Southern rural workforce is increasingly too expensive to compete with Third World low wage labor and too poorly educated to run the new technology associated with capital intensive computer assisted production.

As a result the South in general, and North Carolina in particular, must redirect economic development strategy from one based on surplus low skilled labor to one that nurtures the skills of the local workforce. The low skill/low wage development strategy was, if not appropriate, politically acceptable for the transition from an agricultural to an industrial economy. That transition has already taken place. The problem is that future development cannot be based on surplus labor leaving agriculture and supplying low wage/low skill labor to branch plants of

national and international firms. North Carolina no longer has high levels of unemployed and underemployed labor. More fundamentally, competition for new investment has shifted to the international economy. While North Carolina wages are low by U.S. standards they are quite high by international standards. Third World countries have much larger supplies of underemployed labor willing to work at much lower wages. The old development strategy is unlikely to create any comparative advantage for the North Carolina economy in the internationalized markets of the future. At the same time U.S. manufacturers are turning to flexible technology and flatter management structures in order to increase productivity. Both technological and organizational changes require increased literacy skills of the workforce (Southern Growth Policies Board 1990c; Southern Technology Council 1990).

North Carolina employers are currently having major problems finding qualified skilled labor. In a moment we will see strong evidence that North Carolina employers are currently more concerned with the availability and quality of labor than they are with more traditional mechanisms of state development policy such as highways, low labor costs, and tax breaks. The connection of the skill level of the labor force to the quality of education in North Carolina will be demonstrated in a few pages with a comparison of North Carolina natives with immigrants in the labor force. North Carolina natives have lower education levels, are less literate, and their skills are less valued by employers.

North Carolina development policy has at least since the 1950's focused on branch plant recruitment. The state has historically been able to offer national and international firms an attractive package of low wage labor, low unionization, low land costs, a good highway system, and a community college system dedicated to job specific training for manufacturing plants. It

is becoming clear, however, that there are serious shortcomings to this development strategy.

North Carolina, like other states in the South, is at the crossroads. In one direction, which we might call "back to the future", lies more of the same. In this scenario the state will continue to build highways, neglect the skill base of the local population, and promote its workforce as low waged and docile to outside (and local) investors. This strategy produced considerable comparative advantages as the state went from an agricultural to an industrial age. It provided better jobs and a better standard of living than the subsistence, often sharecropping, agriculture that preceded it. Unfortunately, it offers little hope for the future, since it no longer promises to raise standards of living, and the comparative economic advantages are now gone. Low skill/low wage labor, low unionization, and low land costs are the comparative advantages of poor areas. With the internationalization of economic activity North Carolina, and the rest of the South, are no longer competing with Massachusetts or Ohio for branch plants, but with Mexico, Brazil, and the Philippines. Wages are low in North Carolina, and much of the South, but not nearly low enough to compete with the poverty of the Third World. If rural areas of the South are to enjoy any comparative advantage in the national and international economy in the Twenty-first century the state must give a very high priority to the skills and basic training of its workforce. This will require a redirection of state development policy toward better basic education, adult literacy training, and the nurturing of a higher skilled, higher waged economy.

Recent economic growth in North Carolina has increased the prosperity of some North Carolina residents. High skilled people who have moved to North Carolina have certainly benefitted. Some native North Carolinians that live in the urban Piedmont have benefitted as well from the higher waged jobs generated by the "sunbelt" boom. It is becoming quite clear,

however, that the "sun" in the sunbelt shines brighter in the city. Rural North Carolinians have lower levels of education and literacy, as well as lower waged jobs and more financial hardship than the residents of the urban Piedmont. In many ways the traditional state economic development formulae has been most consistently applied in rural areas. It is here that low wage/low skill jobs created by branch manufacturing plants are most common. Not only is North Carolina the most heavily manufacturing oriented state in the nation, its manufacturing is far and away the most rural. It is in rural areas that the neglect of education, illiteracy and high school drop out rates are at their worse. If North Carolina and the rest of the South are at a crossroads in their economic and social history, it is in the rural areas that the problems are most acute.

Barriers to Future Employment Expansion

The presence of low wage jobs and a poorly educated workforce are compelling but not incontestable arguments for redirecting state development policy. After all, North Carolina is not as poor as it was thirty years ago. Many companies have found the development mix in North Carolina very profitable. What if employers do not need or want a more skilled workforce? If this is the case, then shifting to a higher skilled, higher wage development strategy would be risky indeed. The North Carolina Business Needs Survey was designed to directly address the issue of employer's perceptions of the barriers to future job expansion in North Carolina. The survey includes the responses of a random sample of 306 private for-profit business establishments in North Carolina. The establishments were sampled proportionate to employment size so the survey data is generalizable to the entire North Carolina private sector economy.

What are the crucial barriers to future job expansion that current employers report? Figure 1 summarizes the results for major areas of business activity that typically concern state policy

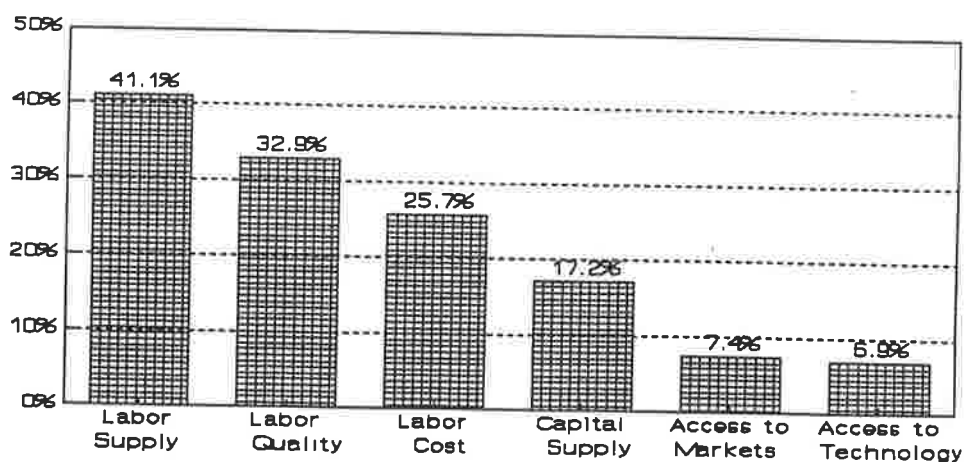


Figure 1 Policy Relevant Barriers to Future Employment Expansion, Percent of North Carolina Firms Report Item as A Major Barrier to Expansion

makers. Forty-one percent of establishments see the availability of labor as a major barrier to future expansion. Thirty-three percent report that the quality of labor in North Carolina is a major barrier to future expansion. Concerns with labor costs are lower (26%), followed by capital availability (17%), and very low levels of concern about access to markets (7%) or to technology (7%). Typical state and local development policy focusses on labor costs advantages in the region, capital supply, road building to get products to market, and technology transfer.

In response to an open ended question asking for the single most important barrier to future business expansion thirty-six percent of establishments volunteered that their major problem was the availability of qualified labor. By comparison only nine percent replied that the availability of finance capital was their most important barrier to future expansion. Only five percent saw labor costs as the most important barrier to future expansion. These findings, from the business community itself stand in stark contrast to past and present economic development strategies.

The Skilled Labor Crunch

We also explored the seriousness of labor quality problems in the survey. We asked if these establishments had ever had problems finding employees with adequate reading and technical skills.

As Figure 2 indicates slightly over half of all North Carolina employers have had problems finding employees with adequate reading skills. Shockingly, over seventy percent of employers report problems finding workers with adequate technical skills. While the low level of reading skills in the North Carolina labor force can be best characterized as a moderate direct problem for employers, the overall low level of technical skills is a serious problem for the majority of employers. These two problems are, of course, linked. The acquisition of higher level skills are fundamentally dependent on the acquisition of more basic skills. If North Carolina children get inadequate training in reading and math, then they will have a difficult time picking up more sophisticated skills later.

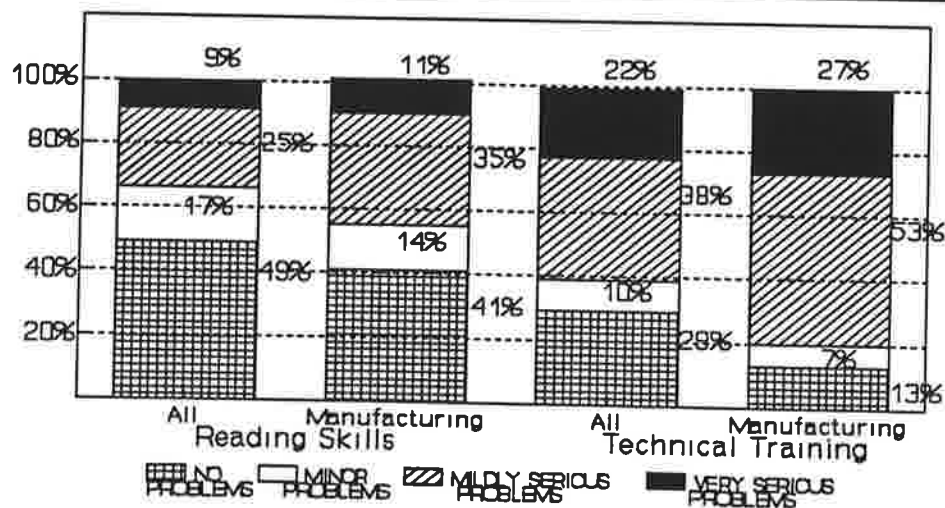


Figure 2. North Carolina Establishment's Reports of Problems Finding Employees with Adequate Reading and Technical Skills

Employers have little incentive to provide good skill training to employees without the basic reading and math capacities. The community college system, becomes involved with remedial reading and math training, in order to produce workers skilled enough for routine, low skilled factory operative positions. The future of the South should not be based on a poorly educated workforce. The low skill/low wage labor force was an asset in the transition to an industrial economy, it will be a distinct liability in the future.

It is striking that manufacturing establishments report higher levels of problems with the reading and technical skills of the workforce than establishments in other sectors of the economy. Since it is in this sector, in particular, that state development policy has been so successful in the past, it does not bode well for future industrial recruitment that the state's labor force is seriously underskilled for the current needs of the manufacturing sector. It is practically inevitable that future jobs will require a more highly trained workforce. Unless wages fall even further to compete with the poor countries of Latin American and South East Asia, local economic development policy is in trouble.

This study is not the first to report that the low skill level of the North Carolina workforce is a major barrier to future economic growth. Kalleberg (1989) in a recent study of high growth firms in the Research Triangle area reports that 80% of establishments had trouble finding capable workers over the past five years and that the problem was especially acute for skilled craft and operative labor. In a recent study of North Carolina large business's perceptions of the adequacy of education in North Carolina only 29 percent of firms were satisfied with the basic skills education students get in North Carolina high schools (Vasu and Frasier 1990). This study concludes that there is a large and growing skills gap between the North Carolina labor force and

the requirements of new jobs. Other reports have reached similar conclusions as well (Daniels 1988; Betts 1986). There is a great deal of evidence from the business community that North Carolina needs to do a better job at creating a skilled labor force. For the entire Southern region, the Southern Growth Policies Board (1990c) has concluded that workplace literacy is the central barrier to future economic growth in the U.S. South.

In an effort to increase the skill levels of workers the state invested in an extensive community college system in the Fifties and Sixties. Local community colleges work with local industries to provide trained employees (Holdsworth, 1984). Community colleges support the traditional production relations that have characterized North Carolina's industries since before the Civil War (Wood, 1986). The jobs workers have been retrained for in community colleges tend to be relatively low-skilled, the higher skilled workforce being hired from outside the state (Sher, 1988). The use of community colleges for "industry specific" training programs while it got its start in North Carolina, is currently used throughout the South. "Industry specific" training should really be called firm specific training since it is used as a strategy for recruiting branch plants and encouraging existing plant expansion (Southern Growth Policies Board 1990a). As a model it has never been focussed on more than minimal plant specific skill training. Rarely does this community college based program teach transferable skills that might be of use beyond the machines used in the local plant. Since this is the major state skill training program throughout much of the South it's firm rather than worker skill orientation suggests that this policy tool should be reevaluated and probably redesigned.

In 1989 North Carolina had the dubious distinction of placing last in the nation in average Scholastic Aptitude Test (S.A.T.) scores (News and Observer 1989). The first reaction

among educators was that the numbers exaggerated the state's educational problems because they reflect the number of test takers as well as the high rates of poverty in the state. Educators initially claimed that since many students from poor backgrounds took the test it artificially deflated the state average. This assertion does not stand up to sustained scrutiny. After adjusting for the proportion taking the test and state poverty rates North Carolina rises from fifty-first to a hardly more august fiftieth.¹ One consequence of this poor advertising of the state's educational quality and the skilled labor crunch has been a political mobilization of business around educational reform.

Native North Carolinians

In the North Carolina Employment and Health Survey² we asked respondents if they had been born in North Carolina. While we did not ask where they grew up or went to school, it seems safe to assume that the majority of North Carolina natives went to school in North Carolina, and that the majority of immigrants went to school elsewhere. Figure 3 shows the expected result; North Carolina natives have lower levels of educational achievement than immigrants. The comparison is most striking at the college level, over a third of immigrants have a four year college degree, while only a sixth of North Carolina natives do. Logan and Molotch (1987) point out that branch plant recruitment, generally means the arrival of more skilled workers from outside the region to take the better compensated skilled jobs. That seems

¹ I made these calculations myself. The ordinary least squares regression equation for fifty-one states (including the District of Columbia) is :

$$\text{AVERAGE STATE SAT} = 1100 - 2.7 * \text{Percent Taking Test} - 4.4 * \text{Poverty Rate}.$$
The coefficient of determination for this model is .80. In this equation North Carolina rises to fiftieth in the country in average SAT score, above only South Carolina.

² This is the survey of employees.

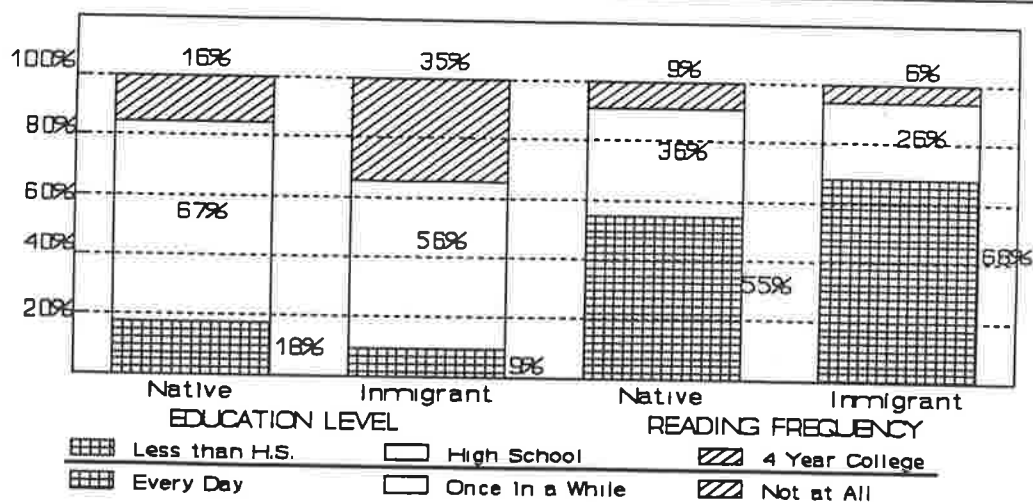


Figure 3. Educational Attainment and Reading Frequency of Employed North Carolina Natives and Immigrants

to be the case in North Carolina as well.

Even more disturbing, since it is about basic rather than advanced skills, are the reported frequencies of reading in the home. Immigrants to North Carolina are thirteen percent more likely than natives to report that they read every day at home. Although not reported in Figure 3, immigrants are also more likely than North Carolina natives to report having to read on the job and to evaluate their reading skills as good, and less likely than natives to report that they could get a better job if their reading skills were better. Overall, the evidence suggests that the North Carolina born labor force has lower levels of education and literacy skills than immigrants. It is not surprising that employers are often forced to look out of state for employees to fill more skilled positions. The conclusion that the North Carolina labor force is undertrained and lacks basic skills is consistent with the reports of employers that the quality of available employees is a major barrier to future business expansion in North Carolina.

We have estimated the earnings cost of being born in North Carolina to current North

Carolina workers. To do this we specified a fairly standard monthly wage equation which estimates the earnings differences between natives and immigrants controlling for their work experience, tenure in current firm, education, sex and race. The results from this equation suggest that natives earn on average \$175 less a month (or \$2100 less a year) than immigrants who are comparable in education, experience, sex and race to the North Carolina labor force.¹

Unfortunately, natives are not strictly speaking comparable to immigrants, they have lower educational attainments and probably have lower quality education as suggested by the reading levels reported earlier and by the very low SAT scores of current North Carolina high school students. In fact, when separate wage equations are estimated for natives and immigrant members of the North Carolina labor force we see striking differences in the levels at which employers pay for their skills.² As Figure 4 shows, on average immigrants receive larger earnings increases than North Carolina natives for each extra year of education, labor force

¹ The wage equation is estimated with an ordinary least squares regression equation of the following form:
 Monthly Wage = \$353*Educational Degree + \$29*Years of Job Tenure
 - \$0.35*Tenure Squared + \$40*Years of Experience - \$0.64*Experience Squared - \$175*Native
 - \$664*Female - \$184*Minority.

The coefficient of determination for the model is .38.

² The separate wage equations for natives and immigrants has the identical form to the equation reported in the note above. The monthly wage coefficients for skill related characteristics are quite different however:

Skill Characteristics	Natives	Immigrants	Yearly Earnings Difference
Each Year of:			
Experience	\$29	\$56	\$324
Job Tenure	\$22	\$46	\$288
Each Additional Educational Degree	\$335	\$366	\$372

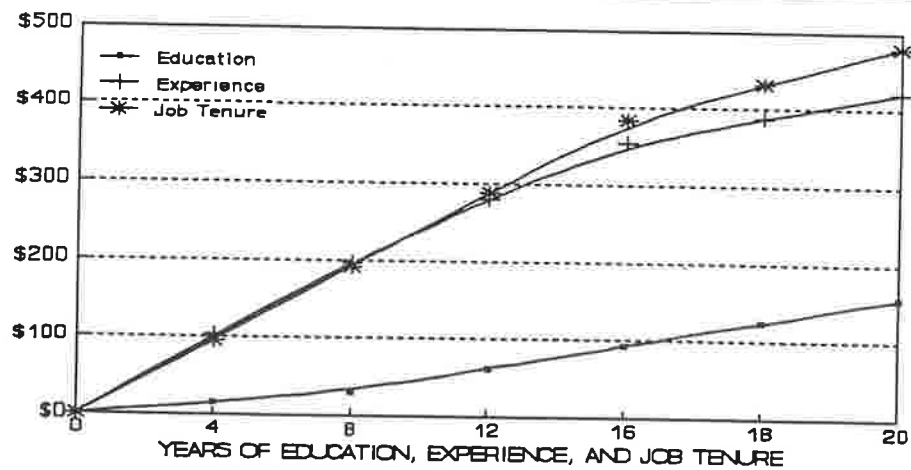


Figure 4. Monthly Earnings Advantage of Immigrants Relative to North Carolina Natives for Increasing Years of Education, Labor Force Experience, and Job Tenure With Current Firm

experience, and job tenure. That is, employers seem to value the skill related characteristics of immigrants more highly than the equivalent characteristics of North Carolina natives. As years of education, labor force experience, and job tenure increase, the wage gap between North Carolina natives and immigrants grows wider. The biggest gaps are at the highest skill levels.

Highways and Tax Breaks

Current state development policy tends to be more consistently concerned with infrastructure development, particularly highway construction, and tax incentives than with labor force development. In the N.C. Business Needs Survey we asked North Carolina employers to comment on the quality of infrastructure in their locality and on the importance of tax incentives for future expansion. As Table 1 shows the vast majority of establishments see current infrastructure as adequate for future business expansion. Most pointedly, given the typical state focus on investment in highway construction, eighty percent of establishments think that current

highways are adequate for future expansion. Surprisingly the numbers are even more optimistic for local roads.

Tax incentives are only slightly more important to the North Carolina business community. Seventy percent of establishments report that tax incentives from the state, counties or localities would be unimportant or a small factor in future expansion decisions. Twenty-eight percent reported that tax incentives would be an important factor in expansion location decisions. Only two percent of establishments, however, reported that tax incentives would be the most important factor in these decisions. As Figure 5 shows, tax incentives are relatively more important for manufacturing and transportation-utility firms and for establishments headquartered in other states. Even for these establishments tax incentives are only rarely the most important factor in reaching a plant location decision. *For outside firms they never are the most important reason.*

Table 1. Adequacy of North Carolina Infrastructure for Future Business Expansion as Reported by Current North Carolina Employers in 1989.			
INFRASTRUCTURE AREA	Adequate	Unsure	Inadequate
WATER	90.6%	1.9%	7.6%
SEWER	82.5%	4.9%	12.6%
ELECTRICITY	96.1%	2.1%	1.8%
SOLID WASTE DISPOSAL	76.2%	4.8%	19.0%
LOCAL ROADS	81.5%	1.2%	17.3%
HIGHWAYS	79.8%	1.2%	19.0%

SOURCE: North Carolina Business Needs Survey, 1989

What About Runaway Capital?

If North Carolina were to fundamentally redirect its economic strategy, what assurances are there that current employers would not just pack up their bags and move to higher skilled or lower waged economies? The modified theory of uneven development discussed in the last chapter strongly suggests that the international mobility of capital leaves economically dependent regions extremely vulnerable when low wage comparative advantages erode (Gereffi 1989; Markusen 1986).

We asked employers about their commitment to North Carolina. We asked if the firm could do business more profitably by moving to a different state or country, "how likely do you think it is that you would move your business?" Figure 6 shows that only about three percent of establishments reported that moving would be very likely even though their business would be more profitable. Another eleven percent reported that a move would be somewhat likely, suggesting that some firms would leave, but that they would not represent an overwhelming loss

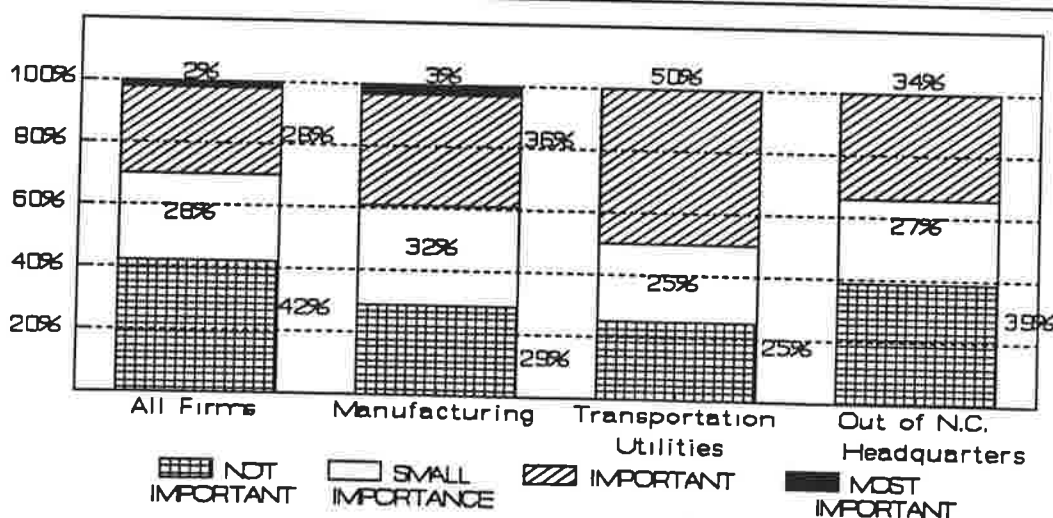


Figure 5. North Carolina Establishment's Reports on the Importance of Tax Incentives for Future Expansion

to North Carolina's economy. Even when weighted by establishment employment size a relatively small proportion of jobs (2%) are at direct risk. Fully three quarters of jobs would not be seriously threatened even if more profitable opportunities presented themselves in other states or countries. Even firms headquartered in other states, and presumably lured to North Carolina by the low wage, high profit industrial policy show a striking commitment to North Carolina. Of these firms only six percent said it was very likely that they would leave for better profits elsewhere, and two-thirds report it unlikely that they would abandon North Carolina. This finding is consistent with prior research on plant location decisions, see for example Webber (1984). This is not to say that many companies will not ask for or accept tax breaks. It does imply that states and localities should not offer them too quickly.

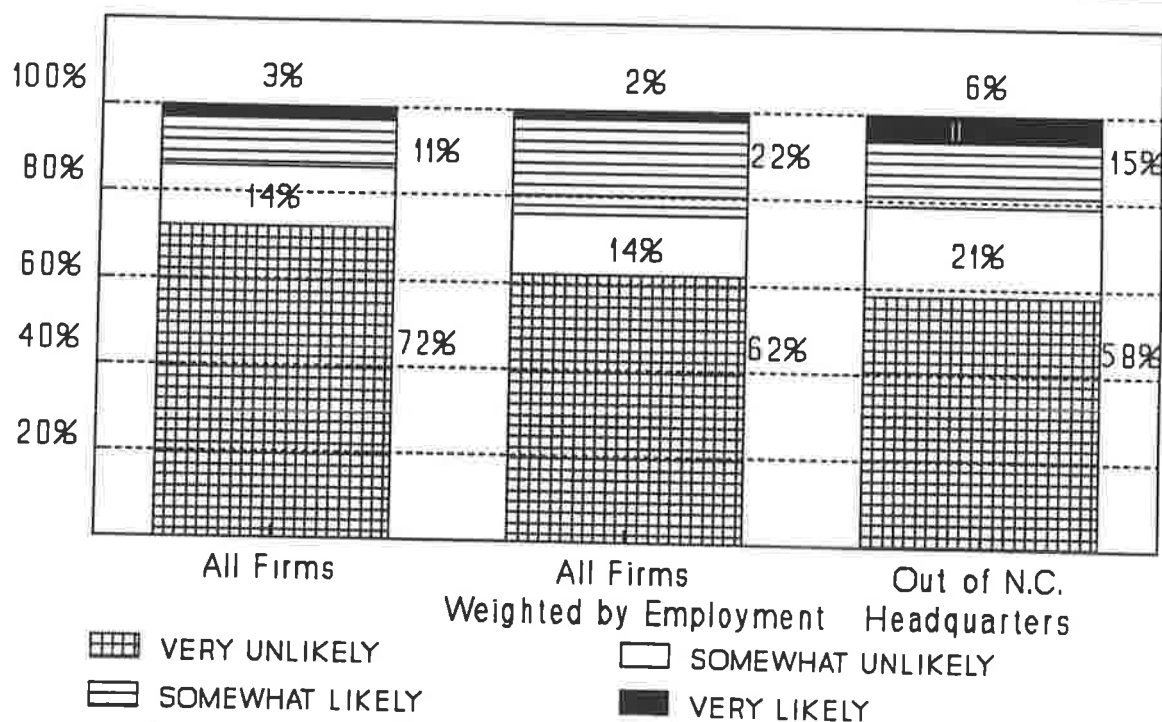


Figure 6. North Carolina Employer's Responses:
 "If you thought that you could do business more profitably by moving to a different state or country, how likely do you think that you would move this business?"

These responses show a relatively strong commitment to the local economy. The source of that commitment no doubt reflects existing capital investment as well as current community ties. An increase in the local cost of doing business will no doubt encourage some firms to reinvest elsewhere. For economic development in the rural South the key issue in the future is likely to be which firms for which reasons. Given the increased international mobility of capital it will become increasingly difficult for low wage regions in the United States to compete for investment solely on the basis of their low wages. Other amenities such as pleasant living conditions, good schools, and community amenities will become increasingly important. More fundamentally, for future economic development to break the pattern of low wage, dependent development higher skilled labor forces will be crucial to the recruitment of outside capital and the development of indigenous firms that can create high quality jobs.

On the more positive side, we asked these businesses if they favored policies to increase the quality of life in their community, even though it might mean higher taxes? As Figure 7 shows, an overwhelming majority of North Carolina employers favor such policies even in the face of higher taxes. This support is as high in the manufacturing sector, and almost as high even for establishments with headquarters outside of North Carolina.

It would be naive to predict that businesses will good naturedly support higher taxes or that all firms will welcome a shift in the North Carolina economy to a first world development model. There is good evidence, however, that employers need a better trained workforce, are by and large not about to abandon the state, and favor state policy to improve the overall quality of life in the state. This does not mean that they are likely to endorse unionization or even higher wages.

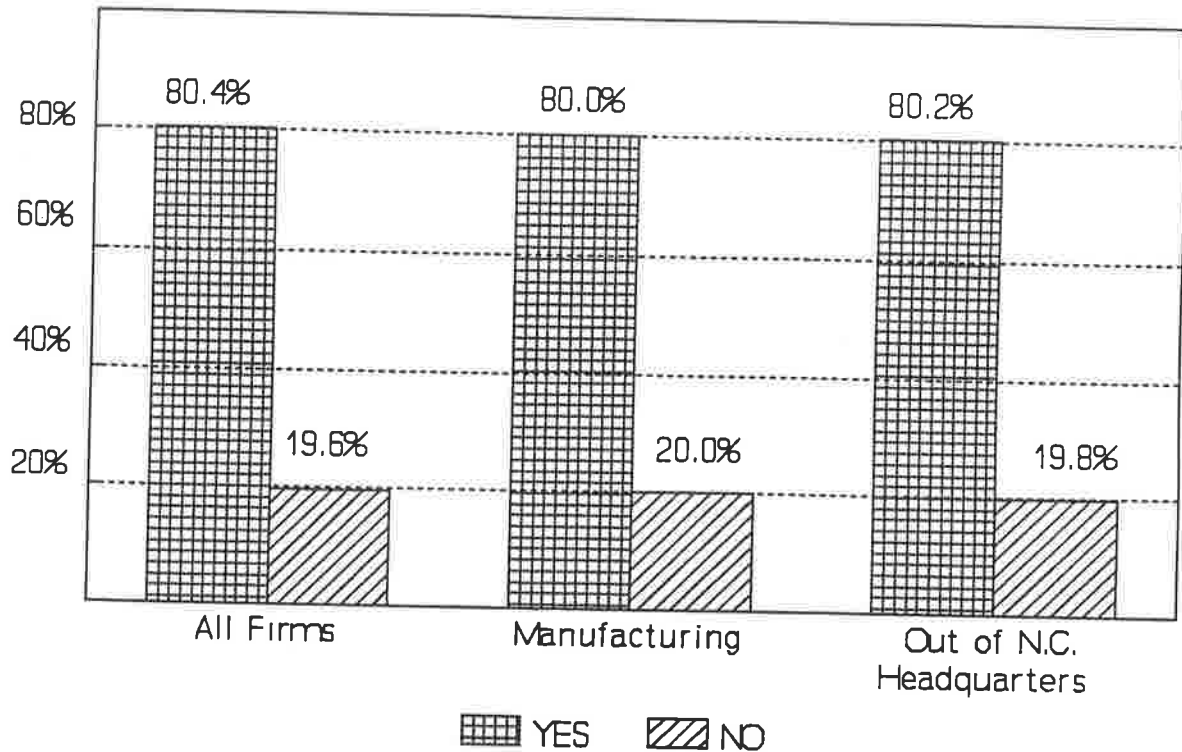


Figure 7 North Carolina Employer's Response to the Question:
"Do you favor policies to increase the quality of life in your community, even though it might mean higher taxes?"

A New Growth Model?

North Carolina, and probably much of the rest of the U.S. South, is at a crossroads. The old development policy of employing the surplus labor from a declining agricultural sector at low wages enabled the state to make the transition from an agricultural to an industrial economy and increased standards of living for the population. Presently and in the future, however, this strategy is appropriate only in the Third World. Future prosperity requires the development of a better trained, higher skilled labor force. This is not merely a hypothetical prediction. The survey evidence is clear, *current North Carolina employers report that their biggest problem doing business is in the lack of qualified, particularly high skilled, labor.* The acquisition of higher

skill levels is directly dependent on the quality of basic skill training. It would be a serious mistake for North Carolina to do nothing, to muddle along with the current neglect of the skills of the population. State and local governments must begin to seriously confront the inadequacies of North Carolina schools, provide remedial training for the existing labor force and abandon the strategy of wooing low wage employers into the state.

CHAPTER SIX

POLICY IMPLICATIONS FOR SOUTHERN RURAL DEVELOPMENT

Based on these results, what kind of economic development strategy makes sense in the rural South? The results suggest that outside capital does provide better jobs than local capital. Does this mean that North Carolina in particular, and other poor areas in general, should return to earlier economic development strategies, pursuing outside capital investment? Not necessarily. The elusive and competitive nature of these pursuits is quite clear (Gereffi 1990; Goodman 1979; Markusen 1987). In any case, the dependency relationship with outside capital acts to keep local wages low by national and first world standards. This dependency also retards autonomous local economic development because of the absence of linkages between outside firms and local ones, particularly suppliers and business service firms, where manufacturing multiplier effects are typically concentrated.

The answer for economic development strategists may be a more sophisticated growth-from-within strategy. The data in this analyses suggest that local firms may be able to create better jobs if they emulate national and international corporate capital. The ability to adequately create an environment which offers greater opportunities for workers depends partly on the external resources available to a firm. The results from this study suggest that if a growth-from-within strategy is pursued it must be pursued with the intent of enhancing these organizational resources.

The quality of the labor force and of the jobs created by local and outside firms is also important. The data in these analyses clearly shows that job skills and human capital traits, such as education and experience, are rewarded. In addition, changes in production techniques linked

to the internationalization of the economy are leading to higher skill expectations among employers. Development strategies for poor rural areas must address the limitations of low-skilled and poorly educated workforce. Higher quality jobs must be created. Development policies which nurture the skill base of the local population are much more likely to provide first world comparative advantages in the international economy than are the more widespread rural policies of hunting for low wage, low skill branch plants.

This study has relied on an indepth analysis of one state. North Carolina shares with the other Southern states a history of rural elites dominating the state, a more recent history of sunbelt economic boom, largely confined to urban areas, and a sense of needing to change quickly before being left behind as the international economy comes to rely on other regions of the world for routinized manufacturing production. The Southern regions comparative advantages in 1950 may turn out to be major handicaps by the year 2000.

North Carolina is different from many Southern states in that it had a smaller plantation system before the Civil War. This has meant it has both a smaller African American population (22%), and most fundamentally large regions of the state where employers were not directly dependent on exploiting black labor. For this reason the sunbelt boom has been more spatially diffuse in North Carolina. This is an advantage in this research because we can see more clearly the conditions under which economic growth can accompany development.

The remainder of this chapter makes a series of general public policy recommendations to help nurture economic growth in the rural South. It is in rural, particularly black belt, regions of the South where the problems of growth without development are most acute. It is these regions also where the comparative advantages of the twenty-first century will be most lacking.

The policy proposals, however, are not limited in their applicability to the rural South. On the contrary, all low wage, low skill states are likely to be in trouble in the near future. Urban areas in the South have some advantages but will still face grave pressures in the future.

Branch Plant Recruitment

The recruitment of branch plants by state and local governments has been seriously overemphasized in local economic development policy in the past. This strategy has led to a neglect of the skills and needs of both the local working population and local employers. This strategy has encouraged state governments to ignore the weaknesses in the skill levels of the population and the injustices in the organization of labor markets, precisely because it was weak regulation and low wages that formed the basis of the advertising schemes behind the recruitment strategy. The internationalization of investment and production activity has undermined the comparative advantage of all U.S. locales that hope to trade plentiful, docile, low skilled labor for jobs. While outside firms do pay higher wages, those wages go to the more skilled jobs that require more education. Many of those jobs are filled by non-natives. Branch plants exploit the low wages of the working poor and near-poor as ruthlessly as local entrepreneurs.

Branch plant recruitment strategies should probably be dropped. They are expensive and have small returns in jobs. Since no thorough evaluations are done, one must wonder what would happen if a more passive approach to branch plant recruitment were adopted? On the other hand, they have strong constituencies within all state governments and they are the basic model that local communities use. Dropping branch plant recruitment strategies seems politically unlikely. In any case branch plants do bring higher wage jobs, and encourage the transformations of local labor markets to compensate increasing skill in the labor force. The absence of skill linked

compensation in the labor market partly explains the high levels of high school dropping out and the low standardized test scores in the South. Where there is no or only weak linkage between educational content and labor market organization there is no incentive for individuals or families to value a quality education, much less a high school degree of dubious utility.

If we are not to drop branch plant recruitment strategies then it seems necessary to reform them. The emphasis of industrial recruiters needs to be shifted from any job to quality jobs, from outside capital investment to any investment which creates local economic growth, particularly in rural areas, and from investment incentives to skill enhancement guarantees. The community college based "industry specific" training programs should be redirected to "generalized worker skill" training programs. The point should not be to subsidize the training costs of outside firms creating low wage low skill jobs. The goal should be to upgrade the flexibility of the rural Southern workforce (see the discussion in Southern Growth Policy Board, 1990a,c). There is good evidence that producer services, almost always ignored by industrial recruiters who focus on manufacturing branch plants, create higher skilled and higher paid jobs (Rowley et al 1991). It is also the case that locally owned, rather than outside firms, are the major source of new jobs (Kasarda and Birch 1989). Industrial recruiters could conceivably pay as much attention to large local firms as targeted sources of job growth as they do to national and international firms. Industrial recruitment should not be designed merely for jobs, but to increase the quality of life of the working poor.

The discussion leads to five specific policy orientations to improve the practice of branch plant recruitment:

Reduce State and Local Reliance on Branch Plant Recruitment. It is politically impractical to eliminate branch plant recruitment, it might even be unwise. This strategy for local economic development should become one in a mixed bag of policy options rather than the central focus of local development practice.

Refocus Industrial Recruitment to Include Higher Wage Producer Service Firms. Producer services such as engineering, architecture, law, banking, advertising and accounting have been the source of many higher wage, higher skill jobs over the last two decades. These industries are also increasingly concentrated with large companies becoming national in scope.

Refocus Industrial Recruitment to Include Already Existing Local Firms. Local firms are the source of most new employment. While much of this is in small establishments, some is in large manufacturing and service establishments. State and local industrial recruiters should not ignore this local, and perhaps more locally committed, source of new jobs. Since many of these jobs would probably be located in the home state anyway, the central goal should be using state incentive programs to get these firms to locate in particularly depressed, often rural, areas.

Skill Enhancement Guarantees for the Working Poor Should Become a Central Requirement in Return For Investment Incentives. Whenever state or local development authorities offer investment incentives such as property or income tax relief,

free or subsidized land or buildings, the investing firm should have not only a plan to create jobs, but also to train them. This training can be focussed on basic literacy skills or more general higher level skill enhancement as appropriate to the jobs being created. Without linkage of industrial incentives to skill training, future industrial recruitment depends on the continued existence and exploitation of the working poor. Current industrial recruitment, particularly in the rural South, is affirmative action for the middle class built on the labor of the working, often minority and female, poor.

Refocus "industry specific" Training in the Community College Systems from Plant Specific Skills to Transferable Skills. The current system subsidizes the short term training costs for individual employers but does little for the long term skill needs of either employers or employees. Since this is the major budgetary area of state investment in local economic development it is the potential site of the most far reaching positive effects on the skill base of those already in the labor force.

Growth-From-Within Strategies

Local economic development in the rural South requires an effective growth-from-within strategy but has two major impediments. The first is the documented history of elite resistance to both the erosion of race based labor market inequities and the concomitant creation of low wage, low skill economies. The economic project of rural elites, particularly in the "black belt" region but also in Appalachia, has been to create working poverty as a source of economic and political power. It is not clear how a focus on local entrepreneurial talent can escape this history

of local capital domination over the development of the rural Southern economy. The power of traditional elites to control the development process is not absolute. As we saw in North Carolina the sunbelt boom as well as federal efforts to break down the racial-caste system in the South fundamentally improved the quality of jobs in what are now urban areas. Prior to these challenges these areas were largely rural. They became urban as part of the economic growth and development process.

One approach that has been suggested by a number of policy organizations is the development of micro-enterprises (Southern Growth Policies Board, 1990b; Real Enterprises, 1989). In this approach individual entrepreneurs are nurtured through small loans and the provision of expertise. In North Carolina the Rural Economic Development Center has a loan program averaging (in its first year) about \$2100. The microenterprise approach has merit in that it gets around the sticky historical problem of traditional rural economic elites. The weakness with this strategy is that it must come to grips with the *organizational resource* insights of the dynamic theory of uneven development outlined earlier. Small firms pay less. Firms in competitive industries and with simple organizational structures have higher transaction costs, lower earnings in their markets and often fail. As Aldrich and Auster (1986) point out "even dwarfs started small." Most small firms fail, those that do not generally stay small. Sectoral development approaches that realize the centrality of market power and transaction costs are necessary.

The emerging literature on regional development based on small flexible manufacturing (Piore and Sabel 1984; Hansen 1990) suggests that small can be flexible and linked to economic development. Flexible specialization, however is almost entirely an urban phenomena where

medium size firms (50 to 200), based on skilled labor and with organizational linkages to other small firms as well as large national and international firms prosper. The rural South lacks these urban agglomeration advantages as well as the skilled labor force. In addition, the branch plant recruitment strategy, which has been particularly successful in the rural South has tended to create disarticulated local economies, where the level of local inter-firm transactions is low, and the development of local producer service bypassed. The one example that I have found of growth-from-within success in rural areas based on small firm flexible production is in Denmark (Hansen 1991). In this case entrepreneurs came from independent farm and self-employed families, there was a high level of inter-firm cooperation, the use of professional service cooperatives which reduce costs for new firms, and a highly educated labor force. Most of these conditions are lacking or poorly developed in the rural South the policy question is "Can they be nurtured?"

What can we conclude about growth-from-within strategies? To succeed they must be sensitive to the historical failure of local employers to lead the rural South away from the traditional low wage, low skill labor market model. In addition, rural areas lack the agglomeration advantages of urban areas. Specifically this means that professional services and cooperation among firms is difficult to achieve. Finally all small firms in competitive markets are at risk to fail and pay low wages. The results will be disappointing unless the programs designed to nurture small businesses take into account the *constraints of organizational resources*.

This discussion leads to seven specific policy proposals to strengthen growth-from-within development strategies:

Do Not Focus Development Strategies on Existing Rural Economic Leadership. The historical record suggests that this group is part of the problem, not the solution to Southern rural economic development.

Strengthen the Institutional Capacities of Social Groups with High Wage, High Skill Development Agendas. Institutional capacity refers to the representation of a progressive development agenda within government (Gilbert and Howe 1991). The most important location to build this capacity is within the various Southern state governments. The history of weak labor law, anti-union right to work statutes, the near absent occupational safety regulation and inspection, and the neglect of racial and gender inequality in the workplace can be traced to specific legislative and administrative practices in Southern state governments. State governments in the South have used these practices to support their branch plant recruitment strategies. The politicization of Southern legislatures and the institutional reform of administrative departments, particularly Departments of Commerce, Labor and Community Development, must lead to a refocussing on the needs of the working poor and the general capacity of citizens to demand and earn better wages and working conditions.

Strengthen the Class Capacities of Social Groups with High Skill and Non-Exploitative Development Agendas. Changing legislative and administrative practices in state governments is unlikely to arise from a top-down politics. The federal government for the foreseeable future is out of the business of local economic development and

building racial and gender equity. It must be fought for locally. Grass roots community groups, particularly those with the capacity to influence state legislation, elections and administrative practice need to be nurtured and supported. Coalitions of progressive grass roots groups may be particularly effective as the Democratic party loses its historic role as guarantor of traditional elites interests in the South.

Incorporate Business Service Support Into Rural Economic Development. Rural areas lack business services. Branch plant recruitment creates disarticulated local economies. For growth-from-within strategies to succeed business services provided by the private sector and/or government entities will be required. Government subsidies of accounting, legal, and marketing services shared among a group of small businesses might prove particularly effective in promoting organizational survival and prosperity. Small business incubator buildings may be appropriate here. Close evaluation of rural agglomeration experiments will be necessary to develop effective models.

Help Firms Set up Training Consortia. The nurturing of small high skilled, flexible production firms is at the heart of some recent regional development successes in Europe. The rural South lacks the skilled labor force necessary to create such firms. State government programs to encourage firm consortia on training, including basic literacy and more technically advanced training might produce valuable economies of scale, particularly for small firms. These training consortia could be short or long term, and work in house or through the community college systems (see below).

Be Sensitive to Market Power Issues. While it would be unrealistic for local or state development authorities to expect to only pick the winners in programs that nurture and support small business they can make certain strategic choices. Careful analyses of the level of competition in proposed markets and the level of wages in existing firms in that market are necessary. It makes little sense to spend development time and money on projects that are unlikely to create anything but unstable low wage employment. Many of the self-employed in small businesses work very hard merely to be poor.

Encourage Firm and Worker Cooperatives. Inter-firm cooperatives can reduce transaction costs through increased buying power relative to suppliers and coordinated marketing activity relative to consumers. Similarly, worker cooperatives reduce the need for profits to be taken out of the establishment. Both types of cooperation may help to create viable establishments in markets that otherwise might be too competitive or dominated by strong supplier or consumer firms. This approach also has an advantage in the creation of alternative sources of leadership in the rural community that may compete with traditional elites.

Human Resource Enhancement

The failure of Southern rural economic growth has been its continued inattention to the development of human resources. Branch plants are courted to take advantage of plentiful low skill labor. Local and outside employers pay low wages. There are low economic returns to

skilled work encouraging the better educated and more skilled to outmigrate. These same low economic returns serve as a lesson to parents and students that education does not matter. This accurate perception leads to high dropout rates as well as very low quality schools. Students, parents, and the business community all face the schools with low expectations. Is it any wonder that Johnny can't read?

While the past explains the current low skill levels in the Southern rural labor force, the future suggests that the negative consequences are only just beginning to be felt. The internationalization of economic relations deprives the rural South of the competitive advantages derived from low wage labor. Plentiful low wage, non-union, exploitable labor is the comparative advantage of poor places. While the rural South can boast many of the poorest places in the United States, and almost all of the poor places with plentiful docile labor, it cannot compete on a world scale. Wages in the United States, even for the lowest skilled labor, are too high to compete with the Third World for routinized production facilities.

The branch plant recruitment strategy worked in some ways because the poverty was so deep and competition was largely national. Since poverty has receded somewhat (because of more low wage jobs and outmigration), the large labor surpluses have been substantially reduced. The competition for branch plants is now international. There is nothing to recommend the continued nurturance of a barely educated labor force. One need not be a social critic or a workers advocate to see that low skill comparative advantages will not work in the future without drastic declines in standards of living in the rural South. We would see, of course, a massive new outmigration from the rural South if this comes to pass.

Policy initiatives to upgrade the skills of entire regions require long term commitment and

broad based political mobilization. They also require putting aside traditional prejudices that certain populations, particularly minorities and rural residents, can be neglected. The following proposals are general policy and political initiatives that may facilitate this transition:

We Need to Upgrade Considerably Public Education in the Rural South. All Southern states realize that public education needs to be upgraded and reformed. Most states are trying to balance centrally administered bureaucratic reforms with local school autonomy initiatives. Neither approach can work without the involvement of the communities the schools are found within. *Parents, government, schools, and especially the business community need to be politicized to expect high quality education from the schools and from students.* This politicization arises naturally in communities where businesses depend on skilled workers and parent and students can see that education and learning can effect your future standard of living. In the rural South these effects are largely absent or invisible (because of the outmigration of the educated). *One promising approach would be for local businesses to send clear messages to students that they value education.* The creation by local businesses or Chambers of Commerce of significant well publicized awards for students with high grades might send a message to all students. Better yet the tying of jobs opportunities to educational performance in a visible way might help signal to parents and students that labor markets value the skills taught in schools.

Reform the Community College Systems to Focus on General Skills. The community college system in most of the South is the primary job skill oriented program sponsored

by state governments. The current community college focus on "industry specific" training neglects the long term generalized skill needs of the labor force. The majority of the labor force for the year 2000 is already at work. Primary and secondary educational reform will not help this population. There are a few good, but isolated, examples of this shift to general skill training already available (Southern Growth Policy Board, 1990a). In the few cases that I am aware of, it was the firm that asked for state subsidies and help in training workers to be more technically sophisticated, autonomous and flexible. The idea of an emerging skill based economy seems to have flowered more quickly in the private sector than in the responsible educational institutions.

Literacy Initiatives in Multiple Sites Should be Encouraged. The literacy requirements of the Twenty-first century will include more than simple reading skills but reading comprehension, math including abstract algebraic type reasoning, writing, group communication, critical thought and perhaps, if we are lucky as a nation, citizenship (Southern Growth Policies Board, 1990c). The nurturing of a skilled labor force requires increasing the basic skills in the current labor force which the school systems failed to teach. The U.S. lacks the organized skill to work training and retraining capacity that some European nations such as Germany have (Janoski, 1990). In the absence of a comprehensive government-business-labor organized training and retraining capacity, states must encourage and subsidize where possible basic literacy programs in workplaces, schools, churches and other appropriate settings. This type of initiative will require a degree of activism on the part of state governments which is rare in the U.S. South.

There are no simple technical fixes to the problems of rural development in the South. The South has a great advantage over other rural areas in the United States in that it has a vibrant economy that has grown dramatically over the last few decades. Unlike other rural areas much of the rural South has relatively large populations densities. The problem has not been growth but development. The rural South has a decided disadvantage in the labor market legacy of the low wage, low skill development projects of local elites.

Public policy can reform and make more sensitive both industrial recruitment and growth-from-within strategies to local development. Foundations can invest in the social change process in the South. Across the South the traditional Democratic Party is collapsing, and Republicans are filling its mandate as the party of local business interests. There is probably substantial political opportunity to redefine the Democratic Party in a way more conducive to progressive, and higher wage, more skill based economic projects. There is preliminary evidence that many businesses would join such a political program, particularly if it focusses on workplace literacy. But that is another story. Or is it?

APPENDIX

MEASURES

Definition of Chapter Three Measures

All measures except land owning concentration are computed from summary tape files of the 1980 U.S. Census of Population and Housing, data for North Carolina counties.

Explanatory Variables

Percent Population Black: Proportion of 1980 total county population that is black. This variable has a low score of .00 and a high score of .61. The mean score was .231, with a standard deviation of .166.

Land Owning Concentration: Elite land owning concentration is measured as the proportion of total land in the county that is owned by large landowners other than the state or federal government. Large landowners are defined as individuals, families, or corporations that own more than 300 acres in the county. The source for this measure is Hall (1986). Land owning concentration ranges from 5 to 74 percent, with a mean of 31.5 and a standard deviation of 17.31.

Partially Endogenous Variables

Industrial Homogeneity: The Gibbs-Martin Index of Homogeneity is used to calculate the degree to which industry employment is dominated by a few industries. The index is computed for 12 industrial categories and ranges from .78 to .91, with a mean of .873 and a standard deviation of .032.

Core Sector Size: The proportion of 1980 county employment in Durable Manufacturing, Transportation and Utilities, Wholesale Trade and Construction is the measure utilized. It ranges from .13 to .54, with a mean value of .258 and a standard deviation of .073.

Agricultural Sector Size: The proportion of 1980 county employment in Extractive industries (agriculture, forestry, fishing and mining) is the measure of enduring agricultural production used in the analyses. There is almost no mining in North Carolina, and this was the best level of detail available for North Carolina counties. The scores range from .01 to .27, with a mean of .063 and a standard deviation of .047.

Unemployment Rate: Surplus labor is measured with the traditional unemployment rate, the proportion of the civilian labor force looking for work. It ranges from .03 to .17 in 1980, with a mean of .066 and a standard deviation of .024.

Percent Adults with High School Degrees: This is measured simply as the proportion of all adults in the county in 1980 age twenty-five or above who had completed high school. It ranges from .36 to .74, with a mean of .492 and a standard deviation of .082.

Control Variables

The following control variables were utilized in models predicting poverty and inequality because previous research suggests that they may be important sources of variation in the dependent variables. **State Sector Size:** Proportion of 1980 county employment in government at any level or the non-profit sector. Mean=.183, s.d.=.059. **Low Service Sector Size:** Proportion of 1980 county employment in retail trade or personnel services. Mean=.174, s.d.=.038. **Percent Population Working Age:** Percent of County population between ages of 18 and 65. Mean=.599, s.d.=.030. **Percent Households Headed by Women:** Proportion of all households in the county with female heads, no adult male present. Mean=.141, s.d.=.036.

Chapter Four Measures and Descriptive Statistics

Comparison of mean values between local and outside firms for all variables

	Mean Values for Firms (Standard Deviation Values for Firms)			Prob.
	All	Local	Outside	
PIEDWRK	0.583 (0.494)	0.586 (0.493)	0.571 (0.497)	0.789
CORE	0.450 (0.498)	0.417 (0.494)	0.560 (0.499)	0.001**
MULTI	2.124 (1.405)	1.954 (1.308)	2.691 (1.567)	0.000**
SIZE	3.795 (1.947)	3.621 (1.905)	4.377 (1.982)	0.011*
AUTONOMY	6.851 (1.470)	6.858 (1.503)	6.829 (1.361)	0.850
ILM	3.235 (0.788)	3.288 (0.780)	3.057 (0.793)	0.010**
VULNRBLE	0.359 (0.480)	0.349 (0.477)	0.394 (0.491)	0.406
JOBPWR	2.978 (4.018)	2.920 (3.969)	3.171 (4.192)	0.588
COMPLEX	6.832 (1.735)	6.859 (1.709)	6.743 (1.826)	0.567
LN(COMPLEX)	1.891 (0.245)	1.897 (0.240)	1.874 (0.261)	0.440
HOURS	40.492 (9.685)	40.104 (9.581)	41.789 (9.961)	0.130
UNION	0.043 (0.204)	0.034 (0.182)	0.074 (0.264)	0.150
NATIVE	0.684 (0.465)	0.687 (0.464)	0.674 (0.471)	0.807
WHITE	0.832 (0.375)	0.827 (0.380)	0.851 (0.357)	0.526
MALE	0.453 (0.498)	0.427 (0.495)	0.543 (0.501)	0.038*
AGE	36.421 (11.96)	36.207 (12.29)	37.137 (10.81)	0.458
AGE2	1469.31 (972.31)	1461.61 (1009.7)	1495.07 (839.0)	0.735
EDUC	12.742 (2.285)	12.677 (2.362)	12.960 (2.002)	0.228
TENURE	6.904 (7.776)	6.663 (7.727)	7.709 (7.922)	0.238
<u>Dependent Variables:</u>				
EARNINGS	19,476 (13,975)	17,888 (10,637)	24,784 (20,898)	0.002**
LN(EARNINGS)	9.682 (0.630)	9.627 (0.598)	9.866 (0.700)	0.002**
BENEFITS	8.258 (1.652)	8.125 (1.682)	8.702 (1.470)	0.001**

*p<.05 **p<.01

Two-tailed probability test using separate variance estimates for continuous variables. Chi-square test for dichotomous variables.

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