

SOUTHERN RURAL ECONOMIC DEVELOPMENT AND THE BRANCH PLANT/LOCAL FIRM DEVELOPMENT OPTIONS

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EXECUTIVE SUMMARY

The branch plant approach to economic growth has generated significant employment across the South and has helped to create favorable conditions for the transition from an agricultural to an industrial economy. This industrial transition is based on industrial job generation often accomplished through the strategic recruitment of national and international firms to establish branch production facilities in Southern states. However, policy analysts and academics have argued that the buffalo hunt for branch plants is a limited route to economic development and social growth in the South. This approach has been criticized for recreating and reinforcing rural poverty, for leading to a neglect of human capital development, and for encouraging state and local governments to focus their creativity, energy, and economic development budgets on the needs of outside rather than local employers. As a result, economic development that followed this approach to industrialization has been uneven, favoring urban areas over rural ones, whites over blacks, and men over women.

This study addresses the contemporary efficacy of branch plant recruitment strategies through a comparison of the jobs created and the human resource practices of locally owned establishments with national, outside owned establishments in North Carolina. North Carolina represents both the best and the worst in recent Southern growth and development. North Carolina shares with other Southern states a history of rural elites dominating the state, a more recent history of the 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 routine manufacturing production. Its coastal plain region 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 addition North Carolina has a record of heavy outside firm recruitment, and in recent years it has typically been one of the top two or three states in the country in industrial recruitment. North Carolina ranks first in the nation in the percentage of the workforce employed in manufacturing but at the bottom in manufacturing wages and unionization. These factors, in addition to a labor force that is generally poorly educated, have historically increased the state's attractiveness to outside investment.

This executive summary first outlines the central research findings of the study and then lists policy proposals based on careful social science research described in the body of the report. While this study is largely based on the North Carolina case, policy recommendations should be carefully considered throughout the Southern region where the political and economic division between the Sunbelt-blessed urban areas and poor rural places is evident.

RESEARCH FINDINGS

The most striking pattern in these analyses is the similarity of employment, earnings, and earnings processes in locally owned and outside firms. Establishments owned by national rather than North Carolina firms pay on average only slightly more than North Carolina firms. Even that slight earnings advantage is a function of the sector of the economy and typical establishment size rather than any intrinsically "national" attribute. Furthermore, these national

firms do not display any greater commitment to their labor forces than locally owned establishments in terms of skills transfer and training or in rewarding skilled work at higher levels. The one place where outside firms might be different is in their higher economic returns to employee tenure. A weak pattern suggests outside firms are most likely to provide better jobs for employees who have longer histories with their firms. This effect turns out to be more a function of the higher organizational resources associated with core sector membership and large establishment size of outside firms rather than with ownership location.

Outside and locally owned firms are no different in their degree of gender or racial discrimination either. Although there is clear evidence of uneven development in North Carolina with higher wages being paid in the urban Piedmont region, there is no evidence that local and outside owned establishments differ in their contribution to regional inequalities.

Overall this study does not support the contention that outside establishments bring in significantly better jobs than those offered by locally owned firms, once establishment size and core sector have been controlled. Nor are there significant differences in returns to education, tenure, or training. Any differences in earnings between workers in both types of firms are marginal, and are mostly linked to the organizational resources of the larger, outside firms, which are more likely to be operating in the core sector of the economy. While locally owned firms may provide marginally lower returns to job tenure, resulting in a marginally lower economic status for their long term employees, this is largely the result of the lack of organizational and economic resources that smaller, locally owned firms may have to offer their employees.

These findings suggest branch plants should be recruited because they create better jobs than locally owned firms should be treated with healthy skepticism. Outside firms seem to come to North Carolina to profit from local norms of low wages and low skills rather than to change them.

POLICY PROPOSALS

The data in these analyses clearly show that job skills and human capital traits, such as education and experience, are rewarded regardless of firm ownership. In addition, changes in production techniques linked to the internationalization of the economy are leading to higher skill expectations among employers. Thus, development strategies for the poor, rural areas must address the limitations of low-skilled and poorly educated workers. Development policies that 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 current, more widespread rural policies of hunting for low wage, low skill branch plants.

Policy conclusions in three general areas are address in this report: branch-plant recruitment strategies, growth-from-within practices, and the upgrading of the rural human resource base.

Branch Plant Recruitment Strategies. The recruitment of branch plants by state and local governments has been seriously overemphasized in local economic development policies. The

dependency relationship with outside capital keeps local wages low by national and first world standards. This dependency relationship with outside capital keeps 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 establishments and local ones, particularly suppliers and business service establishments, where manufacturing multiplier effects are typically concentrated. Furthermore, 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 of weak regulation and low wages that formed the basis of the advertising schemes behind the recruitment strategy.

Five policy proposals to improve the practice of branch plant recruitment are discussed in the report:

Reduce State and Local Reliance on Branch Plant Recruitment.

Refocus Industrial Recruitment To Include Higher Wage Producer Service Establishments.

Refocus Industrial Recruitment To Include Already Existing Local Firms.

Refocus Industrial Recruitment To Provide Incentives Only for High Wage Employment in Economically Distressed Areas.

Make Skill Enhancement Guarantees for the Working Poor a Central Requirement in Return for Investment Incentives.

Growth-From-Within Practices. The answer for economic development strategists may be a more sophisticated growth-from-within strategy. The data in this analysis suggest that local establishments are able to create better jobs when they have comparable organizational resources to national firms. The ability adequately to create an environment that offers greater opportunities for workers depends partly on the external resources available to a firm. Thus, the results from this study suggest that if a growth-from-within strategy is pursued, it should be pursued with the intent of enhancing these organizational resources.

Five policy proposals to strengthen growth-from-within development strategies are discussed in the report:

Strengthen the Institutional Capacities of Social Groups with High-Wage, High-Skill 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.

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, non-union labor. This study reveals marginal differences in wages between workers in local and outside firms. Both pay low wages. The low economic returns to skilled work encourages the better educated and more skilled workers to out-migrate. Furthermore, competing for national and international investment with a low-skill labor force attracts branch plants with limited social development consequences and reinforces local and state level policy that neglects the quality of the educational system and its linkages to the workforce. Future attempts to enhance the human resources of the local labor force must account for traditional social practices that limit the access of rural residents, minorities, and women to skill-enhancing educational and workplace training opportunities.

SOUTHERN RURAL ECONOMIC DEVELOPMENT AND THE BRANCH PLANT/LOCAL FIRM DEVELOPMENT OPTIONS

Should Southern states concentrate their regional development initiatives upon the recruitment of branch plants from firms headquartered outside of the region? In this paper the contemporary efficacy of branch plant recruitment will be addressed through a comparison of the jobs created and the human resource practices of locally owned and outside owned firms in North Carolina.

Over the last thirty years economic growth across the South has been substantial. Much of the South has moved from a rural agricultural economy to an increasingly industrialized mix of rural and urban areas. The transition has been based on industrial job generation often accomplished through the strategic recruitment of national and international firms to establish branch production facilities in Southern states (Cobb 1993; Curran and Tomaskovic-Devey 1991; Falk and Lyson 1988; Lyson 1989). State and local governments have played a central role in developing and implementing the branch plant recruitment strategy. In these endeavors many Southern states have had competitive advantages of low labor and land costs, a welcoming business climate, and effective industrial recruiting capacity. The branch plant approach to economic growth generated significant employment across the South and has helped create the conditions for the transition from an agricultural to an industrial economy (Wright 1987). However, this approach has been criticized for recreating and reinforcing rural poverty, for leading to a neglect of human capital development, and for encouraging state and local governments to focus their creativity, energy, and economic development budgets on the needs of outside rather than local employers (Cobb 1993; Curran and Tomaskovic-Devey 1991; Falk and Lyson 1988; Goodman 1979; Markusen 1987; Rosenfeld, Bergman, and Rubin 1985; Sher 1988; Wood 1986). The economic development that has followed industrialization has also been uneven, favoring urban areas over rural, whites over blacks, and men over women (Colclough 1988; Falk and Lyson 1988; Lyson 1989; Rosenfeld, Bergman and Rubin 1985).

Currently state and local governments are competing wildly for business expansion and national and international investment. A dramatic recent case was Alabama's success relative to North Carolina in luring a new Mercedes plant. The incentive plan that Alabama used to lure Mercedes has been estimated to cost the state \$168,000 in direct and indirect subsidies for every job created!

This paper will focus on the quality of jobs created by outside capital investment in North Carolina. North Carolina is probably the most successful Southern state in the competition to recruit outside firms, the Mercedes plant notwithstanding. In addition to being a right-to-work state, North Carolina law allows local governments to issue revenue bonds to finance branch plant recruitment incentives such as infrastructure projects and allows counties to negotiate property tax abatements with potential industrial recruits. In other Southern states governments also provide loans for plant construction, direct monetary incentives, corporate income tax exemptions, tax incentives for job creation, and even free land to potential recruits (Falk and Lyson 1988). Most importantly, North Carolina has a highly effective industrial recruitment office in the state Department of Commerce that works with national and international firms, the governor's office, and local Chambers of Commerce to broker branch plant recruitment in North Carolina.

North Carolina represents both the best and the worst in recent Southern growth and development. Its coastal plain region 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. North Carolina heavily recruits

outside firms, and in recent years it has been typically one of the top two or three states in the country in industrial recruitment. North Carolina ranks first in the nation in the percentage of the workforce employed in manufacturing but at the bottom in manufacturing wages and unionization (Sher 1988). The state's attractiveness to outside investment has historically been dependent upon its low wage, non-union workforce. In addition the labor force is generally poorly educated, 46th in the nation in high school graduates, average SAT scores among the lowest, and a literacy rate of only about 80% (Sher 1988). Currently about 19 percent of private sector employment in North Carolina is in establishments owned by corporations headquartered somewhere else. Only about 14 percent of new employment, however, is being produced in externally owned establishments (Kasarda and Birch 1988).

Economic development policy is currently at a crossroads in much of the South. The status quo choice is to try to advance future social and economic development of the region through an intensification of the branch plant recruitment strategy. An alternative is to develop approaches that focus on investments in local human capital and local firms (Hall 1988; Tomaskovic-Devey 1991). We come to this crossroads not only because the past economic growth successes have been disappointing in their results, particularly for women, minorities, and people who live in rural areas, but also because the low-wage, labor intensive growth strategy, upon which branch plant recruitment is premised, is not likely to produce competitive advantages for the Southern U.S. economy in an increasingly global economy (Gereffi 1989; Southern Growth Policies Board 1990).

RESEARCH QUESTIONS

The absence of systematic data on the quality of jobs in locally owned versus outside owned establishments is striking. The analysis section of this paper produces baseline estimates of the effect of ownership locale on the quality of jobs and upon labor market organization. The most widespread and compelling justification for branch plant recruitment is that branch plants produce higher paid jobs than home grown establishments. The first research question explores this claim, extending it to a concern with employee benefits levels also.

1. Are there earnings and benefits differences between jobs created by locally and outside owned establishments in North Carolina?

If outside establishments mostly hire migrants from other states into their better jobs, as is sometimes alleged, then state efforts at industrial recruitment might be hard to justify. If outside establishments hired more minorities or were more likely to be established in rural areas than local establishments, and even if their wages were not higher, they might make valuable contributions to the state economy by reducing uneven social and regional development. It would also be the case that if outside establishments provided more training opportunities than local establishments their recruitment might be justified based on the general upgrading they provide to the skill base of the labor force. Questions 2 through 4 explore these issues.

2. Do native born North Carolinians and migrants from other states have similar access to jobs in locally and outside owned establishments?
3. Are hiring patterns along gender, racial, and education lines different in locally owned and outside establishments?
4. Are there training differences between locally owned and outside establishments?

Questions five and six explore the possibility that internal labor markets may be organized differently in outside and local establishments. In this case we can ask if outside and local establishments value the skills of

employees similarly. Also, is wage discrimination on the basis of gender, race or nativity higher in local or outside establishments?

5. Are there differences in earnings returns to education, on-the-job training, and firm tenure in locally owned and outside establishments?
6. Are there differences in earnings returns to other supply side characteristics (i.e. race, gender, nativity) between locally owned and outside establishments?

Statewide survey data will be used to answer these questions. The North Carolina Employment and Health Survey (1989) administered by the Farm and Rural Life Study, Department of Sociology and Anthropology, North Carolina State University, will be the primary data source. This survey was a random sample of 931 employed North Carolinians and contains information on the skill training associated with their job, their past human capital investments, and the regional and ownership locales of employers. The analyses that follow are limited to the sub-sample in private sector employment. Because this is the only large scale survey in the nation with direct measures of both the quality of jobs and the ownership status of the establishment, it is uniquely suited to the project at hand.

MODELS AND MEASUREMENT

The analytic focus of the paper is on earnings variations associated with jobs in locally and outside owned establishments. The primary dependent variable is monthly earnings. All models were explored using both real earnings and the natural log of real earnings as dependent variables. As is usually the case, the log models performed much better. In addition, no substantive alternative findings emerged from the linear models. For these reasons only log earnings models are reported here.

This project requires information on the ownership location for the establishment. We measure this with a question to the employee as to the geographical location of the "person who really runs this company, the one who makes the ultimate financial decisions." The variable is dummy coded as local (1) or out-of-state (0) and labeled 'Local.'

Human capital attributes of the individual are measured with fairly standard education, experience, experience-squared, and tenure variables. Other supply side traits include whether or not the respondent were a North Carolina Native (native =1, 0 otherwise), were Male (male=1, female=0) or White (white=1, 0 otherwise). We also have a measure of on-the-job training. The question asked how many weeks it typically takes a new hire to learn to do the job well. This is measured as the natural log of weeks of training time.

The basic analytic strategy is to look first at local/outside establishment differences in earnings, next try to understand how differences in human capital, other individual attributes and training time are distributed across the two types of firms, and finally model the consequences of ownership locale for earnings processes.

ANALYSES

Earnings and Benefits

To address the question of whether there are earnings and benefits differences between jobs created by outside and local establishments, Table 1 and Figures 1 and 2 feature comparisons of earnings and benefits distributions between local and outside establishments.

**Table 1. The Quality of Jobs in Locally and Outside Owned Establishments:
Mean Values (standard deviations for continuous variables) for Monthly Earnings and Benefits**

	Local	Outside	Probability of t or χ^2
Sample Size	421	116	
Monthly Earnings	1869.56 (3458.13)	2093.88 (1618.42)	.4980
LN(Earnings)	7.215 (.740)	7.418 (.675)	.0078
Benefits			
Health Insurance	.694	.862	.000
Sick leave	.579	.689	.032
Retirement	.504	.733	.000
Profit sharing	.387	.578	.000
Paid vacation	.753	.905	.000

Probability t-tests of mean differences for continuous variables. Coefficients based on two-tailed probability test using separate variance estimates. Chi-square (χ^2) test of homogeneity for categorical variables.

Table 1 indicates there are modest differences in earnings between workers in local and outside establishments, with workers in outside firms averaging about \$224, or roughly 11 percent, more per month than those in locally owned firms. This difference is not statistically significant. However, when monthly earnings are logged, there is a significant difference between monthly earnings of workers in outside and local establishments. As Figure 1 makes clear, locally owned establishments produce more very low wage jobs than outside establishments. Furthermore, jobs in these establishments systematically differ in terms of the non-wage benefits they provide for their workers. Outside establishments are significantly more likely than locally owned establishments to offer workers full benefits packages, including health insurance, paid sick leave, pension plans, profit sharing, and paid vacations. Figures 1 and 2 illustrate distributions for monthly earnings and benefits of local and outside establishments.

Figure 1. Monthly Earnings of Outside and Local Establishments

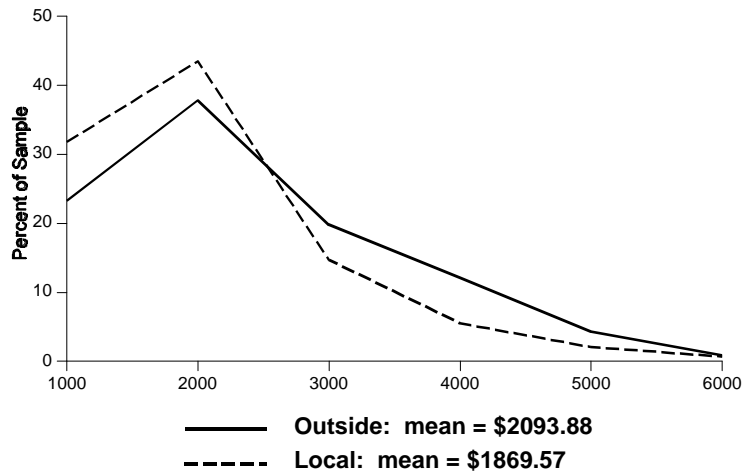
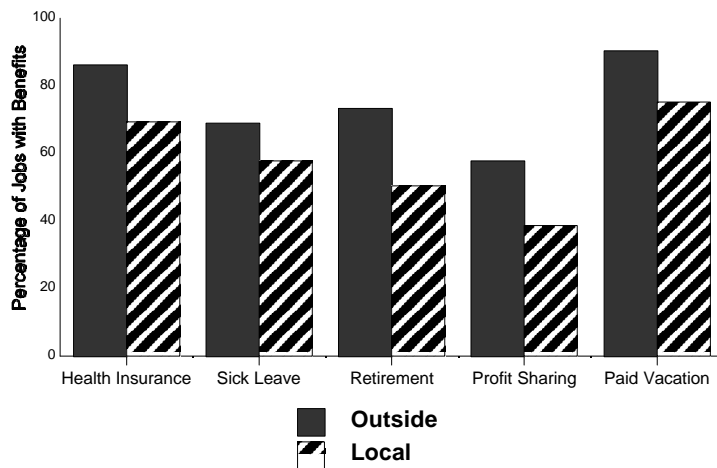


Figure 2. Employee Benefits for Jobs in Outside and Local Establishments



The answer to the first research question seems to be that outside owned establishments do produce marginally better jobs on average than locally owned establishments. The earnings advantages are so small, however, that they are only statistically significant for logged measures of earnings.

Hiring and Training Patterns

Table 2 provides comparisons of the labor force characteristics of locally and outside owned establishments. In terms of hiring patterns along gender, racial, labor market experience, and education lines, outside and locally owned establishments are almost evenly matched. Locally owned establishments are only four percent more likely to hire North Carolina natives. Outside and locally owned establishments employ whites and

minorities in equal proportion, and outside firms employ males about eight percent more often than locally owned establishments. None of these contrasts are statistically significant.

Locally owned and outside establishments are nearly identical in terms of the human capital characteristics of their workers. Those employed in outside firms do average slightly (1.4) more years of job tenure, although the difference is not statistically significant. Importantly, average training time is nearly identical in local and outside establishments.

By definition only people in locally owned establishments can be self-employed. If self employment produces a better quality position than employee status, the creation of these positions might be a strong argument for the utility of local firm development options.

Table 2. Employee Characteristics in Locally and Outside Owned Establishments: Mean Values (standard deviations for continuous variables) for Nativity, Race, Gender, Human Capital Characteristics, and Self-Employment

	Local	Outside	Probability of t or χ^2
Native	.679	.638	.402
White	.850	.845	.883
Male	.471	.552	.156
Human Capital			
Education	12.827 (2.382)	13.138 (1.999)	.198
Experience	18.481 (13.501)	18.061 (10.897)	.758
Experience ²	545.395 (673.776)	461.711 (465.381)	.209
Tenure	6.929 (7.241)	8.422 (8.271)	.057
Training	3.977 (1.565)	3.952 (1.479)	.877
Self-employed	1.520	.000	.000**

Probability t-tests of mean differences for continuous variables. Coefficients based on two-tailed probability test using separate variance estimates. Chi-square (χ^2) test of homogeneity for categorical variables.

With the exception of the presence of self-employment, locally and outside owned establishments seem to be practically indistinguishable in terms of the types of employees, skill requirement, and contribution to the skill levels of the state's workforce. The answer to research questions 2 through 4 is that ownership locale has limited or no implications for the skill and demographic distribution of the North Carolina labor force.

Organizational Characteristics

Since most of the individual characteristics are not significantly different, any differences between jobs provided by outside and locally owned establishments are likely to be a function of characteristics of the establishments rather than employees.

It is well known that larger establishments tend to pay higher wages (Brown and Medoff 1989; Mellow 1982). Explanations for these wage advantages include economies of scale and more firm specific skill development often through internal labor markets that lead to longer employee tenure. Much branch plant recruitment focuses on manufacturing employers because they often pay higher wages than service and agricultural sectors. The explanation for these advantages tends to focus on higher technologically derived productivity in manufacturing firms. We also explore Core sector position as an organizational resource. The logic here is

that establishments in competitive markets are forced to pay low wages. Establishments in the “core” sector of the economy by contrast are in less competitive markets, resulting in larger establishment size, higher levels of technological investment, higher profits, and higher wages (Hodson 1983). The core sector is described to include some manufacturing industries (typically durable manufacturing), construction, utilities, and some business services. All are characterized by low levels of market competition.

Table 3. Region and Establishment Characteristics of Local and Outside Owned Establishments: Mean Values (standard deviations for continuous variables) for Establishments on Firm size, Sector, and Region

	Local	Outside	Probability of t or χ^2
Establishment size ^a	3.267 (1.967)	4.398 (1.978)	.000
Sector			
Manufacturing	.194	.278	.013
Core ^b	.256	.444	.000
Region			
Coastal Plains	.252	.172	.074
Mountain	.145	.138	.850
Piedmont	.594	.595	.984
Other regions	.009	.095	.000

Probability T-tests of mean differences for continuous variables. Coefficients based on two-tailed probability test using separate variance estimates. Chi-square (χ^2) test of homogeneity for categorical variables.

^a*Establishment size is measured as how many people work for the respondent's organization at the location where they worked, including all types of workers in all departments. This question was coded for eight categories allowing for variation between very small and very large firms (> 10; 10-25; 26-50; 51-100; 101-500; 501-1,000; 1,001-10,000; <10,001).*

^b*This research used Hodson's (1983) six category scheme to code an establishment's sectoral position. Because of the lack of variation of mean incomes across the six categories for establishments in this sample, they were collapsed into a two-category schema (core=1, periphery=0).*

Table 3 reports that outside establishments are larger than locally owned establishments and are more likely to be operating in both the core and manufacturing sectors. Although the size categories are ordinal, by interpolation we can estimate that the average locally owned establishment has 63 employees, while the average outside owned establishment has about 260 employees. This is a substantial size difference. In addition, outside establishments are 8.4 percent more likely to be in the manufacturing sector and 18.8 percent more likely to be in the core sector of the economy. Since these traits are often associated with greater organizational and economic resources, they may be attractive reasons for state and local economic developers to target outside firm recruitment.

Table 3 also suggests there is some effect of ownership location on uneven regional development. Most establishments, irrespective of ownership locale, are located in the Piedmont region of North Carolina, which is commonly associated with the urban "Sunbelt" economy, a diverse industrial environment, higher wages, and lower poverty than other regions of the state. Similar proportions of both types of establishments are also located in the Mountains, while a greater proportion of locally owned firms are located in the Coastal Plains. A few North Carolinians commute to work in outside firms located in other states. Outside owned establishments are slightly less likely to be found in the poorer regions of the state.

The Basic Earnings Model

The basic earnings models displayed in Table 4 investigate the consequences of nativity, race, gender, human capital, and regional location for local/outside earnings gaps. If the earnings advantages of outside firms hold up over and above these location and supply side characteristics, we might conclude that outside investment acts to increase the overall quality of jobs by increasing the value of labor relative to how local firms compensate individual characteristics or react to the uneven development built into regional economies. Model 1 indicates that employees in locally owned establishments earn about 21 percent less than employees in outside ones.

Table 4. Regression Models of Log(Earnings) on Employee Characteristics and Region (N=537)

Variables	Model 1	Model 2	Model 3	Model 4
Local	-.213 (.076)***	-.211 (.076)***	-.078 (.062)	-.054 (.064)
Native		-.113 (.067)**	-.010 (.056)	-.005 (.057)
White			.134 (.071)**	.131(.071)**
Male			.455 (.054)***	.452 (.054)***
Education			.072 (.013)***	.069 (.013)***
Experience			.072 (.013)***	.041 (.006)***
Experience ²			-.001 (.000)***	-.001 (.000)***
Tenure			.007 (.004)**	.008 (.004)**
Training			.113 (.019)***	.109 (.019)***
Self-employed			-.125 (.085)*	-.123 (.085)*
Coastal Plain				-.104 (.061)**
Mountain				-.051 (.073)
Other Region				.240 (.168)*
Constant	7.365 (.067)***	7.441 (.081)***	5.219 (.204)***	5.276 (.209)***
Adj. R ²	.013	.016	.377	.380
Model F	7.946***	5.403***	33.447***	26.289***

*OLS coefficients (standard errors) reported. Significant levels based on a one-tail test of significance. *p<.10, **p<.05, ***p<.01.*

Model 2 indicates that native North Carolinians and migrants from other states do not have equal access to higher earnings jobs. Rather, North Carolina natives earn about 11 percent less than non-natives. The addition of the Native measure to the model does not erode the earnings advantage provided by outside establishments, suggesting that the good jobs in outside owned establishments are not reserved for in-migrants who follow the firms from other regions.

Model 3 adds individual characteristics as well as training time provided by the employer to the regional earnings models. There are significant race and gender differences in earnings, with whites earning 13 percent more than blacks and men earning 46 percent more per month than women. As expected, education, experience, job tenure, and on-the-job training are all associated with higher earnings.

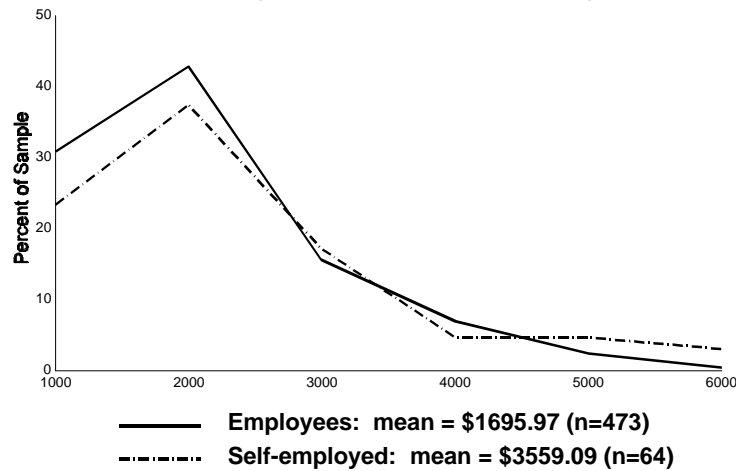
Controlling for individual traits and job training, the earnings differential between local and outside establishments decreases to 8 percent and is no longer statistically significant. This suggests that the marginally lower human capital endowments of workers in locally owned firms are sufficient to explain their slight wage differentials. Similarly, North Carolina natives have only a trivial earnings deficit once these effects are included in the models.

These models also reveal a small but significant effect of uneven regional development. Employees in establishments located in the rural Coastal Plain region earn significantly less than those in the Piedmont

region, while those who commute out of the state earn significantly more.

Those who are self-employed earn significantly less than employees. This finding is largely a function of the local status of self-employed respondents, who are more likely to operate smaller, periphery establishments, with fewer organizational and economic resources than larger, outside ones. One of the potential advantages of locally owned establishments over outside owned ones is the creation of self-employment positions. This analysis suggests that the self-employed tend to receive lower earnings on average once human capital characteristics have been accounted for. However, as Figure 3 clarifies, self-employment can lead to both unusually low and unusually high earnings and has a much higher mean earnings without controls for human capital attributes. The analysis of logged earnings in the regression models reduces the influence of high earnings observations among the self-employed. There is no clear policy preference that can be derived from these findings. Self-employed positions are clearly a heterogeneous group.

Figure 3. Monthly Earnings Distribution of Employees and the Self-employed



Exploring Differences in Returns

If outside establishments pay higher wages because they have superior organizational resources, then they may be providing higher returns to employee characteristics. They may value skills or education more highly. Conversely they may discriminate more or less on the basis of nativity, gender, or race. To investigate these possibilities, interaction terms between local and human capital characteristics were added to the models with and without the self-employed in the sample. We reasoned that the wages of the self-employed reflect organizational efficiency and profitability more than labor market phenomena. Overall we found almost no evidence of differences in economic returns to individual characteristics. There was a weak pattern of higher returns to skill in outside owned firms among the employee-only sample. Table 5 reports these results.

In Models 2 through 4 of Table 5 the interaction terms between local and the three skill indicators (education, tenure, and training time) are all negative, suggesting lower returns to skill in locally owned establishments. Of the three, only the interaction with tenure is marginally statistically significant at the .10 probability level.

Thus, based on this analysis, the answer to the questions of whether there are significant differences in earnings returns to on-the-job training and supply side characteristics between locally owned and outside establishments is generally no. However, these results do suggest there may be marginally lower economic returns to job tenure for employees in locally owned establishments. We suspect this result, if it exists at all, reflects the fact that locally owned establishments are typically smaller, so they often lack the organizational resources of larger establishments to create internal labor markets and to reward workers for job tenure.

Table 5. Regression Models with (LN)Earnings for Local-Skill Interactions, the Self-employed Excluded from the Sample (N=473)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Local Native	-.089 (.055)*	-.019 (.075)	.356 (.350)	.046 (.149)	.434 (.355)
White Male	-.048 (.064)	-.051 (.064)	-.050 (.064)	-.052 (.064)	-.054 (.064)
White Male	.121 (.064)**	.116 (.064)**	.124 (.064)**	.118 (.064)**	.118 (.064)**
Male	.365 (.050)***	.357 (.051)***	.359 (.050)***	.360 (.050)***	.351 (.051)***
Education	.068 (.012)***	.068 (.012)***	.095 (.024)***	.067 (.012)***	.093 (.026)***
Experience	.039 (.006)***	.039 (.006)***	.039 (.006)***	.039 (.006)***	.039 (.006)***
Experience ²	-.001 (.000)***	-.001 (.000)***	-.001 (.000)**	-.001 (.000)***	-.001 (.000)***
Tenure	.008 (.004)**	.015 (.006)***	.008 (.004)**	.008 (.004)**	.015 (.006)***
Training	.120 (.018)***	.122 (.018)***	.119 (.018)**	.147 (.034)***	.128 (.036)***
Local X Tenure		-.009 (.007)*	...	...	-.009 (.007)*
Local X Education			-.033 (.027)	...	-.032 (.029)
Local X Training				-.031 (.036)	-.006 (.039)
Constant	5.348 (.189)	5.311 (.191)	5.002 (.329)	5.264 (.210)	4.961 (.331)
Adj. R ²	.423	.424	.424	.423	.424
Model F	39.424***	35.731***	39.697***	35.559***	29.908***

*OLS coefficients (standard errors) reported. Significant levels based on a one-tail test of significance. *p<.10, **p<.05, ***p<.01.*

Earnings and Organizational Resources

The importance of organizational effects is illustrated in Table 6. As expected, establishment size is positively associated with earnings. Establishments in manufacturing sectors do not provide significantly higher earnings to workers in this sample. This reflects the historically low manufacturing wage rate in North Carolina and the tendency of manufacturing to locate in the state for those low wages (Markusen 1987; Wood 1986) However, establishments in the core sector do offer earnings about 16 percent higher than establishments in other sectors. In Table 3 we saw that outside establishments were significantly larger and more likely to be in the core sector than locally owned establishments.

Table 6. Regression Models for Organizational Effects on (LN)Earnings (N=537)

Variables	Model 1	Model 2
Local	-.147 (.077)**	-.133 (.077)**
Establishment size	.058 (.017)***	.045 (.017)***
Manufacturing Sector	.012 (.082)	...
Core Sector	...	.159 (.073)**
Constant	7.109 (.096)	7.097 (.095)
Adjusted R ²	.035	.043
Model F	7.382***	8.997***

OLS coefficients (standard errors) reported. Significant levels based on a one-tail test of significance. * $p < .10$, ** $p < .05$, *** $p < .01$.

To examine further whether employees in locally owned establishments receive lower economic returns to their job skills, Table 7 provides a comparison of regression models with all explanatory variables, including core sector and establishment size, and skill*local interactions for the sample with all workers (n=537) and the sample of employees only (n=473).

TABLE 7. Regression Models for Local-Skill Interactions with Establishment Size and Sector

Variables	All (N=537)		Employees Only (N=473)	
	Model 1	Model 2	Model 3	Model 4
Local	-.031 (.062)	.358 (.397)	-.046 (.062)	.403 (.395)
Native	-.019 (.055)	-.022 (.056)	-.058 (.051)	-.063 (.051)
White	.158 (.069)**	.158 (.070)**	.143 (.063)**	.140 (.063)**
Male	.459 (.053)***	.451 (.054)***	.369 (.049)***	.357 (.049)***
Education	.069 (.013)***	.093 (.027)***	.067 (.012)***	.089 (.026)***
Experience	.039 (.006)***	.039 (.006)***	.037 (.006)***	.036 (.006)***
Experience ²	-.001 (.000)***	-.001 (.000)***	-.001 (.000)***	-.001 (.000)***
Tenure	.002 (.004)	.007 (.007)	.004 (.004)	.010 (.006)*
Training	.111 (.019)***	.103 (.041)***	.118 (.018)***	.120 (.036)***
Self-Employed	-.003 (.089)	.000 (.090)	...	...
Establishment Size	.042 (.015)***	.042 (.015)***	.036 (.013)***	.036 (.013)***
Core Sector	.133 (.059)**	.127 (.059)**	.141 (.053)**	.133 (.054)***
Local X Tenure	...	-.006 (.008)	...	-.008 (.007)
Local X Education	...	-.029 (.032)	...	-.029 (.029)
Local X Training	...	.011 (.044)	...	-.001 (.039)
Constant	5.048 (.205)	4.740 (.377)	5.189 (.186)	4.855 (.331)
Adjusted R ²	.397	.395	.447	.446
Model F	30.393***	24.337***	35.623***	28.158***

OLS coefficients (standard errors) reported. Significant levels based on a one-tail test of significance. * $p < .10$, ** $p < .05$, *** $p < .01$.

These results do not support the contention that outside establishments bring in significantly better jobs than those offered by locally owned firms, once establishment size and core sector have been controlled. Nor are there significant differences in returns to education, tenure or training. Any differences in earnings between workers in both types of firms are marginal and are mostly linked to the organizational resources of the larger, outside firms, which are more likely to be operating in the core sector of the economy.

Overall this research indicates that the small earnings differentials between workers in outside and locally owned establishments are related to small differences in worker characteristics. Regression models suggest locally owned firms may provide marginally lower returns to job tenure, resulting in a marginally lower economic status for their long term employees. Both of these results arise because locally owned firms are smaller and may lack the organizational and economic resources outside firms derive from their sectoral positions.

DISCUSSION

The most striking pattern across these analyses is the similarity of employment, earnings, and earnings processes in locally owned and outside firms. The defense of branch plant recruitment as providing a generally superior set of jobs can be said to be marginal at best. Establishments owned by national rather than North Carolina firms pay on average only slightly more than North Carolina firms. Even that slight earnings advantage is a function of the sector of the economy and typical establishment size rather than any intrinsically "national" attribute. Although we do not report the analyses here, this basic pattern is true as well for benefits (Curran and Tomaskovic-Devey 1991).

Nor is it the case that these national firms display any greater commitment to their labor forces in terms of skills transfer and training or in rewarding skilled work at higher levels. Unsurprisingly, outside firms seem to come to North Carolina to profit from local norms of low wages and low skills rather than to change them. The one place outside firms might be different is in their higher economic returns to employee tenure. This effect turns out to be a function of the higher organizational resources associated with core sector and large establishment size rather than with ownership location per se.

Outside and locally owned firms are no different in their degree of gender or racial discrimination, either. Although there is clear evidence of uneven development in North Carolina, with higher wages being paid in the urban Piedmont region, there is no evidence locally and outside owned establishments differ in their contribution to regional inequalities.

Overall, locally owned establishments are barely distinguishable from those whose capital originates in other states. These results suggest that the assertion branch plants should be recruited because they create better jobs than locally owned firms should be treated with healthy skepticism.

POLICY IMPLICATIONS

The limitations of branch plant recruitment strategies for Southern economic development are well documented (Bellamy and Parks 1990; Cobb 1993; Falk and Lyson 1988; Fitzgerald and Meyer 1986; Markusen 1987; Wright 1987). Their inability to raise the standard of living in the rural South to levels comparable to national averages has been remarked upon at length (Hall 1988; Lyson 1989; Rosenfeld, Bergman, and Rubin 1985; Southern Growth Policies Board 1990). In addition, regions with large black

populations have been either bypassed by this development strategy or incorporated at very low wages (Bellamy and Parks 1990; Colclough 1988; Tomaskovic-Devey and Roscigno 1995). In terms of the future, the internationalization of production suggests that low wage, labor intensive competitive economic advantages should erode relatively quickly in the United States (Gereffi 1989). Prevailing wages in the Southern labor

force, while competitive nationally, are quite high relative to the international price of low-skill labor (Tomaskovic-Devey 1991).

Policy analysts and academics have argued that the buffalo hunt for branch plants is a limited route to economic development and social growth in the South (Cobb 1993; Fitzgerald and Meyer 1986; Markusen 1987; Rosenfeld, Bergman and Rubin 1985). Two prominent alternatives are being actively discussed -- nurturing local business development and increasing the relative skill level of the labor force (Fitzgerald and Meyer 1986; Gillis and Schaefer 1985; Hall 1988; Hansen 1990; North Carolina REAL Enterprises 1989; Southern Growth Policies Board 1990). Competing for national and international investment with a low skilled labor force attracts branch plants with limited social development consequences and reinforces local and state level public policy that neglects the quality of the educational system and its linkages to the workforce (Markusen 1987; Tomaskovic-Devey 1991). Future attempts to increase the skill levels of the local labor force need to take into account traditional social practices that limit the access of rural residents, minorities, and women to skill enhancing educational and workplace training opportunities (Curran and Tomaskovic-Devey 1991; Tomaskovic-Devey 1993).

Based on these results, what kind of economic development strategy makes sense in the rural South? The results suggest that outside capital does provide marginally better jobs than local capital. Does this mean that North Carolina in particular, and other Southern locales in general, should intensify earlier economic development strategies of 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 keeps 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 establishments and local ones, particularly suppliers and business service establishments, where manufacturing multiplier effects are typically concentrated.

The answer for economic development strategists may be a more sophisticated growth-from-within strategy. The findings from these analyses suggest local establishments can create better jobs when they have comparable organizational resources to national firms. The ability adequately to create an environment that 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 should 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 establishments is also important. The data in these analyses clearly show 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. Development policies that 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 focused on the experience of one state. North Carolina shares with 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 routine manufacturing production. Otherwise the Southern region's comparative advantages of 1950 may turn out to be major handicaps fifty years later.

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.

Untargeted branch plant recruitment strategies should be discontinued. They are expensive and have small returns in jobs or job quality. Since these policies have strong constituencies within all state governments and they represent the basic model local communities use, dropping branch plant recruitment strategies seems politically unlikely. What may be more reasonable and more practical would be to refocus branch plant recruitment.

The emphasis of industrial recruiters needs to be shifted from any job to quality jobs, from outside capital investment to any investment that 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 establishments 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, 1990). 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 establishments, are the major source of new jobs (Kasarda and Birch 1989). Industrial recruiters could conceivably pay as much attention to medium and large local establishments as targeted sources of job growth as they do to national and international establishments.

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; and 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 Establishments. 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. Locally owned 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 or near economically depressed rural or central city areas.

Refocus Industrial Recruitment To Provide Incentives Only for High-Wage Employment in

Economically Distressed Areas. Investment incentives should increase the overall standards of living in the localities they locate in. In localities with very high unemployment rates, this might include almost any jobs. In localities with already high wages and low unemployment, incentives should be used sparingly and only on firms that promise to create high-wage jobs.

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 its workforce. This training can be focused 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.

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 (Cobb 1993; Wood 1986). The economic project of rural elites, particularly in the "black belt" region but also in Appalachia, includes creating 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 traditional elite domination over the development of the rural Southern economy. The power of traditional elites to control the development process is not absolute. 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 (Tomaskovic-Devey and Roscigno 1993).

One approach that has been suggested by a number of policy organizations is the development of micro-enterprises (Southern Growth Policies Board 1990; 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 such a loan program, which averaged (in its first year) loans of about \$2100. The micro-enterprise 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 deficits of small firms, which are likely to pay low wages even to their owners. Firms in competitive industries and with simple organizational structures have higher transaction costs and lower earnings in their markets, and as a result they 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. Micro-enterprises are unlikely to be the source of good jobs. Self-employment produces both very low and relatively high earnings. The micro-enterprise approach seems focused on the low earnings end of that distribution.

The emerging literature on regional development based on small flexible manufacturing (Piore and Sabel 1984; Hansen 1990) suggests local development can be flexible and linked to economic development. Flexible specialization, however is almost entirely an urban phenomenon where medium-sized firms (50 to 200) prosper, based on skilled labor and with organizational linkages to other small firms as well as large national and international firms. The rural South lacks these urban agglomeration advantages as well as the skilled labor force. In addition the branch plant recruitment strategy tends to create disarticulated local economies, where

the level of local inter-firm transactions is low, and the development of a local producer service sector bypassed. The one example 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, where there was a high level of inter-firm cooperation, professional service cooperatives which reduce costs for new firms, and a highly educated labor force. Since 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 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 five specific policy proposals to strengthen growth-from-within development strategies:

Strengthen the Institutional Capacities of Social Groups with High-Wage, High-Skill Development Agendas. Institutional capacity refers to the representation of a preferred 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, 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 refocusing on the needs of the working poor and the general capacity of citizens to demand and earn better wages and working conditions.

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 pick only 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 rural areas in the South to share in experience sustained economic growth has resulted from the 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 out-migrate. 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, a look to the future suggests that the negative consequences are only just beginning to be felt. The continuing 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 for investment was largely national. Since poverty has receded somewhat (because of more low-wage jobs and out-migration), the large labor surpluses have been substantially reduced. In addition, 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 worker's 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 renewed out-migration 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.

We need to upgrade public education considerably 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 within which the schools are found. **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 parents and students can see that education and learning can affect your future standard of living. In the rural South these effects are largely absent or invisible because of the out migration 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 job opportunities to educational performance in a visible way might help signal to parents and students that labor markets value the skills taught in schools.

The community college system in most of the South is the primary job skill oriented program sponsored by state governments. The 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 1990). In some cases, 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 will include 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 1990). The nurturing of a skilled labor force requires increasing the basic skills in the current labor force the school systems failed to teach.

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