AN ANALYSIS OF GEORGIA’S ECONOMIC DEVELOPMENT TAX INCENTIVES

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PREFACE

This report presents a summary of an analysis of Georgia's economic development tax incentive program and options for change. The report is one of four reports prepared as a part of the analysis conducted at the request of the Governor's office. The other three reports are:

An Analysis of the Employment Impact of Georgia's Job Tax Credit.
(Dagney Faulk)
This report reviews the literature on job tax credits and presents an analysis of the decision to participate in the Georgia Job Tax Credit (JTC) program and of the effect of the JTC on employment. FRP Report 38 (December 1999).

State Economic Development Tax Incentives in the Southeast.
(Jeanie Thomas)
This report identifies basic features of state tax incentive programs in the southeastern states. Each state synopsis is followed by a brief summary of the 1999 statutory changes. FRP Report 40 (January 2000).

A Profile of Georgia's Economic Performance and Competitiveness.
(David L. Sjoquist, William J. Smith, and Kathleen Thomas)
This report compares Georgia's recent economic performance and its economic competitiveness relative to the U.S. and surrounding states. FRP Report 41 (January 2000).

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AN ANALYSIS OF GEORGIA'S ECONOMIC DEVELOPMENT
TAX CREDIT INCENTIVES

EXECUTIVE SUMMARY

Introduction

This report presents an analysis of Georgia’s economic development tax credit incentives – Georgia’s BEST program – established by the Business Expansion Support Act of 1994 and its subsequent amendments. BEST consists of a set of corporate income tax credits: (a) a job tax credit; (b) an investment tax credit and an alternative tax credit for large investments; (c) a retraining tax credit; (d) a basic skills tax credit; (e) a child care tax credit; (f) a research and development tax credit; (g) a small business growth companies tax credit; and (h) a ports activity job and investment tax credit.

The values of the Job Tax Credit and Investment Tax Credit are based on which of three tiers the county is assigned to. The assignment to tiers is determined annually using a county ranking based on four factors: (a) unemployment rates averaged for the last three years; (b) per capita income averaged for the last three years; (c) the percentage of residents below the poverty level; and (d) the average weekly manufacturing wage. Each tier contains 53 counties, with counties in Tier 1 being the most economically distressed.

Georgia’s Performance and Competitiveness

The need to engage in economic development efforts and the types of programs that should be used are dependent on the economic condition of the State and its economic competitiveness relative to other states. Over the past decade Georgia’s economy has performed very well. For the period 1989-1999, total nonfarm employment increased 31.7 percent, exceeding the 16 percent growth rate for the United States as well as the rates for states bordering Georgia. This is true not
only for the entire State, but also true when comparisons are made just for counties in metropolitan areas and just for counties in non-metropolitan areas.

However, there are (61) many Georgia counties that grew slower than the national average. In general, these counties tend to lie along the south side of the fall line, essentially a line from Augusta to Columbus. There are 17 counties, again generally located along or south of the fall line, in which employment fell over the past decade.

Competitiveness refers to the relative the conditions firms face in doing business in a given place, and is associated with factors such as the price, quality, and availability of inputs (particularly labor), the adequacy and condition of public infrastructure, access to markets, prevailing taxes and regulations and certainty and stability of policy. Georgia’s strong economic growth certainly implies that Georgia is an attractive location for business. In addition, the Development Report Card, prepared by the Corporation for Enterprise Development (Clones, 1999), assesses each state’s potential for future growth. Georgia was given the grade of “C” for development capacity, but none of the states bordering Georgia do better. Low performance in education, crime, teen pregnancy rates, income disparity, and financial resources are mentioned as areas where Georgia compares poorly with other states and are the cause of Georgia’s average grade.

Approaches to Economic Development

Economic development policies can be grouped into four broad categories: industrial recruitment, the retention and expansion of existing businesses, entrepreneurial programs, and capacity building. Because industrial recruitment is the oldest type of state economic development policy it is sometimes labeled “first wave.” It is also referred to as “supply-side” or pejoratively as “smoke-stack chasing.” Industrial recruitment pertains to all activities to attract firms from outside the state, including recruiting efforts, marketing the state, promoting the business climate, and
reducing factor costs, including taxes and regulatory burdens. Georgia’s industrial recruitment policies include the BEST and REBA (Regional Economic Business Assistance) programs at the state level and the property tax abatements and low interest financing provided by development authorities at the local level. The retention and expansion of existing business is also a type of supply-side policy because the basic idea is to keep the taxes and production costs of existing businesses low.

Entrepreneurial programs, also referred to as “new wave” or “demand-side” policy, emerged in the late 1970s and early 1980s. This category of state economic development policies pertains to activities in which the state risks resources in an effort to help indigenous businesses and entrepreneurs identify and capitalize on new markets and business opportunities. Among Georgia’s entrepreneurial programs are the Advanced Technology Development Center (ATDC), the Georgia Center for Advanced Telecommunications Technology (GCATT), and the Georgia Research Alliance (GRA).

The final category of policies, capacity building, is more recent and is sometimes referred to as the “third wave.” Capacity building pertains to activities whose main goal is to build general institutional or individual capacity. Underlying the capacity building approach is the desire to “help people help themselves.” Examples include investment in education and job training, industrial modernization initiatives, and encouragement of industry clusters. Although not exclusively capacity building, Georgia’s programs that contain this element include the Intellectual Capital Partnership Program (ICAPP), Quick Start, HOPE, and the Yamacraw project.

The relative emphasis of each of these types of efforts has varied over the last several decades. The normative issue that emerges concerns where the emphasis of state economic development policy should lie in the future. The following facts are relevant to this question: (1)
each of the three types of policies have their strengths and limitations; (2) each approach complements rather than competes with the others; and (3) no convincing evidence exists which suggests that one approach is superior to the others. Based on these facts, the sensible approach is for the State to have a comprehensive strategy, combining with roughly equal emphasis industrial recruitment, existing business expansion and retention, entrepreneurial programs, and capacity building efforts. Such a diversified portfolio will also allow the State to experiment with novel approaches.

Objectives of State Economic Development Efforts

Economic development efforts can be directed toward achieving a variety of objectives. These objectives should be based on a careful assessment of the state's needs, strengths, and weaknesses. The articulation of objectives must precede program design if economic development efforts are to be successful. Moreover, it is not possible to evaluate these efforts unless objectives are clearly stated at the outset. Possible objectives include:

- **Job creation**: Job creation is the most common objective of economic development programs.

- **Job retention**: Rather than focusing on attracting new jobs, the objective might be to retain existing jobs.

- **Change in industry mix**: The economies of some communities are characterized by cyclical instability as a result of being non-diversified or are particularly vulnerable to external forces. Thus, an objective might be to attract industries that are less affected by the business cycle or industries whose employment and output tend to move counter-cyclically.

- **Reduce intra-state economic welfare disparities**: Within the State there are significant differences in economic welfare, measured in terms of employment and earnings, between counties. One possible objective is to reduce these geographic disparities.

- **Reduce inter-group economic welfare disparities**: In lieu of targeting tax incentives and other development policies to less-developed areas, the objective may be to increase the employment or earnings of disadvantaged groups.
• **Attract high-technology companies:** In recent years many states have chosen as an objective the development and attraction of high-technology companies.

• **Create industry cluster development:** Spatial clustering of firms in the same or related industries can result in agglomeration economies that significantly reduce the production costs of affected firms. Thus, an objective would be to develop industry clusters.

• **Improve job quality:** Focus might be directed at high wage jobs and/or those that provide a good package of non-wage benefits.

• **Improve fiscal conditions:** Another objective of economic development policy is to generate economic activity that yields tax revenues in excess of public service expenditures.

**The Costs and Benefits of Economic Development Tax Credits**

The framework for the evaluation of economic development tax credits is to consider the costs and benefits that result from attempts to create more jobs via tax credits. The analysis involves measuring the benefits and costs associated with the creation of an additional job through a tax credit. We first list the costs and benefits, and then provide estimates for some of the benefits. Data are not available that allow estimation of all costs and benefits.

**Costs**

• **Loss of tax revenue:** The most significant cost is the loss of tax revenue that results from the tax credits. Because the tax credits are an entitlement, jobs that would have been created even in the absence of the credit are eligible for the tax credit. Thus, the cost per job created depends on the effectiveness of the tax credit program in creating new jobs. For example, if on average only one out of ten new jobs that receive a tax credit can be attributed to the tax credit, then for each job created as a result to the tax credit the State will have had to provide tax credits for ten jobs.

• **Loss of competitiveness:** Providing tax credits to selected firms raises the possibility of diminished competitiveness for existing similar firms. Because the size of Georgia’s tax credit is not large enough to produce a substantial advantage for most firms, this cost is probably not very large.

• **Reduction in tax equity:** Tax credits reduce tax equity because firms with identical profits pay different taxes if one receives a tax credit and the other does not.
- **Compliance and administrative costs**: Compliance with and the administration of the tax credits impose costs on both the firm and the government.

**Benefits**

- **Job creation**: The value of the benefits of a new job can be obtained by answering the question, how much would the State be willing to pay for one more job, even if the job generates no additional tax revenues? The benefit of creating a job depends on where it is located, what it pays, and who receives it.

- **Additional tax revenues**: The state receives additional net revenue (i.e., additional tax revenue less additional public expenditures) from each job that is created as a result of the incentive of the tax credit.

- **Multiplier effects**: A new job will create subsequent increases in employment through a multiplier effect, which in turn results in additional net revenue to the State. The benefits of the jobs and net revenue created in second and subsequent rounds are equivalent to the benefit from the initial increase in employment.

- **Improved business climate**: The existence of tax incentives improves the perception of the business climate in the State.

- **Synergistic or clustering effects**: The tax credit incentives may attract a firm in an industry new to the state and which serves as a magnet for attracting additional firms in the industry.

**Participation in BEST**

- Participation is one measure of effectiveness since if firms are not applying for the tax credits, then it unlikely that BEST is having much effect. Participation in BEST programs is low.

- The number of firms taking the Basic Skills Tax Credit has averaged less than 7 per year, with a credit per firm of about $20,000. One firm accounted for 64 percent of the total value of the credits for years 1995-1997.

- Only 7 firms in total took the Child Care Tax Credit over the period 1995-1997.

- An average of 65 firms took the Retraining Tax Credit each year. Most of these firms are large, and about half are repeat users.

- An increasing number of firms (124 in 1997) have taken the Investment Tax Credit. The Alternative Investment Tax Credit provides a much larger tax credit, but has not been in effect long enough to allow a firm to take the credit.
Based on research conducted on other tax incentive programs, we expect that there are many firms that are eligible for these credits but that do not take them. However, for the four tax credit programs discussed above we have no information that allows us to determine how many firms eligible for one of the credits fail to apply. Furthermore, no information exists that allows us to determine how effective the credits are in changing behavior. However, we were able to conduct more extensive analysis of the Job Tax Credit program.

**An Analysis of the Job Tax Credit**

The focus of the remaining discussion regarding BEST and the focus of our analysis is on the Job Tax Credit, which actually predates BEST.

**Participation.** In 1997, 201 firms claimed a job tax credit. For the three year period, 1993-1995 we estimate that less than 20 percent of eligible firms applied for the credit. For 1995-1997, we estimate that 32 percent of eligible jobs are taken for a tax credit. There is no trend in the participation rate, and in fact the rate for 1997 is lower than for 1995.

There are several possible reasons why the participation rate is low. First, many firms have a zero corporate tax liability. For example, for 1997, 78 percent of corporations that filed a Georgia income tax return had no tax liability. Second, firms may not know about the Job Tax Credit program. Third, the paperwork, fear of an increased possibility of audit, or concern about being seen as taking “corporate welfare” may discourage firms from participating.

Nearly half of the credited jobs over the period 1991-1997 were in Tier 3 (the economically best off counties), even though Tier 3 counties were not eligible for the job tax credit until 1995. Within tiers the bulk of the jobs credited are accounted for by a few counties; approximately 50 percent of the jobs credited in Tiers 1 and 2 have gone to firms in five counties.
Effectiveness. Some percentage of the jobs for which firms take a tax credit would have existed even in the absence of the tax credit. To estimate this percentage we used an econometric model that compares the job creation of firms that did not claim a credit with those that did. Our estimate is that 28.9 percent of jobs credited were actually created as the result of the job tax credit.

Fiscal benefits. One of the potential benefits of the job tax credits is the additional revenue, less additional expenditures, that the state government will receive from the increase in economic activity. To estimate the net revenue effect from an additional job tax credit taken requires the following information:

- The effectiveness of the Job Tax Credit in creating jobs. As noted above, we have estimated that out of 10 jobs for which a credit is taken approximately three can be attributed to the Job Tax Credit.

- The number of jobs created indirectly through the multiplier effect.

- The percentage of new jobs that are taken by current residents of the State. For individuals who move into the State, the State will get addition revenue, but will also have to increase expenditures. Based on our analysis, we adopt two alternative scenarios: first, that all jobs go to new residents, and second, that only 50 percent of new jobs go to new residents.

- The increase in State tax revenues that result from a new job, and in the case of a new resident, the additional State expenditures that are required.

Based on this information we estimated the net fiscal benefit to the State government from a Job Tax Credit. The expected net fiscal benefits, gross of the Job Tax Credit, under alternative scenarios of who takes new jobs are: $108 per year if all of the new jobs go to non-residents, and $1,781 per year if only half of the new jobs go to non-residents.
Problems with the BEST program and options for change

While Georgia’s BEST program has laudable features, it also has a number of important problems. We focus particularly on the Job Tax Credit. (There is no intended significance to the order of our list.)

Problem 1. The BEST credits have little effective value to many firms. In order for the credits to have value to a firm, the firm must have income tax liability against which the credit can be taken, but most do not. If the credits are not valuable, they cannot be expected to affect job creation or other behavior.

Possible responses:
• Permit, as do a number of other states, companies to take the tax credits against state tax liabilities other than the income tax, e.g., the sales tax.

• Make the tax credits fully refundable, as do Indiana, Louisiana, and Ohio.

• Allow firms to take the tax credits by retaining the credit amount from employees’ state income tax withholdings, as does South Carolina for its Job Development Tax Credit.

• Allow firms who have no income tax liability to sell their credits to other firms within the State who have income tax liability, as does New Jersey.

Problem 2. The Job Tax Credit does not encourage “quality” job creation. All new jobs receive the same credit (reward), regardless of the job’s wage rate or fringe benefits.

Possible responses:
• Tie the value of the Job Tax Credit to the average manufacturing wage within the Service Delivery Region where the new job is located. For example, credits could be graduated by the percentage that the credited job’s wage exceeds the Regional average.

• Add the provision of health care benefits and perhaps other fringe benefits to the eligibility criteria.

Problem 3. The Job Tax Credit does not apply to some basic industries (i.e., industries that sell their products out of state) and applies to non-basic industries in Tier 1 counties. Basic industries have large multiplier effects and thus are likely to yield higher net benefits.

Possible response:
• Base eligibility on the percentage of the industry’s sales that are made out-of-state.
Problem 4. The Job Tax Credit discriminates against small businesses by requiring a minimum number of new jobs be created. Even the five new jobs required for eligibility in Tier 1 can be a real hurdle to overcome for small businesses.

Possible response:
- The minimum job expansion requirement could be stated as either a minimum number of new jobs or a minimum percentage increase in employment.

Problem 5. The list of eligible industries is different between the Job Tax Credit and the Investment Tax Credit.

Possible response:
- Make both the Job Tax Credit and the Investment Tax Credit lists of eligible industries the same.

Problem 6. BEST is not sufficiently targeted to the neediest counties. Despite the facts that the value of the Job Tax Credit is highest in Tier 1 and the required minimum job expansion is lowest in Tier 1, only 28 percent of the total number of jobs credited have been in this tier.

Possible responses:
- Define a new tier consisting of the most economically depressed counties and offer credits with high values.

- Within Tier 1 (or the new tier) increase the nominal value of the credits, e.g., set the credit equal to the $4500 now offered by South Carolina in their Tier 1 equivalent.

- Eliminate, or make the eligibility requirement more stringent, the Job Tax Credit and perhaps one or more of the other BEST credits within all or part of Tier 3.

Problem 7. BEST credits are administratively too complicated from the firm’s perspective.

Possible responses:
- Establish a task force of agency and business representatives to determine how the application and reporting processes can be made less complex.

- Develop software that firms could access off the Web that would walk firms through the application process.

- On the income tax form, direct firms to the Department of Revenue home page, where credits are described and can be applied for electronically.
Problem 8. There are several issues or problems regarding the ranking process and the assignment to tiers:

- The manufacturing wage is measured imprecisely, is subject to annual fluctuations, reflects wages paid to those working in the county regardless of whether the worker is a county resident, and accounts for a very small percentage of all wages.

- The unemployment rate is not necessarily a measure of chronic economic conditions, and seems to fluctuate for reasons other than changes in underlying economic conditions.

- The rankings are not very stable; there is substantial change from year to year. For example, between 1990 and 1999, 46 counties change rank by 20 or more positions.

- The ranking procedure does not account for the magnitude of the difference between counties in any of the factors.

- Although declining employment in the face of national economic prosperity is a sign of fundamental economic difficulties, there are 7 counties that grew by less than a fourth of the statewide growth rate over the past five years that are not in Tier 1.

Possible responses:

- Delete the manufacturing wage as a factor.

- Base the overall ranking on the value (not the rank) of each of the three factors, excluding manufacturing wage, relative to the average value across counties.

- Base the ranking on just the poverty rate, or the poverty rate and per capita income.

- Add the percentage change in employment as a factor.

- Add the percentage of the county’s employment in textile and apparel, excluding carpeting. Given the projected decline in employment in this industry, this factor would be a measure of an expected economic problem. Using this factor would allow attention to be focused on these high-risk counties now rather than after the plants have closed.

- Rather than calculating rankings every year, do it every five or ten years.

An alternative approach to the assignment of counties to tiers is to use an absolute standard rather than dividing the number of counties into thirds. Our analysis of this option suggests that it does not work very well.
Financial Incentive Policies Beyond BEST

The BEST program is a mildly targeted, entitlement financial incentive program. There are alternatives to BEST that vary in how targeted the incentives are and the extent to which they are an entitlement.

Non-targeted incentives include such policies as eliminating or substantially reducing corporation income taxes, property taxes on business, or sales taxes on business purchases. Eliminating the corporation income tax would make BEST irrelevant as a corporate income tax credit, but it would not provide any incentive to those firms that currently have no income tax liability. Eliminating the corporation income tax or the sales tax on business purchases would be a substantial revenue loss to the State, better than $800 million in the case of the corporate income tax, and an estimated $1.5 billion in the case of the sales tax exemptions.

Targeted incentives include providing incentives to specific industries, firms, or geographic areas. Georgia has adopted incentives aimed at specific industries or industry groupings, for example, the computer chip design industry, tourism, film making, and high tech. Incentives can also be targeted to specific firms, i.e., offering incentives to a firm considering locating in Georgia as part of a “deal” put together to attract that specific firm. Other than REBA, there is not a State-level fund that allows substantial discretion in terms of which economic development projects will be provided an incentive and the amount of the incentive.

Evaluation Procedures for Economic Development Policy

Evaluation of economic development policy is a complicated endeavor that requires careful estimation of costs and benefits. While it is not possible to specify in legislation how these estimates would be made, appropriate legislation could address the two main issues surrounding evaluation:
Data are needed. Programs cannot be evaluated or even monitored unless outcomes data are collected and reported on a regular basis. Data are needed for the BEST program and the incentives offered by local communities.

The only BEST credit for which any kind of report is required is the Job Tax Credit. The data in that report are insufficient for evaluation purposes. Information is needed on wages paid, industries affected, and the percentage of jobs that are taken by Georgia residents. Annual reporting requirements should also be established for the other BEST credits.

The State collects no data on the incentives provided to companies by local communities. There are concerns that local incentives (the largest of which are property tax reductions and abatements) are inefficient, inequitable, and perhaps, at least some of the time, illegal. However, none of these concerns has been substantiated because the necessary data are unavailable. Similar concerns caused Minnesota and Tennessee to pass disclosure laws.

Analyses of data are needed. To evaluate state economic development policies, at least two questions should be addressed: (1) What outcomes has the program produced? and (2) What are the economic and fiscal impacts of a particular company's location or expansion within the state?

An assessment of program outputs typically requires sophisticated statistical analyses that estimate the relevant counterfactual (i.e., what reality would be in the absence of the program). An example of this type of analysis is the econometric model we estimated to determine the number of jobs created in the state that could be attributed to the Job Tax Credit. There is an obvious need to estimate the counterfactuals of many other of the state's economic development programs. This should be done on a regular basis.

Presently, Georgia communities must conduct a LOCI analysis to apply for a REBA grant. LOCI has also been used by several communities on their own initiative. Greater use of LOCI
should be encouraged, if not required, by Georgia's communities in their negotiations with individual companies, especially in light of the concerns surrounding property tax abatements as mentioned above.
AN ANALYSIS OF GEORGIA'S ECONOMIC DEVELOPMENT
TAX CREDIT INCENTIVES

I. Introduction

This report presents an analysis of Georgia’s economic development tax credit incentives, i.e., Georgia's BEST program, and of several possible sales tax exemptions. The report is based on empirical analysis, economic theory, reviews of the literature, and discussions with economic development practitioners. The purposes of this analysis are to determine how well the BEST program has performed and to develop options for improving the program.

BEST is the Business Expansion Support Act of 1994 and subsequent amendments. The BEST program consists of a set of corporate income tax credits: (a) a job tax credit; (b) an investment tax credit and an alternative tax credit for large investments; (c) a retraining tax credit; (d) a basic skills tax credit; (e) a child care tax credit; (f) a research and development tax credit; (g) a small business growth companies tax credit; and (h) a ports activity job and investment tax credit. The BEST program is considered an entitlement program because any firm that meets the eligibility criteria may receive a tax credit.

BEST can be considered a mildly targeted economic development program. First, some of the credits are targeted to selected industries. Second, the level of incentive for some credits is dependent on the particular county in which the activity takes place. The value of the Job Tax Credit and Investment Tax Credit are based on which of three tiers to which the county is assigned. The assignment to tiers is determined annually using a county ranking that is based on four factors: (a) unemployment rates averaged for the last three years; (b) per capita income averaged for the last three years; (c) the percentage of residents below the poverty level; and (d) the average weekly manufacturing wage of the county.
This report first presents background material describing Georgia’s economic performance and competitiveness (Sections II and III). Section IV contains a comparative summary of tax incentive programs in southeastern states, which is followed by a discussion of the context in which economic development incentives should be evaluated (Sections V, VI, and VII). Sections VIII, IX, and X present the formal analysis of the BEST program and the sales tax exemptions. This is followed by a discussion of a broader set of policy options (Section XI) and, finally, a discussion of what is needed to conduct ongoing evaluations of economic development programs (Section XII). Appendix A contains a discussion of the role of tax incentives prepared by Jan Youtie and Cathy Bouffier of the Center for Economic Development Services at the Georgia Institute of Technology. Appendix B contains an analysis of the ranking of Georgia counties and tier assignments.

Details of several aspects of the analysis are presented in separate reports of the Fiscal Policy Program. These reports include:


*State Economic Development Tax Incentives in the Southeast*, Fiscal Research Program Report 40, by Jecanie Thomas

II. Georgia’s Economic Performance

The need to engage in economic development efforts and the types of programs that should be used are dependent on the economic condition of the State and its economic competitiveness or attractiveness relative to other states. This section briefly summarizes Georgia’s recent economic performance, while Section III summarizes Georgia’s economic competitiveness. For a more complete discussion of Georgia’s economic performance see Sjoquist, Smith, and K. Thomas (1999).

Over the past decade, Georgia’s economy has performed very well. For the period 1989-1999, total nonfarm employment increased 31.7 percent, exceeding the growth rate for the U.S. as well as the rates for bordering states. This is true not only for the entire state, but is also true when comparisons are made just for counties in metropolitan areas and just for counties in non-metropolitan areas (Figure 1). Within Georgia, employment growth in metropolitan areas has been higher than the growth in non-metropolitan areas.

While the State has experienced strong growth, certain parts of the State are lagging. There are many counties (61) that grew slower than the national average (Figure 2). In general, these counties tend to lie along the southern side of the fall line, essentially a line from Augusta to Columbus. There are 17 counties, again generally located along or south of the fall line, in which employment fell over the past decade.

One particular issue of concern that was voiced by some advocates and in a report prepared by the Georgia Economic Developers Association (undated) was the loss of industry to border counties of neighboring states. In particular, there is a concern that the aggressive economic development incentives offered by South Carolina and Alabama have resulted in much higher employment growth on the non-Georgia side of the border with these states. Individuals cite examples of specific firms that chose a South Carolina location on the border of Georgia rather than
Figure 1. Employment Growth 1988-1997

Source: Bureau of Economic Analysis, REIS 1969-97
Note: Employment growth for the comparison states is an average of the growth rates for Alabama, Florida, North Carolina, South Carolina, Tennessee, and Virginia.
Figure 2. Georgia Employment Compared to the Nation

Percent Change in Employment 1988-87
Note: the U.S. grew at 16 percent

Less than 16%
Greater than or equal to 16%

Fiscal Research Program
a Georgia location. Our comparison of employment growth rates over the past decade of counties on either side of Georgia’s border yielded results which are not consistent with this view. It may be the case that the border concern is valid for the very recent past and that this is not yet revealed by the data.

To investigate this border issue (as well as other related economic development issues) it would be desirable to track the sites chosen by firms for which Georgia is one of the final two or three sites being considered. It would then be possible to determine whether the success rate (i.e., the percentage of firms that consider and choose a site in Georgia) is changing and whether it is changing in specific geographic areas. However, we were unable to find information that would allow this kind of analysis.

III. Georgia’s Economic Competitiveness

The term “business climate” is used to describe the conditions firms face in doing business in a given place. Business climate is comprised of the price, quality, and availability of inputs (particularly workers), the adequacy and condition of public infrastructure, access to markets, prevailing taxes and regulations, and certainty and stability of policy. Georgia’s strong economic growth certainly implies that Georgia is an attractive location for business. But Georgia’s attractiveness or competitiveness relative to other states can be measured directly in two ways. The first uses indices of the attractiveness to business, while the second uses factors associated with the cost of doing business. A fuller discussion of Georgia’s competitiveness can be found in Sjoquist, Smith, and K. Thomas (2000).
A. Ranking by CFED

The Development Report Card prepared by the Corporation for Enterprise Development (Clones 1999) is one of many rankings of state business climate (see Sjoquist, Smith and K. Thomas (2000), for a discussion of these alternative rankings). The Development Report Card assesses the strengths and weaknesses of each state’s economic conditions and the potential each demonstrates for future growth. The evaluation areas include: economic performance, business vitality, and developmental capacity. Of the three measures, development capacity measures the potential for future economic development and thus comes closest to measuring business climate.

Georgia performs as well or better than any border state in most categories, receiving an “A” in both business vitality and economic performance. However, education, crime, teen pregnancy rates, income disparity, and financial resources all are mentioned as areas where Georgia compares poorly with other states. Deficiencies in these areas are the cause for the grade of “C” in Georgia’s development capacity, but none of the states bordering Georgia do better.

B. Costs of Doing Business

Manufacturing wage adjusted for productivity. This statistic depicts the ratio of manufacturing labor costs to the value of output that labor produced in manufacturing within a state. Georgia’s labor costs are low compared with the U.S. and below average when compared with border states.

Energy prices. Georgia’s energy costs (as reflected in average electricity rates) are below the U.S. average and are below average for many nearby states. Although Alabama, South Carolina, and Virginia have lower energy costs than Georgia, the difference is relatively small.
Educational characteristics. The quality of workers is reflected in educational performance. Georgia has performed poorly relative to other states on the SAT, the AFQT (Armed Forces Qualification Test), and 8th grade math proficiency exam, and Georgia also has posted some of the lowest high school completion rates in the U.S.

Taxes. Georgia’s taxes on a per capita basis remain competitive with the rest of the U.S. but are somewhat higher than most neighboring states. However, Georgia’s public infrastructure (i.e., roads and bridges) is highly ranked.

One way of analyzing the relative competitiveness of the state’s tax structure is to calculate the after tax profit of a hypothetical firm across various locations. KPMG (1998) conducted such an analysis for the Department of Industry, Trade & Tourism (DITT). KPMG considered three hypothetical firms (a manufacturer, a high-tech company, and a company headquarters) in each of four states: Alabama, Georgia, North Carolina, and South Carolina. Using assumed financial and labor values, after tax profits for each state were calculated. KPMG found that a Georgia location has the highest after tax profit of all four states.

Economic Development Incentives. Financial incentives reduce the cost of doing business. One way of comparing the effect of economic development tax incentives is to determine their effect on profits. The KPMG study found that after the application of the economic development tax incentives, the Georgia location is the worse location of the four states in terms of profitability.

We reviewed the assumptions made in the KPMG study and believe there are reasonable alternatives; details can be found in Sjoquist, Smith, and K. Thomas (1999). The two KPMG assumptions that have the most significant effects on the analysis are: (1) a Georgia location within the City of Atlanta, which has a property tax rate that is twice that of most other locations in Georgia,
and (2) there would be property tax abatement in Alabama and South Carolina but not in Georgia and North Carolina.

After redoing the calculations based on alternative assumptions, we obtain results that are substantially different than those contained in the KPMG study. Our results suggest that net tax liability in Georgia is lower than the other three states after the application of the state financed tax incentives.

There are other studies of the effect of tax incentives on profits. For example, Fisher and Peters (1998) evaluate the after-incentive returns, including both state and local incentives, for hypothetical firms in several industries across several sites in several states. They find that among the sites they selected in the four states considered in the KPMG study, Georgia has at least one site that is better (i.e., higher rate of return) than the sites considered in the other three states. (The book does not contain detailed geographical analysis so we are unable to be more specific.) Their conclusions that the most desirable location differs by industry and that locations within a state differ in their desirability are supported by other work on tax incentives.

C. Summary of Georgia’s Business Climate

The information presented above suggests that Georgia’s business climate is among the best in the region and fair when compared with the country. Georgia has relatively low costs of doing business, a high quality of infrastructure, and substantial economic momentum. Education, however, is Georgia’s primary weakness and is the source of the “C” rating from CFED for development capacity. The developmental capacity of a state is dependent partially on the available human resources, and Georgia’s education system is lagging behind other parts of the country. However, the overall picture of Georgia’s business climate is positive.
IV. State Economic Development Tax Incentives in the Southeast

Features of economic development programs in other states provide ideas for changes to Georgia’s state tax incentives. Some of these features would make the incentives more beneficial for Georgia’s taxpayers and workers while others offer increased value to the company which is coming to Georgia or to the company which is expanding in Georgia. Of course any changes in Georgia’s tax incentives should take into account the policy goals being sought. Following are some of the variations among state tax incentive programs in the southeast:

- Some state tax incentives are flexible and are not considered entitlements; they vary by project and are negotiated with a state agency or economic development partnership. An agreement or contract between the prospect and state officials specifying terms is required. A contract may include:
  - Time limits on performance
  - A required business plan
  - Cost-benefit review
  - Show economic contribution
  - Local government approval, sometimes local financial match
  - Sanctions for not fulfilling the contract
  - State resident hiring preference
  - Show necessity of credits: “but for” this incentive, the firm would go elsewhere

- Job growth plus investment is required for some tax credit programs (AL, VA, TN, SC).

- Some states have minimum wage rate requirements; in some programs credits vary with wage rates (SC, NC, AL, FL):
  - 115% of area average
  - $8/hr or $10 avg per hr + benefits
  - 1.5 times state per capita average

- Health benefits must be available to new employees to qualify in some states (NC, SC, TN, AL).

- In some states tax credits may be taken against taxes other than, or in addition to, corporate income tax: franchise fee, sales tax, property tax, excise tax, insurance premium taxes, withholding on payroll taxes (AL, FL, SC, TN).

- At least one state has a moratorium on state corporate income taxes for creating jobs in certain counties with 2 times the average annual unemployment rate for 2 years and at least 90% of the investment in specified counties (SC).

- Some statutes indicate the range of eligible incentive choices for local governments and authorities or require local initiative or approval for some incentives (FL, SC).
Some states require reporting of information so that ongoing evaluations may be conducted (NC, TN, FL).

Activities eligible for tax incentives in other states include:

- clean room modules and associated systems (SC);
- depreciation allowances for semi-conductors, specified computer and computer peripheral displays (SC);
- targeted industries (FL);
  "targeted industry" means any business which satisfies the following criteria:
  - future growth in employment and output indicated by industry forecasts, particularly in international markets;
  - stability, not subject to periodic layoffs;
  - high wages compared to statewide or area averages;
  - Market and resource independent (not dependent on FL);
  - Industrial base diversification and strengthening; and
  - Strong positive impacts on or to state and regional economies.
- machinery repair parts (SC, VA); and
- rehabilitatating or constructing affordable housing (NC);

In at least one state, credits or refunds must be spent in a specific way: training costs and facilities, acquiring and improving real estate, improvements to utility systems, fixed transportation facilities, construction or improvements to comply with environmental laws and regulations (SC).

Governor’s deal-closing fund: Some states provide a special fund for closing economic development "deals." In the following two instances, the state has such a fund with requirements attached to its use.

Georgia has an apparent constitutional prohibition against providing funds to a private entity ("the gratuities clause" - Georgia Constitution Article 3, Section 6, Paragraph 6). In Georgia these requirements might be considered not only for use in such deals but also for use in approving other state incentive monies.

**Governor’s Opportunity Fund (VA)**

- Fund is not a routine financing mechanism; is only used when necessary to close a deal.
- Fund supports projects that create new jobs and investment.
- Fund monies may be used for:
  - site acquisition and development;
  - transportation access;
• training;
• construction and build-out of publicly owned buildings; or
• grants and loans to industrial development authorities.

• Grant requests can be made by localities if all of the following conditions are met:
  • Projects must meet investment and job-creating minimums;
  • Matching local financial participation is required on a dollar-for-dollar basis.

• Grants are made at the discretion of the Governor.

Quick Action Closing Fund (FL)

• Established within the Office of Tourism, Trade and Economic Development to respond to extraordinary economic opportunities.

• Enterprise Florida shall evaluate individual proposals for high-impact business facilities regarding the use of fund money.

The evaluation will include a description of the business operation, the number of new jobs created and the total estimated average annual wages of those jobs; the cumulative amount of investment; a statement of special impacts in the state or regional economy and a statement of the role of incentives.

• If approved, a contract is developed which includes net new employment, average salary, total capital investment, methodology for validating performance and sanctions for failure to meet conditions.

• The Governor must consult with the Lt. Governor and Speaker regarding the performance conditions and release of funds.

The following matrix summarizes the economic development tax credit programs in the southeastern states.
Job and Investment Tax Credit Incentives in Southeastern States
1999

This matrix identifies job and investment tax credit features in the southeastern states. This is presented for easy, spot comparisons. For a fuller description of state tax credits, please see the report entitled *State Economic Development Tax Incentives in the Southeast*. That report was developed in order to identify state tax credits that may provide some ideas for changes to Georgia's economic development incentives. Any changes in tax incentives should take into account the policy goals being sought.

<table>
<thead>
<tr>
<th>State</th>
<th>Program</th>
<th>Minimum # Jobs &amp; Investment</th>
<th>Eligibility</th>
<th>Credit Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALABAMA</td>
<td>Enterprise Zones</td>
<td>20 jobs with specified wages and a minimum investment of $2 million</td>
<td>New, expansions, headquarters and small business: Industrial, research, warehousing, or recycling facilities</td>
<td>5% credit each year of capital costs against corporate income tax for 20 years. No carry-forward provision</td>
</tr>
<tr>
<td></td>
<td>27 designated locations</td>
<td>5 jobs in the zone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLORIDA</td>
<td>Job Credits</td>
<td>at least 10 jobs</td>
<td>New or expanding businesses in targeted industry as defined by Enterprise Florida</td>
<td>$5,000 per job; $7,500 if in EZ. Refund against: S&amp;U tax, CIT, intangible personal property taxes, excise taxes, ad valorem taxes, or insurance premium taxes. Limits $1.5 million per taxable year; not more than $5 million total</td>
</tr>
<tr>
<td></td>
<td>Enterprise Zones</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Investment credits</td>
<td></td>
<td>Investment credits require written agreement with the Department of Revenue and certification from Enterprise Florida</td>
<td></td>
</tr>
<tr>
<td>State</td>
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</table>
| GEORGIA | Job Tax Credits:                                                       |                             | Manufacturing, warehousing & distribution, processing, telecommunications, tourism and R&D industries                                                                                                   | Jobs must be retained for 5 years  
Tier 1: $2,500 per job per year  
Tier 2: $1,500  
Tier 3: $500  
Credits against corporate income taxes for 5 years with a 10 year carry-forward provision. The limit is 50% of taxes owed. |
|         | Tier 1-most distressed counties (53 co)                                |                             |                                                                                                                                             | Occupation taxes, property taxes, license fees and other local fees and taxes (except sales taxes) may be exempted or reduced for 10 years. |
|         | Tier 2-moderately distressed (53 co )                                  |                             |                                                                                                                                             | Property taxes - 100% exemption and declining exemptions over 10 years |
|         | Tier 3-Other (53 co)                                                   |                             |                                                                                                                                             | Credit is a percentage of investment  
Tier 1: 5%  
Tier 2: 3%  
Tier 3: 1%  
Credits against corporate income taxes for 5 years with a 10 year carry-forward provision. The limit is 50% of taxes owed. |
<p>|         | Enterprise Zones:                                                      |                             | 5 new jobs and economic stimulus                                                                                                           |                                                                                                                                                                                                             |
|         | local initiative, meet 4 criteria                                       |                             | Manufacturing warehousing and distribution, processing, telecommunications, tourism, R&amp;D or service enterprise                                                                                                                                                   |
|         | Investment tax credits by tier category                                 |                             | For manufacturing or telecommunications facilities and support facilities in the state for the previous 3 years; for investments in excess of $50,000 in qualified property purchased or acquired. Higher percentages for recycling, pollution control, and defense conversion activities and optional credits for larger investments. |                                                                                                                                                                                                             |</p>
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<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>NORTH CAROLINA</td>
<td>Tier 1 most distressed counties</td>
<td>5 jobs³</td>
<td>Warehousing, distribution, manufacturing, data processing, air courier services, air carrier training centers, central administrative offices, and customer service centers</td>
<td>Tier 1: $12,500 Tier 2: $4,000 Tier 3: $3,000 Tier 4: $1,000 Tier 5: $500 Credits against income, franchise, or gross premium taxes. Credits are divided over 4 years. Corp. tax credit is 7% of value (of applicable economic tier threshold) taken over 7 years. Investment thresholds: Tier 1 $ -0- Tier 2 $ 100,000 Tier 3 $ 200,000 Tier 4 $ 500,000 Tier 5 $ 1,000,000 The maximum credit is 50% of tax liability Additional job tax credit: $4,000 divided over 4 years</td>
</tr>
<tr>
<td></td>
<td>Tier 2: next 25 counties</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Tier 3: next 25 counties</td>
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<tr>
<td></td>
<td>Tier 4: next 25</td>
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<td></td>
<td>Tier 5: next 25</td>
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<td></td>
<td>Investment credits</td>
<td>Investment minimums by tier</td>
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<td></td>
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<tr>
<td></td>
<td>Development zones²</td>
<td></td>
<td></td>
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<tr>
<td>State</td>
<td>Program</td>
<td>Minimum # Jobs &amp; Investment</td>
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<td>Credit Features</td>
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</tbody>
</table>
| SOUTHERN CAROLINA | Job Tax Credit                               |                             | Manufacturing, warehousing, tourism facility, processing, distribution, R&D, corporate office facility, qualifying service related facility. Taxpayers that operate retail facilities and service related facilities in least developed counties qualify | Least dev. counties: $4,500 per year<sup>10</sup>  
Under dev. counties: $3,500  
Mod. dev. counties: $2,500  
Developed counties: $1,500  
Credits against corporate income tax for 5 years with a 15 year carry forward. Limit is 50% of tax liability.  
Credit depends on county status, rate of pay<sup>11</sup>, and # of new jobs. Qualifying companies are reimbursed for agreed upon expenses. Credit against withholding tax owed<sup>12</sup> for up to 15 years<sup>13</sup>  
1-5% of the total aggregate base over 3-15 year properties (as determined by the applicable recovery period for the property under IRS code). Credit against the corporate income tax. Limit $5 million. 10 year carry-forward. |
|               | Investment Credit                            |                             | Agreed upon employment and investment levels; at least 10 new net jobs                                                                  |                                                                                                                                                  |
|               | Job Development Credit                       |                             | Manufacturing, warehousing, tourism facility, processing, distribution, R&D, corporate office facility, qualifying service related facility. Taxpayers that operate retail facilities and service related facilities in least developed counties qualify |                                                                                                                                                  |
|               | Investment Credit                            |                             | Manufacturing and production equipment properties place in service in the 27 EIZ counties.<sup>9</sup>                                |                                                                                                                                                  |
| TENNESSEE     | Job and investment credits                   |                             | Manufacturing, warehousing & distribution, processing tangible personal property, R&D, computer services, call centers, corporate offices, or convention and trade show facilities | $2,000; $3,000 for distressed counties  
Credits are against the corporate franchise tax and the excise taxes for 5 years with a 15 year carry-forward provision and a limit of 50% of the tax liability.  
$1,000 per job |
<p>|               | Enterprise Zones                            |                             | Any business entity except a chain store                                                                                                |                                                                                                                                                  |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>VIRGINIA</td>
<td>Major facility job tax credit</td>
<td>100 jobs; 50 jobs if in EZ or distressed area</td>
<td>All jobs except: seasonal positions, building &amp; grounds, security and other ancillary activities</td>
<td>$1,000 per job in excess of threshold taken in 3 equal installments ($333 per year) with a 10-year carry forward provision.</td>
</tr>
<tr>
<td></td>
<td>Enterprise Zone</td>
<td>Small bus: up to 50 jobs and up to $15 million investment</td>
<td>25% of new employees must meet low-income standards for the area or reside within a zone.</td>
<td>Income tax credit: 80% the first year; 60% in years 2-10.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Large bus: more than 50 jobs and over $15 million investment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$50,000 in rehab/expansion or assessed value of original facility. New construction at least $250,000</td>
<td></td>
<td>30% credit on property taxes, limit $125,000. The limit is 5 years.</td>
</tr>
</tbody>
</table>
1. **AL** Base wage must be not less than $8 per hour or average total compensation of new employees is not less than $10 including benefits.

2. **FL** Jobs must pay an average wage of at least 115% of area wages; company must demonstrate the necessity of the refund for business to locate or expand and show a significant economic contribution to the area economy due to new job creation; and provide a resolution from the city or county commission committing the community to match the state’s tax refund on a 1:4 basis.

3. **FL** When at least 20% of employees are residents of an EZ, the credit increases to 15% of wages paid. 15% also paid for each new employee who is a WAGES Program participant.

4. **GA** Pervasive poverty, unemployment 10% higher than state average, general economic distress, underemployment.

5. **GA** In Tier 1, all businesses are eligible in the worst off 40 counties.

6. **GA** There is an additional $500 per job tax credit for a business locating within the jurisdiction of a joint development authority of two or more contiguous counties.

7. **NC** Development zones are designated by the Division of Community Assistance.

8. **NC** Businesses must pay at least 110% (100% in Tier 1) of the county’s wage standard.

9. **SC** There are 27 counties designated as economic impact zones (EIZ). Investment tax credits are intended to spur economic growth in areas surrounding the Charleston Naval Base, Myrtle Beach Air Force Base, and the Savannah River Site.

10. **SC** Additional $1,000 per job for locating in a “multi-county industrial park.”

11. **SC** Must provide benefits package with health insurance.

12. **SC** Withholding refunds may be used to reimburse the following: land acquisition; building construction, site and building improvements, utility system upgrades, employee training, transportation facilities, and pollution control equipment.

13. **SC** For counties outside least developed counties, a fraction of the credit is deposited in the Rural Infrastructure Bank. These funds are used to assist distressed areas with infrastructure improvement in order to make them more competitive for investment.
V. Approaches to Economic Development

Tax incentives are just one type of economic development policy. This section describes the various approaches to economic development in order to put tax incentives in perspective. For a discussion of the principles on which to base economic policy, see Ihlanfeldt (1995).

Economic development policies can be grouped into four broad categories: industrial recruitment, the retention and expansion of existing businesses, entrepreneurial programs, and capacity building. In this section we first define each of these categories and provide examples of policies (both generic and specific to Georgia) falling within each category. Next, we present a brief history of shifts in emphasis among these categories at the national level, followed by an assessment of Georgia’s overall approach to economic development.

Because industrial recruitment is the oldest type of state economic development policy it is sometimes labeled “first wave.” It is also referred to as “supply-side” or pejoratively as “smoke-stack chasing.” Industrial recruitment pertains to all activities to attract firms from outside the state, including recruiting efforts, marketing the state, promoting the business climate, and reducing factor costs, including taxes and regulatory burdens. The reason industrial recruitment is sometimes referred to as supply-side is that in large part the underlying objective is to reduce the individual firm’s costs of producing within the state. Accordingly, specific examples of industrial recruitment policies include tax incentives and subsidizing firms’ infrastructure needs. Georgia’s industrial recruitment policies include the BEST and REBA (Regional Economic Business Assistance) programs at the state level and the property tax abatements and low interest financing provided by development authorities at the local level.

The retention and expansion of existing business is also a type of supply-side policy, because the basic idea is to keep the taxes and productivity costs of existing businesses comparatively low
so that businesses will stay within the state and not move elsewhere. For example, most states provide existing businesses with tax credits for job creation and with technical and support services. This is the case in Georgia, because the BEST program applies to both new and existing companies and all three of its public research universities offer assistance programs targeted to existing businesses.

Entrepreneurial programs, also referred to as "new wave" or "demand-side" policy, emerged in the late 1970s and early 1980s. This category of state economic development policies pertains to activities in which the state risks resources in an effort to help indigenous businesses and entrepreneurs identify and capitalize on new markets and business opportunities (i.e., to expand the demand for the state’s products and services). Examples include technology transfer programs, export assistance, high-technology promotion, and small-business development efforts. Among Georgia’s entrepreneurial programs are the Advanced Technology Development Center (ATDC), Georgia Center for Advanced Telecommunication Technology (GCATT), and Georgia Research Alliance (GRA).

Because the final category of policies, i.e., capacity building, is more recent, it is sometimes referred to as “third wave.” Capacity building pertains to activities whose main goal is to build general institutional or individual capacity. Underlying the capacity building approach to economic development is the desire to “help people help themselves.” Examples include investment in education and job training, industrial modernization initiatives, and encouragement of industry clusters. Although not exclusively capacity building, Georgia programs that contain this element include the Intellectual Capital Partnership Program (ICAPP), Quick Start, HOPE scholarships, and the Yamacraw project.
As mentioned above, industrial recruitment is the granddaddy of state economic development policy, having begun nearly 60 years ago with Mississippi’s “Balance Agriculture with Industry” program. An emphasis on industrial recruitment continued unabated until around 10 years ago, when David Osborne (1988), Peter Eisinger (1988), and Scott Fosler (1991) each wrote books criticizing this traditional approach as inferior to state entrepreneurial programs. No hard evidence was offered to support their position. Instead, deductive reasoning was offered that was based on a number of arguments:

- small businesses create more jobs than do large businesses;
- government can draw upon economies of scale to provide small businesses with essential services otherwise not affordable; and
- demand-side policies prove less costly than supply-side policies because they lend themselves to public/private partnerships and cannot result in the revenue losses endemic to tax incentives.

Based upon these arguments, the emphasis of state economic development policy shifted in favor of entrepreneurial programs during the 1980s. Nevertheless, supply-side policies were retained and not abandoned, especially those that focused on attracting “mega-projects” to the state that brought with them large numbers of higher-paying jobs.

During the last half of the 1990s many states began having second thoughts about the entrepreneurial approach. In particular, concerns were raised about the length of time needed for this approach to yield quantifiable results. For example, a number of states reached the conclusion that the time from university research to product development, and from commercialization to job generation, was too long and too uncertain to justify significant state-supported subsidies. As a result of the growing concerns surrounding the entrepreneurial approach, the pendulum swung back toward industrial recruitment, as evidenced by the increased level of bidding by states for automobile
plants and other large manufacturers during the last decade. In addition, capacity building emerged as a new-generation economic development strategy.

In light of the above categorization and history of state economic development policy, the normative issue that emerges concerns where the emphasis of state economic development policy should lie in the future. The following facts are relevant to this issue: (1) each of the three types of policies have their strengths and limitations; (2) each approach complements rather than competes with the others; and (3) no convincing evidence exists which suggests that one approach is superior to the others. Based on these facts, we believe that the sensible approach is for the State to “hedge its bets” by developing a comprehensive economic development strategy, combining with roughly equal emphasis industrial recruitment, existing business expansion and retention, entrepreneurial programs, and capacity building. Such a diversified portfolio will also allow the state to experiment with novel approaches.

In recent years, Georgia has significantly expanded its entrepreneurial and capacity building programs. While less change has occurred in the State’s industrial recruitment incentives and existing businesses programs, these appear to be within the range offered by competing states. Georgia, therefore, has a good, even mix of the four types of economic development policies. However, while this mix of policies is laudable, there has not been an effort to develop these policies into a coordinated long-term strategy with specific goals and objectives. Better coordination and planning are necessary to ensure that Georgia’s plethora of economic development policies and programs work together in order to achieve maximum effectiveness.
VI. Objectives of State Economic Development Efforts

Economic development efforts can be directed toward achieving a variety of objectives. These objectives should be based on a careful assessment of the state’s needs, strengths, and weaknesses. The articulation of objectives must precede program design if economic development efforts are to be successful. Moreover, it is not possible to evaluate these efforts unless objectives are clearly stated at the outset. Below, possible objectives of state economic development efforts are listed and briefly described.

A. Job Creation

The most common objective of state and local economic development efforts is job creation. The idea is that expansion in the number of available jobs will tighten the local labor market. Tighter markets will reduce unemployment, raise wage rates, and increase personal income. Job creation is especially well founded if there is slack in the local labor market because net benefits to the community will vary directly with the number of local unemployed workers who fill the available job openings.

B. Job Retention

Plant closings and contractions create considerable hardship on local communities and their residents. Tax base erodes and earnings decline, both because of direct employment losses and adverse multiplier effects. From a job investment perspective, it is generally cheaper to retain existing jobs than to attract new jobs.

C. Change the Industry Mix

The economies of some communities are characterized by cyclical instability as a result of being non-diversified. This is particularly true in those communities where the lion’s share of jobs are in capital goods and durable goods manufacturing industries, because the demand for the outputs
of these industries closely follows the business cycle. Likewise, some communities are particularly vulnerable to external forces such as foreign trade or technology advances. To stabilize the reaction of the local economy over the business cycle, incentives might be targeted on industries less affected by the business cycle (such as services) or to those industries that might complement existing industries in the sense that their employment and output tend to move counter-cyclically.

D. Reduce Intra-State Economic Welfare Disparities

States seldom experience geographically uniform employment growth within their borders. For example, over the past decade the Atlanta metropolitan area has experienced per annum growth that has been roughly 50 percent higher than the rest of the State of Georgia. Moreover, within the State there are significant differences in economic welfare, measured in terms of employment and earnings, between urban and rural counties and even within Atlanta between northern and southern suburban counties.

The issue is what to do about these economic disparities. One approach would be to let the market work; that is, if workers living in less-developed areas cannot find jobs, eventually they will move to those areas where jobs are more abundant. There are two criticisms of this approach. First, people tend to have strong emotional ties to their home communities, which constrains the mobility of labor and prolongs economic hardships. Second, people attach value to a "sense of place," which can be defined as a sense of community and co-operation that is shaped by a particular geographical setting, including the natural and built environment, culture, and past history. The sense of place that exists within a particular community frequently has value not only to the community's residents but also to people living elsewhere. Immobile labor and sense of place support efforts to bring jobs to less-developed areas.
E. Reduce Inter-Group Economic Welfare Disparities

In lieu of targeting tax incentives and other development policies to less-developed areas, the objective may be to increase the employment or earnings of disadvantaged groups. For example, many states now have special programs in support of minority-owned business development. Also, it is quite common to find tax credits provided to businesses that hire economically disadvantaged workers.

F. Attract High-Technology Companies

In recent years, many states have chosen to target their economic development programs in favor of high-technology companies. The following are some of the advantages that development officials ascribe to these companies:

- relatively high-wage employment;
- relatively low-environmental costs;
- potentially high rates of growth;
- long-term growth potential;
- clustering of other high-technology firms and suppliers;
- export orientation;
- prestige associated with business innovation.

Along with these advantages, however, there are the realities of high-risk, intensive competition among states for high-tech business, and the prerequisite of specialized infrastructure, especially in education. There is also the very practical difficulty of defining effective incentives targeted to high-technology companies and evaluating their cost effectiveness.

G. Create Industry Cluster Development

Spatial clustering of firms in the same or related industries can result in agglomeration economies that significantly reduce the production costs of affected firms. Employers are therefore attracted to industry clusters. Giving the formation of these clusters a boost via economic development policy may yield handsome pay backs by creating an engine for long-run economic
growth. However, correctly choosing which clusters merit cultivation (i.e., which clusters are likely to succeed) can be a formidable task.

H. Improve Job Quality

In recent years, more states have chosen to target their economic development incentives on higher quality jobs. Quality jobs may be defined as higher wage jobs and/or those that provide a good package of non-wage benefits. Higher quality jobs are more likely to yield positive net benefits to economic development efforts, but they require that the local workforce be suitably trained and educated.

I. Improve Fiscal Conditions

All of the objectives listed above have an emphasis on labor market effects in common, but another common objective of economic development policy is to generate economic activity that yields tax revenues in excess of public service expenditures. That is, sound economic development policy should attract businesses that provide a fiscal surplus which can be used to lower the tax burdens of existing residents. Commerce and manufacturing are more likely to generate a fiscal surplus, while low and middle income residential development tend to cause public service costs to increase by more than the tax revenues generated. The objective of fiscal surplus is most often the goal of local rather than state governments; there is considerable interest on the part of elected local officials in providing property tax relief to the community’s residents.

VII. The Costs and Benefits of Economic Development Tax Credits

The BEST program provides tax credit for several different activities beyond creating jobs, e.g., providing training or providing child care. However, the focus of our evaluation of BEST is on job creation. Thus, the basic framework for our evaluation of economic development tax credits
is to consider the costs and benefits that result from attempts to create more jobs. The analysis involves measuring the benefits and costs associated with the creation of an additional job through a tax credit. In this section we list each of the costs and benefits, and then in Section VIII we present estimates of costs and benefits. Unfortunately, while the costs and benefits are listed below, many cannot be easily quantified.

A. Costs

**Loss of tax revenue.** The most significant cost is the loss of tax revenue that results from the tax credits. Because the tax credits are an entitlement, jobs that would have been created in the absence of the tax credit are eligible for the tax credit. Thus, the cost per job created because of the tax credit depends on the effectiveness of the credit in creating new jobs. If, for example, only one out of ten new jobs that receive a tax credit can be attributed to the tax credit, then for each job created as a result of the tax credit the state will have had to provide tax credits for ten jobs.

**Loss of competitiveness.** Providing tax credits to selected firms raises the possibility of diminished competitiveness for existing similar firms. Consider a firm that comes to the State and receives tax credits and a competitive firm of the same size that is currently located in Georgia. If the new firm could have received similar tax credits if it had located in another state, and the firms compete on a national level rather than locally, then there is no real loss of competitiveness because of Georgia’s tax credits. However, to the extent that Georgia’s tax credits go to firms that compete locally with firms that do not receive the tax credits, then the firm receiving the tax credit gains a competitive advantage.

With Georgia’s tax credit, eligibility for most counties is restricted to firms that, for the most part, compete nationally. However, in the 40 most economically depressed counties (according to the ranking done to determine which tier the county is in) firms in any industry are eligible for a
possible job tax credit. While every firm is potentially eligible, those firms that are growing or have recently moved to Georgia (and have created the required minimum number of jobs) do gain a competitive advantage.

While the total effect on competition cannot be quantified, the size of the tax credit is not large enough to produce a substantial advantage for most firms. Therefore, it does not seem that this cost is of substantial magnitude.

**Reduction in tax equity.** Tax credits reduce tax equity. Two inequities arise because of the tax credits. First, firms with identical profits pay different taxes if one receives a tax credit and the other does not. It might be argued that the tax credit was designed to change behavior (i.e., create a job), and therefore the tax difference is justified. However, firms are able to claim the credit even if they would have added the jobs without the credit. Second, because the tax credits cannot exceed 50 percent of the firm’s corporate income tax liability, two firms, both of which created jobs because of the tax credit, could receive different rewards if they have different tax liabilities.

**Compliance and administrative costs.** Compliance with and the administration of the tax credits impose costs on both the firm and the government. (This issue is addressed by Faulk (1998)). Both the Department of Revenue and the Department of Community Affairs (DCA) have employees who devote much if not all of their time to the administration of the tax credit program. We were unable to determine how much time firms must spend in completing the paperwork and maintaining records associated with the tax credits, but conversations with individuals who work with firms that use the tax credits suggest that these costs are significant.

**B. Benefits**

**Job Creation.** One of the principal benefits of the tax credit program is the creation of a new job. The value of the benefit of this new job can be obtained by answering the question, how much
would the State be willing to pay for one more job, even if the job generates no additional tax revenues? The benefit of creating a job depends on where it is located, what it pays, and who receives it. A new job in the rural part of the state is undoubtedly worth more than an additional job in the Atlanta metropolitan area; the high growth rate in the Atlanta area probably means the benefit of one more job is lower than a job created in a county with high unemployment. And, certainly a job paying $14.00 an hour is worth more than one paying $6.00 an hour, given everything else the same. Finally, a job going to a current unemployed resident is worth more than if the job goes to someone moving in from out of state. Determining the value of this intangible benefit would be very difficult and was not attempted for this study.

Additional tax revenues. The state receives additional net revenue from each job that is created as a result of the incentive of the tax credit. Net revenue equals the additional tax revenue less additional public expenditures. Tax revenue will come from the additional income taxes, sales taxes, etc. that are paid by the holder of the new job and by the firm (either new or expanded). Public expenditures will increase to serve the expanded firm and the worker’s family if the worker comes from out of state; for example, additional expenditures will be required to provide education for the worker’s children. If a current resident is hired, there are inconsequential effects on expenditures since the resident was already living in the State and using State government services.

Multiplier effects. The new job will create subsequent increases in employment through a multiplier effect, which in turn results in additional net revenue to the State. These second and subsequent round jobs and net revenues have equivalent benefits as the initial increase in employment.

Improved business climate. The existence of the tax incentives improves the perception of the business climate in the State (see Appendix A). One of the aspects of the attractiveness of a
site is the perception of how friendly government is toward business. The provision of tax incentives is one such indicator. Furthermore, as noted in Appendix A, site location specialists use the existence of economic development incentives as one factor in the site selection decision. The site decision is actually a multi-step process in which sites are eliminated in each round of consideration based on increasingly refined criteria. It is thought that to make it very far in the winnowing process, tax credits and other incentives must be in place. We were unable to place a value on the effect of the tax credit on the improvement of Georgia’s business climate.

**Synergistic or clustering effects.** The tax credit incentives may attract a firm in an industry new to the state and which serves as a magnet for attracting additional firms in the industry. This benefit, which is separate from the multiplier effect, means that it will be easier in the future to attract other firms in that industry. However, given that the tax credits are not highly targeted and by themselves are not likely to attract a major firm in a highly desired industry, these benefits are likely to be quite small for the tax credit incentives.

**VIII. Analysis of the Performance of BEST**

Our analysis of BEST focuses first on the participation in the BEST tax credit programs. We then present estimates of the effectiveness of the job tax credit in creating jobs and of the revenue effects of new jobs.

**A. Participation in BEST**

We consider first participation in the BEST program. Participation in BEST is one measure of the effectiveness of the tax credit program. If firms are not applying for the tax credits, then BEST as a program is unlikely to be having much effect. Participation in BEST programs is low
Table 1. Participation in BEST Tax Incentive Credit Programs

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<tbody>
<tr>
<td>Basic Skills Tax Credit</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td># of firms claiming credit</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Credit granted</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td></td>
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<tr>
<td>$103,800</td>
<td>$102,243</td>
<td>$166,306</td>
<td></td>
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<tr>
<td>Child Care Tax Credit</td>
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<tr>
<td># of firms claiming credit</td>
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<td>Credit granted</td>
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<td>$86,027</td>
<td>$79,112</td>
<td>$22,382</td>
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<td>$27,810</td>
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<tr>
<td>Retraining Tax Credit</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Credit granted</td>
<td>63</td>
<td>66</td>
<td>65</td>
<td></td>
<td></td>
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<tr>
<td>$7,784,047</td>
<td>$7,644,229</td>
<td>$9,243,136</td>
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<tr>
<td>Investment Tax Credit</td>
<td></td>
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<tr>
<td># of firms claiming credit</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit granted</td>
<td>36</td>
<td>83</td>
<td>124</td>
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<td>$11,890,911</td>
<td>$8,788,811</td>
<td>$6,320,143</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>$3,349,538</td>
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<td>$21,853,614</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td># of firms claiming credit</td>
<td>267</td>
<td>505</td>
<td>1377</td>
<td>2644</td>
<td>7140</td>
<td>17302</td>
<td>4569</td>
</tr>
<tr>
<td># of jobs created</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$179,924</td>
<td>$199,251</td>
<td>$1,027,219</td>
<td>$2,429,432</td>
<td>$8,548,257</td>
<td>$23,208,988</td>
<td>$4,582,861</td>
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<tr>
<td>Credit granted</td>
<td>$87,098</td>
<td>$324,519</td>
<td>$1,403,856</td>
<td>$3,428,926</td>
<td>$7,855,871</td>
<td>$26,854,673</td>
<td>$12,137,719</td>
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<tr>
<td>Carry forward</td>
<td></td>
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</tbody>
</table>

(Table 1). Table 1 presents basic data for 1992 through 1997 on five BEST tax credits; the data for 1998 are incomplete so are not reported. For the Basic Skills Tax Credit the number of firms taking the credit has averaged less than 7 per year, with a credit per firm of about $20,000. One firm accounted for 64 percent of the total value of the credits over the three years. Most of the firms were in the apparel, textile, and food processing industries.

The participation in the Child Care Tax Credit also has been very low; only 7 firms in total took the credit over the period 1995-1997. (Note that legislation was passed in the 1999 General Assembly session that significantly changed the incentives for firms to provide on-site child care.)

An average of 65 firms took the Retraining Tax Credit each year for the period 1995-1997. About half of the firms which took the credit in 1995 also took that credit in at least one of the following years, so there is some consistency in who takes the credit. Most of the firms that take this credit are large, which is not surprising since those are the firms that are more likely to provide formal training for their employees. There is no information that allows us to determine the extent
to which firms have either expanded their training programs or added new training programs as a result of the tax credit. However, given the nature of the firms, we suspect that the effect of the tax credit on increasing the amount of training is small.

For the Investment Tax Credit, an increasing number of firms have taken the credit over the period. The Alternative Investment Tax Credit provides a much larger tax credit, and although the requirements are much greater for the Alternative Investment Tax Credit, the use of the BEST Investment Tax Credit is likely to decline as a result. (The Alternative Investment Tax Credit has not been in effect long enough to allow a firm to take the credit.)

Based on research conducted on other tax incentive programs, we expect that there are many firms that are eligible for these credits, but that do not take them (see Faulk 1999). However, for the four tax credit programs discussed above we have no information that would allow us to determine how many firms eligible for one of the credits fail to apply. Furthermore, no information exists that allows us to determine the effectiveness of these four tax incentive programs, i.e., measure the extent to which they changed behavior. However, we are able to conduct more extensive analysis of the Job Tax Credit program.

B. Job Tax Credit

The focus of the remaining discussion regarding BEST and the focus of our analysis is on the Job Tax Credit. The Job Tax Credit predates BEST, and thus we have more years of data for this credit. We first discuss participation in the Job Tax Credit program, then present estimates of the number of jobs that can be attributed to the Job Tax Credit, and finally, we present an analysis of the fiscal implications of the Job Tax Credit.

**Participation.** In 1997, 201 firms claimed a Job Tax Credit. For the three year period, 1993-1995 we estimate that less than 20 percent of eligible firms applied for the credit. (A more complete
discussion of participation is contained in Faulk (1998).) This participation rate is higher than the estimated participation rates for federal job tax credit programs (Bishop and Montgomery 1986). For 1995-1997, we estimate that the share of eligible jobs that are taken as a Job Tax Credit is 32 percent. This is higher than the firm participation rate because participation is higher among firms that create more jobs. There is no trend in the share of eligible jobs that are taken as a tax credit, and in fact the rate for 1997 is lower than for 1995.

There are several possible reasons why the participation rate is low. First, many firms have a zero corporate tax liability. For example, in 1997, 78 percent of corporations that filed a Georgia income tax return had no tax liability (Department of Revenue, 2000). (Of course this applies to the other BEST tax credit programs as well.) Second, firms may not know about the job tax credit program (see Perloff 1982). There is some indirect evidence that lack of knowledge is one cause of the low participation rate (Faulk 1999). Third, the paperwork, fear of an increased possibility of audit, or concern about being seen as taking “corporate welfare” may discourage firms from participating. Several individuals that we talked with suggested that filing for the credits was complex and that there were firms that have arisen to provide assistance in completing the paperwork for the credit. However, we were unable to determine the source of this complexity. We suggest that consideration be given to establishing a task force of agency and business representatives to determine how the application and reporting process can be made less complex.

Our analysis suggests that the participation rate does not differ by tier. However, since the tiers differ in terms of the number of eligible jobs, there are differences in the number of jobs credited in each tier (Table 2). Nearly half of the credited jobs over the period 1991-1997 were in Tier 3 (the more economically prosperous counties), even though Tier 3 counties were not eligible for the Job Tax Credit until 1995. Within tiers the bulk of the jobs credited are accounted by a few
Table 2. Jobs credited by Tier (1991-1997)

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>10,557</td>
<td>28.1%</td>
<td>47.9%</td>
<td>17</td>
</tr>
<tr>
<td>Tier 2</td>
<td>9,543</td>
<td>25.4%</td>
<td>52.4%</td>
<td>23</td>
</tr>
<tr>
<td>Tier 3</td>
<td>17,466</td>
<td>46.5%</td>
<td>61.3%</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td>37,566</td>
<td>100%</td>
<td></td>
<td>67</td>
</tr>
</tbody>
</table>

counties; approximately 50 percent of the jobs credited in Tiers 1 and 2 have gone to firms in five counties (Column 4). Over 40 percent of counties had no firms taking a Job Tax Credit (Column 5).

**Effectiveness.** Many of the jobs for which firms take a tax credit would have been created in the absence of the tax credit. In order to determine the effectiveness of the Job Tax Credit in creating jobs, it is necessary to determine what fraction of credited jobs can be attributed to the tax credit. To estimate this we used an econometric model suggested by Maddala (1983) to compare the job creation of firms that did not claim a credit with those that did in order to determine whether the firms that claimed a credit created more jobs. The details of the estimation are contained in Faulk (1999). Using alternative procedures, two estimates of the effectiveness of the job tax credit are obtained. The two estimates are 28.9 percent and 41.4 percent of jobs credited are the result of the job tax credit. Based on the literature on this subject and the nature of the two empirical techniques, we believe the lower estimate to be a better or more accurate estimate of the percentage of the jobs credited under the job tax credit that can be attributed to the job tax credit.¹

¹For a review of this literature see Faulk (1999), Wasylenko (1997), Ladd (1998), and Bartik (1991).
There are no estimates of the effectiveness of job tax credit programs for other states. There are a number of studies of federal job tax credit programs, many of which focus on lower-skill workers. These studies find that no more than 10 percent of the jobs for which job tax credits taken are the result of the job tax credit program. For a full discussion of the literature on job tax credits see Faulk (1999).

**Fiscal benefits.** As noted above, one of the potential benefits of the job tax credits is the additional revenue, less additional expenditures, that the state government will receive from the increase in economic activity due to the jobs created. To estimate the net revenue effect from an additional job tax credit taken requires the following information. First, we need to know how effective the job tax credit is in creating jobs. As noted above, we estimate that out of 10 jobs for which a credit is taken, approximately three can be attributed to the Job Tax Credit.

Second, we need to know whether the jobs created directly and indirectly (i.e., through the multiplier effect) are taken by current residents or individuals who move into the State to take the jobs. For the former, the State is already covering the services provided to those residents. Thus, if the jobs go to current residents, the State gets the additional revenue and has no additional expenditures. For individuals who move into the State, the State will get addition revenue, but will also have to increase expenditures, e.g., to provide education for the new residents’ children. As the State’s labor market tightens, new jobs are more likely to go to new residents. Our analysis suggests that the growth in jobs between 1985 and 1990 was approximately equal to the increase in workers who moved into the State during that period. However, it is possible and likely that if several new jobs are created, some will go to current residents and some to new residents. Mindful of this, it follows from our analysis that about half of the jobs go to new residents and half to current
residents. Thus, we produce estimates under two alternative scenarios: first, that all jobs go to new residents, and second, that only 50 percent of new jobs go to new residents.

Third, in order to determine the number of jobs that are subsequently created through the multiplier effect, we need to know the industry in which the original job was created. We adopt two assumptions. First, we assume that jobs are created in manufacturing industries in proportion to the actual job growth in those industries. Second, we assume that jobs are created in all eligible industries in proportion to the actual job growth in those industries. (Eligible industries here are those that are eligible in all tiers.)

Fourth, we need to know the increase in State tax revenues that result from a new job, and in the case of a new resident, the additional State expenditures. The Center for Economic Development Services at Georgia Tech has estimated these numbers as part of the development of a State-level LOCI (for Local Impact) model. The model, which includes the multiplier effects of a new job, provides estimates of the additional state tax revenue and state public expenditures that result from the initial and subsequent round jobs.

To measure the fiscal effect of a job created by the Job Tax Credit, we first determine the fiscal effects of a new job in each of the eligible industries. We then create a weighted average by multiplying these fiscal effects by the fraction of the actual growth in jobs in the relevant industries. The result is a measure of the net fiscal effect of a typical new job created because of the Job Tax Credit. The bulk of the jobs for which a Job Tax Credit is taken are in manufacturing, particularly jobs in Tiers 1 and 2.

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2Bartik (1993) estimates that 60 to 90 percent of jobs created by employment programs go to immigrants in the long-run and Blanchard and Katz (1992) estimate it to be 100 percent.
The two scenarios regarding who gets new jobs and the two scenarios regarding the industry in which the new job is located yield four alternatives sets of assumptions. Table 3 shows for each assumption the net fiscal benefit (additional revenue less additional expenditures) to the State per year per job created by the Job Tax Credit, gross of the value of the Job Tax Credit. As can be seen, under the assumption that all jobs go to new residents and using the weighted average of the fiscal effect across all eligible industries, the net fiscal benefit to the State, gross of the Job Tax Credit, is $794 per year. If we use the weighted average of the fiscal effect across just manufacturing industries, the net fiscal effect falls to $359 per year. The net fiscal effect increases substantially under the assumption that half of the jobs go to current residents.

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Net Fiscal Benefit to State Government Per Year Per Job</th>
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<tbody>
<tr>
<td>Job growth equal to actual, new jobs go to non-resident</td>
<td>$794</td>
</tr>
<tr>
<td>Job growth equal to actual in manufacturing, new jobs go to non-resident</td>
<td>$359</td>
</tr>
<tr>
<td>Job growth equal to actual, half of new jobs go to non-resident</td>
<td>$6,045</td>
</tr>
<tr>
<td>Job growth equal to actual in manufacturing, half new jobs go to non-resident</td>
<td>$5,936</td>
</tr>
</tbody>
</table>
Given this information we can estimate the net fiscal benefit to the State government from a Job Tax Credit, which is not the same as the effect of a new job since not all job tax credits result in a new job. Table 4 shows the expected net fiscal benefit, gross of the Job Tax Credit, under alternative assumptions of who takes new jobs and the percentage of Job Tax Credits that result in a new job. As discussed above, we estimate that the percentage of Job Tax Credits that are taken that actually result in a new job is about 30 percent. Since this is higher than estimates from other studies, we calculate expected net fiscal benefit, gross of the Job Tax Credit, under two alternative assumptions regarding the percentage of Job Tax Credits that result in a new job, namely 10 percent and 20 percent. The calculations use the net fiscal benefit of a job created in manufacturing (Table 3).

<table>
<thead>
<tr>
<th>Percent of Jobs Taken by Georgia Residents</th>
<th>Percentage of Credits Taken That Results in a New Job</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>0%</td>
<td>$36</td>
</tr>
<tr>
<td>50%</td>
<td>$594</td>
</tr>
</tbody>
</table>

The estimates of the expected net fiscal benefit, gross of the cost of the Job Tax Credit, range from $36 per year to $1,781 per year.\(^3\) Without considering any other benefits or costs, this is the most that the State should offer as a job tax credit. The present values of these amounts assuming

\(^3\)To illustrate the calculations, consider the net fiscal benefit if 30 percent of the credits result in a new job and that 50 percent of new jobs are taken by residents. From Table 3, we find that the net fiscal benefit per job is $5,936. Since only 30 percent of credited jobs are the result of a job tax credit, we have to credit ten jobs to create three new jobs. The total net fiscal benefit of 10 credits is three times $5,936, or $17,808. But since we had to offer 10 credits on average to get those three jobs, the net fiscal benefit per credit is $17,808 divided by 10, or $1,781.
a discount rate of 8 percent and a 10 year life for the job, are $241 and $11,950. By way of comparison, the present value of $2,500 (the annual value of the credit in Tier 1) for five years is $11,065.

IX. Problems with the BEST Program and Options for Change

While Georgia’s BEST program has laudable features, it also has a number of important problems. In this section each of these problems is described and for each problem we outline possible remediations.\(^4\) We focus particularly on the Job Tax Credit. There is no intended significance to the order of our list.

**Problem 1.** The BEST credits have little effective value to many firms. In order for the credits to have value to a firm, the firm must have income tax liability against which the credit can be taken. As noted above, more than 75 percent of corporations in Georgia that file income tax returns have no tax liability. If the credits are not valuable to firms, they cannot be expected to affect job creation.

Possible responses:

- Permit companies to take the tax credits against state tax liabilities other than the income tax. For example, in a number of other states, job tax credits can be taken against both the firm’s sales tax and income tax liabilities. For the sales tax, the options would be to provide a rebate for sales taxes paid or provide a credit against sales taxes collected and owed to the State.

- Make the tax credits fully refundable. In this case, firms would receive the full value of the credit regardless of their income tax liability. Indiana, Louisiana, and Ohio are examples of states that have a refundable job tax credit.

An issue concerning refundable tax credits is whether they would conflict with the gratuities clause of the State Constitution. There is reason to believe that this would not

\(^4\)For further discussion of issues associated with tax credit incentives, see Ihlanfeldt (1995, 1999), Murray (1992), and Brunori (1997).
be a problem, at least for the Job Tax Credit. The State has a low-income tax credit which is refundable, and thus, there is no inherent reason why the Job Tax Credit could not be refundable. However, the low-income tax credit serves a recognized significant public purpose. But, the Constitution (Art 9, §6, ¶4) does contain the following language “The development of trade, commerce, industry, and employment opportunities being a public purpose vital to the welfare of the people of this state, the General Assembly may create development authorities to promote and further such purposes or may authorize the creation of such an authority...” This might be interpreted to mean that a refundable job tax credit is constitutional because the credit serves the public purpose of creating job opportunities.

- Allow firms to take the tax credits by retaining the credit amount from employees’ state income tax withholdings. South Carolina’s Job Development Tax Credit is an example of a credit that is taken against employee withholding taxes.

- Allow firms who have no income tax liability to sell their credits to other firms within the state who have income tax liability. For example, New Jersey allows small, high technology companies to transfer their unused research and development tax credits to larger corporations in exchange for capital to fund projects. Since there will be a cost associated with the transaction, the selling firm will not receive the full value of the credit. However, the transaction cost should be minor.

**Problem 2.** The Job Tax Credit does not encourage “quality” job creation. All new jobs receive the same credit (reward), regardless of the job’s wage rate or fringe benefits. Higher quality jobs are obviously more beneficial to the workers hired into these jobs. In addition, such jobs produce larger multiplier effects and thereby have a greater impact on aggregate income and employment.

Possible responses:

- Tie the value of the Job Tax Credit to the average manufacturing wage within the Service Delivery Region where the new job is located. For example, credits could be graduated by the percentage that the credited job’s wage exceeds the regional average. The use of a regional wage standard is preferred over a statewide average because the cost of living varies across the state. A regional average is also better than using a county average wage because the number of manufacturing jobs is too small in many of Georgia’s counties to construct a meaningful average. (An alternative is to use the average wage in the tier to which the county is assigned.) For example, the credit in Tier 1 could be set equal to $2,500 times the ratio of the average wage of the credited jobs to the regional average wage. While few states have graduated credits, a growing number specify that credit eligibility is limited to jobs that pay more than average wages.
• Add the provision of health care benefits and perhaps other fringe benefits to the eligibility criteria.

**Problem 3.** The Job Tax Credit does not apply to some basic industries (i.e., industries that sell their products out of state) and applies to non-basic industries in Tier 1 counties. Basic industries have large multiplier effects and as a result their subsidization is more likely to yield net benefits. Basic industries used to be thought of as just manufacturing, but today many non-manufacturing industries also sell their product or service outside the state. Not all of the latter industries are eligible to apply for the Job Tax Credit. Jobs in basic industries create non-basic employment as workers holding basic jobs demand locally produced goods and services. There is, therefore, no need to subsidize non-basic job creation. Also, as noted in Section VII, to the extent that tax credits go to some non-basic firms but not to competing firms, the latter suffer an unfair competitive disadvantage.

Possible response:

• Base eligibility on the percentage of the industry’s sales that are made out-of-state. Industries whose percentages are above a stipulated threshold (e.g., 70 percent) would be declared eligible, while those falling below the threshold would be ineligible.

**Problem 4.** The Job Tax Credit discriminates against small businesses by requiring a minimum number of new jobs be created. The minimum 25 new jobs required in Tier 3, in effect, precludes the participation of many smaller companies. Even the five new jobs required in Tier 1 can be a real hurdle to overcome for small businesses. The exclusion of small businesses from the Job Tax Credit program is not only inequitable but also inefficient, because research has shown that small businesses are an important source of new job growth, especially of the types of high technology jobs coveted by the State. In addition, if small businesses could make greater use of job
tax credits, their labor costs would be lower and the typically high failure rate of these firms might therefore be reduced.

Possible response:

- The minimum job expansion requirement for the Job Tax Credit program could be stated as either a minimum number of new jobs or a minimum percentage increase over a base-year employment level.

**Problem 5.** The list of eligible industries is different between the Job Tax Credit and the Investment Tax Credit. The purpose of the Investment Tax Credit is to provide a modernization subsidy to make existing state firms more competitive in national and international markets. As such, it should apply to all basic industries.

Possible response:

- Make both the Job Tax Credit and the Investment Tax Credit lists of eligible industries the same.

**Problem 6.** BEST is not sufficiently targeted to the neediest counties. Despite the facts that the value of the Job Tax Credit is highest in Tier 1 and the required minimum job expansion is lowest in Tier 1, only 28 percent of the total number of jobs credited have been in this tier (Table 2). In addition, within Tier 1 many counties are substantially worse off than others (Sjoquist, Smith, and Thomas 1999).

Possible responses:

- Define a new tier consisting of the most economically depressed counties and offer credits with high values. For example, the counties falling within the bottom half of Tier 1 could comprise the new tier and the remaining counties equally divided into three tiers. Figure 3 shows the current (1999) tier assignments, while Figure 4 shows the assignments under this option. Within this new tier, but not the others, credits could be given full value by adopting one of the options outlined above in Problem 1.
Figure 3. Current Tiers for the Jobs Tax Credit Program

Fiscal Research Program
Figure 4. Proposed Tiers for the Jobs Tax Credit Program

Proposed Tiers

1 (27)
2 (44)
3 (44)
4 (44)

Miles

0 20 40 60

Fiscal Research Program
• Within Tier 1 (or the new Tier) increase the nominal value of the credits. This could be done with or without making the effective value of the credits equal to their nominal value. The new higher credit value might be set equal to the $4500 now offered by South Carolina in their Tier 1 equivalent.

• Eliminate (or make eligibility more stringent for) job tax credits and perhaps one or more of the other BEST credits within Tier 3, or perhaps half of the Tier 3 counties. This option could be exercised alone or be used to help finance the creation of the aforementioned new tier.

**Problem 7.** BEST credits are administratively too complicated from the firm’s perspective. As noted above, this factor may help explain the low participation rate. The complexity of filing for tax credits was frequently mentioned in our conversations with economic development specialists. We were told that there are now firms that will, for a relatively substantial fee, process the paperwork required for the tax credits. However, few specific suggestions were made for simplifying the process.

Possible responses:

• Establish a task force of agency and business representatives to determine how the application and reporting processes can be made less complex.

• Develop software that firms could access off the Web that would walk firms through the application process.

• On the income tax form, direct firms to the Department of Revenue home page, where credits are described and can be applied for electronically.

**Problem 8.** The procedures used to rank counties and to assign counties to tiers do not appear to be consistent with the objectives of BEST, which we take to be to address an underlying chronic economic development condition, not to address cyclical fluctuations in economic conditions. Appendix B contains an analysis of the procedures for ranking counties and the assignment to tiers.
There are several issues or problems regarding the ranking process and the assignment to tiers. First, the manufacturing wage is measured imprecisely, is subject to annual fluctuations, reflects wages paid to those working in the county regardless of whether the worker is a county resident, and accounts for a very small percentage of all wages. Second, per capita income and manufacturing wage are not adjusted for cost of living differences. Third, the unemployment rate is not necessarily a measure of chronic economic conditions, and seems to fluctuate for reasons other than changes in underlying economic conditions. Fourth, the rankings are not very stable; there is substantial change from year to year. For example, between 1990 and 1999, 46 counties change rank by 20 or more positions.

Fifth, the ranking procedure does not account for the magnitude of the difference between counties in any of the factors. To determine county rankings, each county’s rank on each of the four ranking factors is multiplied by a weight (0.1 for the manufacturing wage and 0.3 for each of the other three factors). The weighted factor ranks are summed for each county, and the sums are then used to determine the final ranking of counties. Thus, for example, a $100 difference in per capita income between two counties could have the same effect on the ranking as a 0.25 difference in unemployment rates.

Sixth, the tier assignments do not necessarily reflect chronic economic difficulties. Declining employment in the face of national economic prosperity is a sign of fundamental economic difficulties. Yet there are 7 counties that grew by less than 5 percent (compared to the statewide growth of 20 percent) over the past five years that are not included in Tier 1. Generally, in these cases one of the four ranking factors substantially increases the county’s ranking, for example, a very low unemployment rate in the face of high poverty and low per capita income.
Possible responses:

- Base the ranking on just three factors, deleting the manufacturing wage, with each of the three factors weighted by one-third. The reason for deleting the manufacturing wage is based on the measurement problems discussed above.

- Base the overall ranking on the value (not the rank) of each of the three factors, excluding the manufacturing wage, relative to the average value across counties.

- Base the ranking on just the poverty rate, or the poverty rate and per capita income. This approach is based on the premise that the poverty rate and per capita income are better measures of chronic economic conditions than the manufacturing wage and the unemployment rate. Furthermore, using just these two measures will result in a more stable ranking.

- Add the percentage change in employment over the previous five years as a factor. Counties in which, over a long period of time, employment has declined or grown very slowly given the current national and state economic growth, would seem on their face to be strong candidates for Tier 1 status. Employment change reflects both cyclical and chronic economic conditions. Employment change does not suffer from the same measurement problem that the unemployment rate does. Using poverty, per capita income and the percentage change in employment over the past five years does change the ranking of several counties, but only 8 counties would shift from Tier 2 to Tier 1. However, only two of the 7 current Tier 2 counties that had negative changes in employment over the past decade would shift to Tier 1.

- Add the percentage of the county’s employment in textile and apparel, excluding carpeting. Given the projected decline in employment in this industry, this factor would be a measure of an expected economic problem. Using this factor would allow attention to be focused on these high-risk counties now rather than after the plants have closed.

- Rather than calculating rankings every year, it could be done every five or ten years. This would provide greater stability to the composition of the tiers.

An alternative approach to the assignment of counties to tiers is to use an absolute standard rather than ranking the counties and dividing the number of counties into thirds. For the poverty rate and the unemployment rate setting a threshold standard would be easy, although it is not obvious what that standard should be. For per capita income, however, the standard would have to change each year to account for inflation. One option is to set of standards based on exceeding a given value for at least one of the four factors, while a second standard would require meeting a minimum value.
for all factors. In our analysis of these options we found that neither of these two approaches to assigning counties to tiers seems to work very well, but particularly not the second approach. A third option would allow the credit to be dependent on the number of standards that the county surpassed; this would make it more difficult to explain the credit to a firm since there will be multiple credit amounts. Unless the number of factors is reduced to one or two, we do not believe adopting an absolute standard is sensible.

X. Sales Tax Exemptions

A. General Considerations

Nearly every academic discussion of general sales taxes argues that intermediate purchases should be exempt from a retail sales tax (see for example, Due and Mikesell (1994)). Taxing immediate sales, i.e., sales other than those made to the final consumer, causes distortions. Since raw materials that are transformed by the production process are exempt from the sales tax, the sales tax applies to items such as computers, furniture and fixtures, energy, etc. To the extent that the cost of these items are included in the price of the product or service, there is a pyramiding of the sales tax. The effect of such pyramiding is that the total sales tax paid, including the sales tax levied at all stages of production, as a percentage of the price net of all sales taxes will differ across products and services. This causes distortions in consumption patterns. For a discussion of the this issue from a Georgia perspective, see Bahl and Hawkins (1998).

The difficulty with exempting all sales taxes on purchases by firms is that the sales tax collected on intermediate goods and services generates substantial tax revenues. One estimate for Georgia is that 36 percent of the sales tax revenue is collected on purchases by firms (Ring 1999). Thus, one issue that must be considered in deciding whether to exempt certain purchases by
businesses is the magnitude of the sales tax revenue that will be lost and how it can be made up. Such sales tax exemptions will also reduce local government’s sales tax revenue, which is likely to lead to higher property taxes.

In addition to these two considerations, there are other factors that might be considered in deciding whether to exempt selected business purchases. First, sales tax exemptions should maintain a “level playing field.” Thus, exempting inputs that have close substitutes that are taxed, or exempting inputs for one class of firms, should be avoided.

Second, sales tax exemptions that increase the number and quality of jobs, given everything else the same, are more desirable. In considering the economic development potential of a sales tax exemption, the following factors should be considered:

- Does the exemption improve the business climate? In some sense any sales tax exemption will improve the state’s business climate. However, exempting items from the sales tax that most other states already exempt probably has a larger effect on the perceived business climate than exempting items that other states do not exempt.

- Will the exemption lead to more and better jobs? In this regard, exempting raw materials is likely to result in a smaller expansion of employment than exempting investment in equipment. Furthermore, the effect on employment will be larger if the firms that benefit from the sales tax exemption ship a large percentage of their output out of state and use inputs that are produced in Georgia. Sales tax exemptions directed at industries that pay above average wages are, given everything else the same, more desirable.

Third, the exemption should not encourage activities that should be discouraged. For example, exempting items that will have a harmful effect on the environment should be avoided.

Fourth, exemptions that are difficult to fairly and inexpensively administer should be avoided.

B. Consideration of Specific Exemptions

Clean rooms. A “clean room”, which is required in computer chip manufacturing, costs an estimated $350 to $450 million to build and is reportedly outdated in less than five years. The state sales tax exemption on a clean room would cost $14 to $18 million, and the local revenue loss
(assuming a 2 percent rate) would be another $7 to $9 million. All states in which computer chip manufacturing plants were built between 1995 and 1998 have exempted clean rooms from sales tax or substantially limited the amount of sales taxes paid. Typically these states treat the entire cost of a clean room, including the construction costs, the associated equipment, and the HVAC equipment, as "manufacturing equipment," which is tax exempt. Individuals who have studied the site selection process for computer chip manufacturing plants claim that without a sales tax exemption a state will not be chosen as a site. Thus, it appears that it is not possible for Georgia to attract a computer chip manufacturing plant without this sales tax exemption. It is not clear, however, whether the exemption needs to be in place before a state receives consideration as a site, or whether such an exemption can be negotiated during the site selection process.

**Replacement parts for manufacturing equipment.** Georgia exempts manufacturing equipment, both original and replacement. State law seems to imply that replacement parts are also exempt. However, the Department of Revenue has issued regulations that state that replacement parts are not exempt. This apparent conflict needs to be addressed.

Some 30 states exempt replacement parts, and another 4 tax them at a reduced rate (Georgia Industry Association 1999; Micheli 1997). Among border states, South Carolina totally exempts replacement parts, Florida is currently phasing in a total exemption, and Alabama and North Carolina tax replacement parts at a reduced rate. Tennessee exempts them if the part is "consumed" within 25 days. Virginia also exempts replacement parts.

A Fiscal Note on H.B. 161 prepared in February 1999 (Vickers and Burgess 1999) estimated that an exemption of manufacturing replacement parts would reduce the State’s sales and use tax collection for FY 2000 by “at least $45 to $50 million.” An addition $23 to $28 million would be lost to local governments. Given the lack of any published data on purchases of replacement parts,
it is very difficult to estimate the revenue implication of such an exemption. In that context, the procedures used to developed the estimate as reported in the fiscal note seem reasonable. We did some reality check on the estimate, and conclude that the estimate is reasonable.

**Computers.** We estimate that the revenue loss to the State government from exempting all business computers would be over $124 million for FY 2000, and would increase about 15 percent per year. We calculated this two ways, each of which yielded similar estimates. The first relied on computer expenditure information from the Internet Industry Almanac and the second relied on National Income and Product Accounts data on investments in computer related equipment as reported in the *Survey of Current Business*.

A proposal put forward by the Department of Industry, Trade & Tourism would exempt from sales tax on computers any firm that within a two-year period spent $50 million on computer equipment, added 50 or more workers, and paid average salaries of more that $40,000 per year. The revenue loss to the State from one such firm reaching the minimum requirements would be $2 million, or $40,000 for each of 50 new jobs added. We determined that for the past year, there was only one firm in Georgia that met the minimum requirements for employment growth and average wage. The State’s gross tax revenue from 50 workers being paid $40,000 would be about $120,000 per year.

**Extended stay lodging.** Currently, Georgia taxes lodging stays of less than 90 days. One proposal is to exempt lodging stays of between 30 and 90 days. We estimate that the loss in state sales tax revenue from such an exemption would be between $1 and $2 million per year.

A proposal put forward by the Department of Industry, Trade & Tourism would provide a rebate for any sales tax paid on lodging stays over 30 days to film and video production firms.
According to the Department, at least 19 states provide such a rebate. We estimate the loss of sales tax revenue to the State government of such a rebate at about $8,000 to $12,000 per film.

XI. Financial Incentive Policies Beyond BEST

The BEST program is a mildly targeted, entitlement financial incentive program. There are alternatives to BEST that vary in how targeted the incentives are and the extent to which they are an entitlement. We present a brief discussion of non-targeted and targeted incentives, but we have conducted no analysis of these options.

Non-targeted incentives. Non-targeted incentives include eliminating or substantially reducing corporation income taxes, property taxes on business, or sales taxes on business purchases. Eliminating or substantially reducing any of these taxes would be provide a completely non-targeted incentive. It would make a major statement regarding the State’s attitude to business. Eliminating the corporation income tax would make BEST irrelevant as currently structured, i.e., as a corporate income tax credit, but it would not provide any incentive to those firms that have no current income tax liability (and that therefore are not currently benefitting from BEST.) Substantially reducing or eliminating the other two taxes would provide a major incentive for firms to locate or remain in Georgia. Eliminating the corporate income tax or the sales tax on business purchases would be a substantial revenue loss to the State, better than $800 million in the case of the corporate income tax, and an estimated $1.5 billion in the case of the sales tax exemptions.

Targeted incentives. Targeted incentives include providing incentives to specific industries, firms, or geographic areas. Georgia has adopted incentives aimed at specific industries or industry groupings. For example, the Yamacraw project is targeted to the computer chip design industry. Other industries for which targeted financial incentives have been discussed include tourism, film
making, and high tech. Incentives can also be targeted to specific firms, i.e., offering incentives to a firm considering locating in Georgia as part of a “deal” put together to attract that specific firm. Most of these incentives are offered by local governments, while the State’s role has been through the REBA program. Other than REBA, there is not a fund that allows much discretion in terms of which firms will be provided an incentive and the amount of the incentive. Cuts in the corporate income tax or the sales tax applied to purchases by firms that apply only to certain counties are conceptually possible, but such geographically targeted, broad-based tax cuts would be difficult to administer and are likely to be unconstitutional.

XII. Evaluation Procedures for Economic Development Policy

Evaluation of economic development policy is a complicated endeavor that requires careful estimation of the costs and benefits outlined in Section VII of this report. While it is not possible to specify in legislation how these estimates would be made, appropriate legislation could address the two main issues surrounding evaluation:

Data are needed. Programs cannot be evaluated or even monitored unless outcomes data are collected and reported on a regular basis. Presently, there are two big areas where more data are needed, the BEST program and the incentives offered by local communities.

BEST offers eight different types of credits against the state income tax. The only credit for which any kind of report is required is the Job Tax Credit. This report, which is mandated by the BEST legislation, is issued annually by the Department of Revenue and contains for each county only the total number of jobs that qualified for credits. These data are insufficient for evaluation

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5For more complete discussions of procedures for evaluating economic development policy see Hatry, et. al (1990) and Poole, et. al (1999).
purposes. Information is needed on wages paid, industries affected, and the percentage of jobs that are taken by Georgia residents. Annual reporting requirements should also be established for the other seven credits contained within the BEST program.

The state collects no data on the incentives provided to companies by local communities. The largest incentives are property tax reductions and abatements. There are concerns that local incentives are inefficient, inequitable, and perhaps, at least some of the time, illegal. However, none of these concerns has been substantiated because the necessary data are unavailable. Similar concerns caused Minnesota and Tennessee to pass disclosure laws. The data provided by Minnesota’s law have shown that high subsidies (frequently more than $100,000 a job) are routinely provided to firms paying less than average wages. Tennessee’s law was passed in 1992 and requires that:

All economic development agreements should be reduced to writing and submitted to the chief executive officer of each jurisdiction in which the property is located and to the comptroller of the treasury, for review, but not approval. The agreement may be submitted in advance of its execution but must be submitted within ten days after its execution. The name of private business entities which are parties to the agreement may be obscured on copies of agreements submitted in advance of their execution. [Acts 1992, ch. 1000, §3].

If Georgia were to pass a disclosure law similar to Tennessee’s, possible illegalities and inequities in local incentives could more easily be identified. In addition, such a law would help flag those communities whose incentives may be detrimental to the overall good of the community. Most importantly, disclosure would provide the data necessary for possible statewide reform in the future.

*Analyses of data are needed.* To evaluate state economic development policies, at least two questions should be addressed: (1) What outcomes has the program produced? and (2) What are the economic and fiscal impacts of a particular company’s location or expansion within the state?

An assessment of program outputs typically requires sophisticated statistical analyses that estimate the relevant counterfactual (i.e., what would reality be in the absence of the program?). An
example of this type of analysis is the regression model we estimated to determine the number of jobs created in the state that could be attributed to the Job Tax Credit. There is an obvious need to estimate the counterfactuals of many other of the state’s economic development programs. This should be done on a regular basis to guarantee that programs are working as intended.

Georgia is one of only a few states that has a model available for estimating the fiscal and economic impacts of firm locations and expansions within the state. This model, LOCI (for Local Impact), was developed at the Center for Economic Development Services at Georgia Tech. An offshoot of LOCI suitable for conducting state-level analysis was used in preparing this report. The results generated by LOCI provide an estimate of the net fiscal benefits that accrue to the community from new jobs. These estimated benefits can be used to assess whether the incentives demanded by firms are cost-effective from the local community’s perspective.

Presently, Georgia communities must conduct a LOCI analysis to apply for a REBA grant from Department of Community Affairs (DCA). LOCI has also been used by several communities on their own initiative. Greater use of LOCI should be encouraged, if not required, by Georgia’s communities in their negotiations with individual companies, especially in light of the concerns surrounding property tax abatements as mentioned above. The state-level LOCI model should also be routinely employed in those situations where discretionary incentive decisions must be made by the State.

Legislation to address the above points could take a number of forms. Regarding the need for data, one alternative would be to direct a state agency (e.g., OPB, DCA, DITT, or Department of Revenue) to determine and collect the data necessary to properly evaluate BEST and the incentives packages of local communities. Another option would be to specify in legislation the actual data elements needed for evaluation purposes. At a minimum, these would include: (1) a
county and industry breakdown of jobs that qualified for job tax credits and the average wage paid to workers hired into these jobs; (2) a county and industry breakdown of firms receiving other BEST credits and the tax expenditures associated with these credits; and (3) an accounting of each of the incentives contained in the incentives packages offered by local communities. The latter would result from passing a disclosure law such as that of Tennessee.

The need for data analysis could be addressed in legislation by requiring that (1) a state agency oversee the regular estimation of counterfactuals for specific economic development programs; and (2) before any state or local discretionary incentive is offered to a company a LOCI analysis be done.
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Appendix A
Incentives and the Economic Development Site Selection Process
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Georgia Institute of Technology

Summary of Findings

• Empirical studies show that state tax incentives have some significance in business location decisions, although the relationship is not robust.

• Tax and other incentives play a role in the site selection process, in initial screening and distinguishing among site finalists.

• States are adjusting their tax incentives by adding industry-specific targets, employee-based tax rebates, and attention to the costs of providing public services.

Purpose and Methods

This appendix presents an examination of the role of state job-tax-credits incentives in the economic development site selection process. The main questions addressed are:

1. How important are state tax incentives in the site selection process?

2. At what stage in the site selection process do incentives come into play?

3. What trends are occurring in state job-tax-credit area?

We review secondary sources about the importance and use of state incentives. Web searches were the basis for a literature review. On a primary level, we also conducted several interviews with senior site selection specialists from economic development consulting firms.

Studies of Tax Incentives and Location Decisions

State tax incentives and their effect on company location decisions continue to be controversial. Studies conducted prior to 1980 generally found no relationship between taxes and location decisions or economic growth. Econometric studies in the 1980s and 1990s have been more likely to show some significant relationship between tax variables and economic growth (Bartik
1991, Goss and Phillips 1995, Wasylenko 1997). However, not all these more recent studies have found statistically significant relationships, and even those doing so have produced widely diverging estimates depending on how tax and economic growth variables were measured and what variables were used as controls. Bartik (1995) estimated that if a state or locality lowers taxes by 10 percent, plant locations would increase by 1 to 6 percent. Wasylenko (1997) put this figure at roughly 1 to 2 percent. Such specific impact estimates have been questioned in light of the lack of robust relationships (McGuire 1997).

The Site Selection Process

One criticism of econometric studies is that they do not model the site selection process. This process is dynamic, and it involves many diverse criteria that vary from industry to industry and even from company to company. Most literature on this process is anecdotal or based on trade publication surveys or interviews with site selection consultants. This discussion of the site selection process draws on similar sources. Our literature review and interviews with selected site location consultants focus on the site selection process for large companies that have hired consultants to assist with planning a relocation of a headquarters or branch facility.

The site selection process begins with the universe of locations and methodically eliminates them to reach a single location that meets client criteria. This method generally consists of three phases:

1. initial screening through feasibility studies and target area analysis of communities to define a region for further analysis;

2. in-depth analysis of potential sites among a smaller pool of communities;

This process may vary to some degree depending on the type of facility relocation—manufacturing distribution, office and service, research and development—the preferences of the client or other factors.

The process considers numerous factors. (See Table A-1 for the results of the most recent Area Development Readership Survey of site selection factors.) These factors can be grouped into (1) operating costs (e.g., labor, land, utility, and transportation costs), (2) operating conditions (e.g., proximity to suppliers and markets, availability of telecommunications services, union profile) and (3) quality-of-life factors (e.g., crime rate, cultural opportunities) (Ady 1997). In addition intangible factors such as the responsiveness of state or local economic developers and personal relationships are part of the selection process (Riall 1992, Diedrich 1999).

Initial screening typically involves an analysis of population sizes and workforce availability. It can also involve other operating condition factors such as whether a community has a buffer zone, large water supply, or stable geology. One major consulting firm conducts broad comparisons of tax rates across states as part of initial screening (Ady 1997).

Traditionally, state-level incentives were not used in initial screening. However, more than one consultant reported that state-level incentives such as Georgia’s job-tax-credit program are used increasingly as a matter of course in phase-one screening (Riall 1992, McEnroe 1999). In contrast, another consultant said that his firm did not treat this type of incentive as a critical factor in phase-one screening unless it provided real economic benefits to the client company (e.g., the company paid state corporate income taxes). This firm more often used grant programs (such as Georgia’s Regional Economic Business Assistance Program) that defray new facility start-up costs (Price 1999).
In the second phase, the aim is to reduce the remaining pool of communities to a handful. Detailed cost analyses, assessment of next-level differentiating operating conditions and quality-of-life factors, and site visits occur in this phase. Components of cost analyses typically include taxes as well as wages and benefits, transportation, utilities, and facility construction or lease costs. Taxes are a small percentage of total location costs, so they do not play a major role in phase-two screening except when other operating costs do not vary substantially across communities.

In the final selection phase, net tax and operating cost calculations over time are developed for each candidate site. Consultants uniformly indicated that they use incentives as a tie breaker between two or three locations equally acceptable in other ways. As further evidence, the 1998 Area Development readership survey showed a slight increase in the percentage of respondents rating state and local incentives and tax exemptions as important. Incentives prevalent in phase three include property tax abatements, reduced land prices, subsidized leases, and financing assistance. One consultant said that in the late 1990s, more and more clients were expressing interest in training and infrastructure incentives through grants (Nemac and Dressler 1998). The importance of specific types of tax benefits also depends on the company’s financial structure. Companies in tight cash-flow positions prefer incentives that defray initial facility costs, whereas companies in better cash-flow positions prefer long-term abatements.

Incentives are not the only tie breaker, however. Intangible considerations such as personal relationships and responsiveness of the economic development team also can tip the decision toward or against a particular site. For example, one consultant mentioned the importance of responsiveness to regulatory concerns about whether legislation creating the incentive applied to the client company (Price 1999).
In summary, much diversity exists in the site selection process. Although consultants generally follow a three-phased method, there are wide variations in the factors employed and their importance to client companies. Tax incentives play a role in the final selection phase and, to a lesser extent, the initial screening phase, but the role is neither consistent nor universally applied by all consultants.

**Trends**

State economic development initiatives in the 1990s indicate that states are fine-tuning their incentive offerings to (1) address economic development goals through industry-specific incentives; (2) increase the value of the incentive to the community through employment-based tax credits; and (3) reduce the amount of the incentive to account for the cost of servicing in-migrating employees.

These trends are described in more detail below.

- A few states have targeted tax incentives to specific industry sectors. Some of these are broad sectors, such as “technology industries” and some are more specific, for example, semiconductor- or automobile-related companies. In addition to sending the message that the state wants certain industries, targeting also says that the state is not capable of supporting or does not want industries outside the defined target. Also it can be difficult to apply targeted tax incentives to industries that do not fall into the definition of the targeted industry. Such exceptions require additional work by the site selection consultant to obtain a ruling about the applicability of the incentive to the specific client company. Sometimes this additional work eliminates the state for further consideration, especially for relocation opportunities with time constraints.

- Many states are offering employment tax credits that reward the creation of higher-wage jobs. For example, South Carolina has a job development credit of 2 to 5 percent of the gross wages paid for the new jobs that is rebated to the company on a monthly basis. The company calculates how much state income tax it should pay on behalf of its employees and subtracts its rebate from that amount. The company pays the difference while the employee receives full credit as if the total were paid.

- States are increasingly considering the cost of providing public services to residents transferring from out of state as part of a relocation. For example, Oklahoma offers an employee withholding tax rebate but only for jobs taken by employees already living in the state. Qualified companies receive up to 5 percent of payroll if (1) 75 percent of their sales are out of state, (2) they have a payroll of at least $2.5 million by the end of the third year, (3) offer health insurance, and (4) have at least 80 percent of the new employees working at least 25 hours per week. The state conducts a cost-benefit analysis to determine what percentage to offer.
Implications for Georgia

This Appendix suggests Georgia should continue to maintain some jobs tax credit incentive program to advance beyond phase one screening. It may be worthwhile to consider employment tax credit or rewarding in-state hiring. However, such considerations should be balanced with the need to be flexible and responsive to the specific requirements of relocating or expanding companies.

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<td>90.7%</td>
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<td>Availability of skilled labor</td>
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<td>Occupancy or construction costs</td>
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Figures are the total percentage of respondents rating factor “very important” and “important.”
Appendix B
An Analysis of Alternative Procedures for Ranking and Tier Assignment

Currently each county in Georgia is assigned each year to one of three tiers based on the relative ranking of each country. The ranking is based on four factors: three-year average of the unemployment rate, the 1990 poverty rate, three-year average of per capita income, and the average weekly wage in manufacturing establishments. Each county is ranked on the basis of each of the four factors, from worse to best. The county's ranking of the first three of the factors listed above are each weighted by 30 percent, while the manufacturing wage rank is weighted by 10 percent. The final ranking is then based on the sum of the weighted rankings. The weighted rankings are used to produce the final ranking. Table B-1, column 2 gives the 1999 rank of each county. Columns 11 through 14 of Table B-1 show the rank order of the poverty rate (highest to lowest poverty rate), of per capita income (lowest to highest income), of the unemployment rate (highest to lowest unemployment rate), and manufacturing wage rate (lowest to highest). Counties ranked one to 53 are assigned to Tier One (economically worse off), counties ranked 54 to 106 are assigned to Tier Two, and counties ranked 107 to 159 are assigned to Tier Three (economically best off).

Desirable Features of a Ranking and Tier Assignment Process

It is somewhat obvious to state that the factors used for ranking and assigning counties to tiers should be based on what BEST is designed to accomplish. Essentially, the purpose for having tiers is to provide incentives for firms to locate and expand in counties that could most benefit from new employment. But further, the objective is to address an underlying chronic economic development condition, not to address cyclical fluctuations in economic conditions. Thus, the desirable features of the measure used for ranking should have the following features:
If the ranking is intended to be an indicator of chronic economic development situations, the ranking should be stable. Chronic conditions are not solved in one or two years, so that the ranking shouldn’t change much from year-to-year.

The indicator should be sensible in that it matches the objective. The presumed objective of having a tier structure is to provide additional employment and investment incentives directed to counties that are suffering from chronic economic conditions.

The indicator should be more objective than arbitrary. Any system used to rank counties will have some degree of arbitrariness, but it is important to keep it to a minimum.

The data used to construct the indicator (ranking) should be readily available.

The procedure needs to be understandable and easily conveyed to businesses.

Concerns Regarding the Current Ranking System

There are several issues that might be considered regarding the current ranking process and the assignment to tiers.

First, the manufacturing wage is measured imprecisely, is subject to annual fluctuations, and accounts for a very small percentage of all wages. In a number of counties there are very small number of manufacturing plants. There are 24 counties with 10 or fewer manufacturing establishment, and 69 counties with 25 or fewer manufacturing establishments. There is one county with no manufacturing firms. The result is possible measurement errors in the manufacturing wage due to the small samples in many counties. The effect is that a change in one or two establishments could have a major effect on the ranking. Furthermore, the wage is the annual wage, not a three-year average as with the other factors, and thus year-to-year fluctuations in the wage are likely. Statewide, manufacturing accounts for less than 20 percent of employment and thus the manufacturing wage does not reflect the wages of most workers. Finally, the manufacturing wage is measured for all manufacturing workers within a county regardless of whether they live in the county.
Second, per capita income and manufacturing wage are not adjusted for cost of living differences. There are differences across the state in the cost of living. Thus, differences in unadjusted income or wages do not accurately reflect real differences in purchasing power.

Third, the unemployment rate is not necessarily a measure of chronic economic conditions. The unemployment rate changes with changes in the current economic condition. Higher rates may reflect temporary economic conditions as well as more structural problems. Furthermore, the unemployment rate does not capture discouraged workers, i.e., individuals who have given up looking for work because they have been unable to find work. (To measure unemployment, the number of individuals who are currently not working but who are actively looking for work is determined. This number is divided by the labor force, which equals the total of those individuals working and those counted as unemployed. Individuals who are not working and are not looking for work are not counted.)

Fourth, the rankings are not very stable; there is substantial change from year to year. Between 1990 and 1999, 46 counties change rank by 20 or more positions. While a county’s rank depends upon the value of the ranking factors relative to other counties, the magnitude of the changes in positions suggests greater permanent improvement than seems likely. We were unable to determine which factors account for these changes, but we suspect that it is either the manufacturing wage or the unemployment rate. The poverty rate did not change since 1992 since it is based on the 1990 Census of Population, and per capita income changes very slowly. We did not have historic values for the manufacturing wage, but were able to investigate the effect of changes in the unemployment rate.

We find substantial shifts in the ranking by unemployment rate factor, suggesting that changes in the unemployment rate are a major cause of the changes in the overall ranking. We found
that over the period 1995-1998, 125 counties shifted unemployment rank by over 10 places, 78 counties shifted by 20 or more places, and 48 counties shifted by 30 or more places. However, only 25 counties experienced a change in their unemployment rates of two percentage points or more. For this group, the average change in unemployment rank was 43 places. For those counties that had a change in their unemployment rates of between one and two percentage points, the average change in unemployment rate rank was 27 places. Furthermore, the change in unemployment rates were not necessarily part of a trend over the period. It appears that small changes in the unemployment rate could lead to large shifts in the overall ranking.

The changes in rank position largely occurred within tier categories rather than resulting in shifts between tiers. Over the period 1990 to 1999, there were 19 counties that shifted to a worse off tier (one county shifted from Tier Three to Tier One), while 20 counties shifted to a better off tier.

Fifth, the ranking procedure does not account for the magnitude of the difference between counties in any of the factors. For example, consider two counties with per capita incomes of $3,000 and $3,001 and unemployment rates of 8 percent and 10 percent, respectively. And suppose for the purposes of this example, that the incomes are the two lowest in the state and the unemployment rates are the two highest. On the basis of these two factors, the two counties would be ranked the same since the first county is ranked first in terms of income and second in terms of unemployment while the second county is ranked second in terms of income and first in terms of unemployment. The ranking procedure thus gives as much weight to a $1 (0.03 percent) difference in income as to a 2 percentage point (25 percent) difference in the unemployment rate.

Sixth, the tier assignments do not necessarily reflect chronic economic difficulties. Declining employment in the face of national economic prosperity is a sign of fundamental economic difficulties. Yet there are 7 counties that experienced declines in employment over the past decade
that are not included in Tier 1. In each case one of the four ranking factors substantially increased the ranking. There were seven counties whose employment grew by less than five percent (compared to 20 percent for the state) over the past five years that are not included in Tier 1.

Options for Changing Ranking and Tier Assignment

Alternative Ranking Procedures. The ranking procedure obviously can be changed in numerous ways. We experimented with four alternative ranking procedures.

First, base the ranking on just three factors, deleting the manufacturing wage, with each of the three remaining factors weighted by one-third. The reason for deleting the manufacturing wage is based on the measurement problems discussed above. Column 3 in Table B-1 gives the county rankings under the revised procedure (3 Factor Rank), while column 4 shows the change in the number of rank positions from the current (1999) ranking. Fifty counties either do not experience a change in ranking or change by only one place and fifty change by five or more places. Three counties shift from Tier One to Tier Two, three counties shift from Tier Two to Tier One, two counties shift from Tier Three to Tier Two, and two counties shift from Tier Two to Tier Three.

Second, base the ranking on the value of per capita income, poverty rate, and unemployment rate, each relative to its average value across counties. We formed the ratio of the value of the factor for each county relative to the average for the counties. (In order for the relative value to be higher for worse off counties for all three factors, we use the inverse of per capita income in the county to the state average.) Each of these three ratios was then weighted by one-third. (Note that we weighted the actual value of the ratio, not the rank.) The resulting county ranking (Ratio Rank) is presented in column 5 of Table B-1 and the change from the current ranking
is shown in column 6. There is more change in rankings than with switching to the Three Factor Rank, only 35 counties either do not change rank or change by one place.

To illustrate the change consider Randolph and Burke counties, currently ranked one and five, but ranked two and one, respectively, under the alternative Ratio Rank scheme. For Randolph county, poverty rate is 35.9 percent (rank 1), per capita income is $9,436 (rank 1), and the unemployment rate is 10.4 percent (rank 9), while for Burke county the poverty rate is 30.3 percent (rank 13), per capita income is $11,729 (rank 26), and the unemployment rate is 14.4 percent (rank 1). Because Burke county has a much higher unemployment rate relative to the average that factor offsets the lower absolute rank in terms of poverty and per capita income. Under the Ratio Rank scheme, five counties shift from Tier One to Tier Two, five counties shift from Tier Two to Tier One, four counties shift from Tier Three to Tier Two, and four counties shift from Tier Two to Tier Three.

Third, base the ranking on just the poverty rate, or the poverty rate and per capita income. This approach is based on the premise that the poverty rate and per capita income are better measures of chronic economic conditions than the manufacturing wage and the unemployment rate. Furthermore, using just these two measures will result in a more stable ranking. Column 9 in Table B-1 shows the ranking if just the poverty rate is used.

Fourth, add the percentage change in employment as a factor. Counties in which employment is declining or growing very slowly given the current national and state economic growth, would seem on their face to be strong candidates for Tier 1 status. Employment change does reflects both cyclical and chronic economic conditions. Employment change does not suffer from the same measurement problem that the unemployment rate does.
Column 7 of Table B-1 contains the ranking (and Column 8 contains the change in rank) using a five-year change in employment along with the poverty rate and per capita income to rank counties (Emp Rank). While there is substantial change in ranking, only 8 counties shift from Tier 2 to Tier 1. Only two of the 7 counties with employment growth of less than 5 percent for the past five years shifted to Tier 1, and only two of the 7 current (1999) Tier 2 counties with negative employment change over the past decade shift from Tier 2 to Tier 1.

**Alternative Tier Assignment Procedures.** An alternative approach to the assignment of counties to tiers is to use an absolute standard rather than ranking the counties and allocating a third of the counties to each tier. For the poverty rate and the unemployment rate setting a threshold standard would be easy, although it is not obvious what that standard should be. For per capita income, however, the standard would have to change each year to account for inflation. Columns 9 and 10 in Table B-1 gives the tier assignment for two possible sets of standards. These standards are based on three factors since we did not have data for the manufacturing wage for all counties. Thus, the results are suggestive. The first set of standards is based on exceeding a given value for at least one factor, while the second standard requires meeting a minimum value for all three factors. The standards were as follows:

**Tier Assignment Procedure One:**

A county was assigned to Tier 1 if the poverty rate exceeded 25 percent, or the unemployment rate exceeded 8 percent, or the per capita income was less than $12,000. A county was assigned to Tier 3 if the poverty rate was less than 14 percent, or the unemployment rate was less than 4 percent, or per capita income was greater than $18,000. The remaining counties were put in Tier 2. (There were four counties that met the criteria to be in Tier 1 that also satisfied the criteria to be in Tier 3; we assigned them to Tier 1.) The
tier assignments are shown in Column 9. Fifty three counties fell into Tier 1, 61 counties fell into Tier 2, and 45 counties fell into Tier 3.

**Tier Assignment Procedure Two:**

A county was assigned to Tier One if the poverty rate exceeded 15 percent, and the unemployment rate exceeded 6 percent, and the per capita income was less than $13,000. A county was assigned to Tier 3 if the poverty rate was less than 15 percent, and the unemployment rate was less than 6 percent, and per capita income was greater than $13,000. The remaining counties were put in Tier 2. (Note that the values of the factors for Tier 1 and Tier 3 are the same, but the inequality differs. This is necessary because setting more stringent standards for Tier 3 would result in few counties in Tier 3.) The tier assignments are shown in Column 10. Thirty seven counties were assigned to Tier One, 79 counties were assigned to Tier 2, and 43 counties were assigned to Tier 3. The problem with this standard is that many of the worse off counties satisfy two of the conditions, but not the third, and are thus assigned to Tier 2. Lowering one of the conditions to increase the number of counties in Tier 1 results in fewer counties being assigned to Tier 3, and vice versa.

Neither of these two approaches to assigning counties to tiers seems to work very well, but particularly not the second approach. The cause of this problem is that the methods use three different factors and it is difficult to find a set of values for all three factors that seems to appropriately place counties into tiers. Furthermore, the range of value of unemployment is small, so that minor differences in the standard for that factor can cause large changes in tier assignment. Finally, since the unemployment rate varies so much over the business cycle, the use of the unemployment rate would cause large shifts in tier assignment over time. Using just one or two
measures, say poverty rate and per capita income, would work better. Since inflation will increase income and wages, if these are used as a standard for assigning counties to tiers, then they need to be adjusted for inflation.
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