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CREATING A BETTER BUSINESS TAX CREDIT

I. Introduction

This brief focuses on issues associated with business tax credits. In particular it discusses the criteria and factors that should be considered when deciding whether to have business tax credits, how they might be designed, and how they should be evaluated. This brief initially focuses on economic development incentives, and concludes with a short discussion of other business tax credits.

The brief is a modification of background material that was prepared for The Special Council on Tax Reform and Fairness for Georgians. The Tax Reform Council was established in 2010 (pursuant to HB 1405) to "conduct a thorough study of the state's current revenue structure" and make a report of its findings and recommendations no later than January 10, 2011.

II. Background

The Georgia income tax offers 34 unique tax credits that can be claimed by businesses. The Appendix contains a brief summary of each of these credits; a more complete description can be found in Wheeler (forthcoming). Many, but not all of these credits are for the purpose of promoting economic development, particularly job growth; other tax credits are aimed at advancing certain specific activities. While the credits are usually referred to as corporate income tax credits, they can be taken by any business, regardless of its organizational form.

The following are considered economic development tax credits.

- I. Employer's Job Tax Credit
- 2. Quality Jobs Tax Credit
- 3. New Facilities Jobs Credit
- 4. New Manufacturing Facilities Property Credit
- 5. Manufacturer's Investment Tax Credit
- 6. Optional Investment Tax Credit
- 7. Investor's Credit
- 8. Port Activity Tax Credit
- 9. Alternate Port Activity Tax Credit
- 10. Film Tax Credit
- 11. Research Tax Credit
- 12. Seed-Capital Fund Credit
- 13. Tax credit for existing business enterprises undergoing qualified business expansion
- 14. Cigarette Export Credit

The other tax credits are:

- I. Qualified Health Insurance Expense Credit
- 2. Teleworking Credit
- 3. Qualified Transportation Credit
- 4. Business Enterprise Vehicle Credit
- 5. Diesel Particulate Emission Reduction Technology Equipment Credit
- 6. Low and Zero Emission Vehicle Credit
- 7. Electric vehicle charger Credit
- 8. Clean Energy Property Credit
- 9. Wood Residuals Credit
- 10. Qualified Education Expense Credit
- 11. Water Conservation Facilities Credit



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- 12. Shift From Ground Water Usage Credit
- 13. Credit for Purchasing Child Care Property
- 14. Employer's credit for providing or sponsoring child care for employees
- 15. Land Conservation Credit
- 16. Employer's Credit for Basic Skills Education
- 17. Employer's Credit for Approved Employee Retraining
- 18. Historic Rehabilitation Credit
- 19. Low-income housing Credit
- 20. Energy or Water Efficient Equipment Credit

Tax credits differ from other tax relief mechanisms because they tend to be the most generous forms of tax relief in the sense that a \$1 tax credit reduces the tax liability by \$1. On the other hand, the value of a \$1 exemption or deduction reduces the tax liability for most taxpayers by \$1 times the 6 percent state income tax rate, so that the value of a \$1 exemption or deduction is in most cases equal to \$0.06.

III. Arguments For and Against Tax Credits

A number of national tax policy think tanks, including the Tax Foundation, consider tax credits bad tax policy. The central argument advanced against tax credit programs is that they have little effect on behavior relative to their cost. There are many studies that question whether tax credits have any effect at all on business decisions. This has lead to the characterization of tax credits as being more like a "candy store" than a "carrot" for motivating economic development (LeRoy, Healy, Doherty, and Khalil 1997). These studies point out that business investment and location decisions are driven by many issues, and that tax incentives play at best a minor role. Influences on business location and investment decisions include factors that are important to specific firms, as well as transportation, quality and availability of the work force, regulatory environment, and quality of life. Even those studies that find that tax credits do affect behavior find that they have only a marginal effect on business decisions, and then usually only under certain conditions.

To illustrate why tax credits are likely to have little effect, consider Georgia's Job Tax Credit program. Under this program a firm that creates 15 new jobs in Tier 3 gets a \$1,250 credit per new job for up to 5 years if the firm maintains the jobs. Imagine that the firm pays \$20 per hour (about a salary of \$41,600 per year) and has fringe benefits of 20 percent, for a total wage cost of \$24 per hour per job. Suppose the jobs last 10 years (although different workers may hold the jobs over that time), and that the firm gets a credit each year for 5 years for creating and retaining the jobs. Under these assumptions, the value of the credit is equivalent to reducing the wage by \$0.30 per hour, or 1.3 percent over the 10-year period. Firms would have to be very sensitive to changes in the net wage rate

for the firm to add many workers in response to a 1.3 percent reduction in net wages.

In addition to the argument that credits have little or no effect on business behavior, there are several other arguments against using tax credits in general and economic development credits in particular.

- By their very nature credits distort behavior and interfere with the market influences on the firm. For example, they encourage firms to hire more workers than the market suggests is optimal. Economists generally caution against interfering with market driven decisions.
- Credits provide benefits to selective firms because the eligibility guidelines limit the credit to specific businesses or specific types of businesses or to firms that engage in the targeted behavior. This is seen as unfair because some firms will face a lower tax liability than others.
- Providing some firms with tax credits means that taxes on other firms have to be higher to maintain the same total revenue. Economists generally argue that it is preferable to lower the tax rate for all firms rather than allow tax credits for selective firms.
- Tax credits add complexity to the tax system. To the extent that a firm seeks to minimize its tax burden it searches for available credit opportunities. This is a costly way for the firm to reduce its tax burden and is expected to be even more costly for small firms compared to large ones. Once identified, applying for the tax credit is another source of complexity and cost.
- The total amount of credits that can be taken is generally unconstrained. That is, if a firm satisfies the eligibility condition, it is awarded the credit. Thus, given the eligibility conditions, the state has no control over the total value of the credits awarded or used against tax liabilities, making budgeting difficult.
- When credits are aimed at developing certain industries, the state is essentially attempting to "pick winners." Some argue that trying to outguess the market is not a strategy that has a large chance of success.

On the other hand, there are at least four reasons why it might be appropriate to provide tax credits, or other economic development financial incentives.

- Georgia needs to be competitive when it comes to its tax structure. If other states are offering incentives to specific firms, then to compete Georgia may also need to provide tax credits. Of course, if Georgia's overall business taxes are low, then there is less need to provide tax credits in order to be competitive.
- There are cases in which a firm in a particular industry may be unwilling to locate in Georgia because there are too few existing firms in that industry in the state. Many firms seek a location where there are other firms in that industry because of the synergies that arise. A larger industry presence gives greater assurances of a work force with the appropriate skills and of firms that provide support to the industry. Thus, the state might be justified in providing an

incentive in order to overcome this hurdle. This is the equivalent of an "infant industry" argument; in order to get an industry started it may be necessary to provide special incentives to attract initial firms in that industry. In such a scenario though, the credit provisions should include a sunset date. At that time, the credits need to be evaluated to determine if the incentives are still necessary in order for the industry to continue to grow.

- Tax credits might be a more efficient way of operating and funding programs that would otherwise be offered as a government program. For example, the state might decide it is in the public interest to provide a basic or general training program for existing workers. However, it might be more effective and cost-efficient for businesses to determine which workers require what kind of training and how much. By providing the training service through a tax credit, the result should be a less expensive and more targeted program.
- Firms differ in their responsiveness to tax rates because competitive forces vary between industries. Some firms might not change their hiring or location as a result of a tax increase, while other firms might cut employment or move out-of-state because of increased inter-state tax differentials. In such a case, it might be appropriate to discriminate across the two firms in the tax rate that is imposed, lowering the rate for the latter more mobile firm relative to the former firm. Tax credits can play that role. Of course this may result in a reduction in perceived tax fairness.

IV. Considerations in Designing Tax Credits

If tax credits are going to be used for economic development purposes, the following are criteria that should be considered in selecting or designing tax credit programs.

Objectives of the Incentives

Tax credits should be targeted to the appropriate objectives. The aim of the tax credit should follow from the state's overall economic development strategy. There are many possible desired results for economic development tax credits, including:

- reduced taxes on businesses;
- increased employment;
- increased investment in the state;
- increased per capita income;
- creation of new industries in the state.

It appears that the principal mission of Georgia's economic development tax credits is to create jobs. While the implied purpose of the tax credits is often obvious, consideration should also be given to whether the purpose is appropriate. Even if economic growth is good and desirable, it does not follow that simply creating more jobs is the appropriate intention of economic development tax credits. This follows for several reasons. First, it is widely held that employment in Georgia has grown well beyond what the credits could have created, and thus, the credits have at best only added marginally to the growth of jobs. It may not be necessary that the principal objective of economic development tax credits should be to add a few more jobs if job growth is already substantial.

Second, there is substantial evidence that the growth in jobs attracts new residents, and that they take a very large share of the new jobs. This suggests that the state might focus more on increasing the employment of current residents.

Third, Georgia has experienced a decade long decline in compensation per worker relative to the U.S. (Turner 2009; Matthews 2009). Rather than focusing just on creating more jobs, it would seem appropriate for the state to focus more heavily on increasing the wages earned.

Entitlement vs. Discretionary Tax Credit Program

Georgia's tax credit programs are generally entitlements, that is, if a firm satisfies the eligibility criteria, and applies for the credit, the firm is entitled to the credit. The alternative is for some agency, for example, the Department of Economic Development, to have discretion over awarding the tax credits, although the level of discretion can vary.

On the positive side, an entitlement tax credit program means that the state is not trying to "pick winners." As long as the eligibility criteria are not tailored so that the credit program would only benefit a small number of specific firms, an entitlement tax credit program could be considered fair. On the negative side, an entitlement credit program will provide credits to firms for which the credits provided no incentive. That is, there is no way to distinguish between firms that acted specifically in response to the credit and those that receive a windfall for actions they would have taken in the absence of a credit. With an entitlement type credit, awards will be given to both. In addition, the cost of such tax credit programs is largely out of the control of the state government, once the parameters of the program are set.

A discretionary program would be the opposite, i.e., the state is attempting to pick winners, credits go to selected firms and thus maybe perceived as unfair, but costs can be controlled. However, there are no assurances that the state can provide credits only to those firms whose behavior will be changed as a result of the credits. For example, the state does not have the information to determine whether a firm will locate in the state even if it does not receive tax credits. Furthermore, a major concern with a discretionary tax credit program is that it is open to abuse. With inadequate controls and oversight, credits might be awarded to firms on the basis of friendship, political connections, financial contributions, etc.

Responsiveness of Firms

Use of any tax credit program should be restricted to those businesses that are more likely to respond to the incentive. In the best of worlds, tax credits would only be awarded to those firms which would not, but for the presence of the tax credit, increase employment or undertake the specific activity.

With regards to incentives to encourage new firms to locate in Georgia, eligibility for the credits should be restricted to firms that are likely to also consider locating in other states. We know that firms in some industries have greater flexibility as to their location than others. This is largely driven by the nature of their business and the market in which they operate. The credits should be tailored to those firms and industries where there is greater choice of location and not to firms that are likely to locate in Georgia even if they didn't get tax credits.

Similarly, credits should be targeted to firms that have the option of expanding operations in states besides Georgia. There are firms that serve the local market and that need to locate near that market. Providing tax incentives to such firms is not likely to have an effect on employment. For example, retail firms are driven by the market they serve and their employment is driven by the size of the market, not by tax credits. While a particular store may consider alternative locations, if there is a market to be served in some location, some retail establishment will locate to serve that market. Likewise, giving tax credits to firms that serve a local industry, and that must be located in close proximity to the firms in that industry, for example, firms whose business is tied to an airport, is not likely to have any net effect on employment.

Value of the Tax Credit

If tax credits are simply a way to reduce taxes, then it makes sense for the credits to be available only to those firms with a positive tax liability. However, if the objective is to provide an incentive for the firm to, say, create or move jobs here, then the value of the credit to the firm should depend only on whether the firm created a job and should be independent of whether the firm has a tax liability.

Many of tax credits are limited to 50 percent of a firm's tax liability, and some are also subject to aggregate caps. These types of limitations create uncertainty surrounding the value of the credit. Requiring that the tax credit be taken against existing income tax liability reduces the value of the credit to the firm, and thus reduces any incentive effect the credit might have for firms with no income tax liability. These limitations also result in some taxpayers receiving a larger tax benefit than others for the same behavior. Given that profits, and thus tax liability fall in economic downturns, tax credits that have to be taken against tax liability are less valuable in downturns, just when it is desired that firms create new jobs.

To provide an incentive to all firms, it is necessary to make the credits refundable, allow them to be sold in the market place, or allow the credits to be taken against other tax liabilities. Allowing the credits to be refundable or used against withholdings or other tax liabilities adds strength to the incentive by assuring the taxpayer of the credit's final value.

When the tax credits are sold on the market, the firm gets less than the face value of the credit. For example, it is reported that low-income housing tax credits typically sell for around 30 cents on the dollar. The reason for this is partly the transactions cost, but the more important factor is the uncertainty that the buyer of the credit will actually be able to use the credit. In the case of the low-income housing credit, if the firm that is initially awarded the credit fails to uphold all conditions for receiving the credit and causes the state to withdraw the credit, the buyer of the credit is the loser. With a refundable credit, the state assumes the risk instead of the private market. In this case, the state is the party that is vulnerable to a loss of resources if the taxpayer does not follow through on the obligations associated with the tax credit.

On the other hand, refundable credits are more expensive and can create difficulties in the annual budget process by making tax revenues more uncertain. Furthermore, allowing the credits to be sold adds to the complexity of the state's administrative responsibility and increases the possibility of fraud. These are costs that should be accounted for when considering the adoption of a tax credit. That is, there is a tradeoff between the direct cost of the credit and the state's need for certainty in its revenue stream and ability of the credit to serve as a strong incentive. Imposing limits on the value of the credit reduces the effects of the incentive, while the absence of limits subjects the state to more risk and uncertainty.

Procedural Requirements

The controls, or procedural requirements, that the state imposes on the credit program can vary from tight to very loose. These procedural requirements could include information required to apply, the level of scrutiny of the application, reporting requirements once the credits have been awarded, and the time allowed to complete the promised hiring or investment. Imposing too many application and reporting requirements can make the credits too costly and limit their use. On the other hand, too few requirements can lead to abuse and a waste of government resources. A balance must be struck between the two objectives of providing incentives and limiting abuse. Reporting and application requirements should contain enough information to allow the state to monitor the use and effect of the credit without imposing an undue burden on the taxpayer. Before a credit program is put in place, discussions should take place between the Department of Economic Development, the Department of Revenue, and state policy makers to determine the appropriate information requirements.

Oversight

The state should consider providing greater oversight and monitoring of the use of the tax credits. A previous FRC report (Thomas 2005) outlined several key characteristics of effective oversight practiced by other states. These include regular evaluations, public disclosure of some information, detailed information reporting to key individuals, and recapture provisions in the event that the firm does not adhere to the conditions under which the credit is granted.

V. An Outline of a Discretionary Tax Credit Program

Presentations to the Tax Reform Council stated that the state's existing credits are complicated to apply for and to monitor; that generally they do not have much value to small and new firms; that the rules and regulations, which were frequently adopted to control the cost of the credits or target the incentives, restrict the usefulness of the credits; that many of the credits are not used or used by a very small number of firms; that some of the credits were designed for specific firms. In response to these criticisms, the following outline of an alternative tax credit program was developed as a proposal that could be implemented by the state.

- The General Assembly would establish the tax credit program, providing the parameters under which the program would operate.
- Each year the General Assembly would allocate to the Department of Economic Development a given amount of tax credits that it would allocate to economic development projects. The Department would have to determine the most effective allocation of the credits amongst the possible projects. The General Assembly would specify the maximum credit per job and per million dollars of investment that the Department could award.
- The Department would be authorized to commit the credits over several years (with the number of years determined by the General Assembly). This would allow the Department to award credits that a firm could use in the future based on acceptable performance, so that the Department could make multi-year agreements with a business.

- The procedures for awarding the credits and reporting requirements would be developed in conjunction with the Department of Revenue. Once the credits were awarded, the Department of Revenue would be responsible for tracking the credits.
- The Department of Economic Development would be allowed to carry forward any un-allocated credits.
- Clawback provisions would be included in the credit legislation so the Department could allocate credits based on promised performance rather than actual performance over time.
- Firms would be able to sell credits or apply them to other tax liabilities in the cases where the credit earned is less than the tax liability owed by the firm. An office and procedures would have to be established, probably outside the Department of Economic Development, to manage credits that can be sold in order to prevent fraud and abuse.
- An Approval Committee should be formed that would have to approve the awarding of the credit. As an example, the committee might be comprised of 7 members, including the Governor, the Lt. Governor, and the Speaker, or their designee; two people, neither of who are elected officials, one selected by the House and one by the Senate; two nonelected individuals selected by non-state government organizations such as the Georgia Chamber of Commerce, ACCG, or GMA. Other possible candidates for such a committee include the state's Fiscal Economist and someone from the Department of Community Affairs.
- The Department of Economic Development would develop the goals and criteria that would be used in deciding which firms would be awarded credits and the amount of the credit. The goals might relate to increasing employment in various parts of the state, increasing the average wage rate, etc. The criteria by which projects would be evaluated would likely include:
 - The ability to attract new firms and retain existing firms;
 - A restriction on the use of the credits to "economic based" industries rather than to industries such as retailing;
 - o Return on investment;
 - Expected wage rate;
 - Expected longevity of the firm in the state.
- The goals and criteria would be reviewed by the appropriate House and Senate Committees, and approved by the Approval Committee.
- The details of the credit award should be easily available to the public on the Department's website. Details should include but not be limited to the name and location of the firm, the amount of the credits awarded and taken each year, and the number of jobs or investment actually created.
- An independent evaluation of the performance of the credit program would be required on a regular basis, perhaps every 3 to 5 years.

In deciding the allocation of tax credits, potential projects could be judged against a consistent rubric. Components could include the following characteristics about each economic development project:

- Number of jobs created;
- Wage rate and total payroll, including benefits;
- Location of the jobs within the state;
- Expected length of job position;
- Expected number of unemployed and current state residents hired;
- Expectation of future spillover effects of firm expansion or location;
- Expected transportation requirements;
- Other anticipated public infrastructure investment requirements.

The Approval Committee could decide on the appropriate weights for each of these factors. Combined scores could be used to determine the credit awards between alternative economic development opportunities.

VI. Measuring the Effectiveness of Tax Credits

A tax credit program should yield a positive net return to the state. To determine whether a proposed or existing credit has a positive net return, it is necessary to answer the following questions:

- How effective is the credit in achieving its objectives?
- What is the benefit to the state?
- What is the cost to the state?

To illustrate the issues that need to be confronted in evaluating economic development tax credits, the following discussion focuses on job tax credits. We assume that the purpose of the tax credit is to stimulate new or additional economic activity that would not have been undertaken in the absence of the credit. To measure the effectiveness of a tax credit it is not sufficient to simply know that the credit was taken; it necessary to determine what would have happened in the absence of the credit program. Furthermore, to evaluate a tax credit program in its entirety, one must consider both the benefits and costs of the tax credits.

There is little research that has evaluated economic development tax credits in general and in Georgia in particular. However, the research that has been done suggests that only a small percentage of the jobs that receive a tax credit were created because of the credit.

Benefits

The value of the benefit of a new job can be obtained by answering the question, how much would the state be willing to pay for one more job?

The most commonly measured benefit of a new job is the governmental revenue (state and local) that results when a new

job is created because of the tax credit. 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).

Even if the job generates no additional tax revenues, it still has some worth to the state. But this benefit depends on where it is located in the state, what wage it pays, who receives the job (resident or non-resident), the duration of the job, and the area's economic growth rate. A new job is worth more if the state is not growing than if it is already adding a sizable number of new jobs. For example, between 2004 and 2005, Georgia's employment increased by 90,800 or 2.8 percent. Increasing employment by 200 more workers, that is, to a total of 91,000, is not worth as much as 200 new jobs if the growth rate is zero. Moreover, a new job in the rural part of the state is undoubtedly worth more than an additional job in the Atlanta metropolitan area because of the higher job growth rate in the Atlanta area. And, certainly a job paying \$14.00 an hour is worth more than one paying \$6.00 an hour. A job going to a currently unemployed resident is worth more than if the job goes to someone moving in from out-of-state. A new job that would last several years is worth more than one that would last only a few months.

In addition, a benefit occurs if the tax credit attracts a firm in an industry new to the state and which serves as a magnet for attracting additional firms in the industry. This benefit means that it is easier in the future to attract other firms in that industry.

Lastly, it is frequently suggested that the credit per job should be larger for a firm that creates many jobs than for a firm that creates just one or two jobs. However, all else the same, two hundred new jobs should not be worth anymore if they were created by 200 different firms, each creating one job, then if one firm created all 200 jobs.

Costs

The most significant cost is the loss of tax revenue that results from the tax credits. The cost per job created 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 truly attributed to the tax credit, then the state is subsidizing the other 9 jobs for the one job that is actually created by the credit. If the credit is \$1,200 per job, then the one new job costs the state \$12,000.

Public expenditures may increase in order to serve the expanded firm and the worker's family if the worker comes from out of state; for example, additional expenditures may 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. Although these costs may not be fully borne by the state, their value should be accounted for in the evaluation process.

Another cost is that providing tax credits to selected firms raises the possibility of diminished competitiveness for existing similar firms. While the total effect on competition cannot be quantified, the size of most tax credits is not large enough to produce a significant advantage for most firms. Therefore, it does not seem that this cost is of substantial magnitude.

Complying with and administering the tax credits imposes costs on both the firm and the government. Both the Department of Revenue and the Department of Community Affairs have employees who devote much of their time to the administration of the tax credit program. It is the case that filing and administrative requirements impose a cost on firms as well. An often heard complaint of many of the credits is that the administrative costs are not worth the value of the credit. Furthermore, the costs are regressive in nature so that they represent a greater burden for small firms relative to large ones. While these are not costs borne by the state, they should be considered because as they increase, they diminish the effectiveness of the credit.

VII. A "Formula" Approach to Evaluating Tax Credits

It would be desirable if a simple formula could be specified that could be used to evaluate a tax credit. That doesn't seem feasible. However, the following is an attempt to specify a "formula" that can be used to organize the information necessary to evaluate a tax credit. The biggest challenge is that most of the values of the variables that go into the formula have to be determined and differ by project. We illustrate this "formula" using a job tax credit as an example, but the approach can be adapted to other credits.

Costs

Step 1. Amount of the credit divided by the probability that credit created the job.

Information needed:

Amount of the credit: Presumably this is known.

The probability that the credit created the job: The probability that the credit created the job could be measured as the ratio of jobs created as a result of the credit to the total number of jobs that receive the credit. This ratio could be an estimate based on an analysis of the credit program or it might be based on existing studies or other evidence. Example: Suppose that the credit is \$2,000 per job and 20 percent of the jobs that receive a credit were actually the result of the credit. Then the cost per job created by the credit is \$10,000 (=\$2000/0.2)

This calculation tells us the gross cost to the state for one additional job. So, in the example, the state has to provide \$10,000 to get one more job beyond what would have been created in the absence of the credit program.

This approach can be applied to other credits as well. For example, for business location decisions, it would be necessary to determine the probability that the firm decided to locate here because of the credit. The probability would likely vary with each new business.

Step 2. Deduct government expenditures (state and local) per household times the probability that the new job is taken by someone moving to Georgia.

Information needed:

Government expenditures per household: New residents will require that the state and local governments increase expenditures in order to provide public services. But if the job is taken by a current Georgia resident, then there would be no increase in expenditures required.

Probability that a non-resident takes the job: It would be necessary to estimate the percentage of new jobs that go to non-residents. Census data can be used to provide an estimate.

For other economic development credit programs, there may also be increases in plant and equipment that will lead to increases in property tax, and increases in profit that will lead to increased income tax revenue. For other credit programs, there is not likely to be any revenue or expenditure effects.

Benefits

Step 3. Multiply the tax revenue per worker by the impact multiplier.

Information needed:

Tax revenue, both state and local, per created job: The cost of the credit is offset by the revenue generated by the job that is created. The tax revenue will depend on the wage rate (that is, the income generated). It would be feasible to create a simple schedule or formula that relates wage rates with tax revenue.

Impact multiplier: The new net job can have multiplier or ripple effects that lead to additional job creation. While the multiplier differs depending on the industry in which the job is created, as a first pass, an average value could be used. Multipliers can be generated by programs such as IMPLAN.

Step 4. Add the implicit value of a new job.

Information needed:

The implicit value of a new job: There is a value to the state for a new job beyond any effect on tax and expenditures. That is there is a willingness to pay for additional jobs. There is no market that can be used to determine what a new job is worth to the state. Thus, policy makers have to answer the question, how much would you be willing for the state to pay for an additional job?

For other credit programs, a similar question has to be answered. For example, how much is a new low-income housing project worth?

Step 5. Add or subtract an adjustment to the value of a new job.

The implicit value of a new job will vary with the condition of the state and local economy. Thus, an adjustment to that value should be made depending on economic conditions. But in making an adjustment the tax credit program should be seen as a long-term economic development policy and not an action to overcome short-term economic recession effects.

Information needed:

Value of the adjustment based on:

- Wage rate relative to the existing county wage rate;
- Existing county unemployment rate;
- Duration of the job.

The value of a new job will depend on the wage that it pays (a higher wage job is worth more), the location (a job in a more depressed part of the state is worth more), and duration (a job might last only as long as the credit is being paid or it may last many years beyond the period the credit is offered). For each of these factors, an adjustment needs to be made to the basic value of a new job.

For other credit programs, similar adjustments need to be made. For example, for low-income housing, the value may depend on the where it is constructed and how long it will remain as subsidized housing.

Net Effect

Step 6. Subtract Costs from Benefits.

The final step of course is to subtract the costs from the benefit to arrive at net benefits.

VII. Other Business Credits

In addition to the economic development credits, other business tax credits have been established to promote a specific and perhaps worthy cause or activity. In considering these credits consideration should be given to the following, as well as the factors discussed above.

Is the Credit Still Necessary?

The tax credits for high deductable health insurance and teleworking, were created to encourage these activities at a time when these products and activities were not very common. Since then, there have been substantial increases in the purchases of high deductable health insurance and in teleworking. Perhaps then, the state needs to evaluate the necessity of the non-economic development credits.

The Diesel Particulate Emission, Water Conservation Facilities, and Shift from Ground Water Usage credits have not been used. Thus, these credits have not cost the state anything, nor have they generated any benefit to the state. If the purposes for which these credits were designed are in fact desirable, perhaps the state should determine an alternative way to promote the desired behavior.

Government Functions

The activities that are promoted by some of these credits are considered basic functions of state government, for example, education. Is providing a tax credit an efficient way to provide these services and to account for public benefits from the activity produced?

IX. Conclusion

State policy makers need to consider whether tax credits or direct appropriations are the best way of encouraging certain desired behavior. Tax credits can be thought of as "backdoor" appropriations. As such they are given little consideration after the tax credit program has been established. On the other hand, state appropriated funds must be reauthorized each year. Furthermore, policy makers need to consider the effects of a tax credit program against the alternative of lower tax rates for all firms. If the purpose of the credit is not targeted to anyone industry or the credits are not particularly effective in achieving the goal, then the best option may be no credits at all but lower tax rates.

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Appendix

Georgia's Business Income Tax Credits

I. Employer's Job Tax Credit

The credit provides a statewide job tax credit for businesses or headquarters engaged in manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, or research and development. Retail establishments are only allowed the credit if located in one of the 40 least developed counties of the state. Average wages must be greater than the average wage of the county in the state with the lowest average wage. To be eligible employers must offer health insurance to all new employees. Employers do not have to pay any portion of health insurance premiums unless this benefit is provided to existing employees.

2. Quality Jobs Tax Credit

This credit is for employers creating new high-wage jobs or relocating high-wage jobs into the state. A quality job or highwage job is defined as a job located in the state; has 30 hours a week of regular work; a job that is not already located in Georgia; pays at or above 110 percent of the average wage of the county in which it is located; and has no predetermined end date.

3. New Facilities Jobs Credit

For business enterprises who first qualified in a taxable year beginning before January I, 2009, \$450 million in qualified investment property must be purchased for the project within a six-year period. The manufacturer must also create at a minimum 1,800 new jobs within a six-year period and can receive credit for up to a maximum of 3,300 jobs.

4. New Manufacturing Facilities Property Credit

This is an incentive for a manufacturer who has operated a manufacturing facility in this state for at least 3 years and who spends \$800 million on a new manufacturing facility in this state. There is also the requirement that the number of full-time employees equal or exceed 1,800. However, these do not have to be new jobs to Georgia. An application is filed which a panel must approve.

5. Manufacturer's Investment Tax Credit

Taxpayer must invest a minimum of \$50,000 per project per location during the tax year to receive credit. Eligible taxpayers must have been in operation for the immediately preceding three years. Leased property for a period of 5 years or longer is eligible for the credit.

6. Optional Investment Tax Credit

An alternative investment tax credit available for investments in manufacturing or telecommunications facilities or support

facilities that has been operating for the three immediately preceding years. The credit is available for investments in excess of \$5 million and placed in service no earlier than January 1, 1996 for Tier 1 counties. The investment threshold is \$10 million for Tier 2 counties and is \$20 million for Tier 3 and 4 counties.

7. Investor's Credit

A tax credit for amounts qualified investments made in certain Georgia headquartered small businesses. Qualified investments include investments in a corporation, LLC, or general or limited partnership that is headquartered in the state and which was organized no more than 3 years before the qualified investment was made. The business must have no more than 20 employees and less than \$500,000 or less in gross annual consolidated revenue and less than \$1 million in aggregate gross proceeds from the issuance of equity or debt instruments. Qualified businesses are primarily engaged in manufacturing, processing, online and digital warehousing, software development, information technology services, research and development. Qualified businesses are not primarily involved in retail sales, real estate or construction, professional services, gambling, natural resource extraction, financial, brokerage, or investment activities, insurance, entertainment, amusement, recreation, or athletic or fitness activity for which an admission is charged.

A qualified investor is defined as an individual, a pass-through entity which is formed for investment purposes, has no business operations, has committed capital under management of equal to or less than \$5 million, and is not capitalized with funds raised or pooled through private placement memoranda directed to institutional investors. A venture capital fund or commodity fund with institutional investors or a hedge fund shall not qualify as a qualified investor.

8. Port Activity Tax Credit

For taxable years beginning before January I, 2010, businesses or the headquarters of any such businesses engaged in manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, or research and development that have increased shipments out of Georgia ports during the previous 12-month period by more than 10% over their 1997 base year port traffic, or by more than 10% over 75 net tons, five containers or ten 20-foot equivalent units (TEU's) during the previous 12-month period are qualified for increased job tax credits or investment tax credits.

For all taxable years beginning on or after January 1, 2010, the total amount of net tons, containers, or twenty-foot equivalent units (TEU's) of product actually imported into this state or exported out of this state by way of a waterborne ship or vehicle through a port facility during the second preceding 12 month period are qualified for the increased job tax credits or investment tax credits.

NOTE: Base year port traffic must be at least 75 net tons, five containers, or 10 TEU's. If not, the percentage increase in port traffic will be calculated using 75 net tons, five containers, or 10 TEU's as the base. The taxpayer or business enterprise must meet all statutory and regulatory requirements for the underlying credit, the jobs tax credit or investment tax credit, in order to claim the port activity tax credit.

9. Alternative Port Activity Tax Credit

It allows a credit for any business enterprise located in a Tier 2 or 3 county or in a less developed area and which qualifies and receives the Jobs Tax Credit and which:

- Consists of a distribution facility of greater than 650,000 square feet in operation in this state prior to December 31, 2008;
- 2. Distributes product to retail stores owned by the same legal entity or its subsidiaries as such distribution facility; and
- 3. Has a minimum of 8 retail stores in this state in the first year of operations.

10. Film Tax Credit

Production companies which have at least \$500,000 of qualified expenditures in a state certified production may claim this credit. Certification must be approved through the Georgia Department of Economic Development. There are special calculation provisions for production companies whose average annual total production expenditures in this state exceeded \$30 million for 2002, 2003 and 2004.

11. Research Tax Credit

This credit is for expenses resulting from research conducted in Georgia by businesses engaged in the manufacturing, warehousing and distribution, processing, telecommunications, tourism, or research and development industries. Firms with R&D expenditures in excess of 10% of the base amount, where the base amount is defined to be the product of a business enterprise's Georgia gross receipts in the current taxable year and the average of the ratios of its aggregate qualified research expenses to Georgia gross receipts for the preceding three taxable years or 0.300, whichever is less. Business enterprise means any business or the headquarters of any such business which is engaged in manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, and research and development industries. Such term shall not include retail businesses. A tax credit is allowed provided that the business enterprise for the same taxable year claims and is allowed a research credit under Section 41 of the Internal Revenue Code of 1986, as amended.

12. Seed-Capital Fund Credit

This provides a tax credit for certain qualified investments made on or after July I, 2008 in a research fund, the purpose of which is to provide early-stage financing for businesses formed as a result of the intellectual property resulting from the research conducted in the research universities in this state. In addition, a qualified investment under Code Section 48-7-40.28 means a cash investment in a legal entity in which the research fund has invested; provided, however, that such investment has been made by the taxpayer at the invitation of the research fund with the express intention of permitting the taxpayer making such qualified investment to qualify for the credit.

13. Tax Credit for Existing Business Enterprises Undergoing Qualified Business Expansion

Existing businesses engaged in manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, or research and development industries that have been in operation in this state for at least five years and that create at least 500 new full-time jobs within the taxable year are eligible for the credit. Qualified business shall not include retail businesses.

14. Cigarette Export Tax Credit

Tax credit for businesses engaged in manufacturing cigarettes for exportation to a foreign country.

15. Qualified Health Insurance Expense Credit

Employer credit for the premiums paid for a high-deductible health plan. Employers must employee 50 or fewer persons for whom the employer provides high deductible health plans as defined by Section 223 of the Internal Revenue Code and in which such employees are enrolled. The qualified health insurance must be made available to all employees and compensated individuals of the employer pursuant to the applicable provisions of Section 125 of the Internal Revenue Code. The qualified health insurance premium expense must equal at least \$250 annually.

16. Teleworking Credit

Employers who permit their employees to telework will be allowed an income tax credit for expenses incurred up to \$1,200 per participating employee. In addition, employers are allowed a credit of \$20,000 per employer for preparing an assessment of a teleworking plan for their business. This credit shall be allowed only once per employer.

17. Qualified Transportation Credit

A tax credit provided to employers for the cost of providing any federally qualified transportation benefit to an employee.

18. Business Enterprise Vehicle Credit

This is a credit given to a business enterprise for the purchase of a motor vehicle that is used exclusively to provide transportation for its employees. In order to qualify, a business enterprise must certify that each vehicle carries an average daily ridership of not less than four employees for an entire taxable year.

19. Employer's Credit for Purchasing Child Care Property

Tax credit for expenses related to employers who purchase qualified child care property.

20. Employer Sponsored Child-Care

A tax credit for employers who provide or sponsor child care for employees.

21. Low Income Housing Credit

This is a credit against Georgia income taxes for taxpayers owning developments which receive the federal Low-Income Housing Tax Credit and that are placed in service on or after January I, 2001. A development consists of a housing project with restricted rents that do not exceed 30 percent of median income for at least 40 percent of its units occupied by persons or families having incomes of 60 percent or less of the median income or at least 20 percent of the units occupied by persons or families having incomes of 50 percent or less of the median income.

22. Historic Rehabilitation Credit

A credit for the certified rehabilitation of a certified structure or historic home. Standards set by the Department of Natural Resources must be met.

23 Diesel Particulate Emission Reduction Technology Equipment

This is a credit given to any person who installs diesel particulate emission reduction equipment at any truck stop, depot, or other facility. For purposes of this credit, diesel particulate emission reduction technology equipment is any equipment that provides for heat, air conditioning, light, and communications for the driver's compartment of a commercial motor vehicle parked at a truck stop, depot, or other facility the use of which results in the engine being turned off with a corresponding reduction of particulate emissions from such vehicle's diesel engine.

24. Zero and Low Emission Vehicle Credit

This is a credit for the purchase or lease of a new low or zero emission vehicle that is registered in the state of Georgia. The credit also applies to the conversions of a standard vehicle to a low or zero emission vehicle.

25. Electric Vehicle Charger Credit

The credit applies to the purchase of an electric vehicle charger.

26. Land Conservation Credit

This provides for an income tax credit for the qualified donation of real property that qualifies as conservation land pursuant to Chapter 22 of Title 36. Property donated to increase building density levels or property that will be used, or is associated with the playing of golf shall not be eligible.

27. Clean Energy Property

The Clean Energy Property Tax credit includes investments in the construction, purchase, or lease for "clean energy property". The clean energy property tax credits apply to solar, wind and energy efficiency projects, geothermal heat pumps, and certain biomass equipment for making electricity.

28. Wood Residuals Tax Credit

The Wood Residuals Tax Credit includes the value of "wood residuals" delivered to a qualified renewable biomass facility. Renewable biomass qualified facility means a renewable biomass qualified facility as defined by the Federal Energy Regulatory Commission which meets the open loop biomass standards promulgated pursuant to Section 45 of the Internal Revenue Code. For the purposes of the wood residuals tax credit, wood residuals include urban wood waste, land clearing residues, and pellets, but not wood from a US national forest.

29. Energy or Water Efficient Equipment Credit

The energy or water efficient equipment credit is an income tax credit for energy or water efficient equipment purchased for business or residential use. Examples of qualifying energy equipment includes any dishwasher, clothes washer, furnace, air conditioner, central heating and air conditioning system, ceiling fan, fluorescent light bulb, dehumidifier, programmable thermostat, refrigerator, energy efficient water heater, skylighting system, whole house fan, energy use meter, lightemitting diode lighting system, geothermal heating system, door, window, or window film which has been designated by the U.S Environmental Protection Agency and the U.S Department of Energy as meeting or exceeding each such agency's energy saving efficiency requirements or which have been designated as meeting or exceeding such requirements under each such agency's Energy Star program. Examples of gualified water efficient equipment includes water conservation systems capable of storing rain water or gray water for future use and reusing the collected water for the same residential or commercial property and other products used for the conservation or efficient use of water which have been designated by the U.S Environmental Protection Agency as meeting or exceeding such agency's water saving efficiency requirements or which have been designated as meeting or exceeding such requirements under such agency's Water Sense program. The credit is fully and solely funded with federal funds.

30. Tax Credit for Ground Water Usage

Taxpayers are allowed a credit against income tax for the use of facilities that result in reduced ground-water usage or that utilizes a surface-water source. Facilities include buildings, machinery, and equipment used in the water conservation process. To be eligible for the credit a taxpayer must shift a minimum of 10% of annual permitted ground-water usage from ground-water sources to water sources from a qualified water conservation facility.

31. Tax Credit for Water Conservation Facilities and Qualified Water Conservation Investment Property

An taxpayer who financially participates in qualified water conservation investment in this state shall be allowed a credit against their income tax liability in the taxable year following that in which the modified manufacturing process or the new or expanded water conservation facility has been placed in service and in which the taxpayer has initiated a minimum 10 percent reduction in permit by relinquishment or transfer of annual permitted water usage from existing permitted ground-water sources.

32. Employer's Credit for Basic Skills Education

A tax credit is provided to employers that sponsor or provide, at no cost to their workers, an approved basic skills education program. A basic skills education is one that enhances reading, writing, or mathematical skills up to and including the 12th grade. Employee means any employee resident in Georgia who is employed for at least 24 hours a week and who has been continuously employed by the employer for at least 16 consecutive weeks is eligible for training. Eligible expenses include instructor salaries, materials, supplies, and textbooks but excludes costs associated with renting or otherwise securing space.

33. Employer's Credit of Approved Employee Retraining

The tax credit reimburses employers for the cost of providing retraining services to their employees. As of January I, 2009, retraining programs shall not include any retraining on commercially, mass produced software packages for word processing, data base management, presentations, spreadsheets, e-mail, personal information management, or computer operating systems except a retraining tax credit shall be allowable for those providing support or training on such software.

34. Qualified Education Expense Credit

This provides a tax credit for qualified educational expenses.

ABOUT THE AUTHORS

David L. Sjoquist is Professor of Economics, holder of the Dan E. Sweat Distinguished Scholar Chair in Educational and Community Policy, and Director of the Fiscal Research Center of the Andrew Young School of Policy Studies at Georgia State University. He has published widely on topics related to state and local public finance and urban economics. He holds a Ph.D from the University of Minnesota.

Laura Wheeler is a Senior Researcher at the Fiscal Research Center with the Andrew Young School of Policy Studies. She received her Ph.D. in economics from the Maxwell School at Syracuse University. Prior to coming to FRC, Laura worked for several years with the Joint Committee on Taxation for Congress and as an independent consultant on issues of tax policy. Her research interests include state and local taxation, corporate taxation, and welfare policy.

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