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Evaluating State Tax Incentives in Georgia

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Introduction

Similar to most states, Georgia offers numerous tax incentives designed to incentivize particular activities. Because these incentives are offered through the tax code, they are not necessarily reviewed regularly once implemented. According to a report published by Pew Charitable Trusts, as of 2017, 28 states had established a schedule for conducting regular evaluations of tax incentives. Currently, Georgia does not have such a plan. As part of a 2017 Senate Study Committee on Special Tax Exemption chaired by Senator John Albers, the Fiscal Research Center at Georgia State University prepared five reviews of existing tax credits. This report presents those reviews as well as some issues to consider when preparing a tax incentive evaluation.

The report begins with a discussion of the purpose of an incentive evaluation, the types of incentives that should be included in an evaluation strategy and the types of evaluations that are commonly performed. Next, we present comprehensive evaluation criteria for tax incentives. The final section presents the five reviews conducted by the Fiscal Research Center for the 2017 Senate study committee on the following tax incentives: the Historic Rehabilitation Tax Credit, the Diesel Particulate Emission Reduction Technology Equipment Tax Credit, the Driver's Education Tax Credit, the Research and Development Tax Credit, and the Qualified Transportation Tax Credit.

Incentive Evaluations

PURPOSE OF AN EVALUATION

The most obvious goal of an evaluation is to determine if the policy is achieving its stated objective. This is somewhat straightforward if the policy or statute includes a stated purpose with measurable goals. Many tax incentives do not contain such goals or are meant to fulfill multiple objectives, such as increasing employment and wages. More challenging still are provisions that are designed to provide social benefits that are often difficult to quantify.

For instance, consider a tax credit designed to reduce vehicle emissions. Presumably the purpose of the incentive is to improve air quality and health outcomes for residents. While it is relatively straightforward to determine the cost of this incentive, quantifying the benefits is much more challenging and is likely to be underestimated. Also difficult to assess are tax incentives where the tax benefit is awarded to the taxpayer but the policy is designed to stimulate activity of others, such as in the case of donations to educational scholarship organizations. In cases where the policy objective is unclear, the evaluation must make assumptions about the intended purpose of the legislation.

WHAT TO EVALUATE

Tax incentives come in a variety of forms, including tax credits, deductions and exemptions, special rates and classifications, and various timing provisions. Each of these serve to reduce tax liability, but the form of the incentive may influence the distribution of the benefits or administrative and compliance costs. While many evaluations focus only on economic development tax credits, it is important to include tax expenditures for social policies, such as tax credits for child care or low-income housing. Furthermore, grant programs operated through the budget process should also be a part of a comprehensive evaluation strategy, as many of these have similar goals to tax incentives. Thus, to gain a complete

understanding of the allocation of government resources targeted to an objective, a complete evaluation strategy must include all tax incentives as well as those offered through the budget.

TYPES OF EVALUATIONS

The term “evaluation” is broad and can include several different types of studies, each answering a slightly different question. On one end of the spectrum is a descriptive analysis that includes specific information on the cost of the incentive program and statistics on taxpayer usage, including information on usage by income, industry, demographic characteristics and geography, if available. This type of evaluation provides valuable information and is critical for establishing a baseline of cost and activity associated with the incentive. It may also include a forecast of future costs of the program. These evaluations can be performed quickly and require few resources, but they cannot measure the amount of new activity stimulated by the incentive program.

Another common type of evaluation is an impact study, consisting of an economic and fiscal analysis. The economic analysis provides information on the value of the economic activity resulting from a tax incentive, in the form of direct, indirect and induced economic activity. In these types of evaluations, the incentive is assumed to stimulate a new level of economic activity, such as the establishment of a new manufacturing facility. The fiscal analysis component of these evaluations quantifies the resulting change in tax revenues from the incentive package. The results of this type of analysis are typically used to generate a return-on-investment figure. Although useful in providing a consistent measure across different incentives, this type of analysis does not address the effectiveness of the incentive.

Furthermore, it is not feasible to produce this type of analysis in the case of small tax expenditures or in the case of social programs that produce benefits that are challenging to quantify.

A third type of evaluation focuses on determining the amount of new activity that occurs due to the presence of the credit. To accurately determine the effectiveness of a subsidy program, it is important to differentiate between activity that is a direct result of the subsidy and that which would have occurred even in the absence of the subsidy. This is often a challenging task because we do not typically observe counterfactual situations to the credit. These evaluations rely on sophisticated econometric and statistical procedures to establish a believable counterfactual against which to measure the effectiveness of the incentive. This type of analysis is typically very resource-intensive and does not provide insight into the level of economic activity or tax revenue associated with the new activity.

Toward A Comprehensive Evaluation Criteria

The criteria presented below provide a comprehensive evaluation that considers several different characteristics of a tax incentive that might be of interest to policymakers. These criteria are modified from the original model developed by Murray and Bruce (2017). Each criterion represents a characteristic to be considered when evaluating a tax credit. We choose not to include an overall score for a tax incentive because the components may carry different weights depending on the incentive.

JUSTIFICATION

Economic theory provides that government subsidies are required where a market failure occurs or because of reasons of equity. For instance, it is well accepted that research and scientific advances create

opportunities for entities beyond those conducting the research. These are referred to as positive externalities. In the absence of additional public-sector support, private-sector companies are likely to underinvest in these activities because they cannot capture the benefit within their own organization. Therefore, there is a role for government support to encourage this type of activity beyond what is profitable for a private-sector organization to undertake. In addition, the government might find it appropriate to subsidize certain activities for the purpose of equity and to adjust the allocation of resources in the economy.

In crafting tax incentives, it is important to ask why a government subsidy is required and then to target the subsidy for that specific purpose. In some cases, the subsidy may only be necessary for a temporary period, until an industry or technology can be established.

Lastly, thought should also be given to how the incentive is provided. In some cases, government financial support may be more suitably provided through an annual budget appropriation, while others may be best provided in the form of a tax incentive. In general, tax credits are more valuable to higher income taxpayers with positive tax liabilities; grants provided through the appropriation process may result in additional compliance costs for taxpayers but could be more beneficial to individuals without tax liabilities.

EFFECTIVENESS

One of the most obvious goals of an evaluation is to determine if the policy is achieving its intended purpose. This is a fairly straightforward task if the policy goal is clearly stated in the legislation and if that goal contains measurable outcomes. For instance, the goal of a policy may be to increase employment or wages, but with no indication by how much and at what cost. Prior to undertaking an evaluation, clear and measurable goals should be established by which to measure the success of a tax incentive.

To determine if a policy is achieving a specified goal, one must measure how much additional activity is occurring as a result of the policy. In most cases, some of the incentivized activity would have occurred even in the absence of the incentive. This can occur for several reasons. For instance, the incentive may not be well targeted so that individuals who would have undertaken the incentivized activity in the absence of the credit also benefit. Also common is the presence of overlapping tax expenditures. For example, in many cases taxpayers use both federal and state versions of a tax credit. Therefore, it is critical that the evaluation correctly identify the level of activity that is associated with the state credit and not attribute activity associated with the federal credit to the state results. This is a common mistake and likely overstates the impact of a state tax incentive.

As discussed above, in some cases relatively sophisticated economic models can be designed to measure the amount of activity associated with a specific tax incentive. However, these reviews are typically resource-intensive and not always worth the effort. As an alternative, some evaluations rely on the findings of past academic research to establish a reasonable assumption about the level of activity associated with the incentive. In addition, it is sometimes possible to use a simple calculation comparing the value of the subsidy to the cost of the activity to make a plausible assumption about the likely impact of an incentive. Although, this approach may not yield a definitive result, it can provide a fair approximation and may in some cases provide more confidence in the results than a complex analysis that is based on more assumptions.

CREDIT STRUCTURE

A variety of components can influence the power and effectiveness of a tax incentive. For example, the ability to sell or transfer unused credits may be more valuable to a company with no tax liability than a higher credit rate. In addition, expanding the list of activities that qualify for the credit can often be equivalent to increasing the credit rate. Thus, it is important to evaluate the structure of the incentive to determine if it is designed in a manner that best supports its intended purpose, such as supporting early-stage industries or activities in rural locations.

ADMINISTRATION AND COMPLIANCE COSTS

It is the goal of any tax incentive to produce the greatest effects using the least amount of tax revenues. Therefore, a comprehensive evaluation should contain a review of the administrative procedures and costs associated with the incentive program. Likewise, if the compliance costs are too high, the subsidy may be ineffective at meeting its goal because taxpayers do not apply for it. Thus, the evaluation should also consider the compliance costs of the program.

EFFICIENCY

The goal of any tax policy is to fulfill its objective while creating as few other disturbances in the economy or changes in taxpayer behavior as possible. Although the incentive is intended to encourage one type of activity, there are times when it may have the unintended consequence of affecting another activity. In addition, the presence of an incentive may cause businesses or taxpayers to change their behavior in unexpected ways in order to qualify for the incentive. As a result, the state may provide a larger subsidy than was originally intended. Therefore, evaluations need to assess the extent to which the presence of the incentive is altering taxpayer behaviors in unintended ways.

RETURN ON INVESTMENT

A return-on-investment figure can be useful when evaluating a tax incentive and is a common form of evaluation. Such a figure indicates the amount of economic activity or tax revenue that is generated per \$1 of government expenditure. However, it does not address the extent to which the subsidy is fulfilling its purpose, nor does a return-on-investment figure provide context to policymakers or the public about what target return government should expect to earn on such an incentive. Furthermore, in the case of small expenditure provisions or social tax expenditures, a return-on-investment calculation cannot be determined or is not a useful standard. Therefore, although evaluations may include such a measure, comprehensive evaluations should rely on additional standards to fully assess the success of an incentive program.

DISTRIBUTION OF BENEFITS

Although revenue effects are critical, distributional aspects of incentives also provide valuable information to policymakers. For the purposes of the evaluations, the distribution of benefits may be measured in terms of income brackets of recipients, size or industry of businesses qualifying for a credit, or location of taxpayers benefiting from a subsidy.

BUDGETARY RISK

In addition to the current cost of a tax incentive, it is important to anticipate future costs and the extent to which there exist any carry-forwards of past credits that represent an outstanding liability to the state. Such information requires the use of an extensive tracking system of earned and utilized credits.

Budgetary risk can be mitigated by the use of annual caps or through a preapproval process. Setting annual caps diminishes some of the power of the credit by introducing some risk that the credit will not be available to a taxpayer if the annual limit has been reached. Establishing a preapproval process does not protect the budget to the same degree as an annual cap, but it does allow the government to have information on the level of its upcoming exposure.

OTHER JURISDICTIONAL EFFECTS

In some cases, tax incentives can lead to reductions in the tax revenues of other jurisdictions. For instance, federal adjustments to depreciation provisions can also have consequences for state revenues. Similarly, changes to the sales tax base can impact local revenues. Understanding the full extent of the revenue consequence across all jurisdictions is an important component of a comprehensive evaluation.

OPPORTUNITY COSTS

Lastly, it is important to keep in mind the opportunity costs of tax expenditures. Allocating resources to one incentive means that government resources must be increased or other spending in the budget must be curtailed. Therefore, evaluations should include a measure of the economic and fiscal consequences of either increasing government resources or using an alternative method of achieving the same objective.

Selected Tax Credit Reviews for Georgia

The following five tax credit reviews were produced by the Fiscal Research Center in support of the 2017 Senate Study Committee on Special Tax Exemption, chaired by Senator John Albers. The committee met several times during the summer and fall of 2017 to discuss the process of evaluating tax incentives.

For each credit, we summarize the credit, evaluate the credit against our previously outlined criteria and provide suggested policy recommendations.¹ We assess the credits against these criteria using a plus or minus to indicate that the incentive meets the goal of this component or needs improvement in this area. We choose not to include an overall score for each credit because the components may carry different weights depending on the incentive. For instance, for some incentives, the effectiveness component may be most important, but in other cases, considerations of equity or administrative costs may be paramount. In this way, the overall measure of success of an incentive provision is left to the judgment of policymakers.

¹ In our five reviews, we combine credit structure and administration and compliance costs into one category.

GEORGIA HISTORIC REHABILITATION TAX CREDIT

Credit Review Summary

Enacted in 2002 and modified in 2015, Georgia's historic rehabilitation tax credit² provides a tax credit for qualified expenses related to the rehabilitation of certain historic buildings and homes. To qualify, historic buildings must be located within a national historic district, listed on the National Register of Historic Places, listed on the Georgia Register of Historic Places, or certified by the Georgia Department of Natural Resources as contributing to the historical significance of a Georgia Register Historic District.

Findings

Our research found that the program is widely used and that many historic rehabilitation projects have been associated with the credit program.

Evaluation Criteria

| MEASURE | SCORE |
|-------------------------------------|-------|
| Justification | + |
| Effectiveness | + |
| Efficiency | + |
| Equity | - |
| Return on Investment | + |
| Credit Structure and Administration | - |
| Budgetary Risk | +/- |
| Local Government Impact | - |
| Opportunity Costs | - |

Suggested Policy Recommendations

- The state should consider modifying the award process to encourage more geographic diversity of the projects between urban and rural areas and across the state.
- The state should consider eliminating the subsidy for non-income-producing properties as these are private homes and are likely to provide less of a public benefit.
- In awarding the projects, program officials should consider the effect on existing businesses and the expected rate of return of proposed businesses.
- The \$300,000 threshold and the \$25 million annual cap should be annually indexed for inflation.
- The state should consider implementing annual caps for projects that earn less than \$300,000 and making the \$25 million annual cap on credits permanent.

² O.C.G.A. § 48-7-29.8.

Introduction

Although not explicitly stated in the historic rehabilitation tax credit's (HRTC) statute, this analysis assumes that the purpose of the tax incentive is to stimulate rehabilitation of historic structures and homes. The credit reduces the cost of the rehabilitation project by subsidizing the activity and reducing the risk to the developer. It is typically expected that successful rehabilitation projects will generate additional economic and social benefits in an area. Because of these positive spillover effects associated with the rehabilitation efforts, there may be an underinvestment in these projects in the absence of government intervention. Therefore, providing the credit addresses this underinvestment.

The review continues as follows: a description of Georgia's HRTC and other incentives typically used in combination with the state tax credit; information on the number and location of rehabilitation projects and relevant usage statistics of the Georgia credit; several examples of Georgia projects that have utilized the credit; previous analyses of the credit program that focus specifically on its economic and fiscal impact; and the set of criteria by which the credit is measured, followed by recommendations for improvement of the program.

About the Georgia HRTC

Credit Structure

Georgia's HRTC provides a credit for qualified expenditures related to the substantial rehabilitation of certified historic buildings and homes. To qualify, the structure must be located within a national historic district, listed on the National Register of Historic Places, listed on the Georgia Register of Historic Places, or certified by the Georgia Department of Natural Resources (DNR) as contributing to the historical significance of a Georgia Register Historic District.

The value of the credit allowed under this provision is equal to 25 percent of qualified expenditures, with an additional 5 percent credit allowed for historic homes located in low-income housing areas as designated by the U.S. Department of Housing and Urban Development (HUD).

Qualifying rehabilitation expenditures include any amount properly chargeable to a capital account expended in the rehabilitation activity, but not costs of acquisition of the property or costs attributable to expanding the property, site preparation or any personal property. To qualify for the incentive, rehabilitation expenses must exceed a minimum threshold. In the case of a historic home, the minimum expense is the lesser of \$25,000 or 50 percent of the adjusted basis of the property value, unless the historic home is in a HUD-designated low-income housing area. In that case, the minimum threshold is \$5,000. For any other certified structure, the minimum threshold is equal to the greater of \$5,000 or the adjusted basis of the value of the property.

The credit for a historic home cannot exceed \$100,000 in any 120-month period. The maximum credit for any other certified structure is \$5 million for any taxable year until December 31, 2021, after which the maximum becomes \$300,000 in any 120-month period.

However, for projects completed on or after January 1, 2017, and no later than December 31, 2021, and which create 200 or more full-time jobs or \$5 million in annual payroll within two years of being placed in service, the maximum credit for an individual certified structure is \$10 million. No more than one such project for any given certified structure may be approved in any 120-month period.

Credits issued for projects earning more than \$300,000 in credits may not exceed \$25 million in total per calendar year through December 31, 2021, after which no aggregate cap applies. Credits may be

used against the individual or corporate income tax. In the case of historic homes, unused credits may be carried forward for up to 10 years if the taxpayer has a tax liability less than the value of the credits generated. Unused credits may also be transferred or sold once to other Georgia taxpayers.

Credit Administration

The credit is jointly administered by the Georgia Department of Revenue (DOR) and the Georgia Department of Natural Resources (DNR) Historic Preservation Division. To qualify for the credit, taxpayers must complete a preliminary certification application. This form and the technical specifications for each project are reviewed and certified by the staff of the Historic Preservation Division. It is advised, but not required, that preliminary certification is granted before rehabilitation works begins. Once the project is completed, a final certification form is submitted and reviewed by the DNR staff. Although credits for historic structures are allocated after preliminary certification, credits are awarded and claimed after the final certification forms have been approved.

Credits are awarded on a first-come, first-served basis; applications submitted after the calendar year cap is reached are given priority for the following year. In the event credits allocated to an approved project exceed the amount of credits that are eventually earned by the project, the credits are not added back into the pool of available credits and cannot be used for other projects. The statute specifies credit recapture rules in the case of historic homes but does not include such conditions for other historic structures.

Additional Public Incentives

The state HRTC is one of three economic incentives that are used in combination to support the rehabilitation of historic structures. The state also offers a preferential property tax assessment program for rehabilitation property, which supports rehabilitation efforts by freezing the property tax assessment of the rehabilitation property for 8 ½ years. This program applies to both historic homes and buildings, and follows several of the same rules and regulations as the HRTC. It is administered by both DNR and the county tax commissioner where the property is located. The third incentive is the federal historic tax credit, which is administered by the National Park Service and the Internal Revenue Service, and provides a 20 percent credit for eligible expenses.³ Unlike the state credit, though, the federal credit does not apply to the rehabilitation of non-income-generating properties.

In addition, it is common for historic rehabilitation projects to qualify for tax credits under federal and state low-income housing tax credits and the federal new markets tax credit. In some instances, projects have also been eligible for federal solar tax credits. There are also examples of financial institutions using historic rehabilitation projects to meet the conditions of the Community Reinvestment Act.

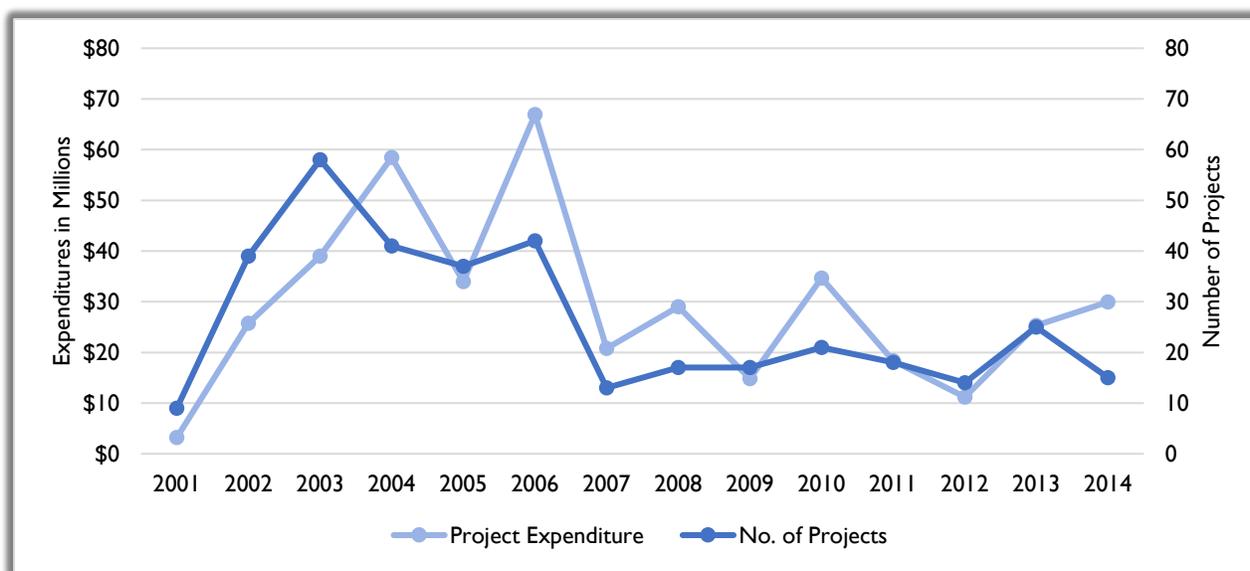
Use of the Tax Credit

As of 2017, 35 states provide a state rehabilitation credit. The typical state credit varies from 20 to 25 percent, and most apply to the rehabilitation of both buildings and homes. States typically impose some sort of cap, either in the form of a per-project cap or an aggregate state cap. Some states apply both. Most states allow the credits to be transferred, and in some cases, the credits are refundable.

³ The National Park Service works in coordination with the state historic preservation offices to certify local governments. Currently, 95 local governments in Georgia are recognized as Certified Local Governments and, as such, are eligible for federal funding and technical assistance from the state Historic Preservation Division.

Based on statistics available from the National Park Service, between 2002 and 2016, 410 projects were completed or were in the process of completion in Georgia. The total value of these projects over the 2002-16 period equaled \$491 million, with an average cost of \$1.2 million per project.⁴ As seen in Figure 1, the trend in the use of the federal program peaked between 2002 and 2006, averaging 43 projects and about \$45 million per year, and has since declined to a range of 13 to 25 projects per year with expenditures averaging about \$23 million annually. By value, 38 percent of the total amount allocated to rehabilitation projects was spent on housing and 57 percent was spent on commercial, office or multi-use structures. By number of projects, 47 percent were classified as housing projects and 46 percent were commercial, office or multi-use.

Figure 1. Number and Total Expenditure of Georgia Rehabilitation Projects Qualifying for the Federal Credit, Calendar Year (CY) 2002-16



Note: Includes completed projects only

Source: National Park Service

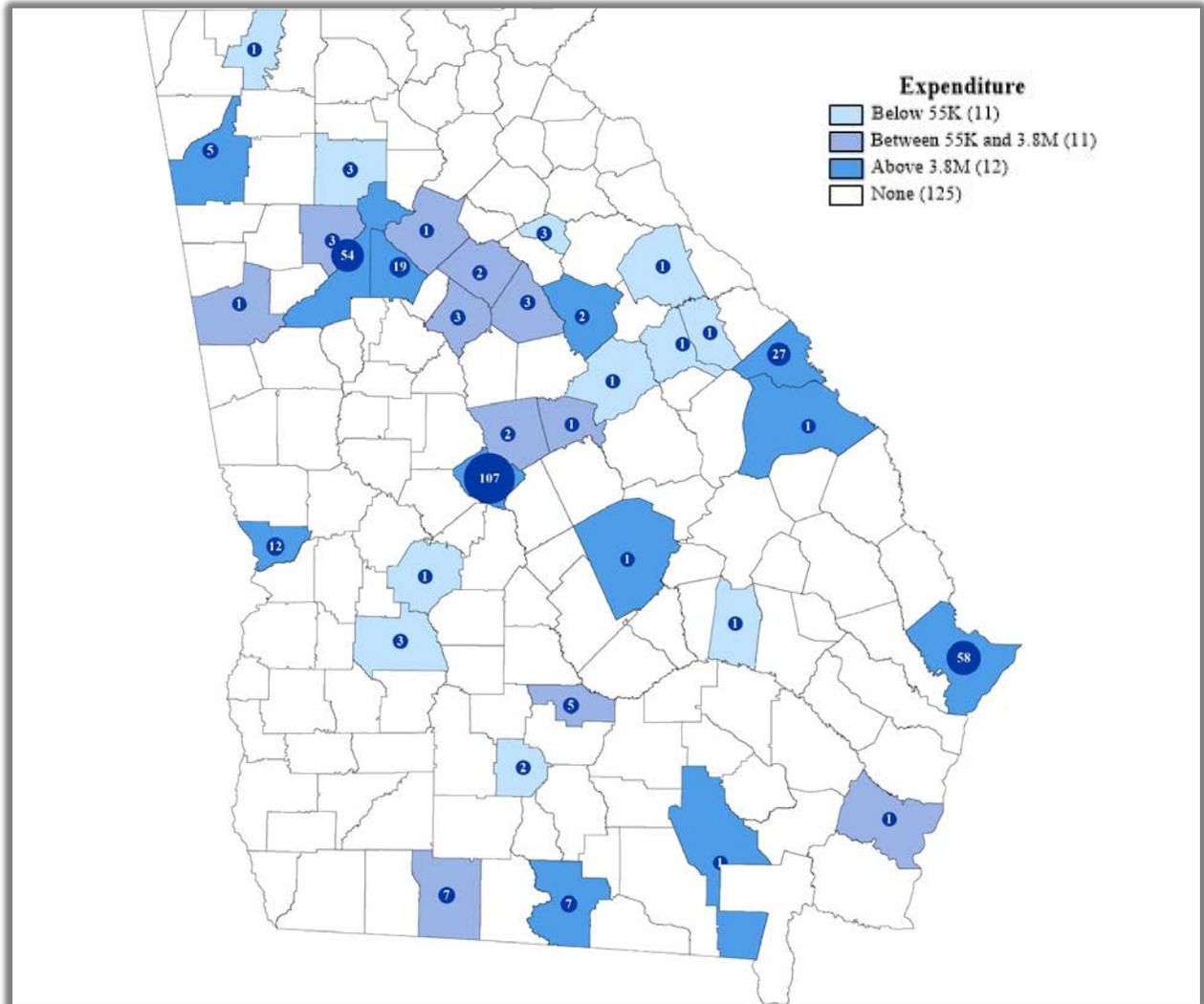
Data are available from the Georgia State Historic Preservation Office for projects undertaken in the state between 2008 and 2017. All of these projects qualified for the state HRTC, but not all received the federal credit. Over this time frame, there were 341 projects that used the state credit, with total certified expenditures of \$686 million. Figure 2 shows the geographic distribution of these projects. Fulton County (shown in red) has the most projects in terms of expenditures. The size of the bubbles in each county indicates the number of projects that have been undertaken.

Of the 341 projects, 51 percent also qualified for the federal tax credit. Fifty-five percent of the projects and 94 percent of total rehabilitation expenditures were projects involving income-producing properties, and 45 percent were personal residence rehabilitations. The average expenditure for an income-producing project was \$3.4 million, while the average expenditure for a personal residence rehabilitation project was \$246,000. Table 1 provides the number of projects by type and the total rehabilitation expenditures for the 10 most active counties in the state during the 2008-17 period. The

⁴ The data set includes 44 projects that had not received final approval as of December 2016.

projects in these counties represent 95 percent of the total rehabilitation expenditures and 86 percent of all projects across the state.

Figure 2. Geographic Distribution of Projects Qualifying for the State Tax Credit, 2008-17



Source: Data obtained from Georgia DNR and compiled by the Fiscal Research Center

Table 1. Top 10 Counties by Level of Rehabilitation Activity, 2008-17

| COUNTY | NUMBER OF PROJECTS | REHABILITATION COSTS | PERSONAL RESIDENCE PROJECTS | INCOME-PRODUCING PROJECTS |
|-------------------------------------|--------------------|----------------------|-----------------------------|---------------------------|
| Fulton* | 54 | \$450,485,466 | 28 | 26 |
| Chatham | 58 | \$58,417,302 | 17 | 41 |
| Bibb | 107 | \$50,712,206 | 62 | 46 |
| Muscogee | 12 | \$30,140,275 | 2 | 10 |
| Floyd | 5 | \$16,464,591 | 1 | 4 |
| Greene | 2 | \$14,955,063 | - | 2 |
| Richmond | 27 | \$14,056,456 | 9 | 18 |
| Ware | 1 | \$7,065,585 | - | 1 |
| DeKalb | 19 | \$6,675,734 | 15 | 4 |
| Lowndes | 7 | \$5,513,269 | - | 7 |
| Total | 292 | \$654,485,947 | 134 | 159 |
| Percentage of all Ga. HRTC projects | 86% | 95% | 87% | 85% |

*Includes \$360 million for the rehabilitation expenses of Ponce City Market

Source: Data obtained from the Georgia State Historic Preservation Office and compiled by the Fiscal Research Center

Based on DOR data for tax year 2014, 168 individuals claimed the credit.⁵ The average amount claimed equaled about \$2,800, and \$3.3 million was used to reduce tax liabilities.⁶ Of those claimed by Georgia residents, five counties — Bibb, DeKalb, Fulton, Muscogee and Richmond — comprised over 65 percent of all credit claims. Table 2 provides a breakdown of taxpayers claiming the credit by income group.

Table 2. Income Category by Georgia Adjusted Gross Income (GAGI), 2014

| INCOME CATEGORY | NO. OF RETURNS | MEAN | TOTAL |
|---------------------------|----------------|----------|-------|
| GAGI <= \$25,000 | 14 | \$18,227 | 5.4% |
| \$25,000<GAGI<=\$50,000 | 10 | \$6,448 | 1.4% |
| \$50,000<GAGI<=\$75,000 | 18 | \$16,933 | 6.5% |
| \$75,000<GAGI<=\$100,000 | 11 | \$33,111 | 7.7% |
| \$100,000<GAGI<=\$250,000 | 45 | \$30,628 | 29.3% |
| GAGI > \$250,000 | 70 | \$33,422 | 49.7% |
| Total | 168 | | |

Source: DOR data compiled by the Fiscal Research Center

Between tax years 2011 and 2014, taxpayers claimed a total of \$8.5 million in historic rehabilitation credits, as shown in Table 3.

⁵ Claims from corporate returns are not available. The amount claimed by individuals represents 79 percent of the total amount claimed for tax year 2014.

⁶ Based on returns processed as of July 2017.

Table 3. Tax Credits Utilized

| TAX YEAR (\$ IN MILLIONS) | | | |
|---------------------------|-------|-------|-------|
| 2011 | 2012 | 2013 | 2014 |
| \$1.5 | \$2.0 | \$1.7 | \$3.3 |

Source: Data provided by DOR, based on returns processed as of July 2017

Based on the analysis of the modifications to the credit from Georgia House Bill 302 in 2015, it is estimated that total credits utilized over the 2016-18 period will equal \$64 million, as shown in Table 4.

Table 4. Estimates of Future Tax Credit Liabilities

| FISCAL YEAR (\$ IN MILLIONS) | | |
|------------------------------|------|------|
| 2016 | 2017 | 2018 |
| \$5 | \$31 | \$28 |

Source: Georgia Tax Expenditure Report for fiscal year 2018

Examples of Georgia Historic Rehabilitation Projects

Ponce City Market, Atlanta, Georgia: Development company Jamestown rehabilitated City Hall East, which was once the retail store and distribution center of Sears, Roebuck & Co., into Ponce City Market in 2011. The project received \$48 million in federal historic tax credits and \$300,000 in state historic tax credits (PlaceEconomics 2014). The project also received a \$2 million grant from the Beltline Affordable Housing Trust Fund as an incentive to designate 52 apartment units as affordable housing units. Additionally, the area was designated by the Georgia Department of Community Affairs as an Opportunity Zone, which allows the tenant businesses to qualify for state income tax credits at a reduced employment threshold through the Jobs Tax Credit Program.⁷ Today, more than 80 businesses (retail, food services, offices, etc.) lease space within Ponce City Market and contribute to the economic and social development of the area.



Source: poncecitymarket.com

⁷ Qualifying establishments must create at least two jobs. The credit per job is \$3,500 and is available to the firm annually for five years if the employment remains.

Flatiron Building, Atlanta, Georgia: In 2016, Lucror Resources completed a \$13 million rehabilitation of the Flatiron Building, Atlanta’s oldest standing skyscraper. The building was designed by Bradford Lee Gilbert, a prolific railroad architect who also designed New York City’s first skyscraper in 1889 (the Tower Building). The Flatiron Building project received state and federal historic tax credits, as well as an \$11.2 million new markets tax credit allocation (InvestAtlanta 2017). The project also received a \$1.5 million investment from the Westside Tax Allocation District. The Flatiron Building is now rebranded as “FlatironCity” and serves as an entrepreneurial hub with a Microsoft Innovation Center (Kahn 2016).



Source: Green (2016)

The Grey Restaurant in Savannah, Georgia: The Grey Restaurant was formerly the Greyhound bus depot. The original structure was constructed between 1937 and 1939. Based on figures from Georgia DNR, \$2.5 million of private equity was used to rehabilitate the facility, earning approximately \$0.5 million and \$0.3 million in federal and state historic rehabilitation tax credits, respectively.



Source: Savannahnow.com

The Daniel Ashley Hotel/Ashley House, Valdosta, Georgia: In a \$6.3 million project, the Daniel Ashley Hotel, originally built in 1925, was rehabilitated into low-income senior housing. Georgia DNR reports that the

project qualified for \$1.2 million in federal credits, \$300,000 in state tax credits and approximately \$500,000 in federal low-income housing tax credits, as well as receiving a HUD loan. The property is also subject to a property tax assessment freeze under the state Preferential Property Tax Assessment Program. Upon completion, the project received the “outstanding achievement” award from the City of Valdosta for going above and beyond the regulations set forth by the city of Valdosta to protect and preserve buildings in the local historic district (ValdostaToday 2015).



Source: *ValdostaToday*

Review of Previous Studies

Over the years, numerous studies have attempted to assess the economic and fiscal impact of the state and federal historic rehabilitation tax credits. These studies typically calculate the direct, indirect and induced effects of increased investment in these types of projects. In general, these studies find that the tax credits have large impacts on the state and local economy.

Several characteristics of this credit contribute to a relatively large economic impact from these projects. First, the incentivized redevelopment activity in most cases employs local workers, and that structure remains after the credits have been exhausted. Second, because the state credit works in combination with the federal credit and often other federal credits, the state gains a disproportionate benefit while bearing relatively little of the incentive cost.

Several findings from these studies are important to note. First, the impacts of these projects occur as two distinct phases: the construction phase and the postconstruction operations phase. The construction or rehabilitation activity can significantly affect the economy, but only during the rehabilitation phase of the project. By comparison, the operations phase of the project, after the rehabilitation is completed and the facility is in use, may generate smaller annual economic effects, but over a much longer period of time. Thus, it is important to consider the economic impacts discounted over a number of years. Often, studies provide an analysis of the number of years it takes to recoup the state investment of the tax credits; the state may eventually recoup its initial investment, but the question is how many years does it take. This payback period is typically shorter with income-generating

projects than with non-income-generating projects. In addition, some studies compute the number of jobs created and the increase in personal income associated with the rehabilitation activity.

A study produced for Alabama (Novogradac & Company 2016) provided such an analysis based on the projects completed and in-progress over the 2014-17 period. The report states that the total return on investment in terms of tax revenue to the state and local governments is \$3.90 for each dollar of expenditure. In addition, this analysis determined that the state and local governments will recoup their initial investment of \$60 million in tax credits by 2019. A similar analysis performed for Wisconsin (Baker Tilly 2017) determined that the state will recoup its investment after about four years.

Another important feature of these studies is that they attribute all the activity to the presence of the credit. That is, the studies assume that no activity would have existed in the absence of the credit. On the other hand, it is critical to understand that the state credit is used in combination with other state and federal incentives. Therefore, when evaluating the impact of the credit, it is vital to assess the true contribution of the state credit relative to the other incentives that are used.

A related concern is that the analyses assume that all the income generated from the rehabilitation project is attributable to the rehabilitation efforts. In fact, however, this economic activity may still have occurred, in some cases, without the credit. Furthermore, a more precise analysis would also consider that current activity associated with a rehabilitated structure may be at the expense of other non-rehabilitated facilities.

Evaluation of the Georgia HRTC

| MEASURE | SCORE |
|---------------|-------|
| Justification | + |

It is generally accepted that historic structures have the potential to generate positive spillovers for the surrounding businesses and revitalize otherwise distressed areas. Examples include renovated theaters that then spur the development of local restaurants. Because not all the benefits from the project are received by the building owners, there is often an underinvestment in this type of activity from a societal perspective. By providing a subsidy, the tax credit reduces the price of this activity and increases the number and scope of projects that are undertaken.

What is less well understood is the size of subsidy required to spur investment and whether it should be provided through the tax system or through a direct grant system. In fact, the state provides funds to local governments and nonprofits through the Georgia Heritage Grant program and the Historic Preservation Fund program, also administered by DNR. Neither of these questions are addressed in the current literature or in reviews performed for other states.

| MEASURE | SCORE |
|---------------|-------|
| Effectiveness | + |

The existing legislation does not contain a stated goal for this program. It is assumed that the goal is to preserve and repair historic structures. Based on the amount of activity reported by the Georgia Historic Preservation Division, the program is fulfilling this goal.

Typical analyses of this program assume that all activity is a result of the state credit. Because the state credit is often bundled with other incentives, this is difficult to determine. For instance, the development of the Ponce City Market involved the use of \$300,000 in state tax credits and \$48 million in federal credits and cost an estimated \$360 million. It is unlikely that an incentive of 0.001 percent⁸ was instrumental in the decision to undertake that project.

Unfortunately, our research found no study determining the effect of the various incentives on the level of rehabilitation activity. It is likely that the state incentive has some effect on the level of activity, but without further research, it is not possible to determine the amount of activity that can be properly attributed separately to the federal credit, the state credit and the local property tax assessment freeze.

If the goal of the program is to serve as an economic development tool, it is less clear that the program is achieving its goal because the projects are not selected on the basis of return on investment or degree of likely financial success. Although there is an incentive for historic homes renovated in specific low-income areas, no such provision applies to the renovation of historic structures.

| MEASURE | SCORE |
|------------|-------|
| Efficiency | + |

The issue of efficiency can be considered in several ways. Because there is a subsidy for rehabilitation of historical structures, these structures receive some preferential treatment over new construction projects. In addition, the presence of additional restaurants and character-filled buildings may help revitalize an area, but subsidies may also lead to an oversupply of space or services in an area. The result may be more people patronizing an area or simply a shift of consumers from one business to another, putting the state in the position of supporting some business ventures over others.

| MEASURE | SCORE |
|---------|-------|
| Equity | - |

Based on the data provided by DOR (see Table 2), the tax credits are most often utilized by higher-income individuals. As a result, the program reduces the progressivity of the state income tax system and does so in a manner that is not transparent. The horizontal equity (otherwise similarly situated taxpayers bearing similar tax burdens) of the system is also reduced. The benefits of the restoration of the historic structure could be argued to extend to all, but measuring the intrinsic value of these properties is beyond the scope of this review.

While by law all areas of the state have the potential to benefit from the program, some areas have greater opportunities to benefit than others based on the stock of buildings on the national registry. Indeed, between 2008 and 2017, 86 percent of the projects and 95 percent of the expenditures were concentrated in only 10 counties.

⁸ $\$300,000/\$360,000,000 = 0.001\%$.

| MEASURE | SCORE |
|----------------------|-------|
| Return on Investment | + |

Multiple economic impact studies have found a significant return on investment from these types of projects. This is not surprising because they involve a one-time upfront cost followed by many years in which the property typically generates income.

These projects usually use local services and labor, which greatly increases the return on investment of these projects. The more that local architecture firms, contractors and labor is used, the higher the rate of return to the state. Furthermore, by combining federal incentives with state and local incentives, the state can receive the full benefit of the rehabilitated property and its corresponding economic activity for a relatively small investment.

Several issues should be noted, however. First, the state tax credit is commonly used in partnership with the federal historic rehabilitation tax credit and often other tax credits, such as the federal new markets tax credit and the state and federal low-income housing tax credit. In addition, all properties qualifying for the state HRTC also qualify for a local government property tax assessment freeze. Economic impact studies typically assume that the project would not have been undertaken in the absence of the credit. No study that we found separately identified the effect of the state credit independent of the state property tax freeze or other state or federal credits. Therefore, it is not clear what impact the state tax incentive has separate and beyond that of the other incentives. Second, there is no standard number of years in which a project should begin to generate a positive return on investment. Therefore, by extending the analysis period, any project can be made to yield a positive return. Lastly, although a small part of the program, rehabilitation of private residences is unlikely to produce a measurable positive return on investment because these are non-income-producing properties and any benefits are, at best, difficult to measure.

| MEASURE | SCORE |
|-------------------------------------|-------|
| Credit Structure and Administration | - |

The state imposes a \$25 million cap on projects earning more than \$300,000 in credits. Because the credits are awarded on a first-come, first-served basis, some projects may be crowded out of the process by more expensive projects. In addition, projects completed in the metro-Atlanta area are likely to be more expensive than projects in rural or less urban areas. Therefore, the cap applies unevenly to urban and rural projects.

In addition, the state cap only applies to projects earning more than \$300,000 in credits. Projects earning less than \$300,000 in credits are not subject to a state aggregate annual cap.

| MEASURE | SCORE |
|----------------|-------|
| Budgetary Risk | +/- |

Because much of the amount awarded is subject to an annual cap, the risk to the budget is fairly contained and can be managed. Some risk is introduced from the credits that earn less than the \$300,000 per project cap because these are not subject to the overall state cap. In addition, the ability to carry forward the unused credits to future years increases the complexity of the credit administration and results in an increase in the level of budgetary uncertainty.

| MEASURE | SCORE |
|-------------------------|-------|
| Local Government Impact | - |

The HRTC has two main impacts on local governments. First, properties that qualify for the state tax credit typically qualify for the preferential property tax assessment for rehabilitated historic property.⁹ This special assessment program freezes the property tax assessment for 8 ½ years. Although, properties undergoing rehabilitation may not have substantial property tax liabilities prior to rehabilitation, it is important to note that local governments are not involved in this decision that has implications for their tax base.

Second, the rehabilitation of the property may increase property values in the immediate area. A study by Cyrenne, Fenton and Warbanski (2006) found that for each dollar of rehabilitation expense, assessed value of the property increased by 33 percent. Alternatively, a 2015 analysis of a limited number of properties by the Indiana Legislative Services Agency found that not all properties benefited in terms of higher property values after receiving the credit.

| MEASURE | SCORE |
|-------------------|-------|
| Opportunity Costs | - |

We could identify no analysis that considered the impact of these rehabilitation tax credits on existing businesses. In some areas, businesses located in rehabilitated facilities may detract from businesses located in non-rehabilitated facilities if the rehabilitated facilities have a cost advantage over other facilities in the same market due to the subsidy.

Lastly, the loss of tax revenue represents a reduction in government spending. Typical economic impact studies do not take into consideration the loss in economic activity associated with a reduction in government spending.

Suggested Policy Recommendations

Based on this review of the tax credit, we offer the following recommendations:

- The state should consider modifying the award process to encourage more geographic diversity of the projects between urban and rural areas and across the state.
- The state should consider eliminating the subsidy for non-income-producing properties as these are private homes. As such, they may provide less of a public benefit.
- In awarding the projects, the program officials should consider the effect on existing businesses and the expected rate of return of proposed businesses.
- The state should consider implementing annual caps for projects earning less than \$300,000 and making the \$25 million annual cap on credits permanent.
- The \$300,000 threshold and the \$25 million annual cap should be annually indexed for inflation.

⁹ A separate qualifying test is required for the local property tax assessment freeze. Qualifying properties must have rehabilitation costs that result in an increase in the fair market value of 50 percent for residential property, 75 percent for mixed-use property and 100 percent for income-producing property.

GEORGIA DIESEL PARTICULATE EMISSION REDUCTION TECHNOLOGY EQUIPMENT TAX CREDIT

Credit Review Summary

The diesel particulate emission reduction technology equipment tax credit applies to the purchase and installation of diesel particulate emission reduction technology. The credit is administered by the Georgia Department of Revenue and became effective on January 1, 2001.

Findings

Our research found that no taxpayers have claimed the credit since 2012. According to information provided by officials at the Georgia Regional Transportation Authority (GRTA), no requests have been made to certify particular technologies as meeting the statutory definition of diesel particulate emission reduction technology equipment, and they believe the credit is virtually unknown to taxpayers. GRTA is in the process of developing standards to proactively identify technology eligible for the credit.¹⁰

Evaluation Criteria

| MEASURE | SCORE |
|-------------------------------------|-------|
| Justification | + |
| Effectiveness | - |
| Efficiency | N/A |
| Equity | + |
| Return on Investment | - |
| Credit Structure and Administration | - |
| Budgetary Risk | - |
| Local Government Impact | + |
| Opportunity Costs | + |

Suggested Policy Recommendations

- Further research should be conducted on how best to achieve the goal of reduced diesel emissions.
- The state should establish standards of qualifying equipment. According to officials at GRTA, no requests have been made to certify particular technologies as meeting the statutory definition of diesel emission reduction technology. GRTA is in the process of developing standards to proactively identify technology eligible for the credit.¹¹
- The state should consider including the Georgia Department of Natural Resources in the administration of this credit, based on their history of administering similar credits of this type.
- The state should consider converting this tax credit to a grant program with an annual budget appropriation.

¹⁰ Email message to researchers at the Fiscal Research Center from GRTA representative, November 9, 2017.

¹¹ Email message to researchers at the Fiscal Research Center from GRTA representative, November 9, 2017.

Introduction

Although not explicitly stated in the diesel particulate emission reduction technology equipment tax credit's (DPERTE) statute, this analysis assumes that the purpose of the tax incentive is to stimulate the purchase and use of technologies to reduce diesel emissions. A reduction in diesel emissions will improve air quality and provide improved health outcomes for Georgia residents. Because these benefits are not completely borne by the trucking company, there may be an underinvestment in these projects in the absence of government intervention. Therefore, providing the credit addresses this underinvestment.

The review continues as follows: a description of the DPERTE tax credit and other incentives that are typically used in combination with the state tax credit; information on the utilization of the tax credit; examples of emission reduction technologies; and the set of criteria by which the credit is measured, followed by recommendations for the improvement of the program.

About the Credit

Credit Structure

The DPERTE tax credit is equal to 10 percent of the cost of buying and installing diesel particulate emission reduction technology, and it can be applied only in the year in which the equipment is first used. The credit can be applied against the Georgia state income tax. No carry-forwards for this credit are allowed. The credit became effective on January 1, 2001.

Credit Administration

To receive the credit, a taxpayer must attach a schedule to their income tax return with a description of the technology installed, the location of the installed equipment, and the cost of the equipment and installation. The credit is administered by the Georgia Department of Revenue.

The standard for qualifying equipment is set by the Georgia Regional Transportation Authority (GRTA). At this time, no information was found on the GRTA website about the credit or qualifying equipment, and no rules for the administration of this tax credit were found on the Georgia Secretary of State's website. According to officials at GRTA, no requests have been made to certify particular technologies as meeting the statutory definition of diesel emission reduction technology, and they believe the credit is virtually unknown to taxpayers. GRTA is in the process of developing standards to proactively identify technology eligible for the credit.¹²

Interactions with Other State and Federal Incentives

The state also offers a tax credit for the purchase of alternative-fuel heavy-duty and medium-duty vehicles. This credit applies in fiscal years 2016 and 2017 and can be used against the income tax liability of any taxpayer who purchases an alternative-fuel heavy-duty or medium-duty vehicle.¹³ In addition, the idle reduction weight exemption allows any vehicle that exceeds the state gross, axle and tandem weight limits by up to 400 pounds to be exempt if the vehicle has idle reduction technology.¹⁴ This provision accounts for the added weight of the diesel emission reduction technology.

¹² Email message to researchers at the Fiscal Research Center from GRTA representative, November 9, 2017.

¹³ O.C.G.A. §§ 48-7-29.18, 48-7-29.19.

¹⁴ O.C.G.A. § 32-6-27.

Two federal excise tax exemptions also exist: one for the purchase of onboard idle-reduction technology and one for idle-reduction technology of 550 pounds (Alternative Fuels Data Center 2017). Furthermore, the U.S. Department of Energy, the U.S. Department of Transportation and the U.S. Environmental Protection Agency all offer grant programs to address this issue.

Incentives from Other States

Our research identified 32 states with a weight exemption for vehicles with idle-reduction technology. Thirteen states offer grants or loans for pollution-reduction projects, including the installation of idle-reduction technologies. Some of these states offer more than one grant or loan program. Based on our research, only Georgia and Colorado offer a tax credit for this equipment (Alternative Fuels Data Center 2017).

Use of the Credit

From 2011 to 2012, the amount of credit used was \$8,132.¹⁵ According to data provided by the Georgia Department of Revenue, no taxpayers have claimed this credit since 2012.¹⁶

Examples of Emission Reduction Technology

Diesel particulate emission reduction technology, in general, is a system that provides heat, air conditioning, light and communications for the driver's compartment of a commercial motor vehicle when parked at a truck stop, depot or other facility.

When long-haul trucks stop overnight or for legally required breaks, drivers often idle their engines to provide heating, air conditioning and light to the cabin, or to power electric devices such as refrigerators or televisions. Truck idling is estimated to consume about 838 million gallons of fuel per year. Diesel fuel emits particulate matter, which has been linked to respiratory damage and premature death (State Energy Strategy for Georgia 2006, p. 62). Argonne National Laboratories (2015) estimates that idling overnight and during breaks results in 400 tons of emitted particulate matter each year nationwide, which has an adverse effect on climate change, local air quality and the health of drivers. In Georgia alone, there are approximately 43,375 trucks on the road each year.¹⁷ Additionally, because of the strong growth in the Georgia economy, the number of trucks on our roadways is expected increase in the coming years.

Truck Stop Electrification (TSE)

TSE reduces the amount of particulate matter in the air by providing electricity to resting truck drivers at truck stops and depots. A collaboration between North Carolina, South Carolina and Georgia installed TSE stations along the I-85 corridor (Governor's Energy Policy Council 2006). Based on the latest data provided by the U.S. Department of Energy, Alternative Fuels Data Center, there are five stations in Georgia with a combined 127 electrified parking spaces.

Two types of electrified parking space systems are available. Single-system electrification provides heating, ventilation and air conditioning (HVAC) directly to the truck via a duct that feeds into the driver's window (Figure 3). With this system, the owner of the truck stop provides virtually all the

¹⁵ Data from the Georgia Department of Revenue based on returns processed as of June 19, 2017.

¹⁶ Ibid.

¹⁷ Email message researchers at the Fiscal Research Center, November 1, 2017.

system infrastructure.¹⁸ Dual-system electrification, also referred to as shore-power, plugs into a truck's onboard HVAC system and accessories (Figure 4). With this system, truck cabs are powered via a power pedestal. Under this arrangement, the truck stop operator provides the power pedestals, but the truck driver must have an electricity converter, an onboard HVAC unit and hardware to plug into the power pedestal. In both cases, there is typically a charge for use of the system.

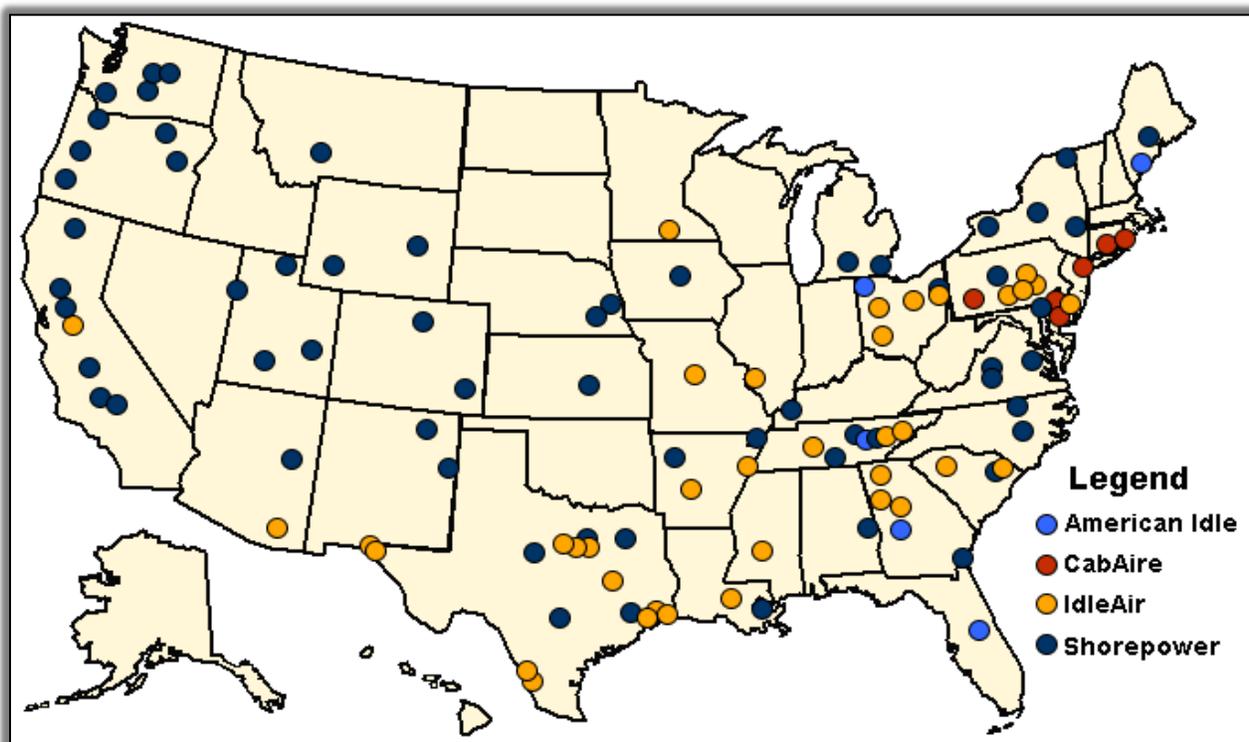
Figure 3. Single System



Figure 4. Dual System



Figure 5. Truck Stop Electrification Sites by Company and Location, as of March 30, 2017



Source: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy

¹⁸ A small window adapter is required for use with this system. This is inexpensive and typically provided by the truck driver.

Evaluation of the Diesel Particulate Emission Reduction Technology Equipment Credit

| MEASURE | SCORE |
|---------------|-------|
| Justification | + |

Presumably, the purpose of the credit is to reduce diesel emissions that will result in improved air quality to benefit other individuals in addition to the truck operators. It is a fundamental economic principle that such situations will lead to an underinvestment of the air improvement equipment by the private sector and that government subsidies are required to increase investment.

It is not obvious why this program should be solely subsidized at the state level as the gains from clean air are felt by residents of other states in addition to Georgia. Because the gains are not limited to Georgia residents, the program should be operated primarily at the federal level.

Lastly, there is no obvious reason why this program should be run through the tax system. It may be more appropriate to administer this program via an annual appropriation in the budget. Because the program is run as an income tax credit and unused credits cannot be carried forward, only individuals with tax liabilities in excess of the credit will be able to use the credit.

| MEASURE | SCORE |
|---------------|-------|
| Effectiveness | - |

The credit seems to have been ineffective because its use is minimal. This may be due to a lack of certified technologies, a lack of knowledge of the credit or because the credit is not needed.

| MEASURE | SCORE |
|------------|-------|
| Efficiency | N/A |

Without additional clarification on the type of equipment or technology eligible for the credit, it is not possible to evaluate the credit on the basis of efficiency.

| MEASURE | SCORE |
|---------|-------|
| Equity | + |

Usage of the credit is limited to those individuals who own a truck or those who operate a truck stop. The credit language does not preclude any geographic region of the state. While not targeted to any income level, it is likely that the credit will be more attractive to those with higher levels of income because unused credits cannot be carried forward.

| MEASURE | SCORE |
|----------------------|-------|
| Return on Investment | - |

Because much of the benefit is in the form of improved air quality, the return on investment is widely dispersed among residents of Georgia and other states and is consequently very difficult to measure.

| MEASURE | SCORE |
|-------------------------------------|-------|
| Credit Structure and Administration | - |

The credit has no annual cap on utilization but does not allow unused credits to be carried forward.

The credit is administered by the Georgia Department of Revenue. Alternatively, other credits such as the alternative fuel heavy-duty vehicle and the alternative fuel medium-duty vehicle tax credit, and the expired low- and zero- emission vehicle tax credit have been administered by the Department of Revenue in coordination with the Department of Natural Resources. Given the assumed purpose of this credit, it may be beneficial to include the Department of Natural Resources in the administration of this credit to help coordinate air quality improvement efforts across government agencies.

| MEASURE | SCORE |
|----------------|-------|
| Budgetary Risk | - |

Because utilization is minimal, there has been very little risk to the budget.

| MEASURE | SCORE |
|-------------------------|-------|
| Local Government Impact | + |

We found no indication of a local impact from this policy.

| MEASURE | SCORE |
|-------------------|-------|
| Opportunity Costs | + |

At this point, the state has experienced very little opportunity cost because minimal funds have been used for this purpose. If, in the future, more claims are taken against this credit, the opportunity cost to the state will increase because there will be a greater reduction in state revenues that could have been used for other purposes.

Suggested Policy Recommendations

Based on this review of the tax credit, we offer the following recommendations.

- Further research should be conducted on how best to achieve the goal of reduced diesel emissions.
- The state should establish standards of qualifying equipment. According to GRTA officials, no requests have been made to certify particular technologies as meeting the statutory definition of diesel emission reduction technology, and they believe the credit is virtually unknown to taxpayers. GRTA is in the process of developing standards to proactively identify technology eligible for the credit.¹⁹
- The state should consider including the Georgia Department of Natural Resources in the administration of this credit, based on their history of administering similar credits of this type.
- The state should consider converting this tax credit to a grant program with an annual budget appropriation.

¹⁹ Email message to researchers at the Fiscal Research Center from GRTA representative, November 9, 2017.

GEORGIA'S DRIVER EDUCATION TAX CREDIT

Credit Review Summary

Parents or guardians of a dependent minor²⁰ participating in a certified driver's education course from a private provider can claim a tax credit for the amount paid to the provider, or \$150, whichever is less (O.C.G.A. § 48-7-29.5).

Findings

Taxpayer data from 2014 indicate that 872 taxpayers claimed the credit for a total of \$118,396.

Evaluation Criteria

| MEASURE | SCORE |
|-------------------------------------|-------|
| Justification | + |
| Effectiveness | - |
| Efficiency | - |
| Equity | - |
| Return on Investment | N/A |
| Credit Structure and Administration | - |
| Budgetary Risk | -/+ |
| Local Government Impact | N/A |
| Opportunity Costs | - |

Suggested Policy Recommendations

The state should consider the merits of continuing to provide this program through the tax code. The current policy reduces the compliance cost of the program from the perspective of the taxpayer, but it limits the benefits of the program to higher income individuals who can utilize a tax credit.

The state should consider providing a refundable tax credit and indexing the \$150 for inflation.

The state should consider broadening the eligibility requirements to include programs provided by public schools for which a fee is charged.

Introduction

The purpose of the tax incentive is to encourage greater participation in driver education programs by reducing the cost of such programs. It is assumed that participation results in fewer vehicle accidents and fatalities. Because participation in these programs can improve safety outcomes for all drivers, there may be an underinvestment in these programs in the absence of government intervention. Therefore, providing the credit addresses this underinvestment.

²⁰ A dependent minor in Georgia must be 18 years of age or below.

The review continues as follows: a description of the tax credit and other incentives that are typically used in combination with it; relevant usage statistics of the Georgia credit; and the set of criteria by which the credit is measured, followed by recommendations for improvement of the program.

About the Credit

Joshua's Law

Senate Bill 226, also known as "Joshua's Law," passed in 2005 to improve driver outcomes for teenagers (Drivesmartgeorgia 2016). This law requires all 16-year-olds applying for a Class D²¹ driver's license to complete a driver education course that is approved by the Georgia Department of Driver Services (GDDS) and to complete a total of 40 hours of supervised driving, six hours of which must be at night.²² Specifically, the driver education course that qualifies under Joshua's law should consist of:

- 30 hours of instruction, which can be done online or via a public school or private instructor, and
- Six hours of behind-the-wheel driving at a public school or private provider, or 40 hours of a parent-taught comprehensive driving course approved by GDDS (Georgia Department of Driver Services 2017).

Tax Credit for Driver Education

Parents or guardians of a dependent minor²³ participating in a certified driver's education course from a private provider can claim a tax credit on the amount paid to the provider, or \$150, whichever is less. This credit has been available since 2001 and is administered by the Department of Revenue.

The cost of driver education programs varies widely. If the teenager uses the virtual instruction program and the accompanying parent-taught driving course, then the final cost is \$30 to \$80.⁴ If the teenager purchases both the in-class instruction and behind-the-wheel training from a private provider, the typical cost can range from \$350 to \$500.²⁴ However, the latter option enables participants to receive a 10 percent reduction in insurance premiums (O.C.G.A. § 33-9-42). In addition, some public school systems offer driver education courses to their students free of charge, but many other systems offer the class for a fee.

A total of 157 certified private companies in Georgia offer driver education classes. Fifty-two percent of the private companies are located in Gwinnett, Fulton, DeKalb, Cobb, Cherokee and Henry counties, and the remainder are distributed across 39 counties. The other 114 counties in Georgia do not have a private provider for driver education training.²⁵ These non-served areas have an estimated 28 percent of

²¹ Class D licenses are provisional/intermediate licenses that are given to teenagers between the ages of 16 and 17. The Class C license (full driver's license) is only available for those above the age of 18. Teenagers who are 15 years old can get an instructional permit. This is part of Georgia's graduated licensing program under the 1997 Teenage and Adult Driver Responsibility Act (TADRA).

²² See dds.georgia.gov/joshuas-law-explained-faqs#field_related_links-576-4. If the teenager is 17 years old, she/he is exempted from completing a driver's education course but is not exempted from completing the requirements pertaining to supervised driving.

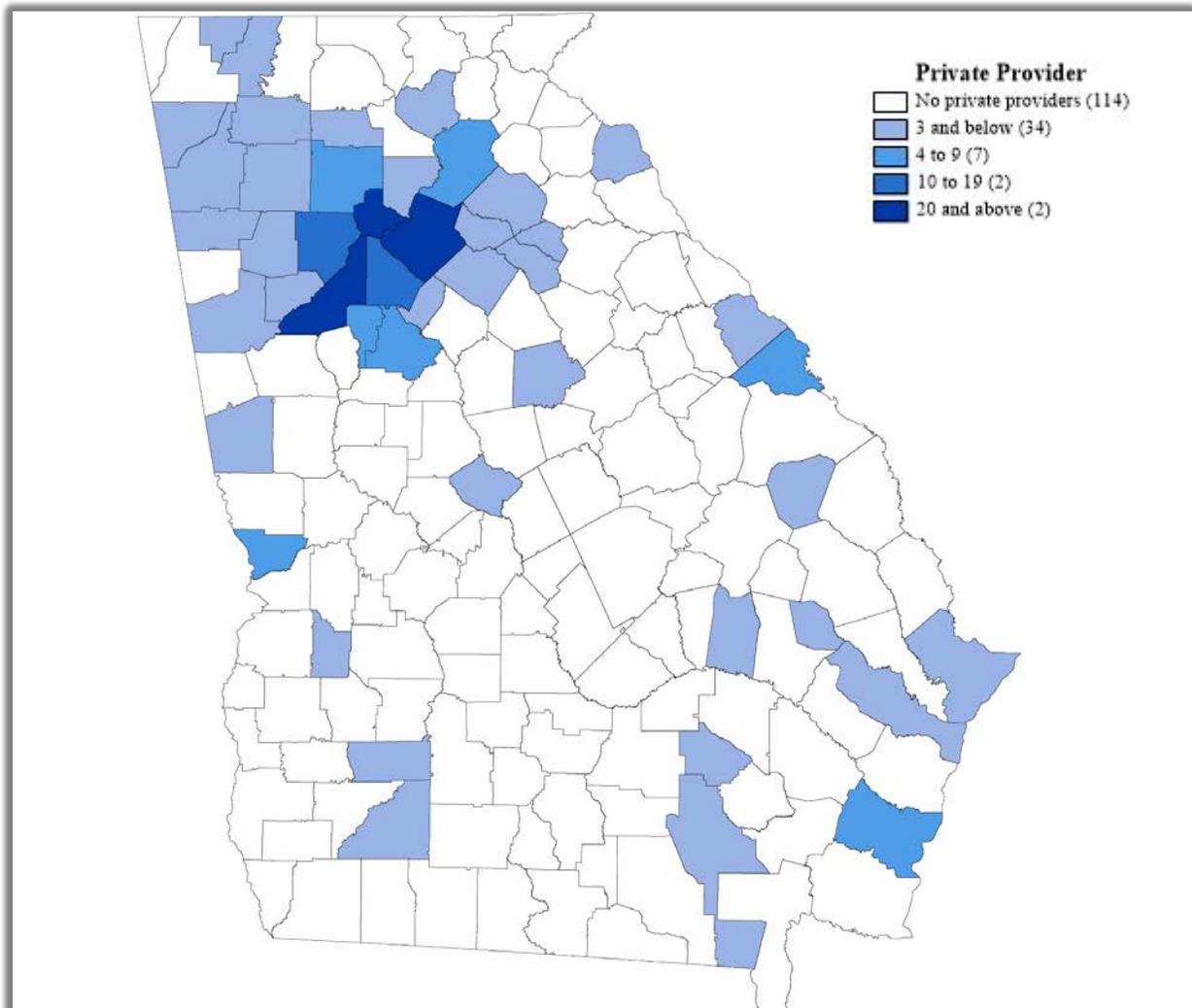
²³ A dependent minor in Georgia must be 18 years of age or below.

²⁴ Retrieved from a sample of several private provider websites. The reference links are a) www.lstatlantaduischool.com/drivers-education/; b) www.lststopgtda.com/enroll; c) www.a1drivingschools.com/driving-lessons/; d) www.brockdriverschool.com/DriversEd.html; e) drivesmartgeorgia.com/courses/drivers-ed/; f) www.georgiadrivingschool.com/driving-classes/joshua-law/; g) www.rockdalenevtndriving.com/drivertraining; h) www.smartdrivesed.com/; and i) www.tri-countydriving.com/driver-s-education.html.

²⁵ Number determined by analyzing information provided by the Georgia Department of Driver Services.

Georgia's teens ages 15 to 19.²⁶ Figure 6 shows the distribution of private driver education providers across Georgia. Areas that have relatively more private providers typically have a relatively higher number of teenagers between 15 and 19 years of age.²⁷

Figure 6. Map of Private Driver Education Providers in Georgia, 2017



Source: Based on data from Georgia Department of Driver Services

Alternative Support for Driver Education

In 2017, the Georgia Driver's Education Commission implemented the Georgia Driver's Education Grant Scholarship Program. This program is primarily targeted toward dependent teens of public safety professionals or members of the U.S. military killed in the line of duty (tier 1), and secondarily targeted toward teens whose families can demonstrate a need based on family income (tier 2).²⁸ Third priority is

²⁶ U.S. Census Bureau, 2011-15, American Community Survey Five-Year Estimates.

²⁷ The correlation coefficient between the number of private providers and the 15- to 19-year-old population is 0.96.

²⁸ 125 percent of the income eligibility guidelines for free and reduced-price meals in the state of Georgia. For example, for a family of four, the maximum family income level under which the teenager may qualify to be a tier 2 applicant is \$56,193.75.

given to all applicants who do not meet the criteria set forth for tier 1 and tier 2 applications (tier 3). Scholarship allocations for these tier 3 applicants are evenly distributed among Georgia's congressional districts. If more grant scholarship applications are received than the number of grant scholarships available in each priority level, then the scholarships are awarded via a computer-generated random selection method from the priority level applications. A limited number of scholarships are awarded each month, but students can reapply for the scholarship up to six times if denied in the first month of application. These scholarships cover the entire cost of driver education training by all certified public and private providers. The cost of reimbursement is limited to \$500 per scholarship.

Usage of the Tax Credit

Based on data for the 2014 tax year from the Georgia Department of Revenue, 872 filers claimed the driver education tax credit for a total sum of \$118,396.²⁹ The average credit claim was \$136. To put these numbers in perspective, 32,331 and 35,611 16-year-olds became licensed drivers in 2014 and 2015, respectively.³⁰ Table 5 shows usage statistics of the credit by adjusted gross income (AGI).

Table 5. Credit Utilization of the Driver Education Tax Credit for Tax Year 2014 by AGI

| INCOME GROUP | PERCENTAGE OF CREDIT CLAIMS | PERCENTAGE OF TOTAL CREDIT CLAIMED |
|-----------------------------|-----------------------------|------------------------------------|
| AGI < \$25,000 | 7.45% | 7.27% |
| \$25,000 < AGI < \$50,000 | 7.57% | 6.85% |
| \$50,000 < AGI < \$75,000 | 9.29% | 8.72% |
| \$75,000 < AGI < \$100,000 | 14.68% | 13.45% |
| \$100,000 < AGI < \$250,000 | 49.31% | 51.05% |
| \$250,000 < AGI | 11.7% | 12.66% |

Source: Georgia Department of Revenue, computed by the Fiscal Research Center

In comparison, 5,011 students utilized the scholarship program, for a total of \$1.96 million for fiscal year (FY) 2017. The weighted³¹ average rate claimed by each student was \$391. The distribution of the scholarships by tier type are shown in Table 6.

Table 6. Distribution of Awards for the Driver Education Scholarship Program, FY 2017

| TYPE OF PRIORITY LEVEL | PERCENTAGE OF APPROVED APPLICANTS |
|---|-----------------------------------|
| Tier 1 – Dependent of Deceased Service Member | 0.05% |
| Tier 2 – Need Based | 51.61% |
| Tier 3 – Neither Tier 1 nor Tier 2 | 48.31% |

Source: Based on data provided by the Georgia Driver's Education Commission

²⁹ Only tax year 2014 data were available for this analysis.

³⁰ Data gathered from the Federal Highway Administration: www.fhwa.dot.gov/policyinformation/statistics.cfm.

³¹ Weighted by the percentage of the count of specific rates, among the count of all claimed rates.

Of the 5,011 students who used the scholarship program, 47 percent purchased driver education from private providers (weighted average rate paid was \$435) and 53 percent purchased driver education from public providers (weighted average rate paid was \$351).

Evaluation

| MEASURE | SCORE |
|---------------|-------|
| Justification | + |

The credit can be justified on social grounds to the extent that participation in driver education programs improves the performance of young adult drivers, which is a benefit to all. It is less clear why this subsidy needs to be provided through the tax code. Providing the credit through the tax code skews the usage to higher income taxpayers with tax liabilities sufficient to use the credit, whereas the benefits of the credit are likely to be spread evenly across all taxpayers.

| MEASURE | SCORE |
|---------------|-------|
| Effectiveness | - |

It is not clear that any incentive is required over and above the 10 percent discount on insurance premiums. Based on our research, there are likely thousands of students taking driver education, and many of those are incurring a cost but not claiming the tax credit. It is likely that these students (or their parents) perceive a benefit from the education regardless of the presence of the subsidy.

| MEASURE | SCORE |
|------------|-------|
| Efficiency | - |

Because a taxpayer is only eligible for the tax credit if they use a private provider, this may cause individuals to choose a private provider's driver education program simply to qualify for the credit. In addition, it may create a situation in which the provider increases the cost of the program by the amount of the subsidy so that the beneficiary of the credit is ultimately the program provider and not the taxpayer.

| MEASURE | SCORE |
|---------|-------|
| Equity | - |

High-income tax filers make up a substantial portion of those utilizing the tax credit because these filers have sufficient income to be able to take advantage of the tax credit. However, drivers of all income levels are likely to benefit equally from a driver education course. In addition, a significant number of Georgia counties do not have a private education provider; therefore, students and families from those counties are at a disadvantage in qualifying for the credit.

| MEASURE | SCORE |
|----------------------|-------|
| Return on Investment | N/A |

Because the driver education tax credit is a social benefit and not an economic development incentive, return on investment is not an appropriate standard by which to assess it, and any attempt to quantify the benefits are likely to underestimate them.

| MEASURE | SCORE |
|-------------------------------------|-------|
| Credit Structure and Administration | - |

As currently structured, the credit seems straightforward to administer. When reviewing the information provided to the Georgia Department of Revenue by taxpayers claiming the credit in 2014, however, we found that some taxpayers listed a public school as the program provider. Current information on the Department of Driver Services website clearly states that public school programs are not eligible for the program. It may be that this problem has been resolved with improved understanding of the eligibility requirements in more recent tax years.

It is not obvious why the credit rate is \$150 and not a value higher or lower. In addition, because the credit value is not indexed for inflation, the inflation-adjusted value of the subsidy will drop as the cost of these programs increases.

Lastly, it is not obvious why the credit is only available to students utilizing the services of a private provider, as several public school systems also provide this service for a fee.

| MEASURE | SCORE |
|----------------|-------|
| Budgetary Risk | -/+ |

The credit can only be used once per individual, but there is no annual cap on the total amount that can be claimed. Given the low usage of the credit, there is currently little budgetary risk. In addition, the lack of carry-forwards reduces both the administrative costs and the budgetary risk. However, the lack of an annual cap on total awards represents a risk if utilization of the credit increases.

| MEASURE | SCORE |
|-------------------------|-------|
| Local Government Impact | N/A |

There is no direct local government impact.

| MEASURE | SCORE |
|-------------------|-------|
| Opportunity Costs | - |

The most obvious opportunity cost of the program is that the funds might be better used by the grant program. If the tax credit funds were devoted instead in the grant program, an additional 302 students would receive a scholarship award.³²

Suggested Policy Recommendations

- The state should consider the merits of continuing to provide this program through the tax code. The current policy reduces the compliance cost of the program from the perspective of the taxpayer, but it limits the benefits of the program to higher income individuals who can utilize a tax credit.
- The state should consider providing a refundable tax credit and indexing the \$150 for inflation.
- The state should consider broadening the eligibility requirements to include programs provided by public schools for which a fee is charged.

³² Assumes that each student qualified for the average cost of \$390.

GEORGIA QUALIFIED RESEARCH EXPENSES TAX CREDIT

Credit Review Summary

The state of Georgia provides a tax credit of 10 percent of a business enterprise's³³ increase in qualified research expenses conducted in Georgia (O.C.G.A. § 48-7-40.12).

Findings

Based on data provided by the Georgia Department of Revenue, taxpayers claimed approximately \$116 million in research and development credits between 2011 and 2014.

Evaluation Criteria

| MEASURE | SCORE |
|-------------------------------------|-------|
| Justification | + |
| Effectiveness | + |
| Efficiency | - |
| Equity | -/+ |
| Return on Investment | N/A |
| Credit Structure and Administration | - |
| Budgetary Risk | - |
| Local Government Impact | None |
| Opportunity Costs | - |

Suggested Policy Recommendations

- To better understand the employment gains associated with this tax credit, the state should consider requiring increased reporting by the firms claiming this credit.
- The state should explore the extent to which firms in Georgia might benefit from using the federal alternative simplified credit calculation at the state level.

Introduction

Although not explicitly stated in the qualified research expenses tax credit statute, this analysis assumes that the purpose of the tax incentive is to stimulate research and development (R&D) activities within the state. The credit reduces the cost of these activities through the subsidy, thereby encouraging more activity. It is widely acknowledged that research activities create positive benefits for other businesses and for society as a whole. Because these positive spillover effects do not only accrue to the business undertaking the research activity, there may be an underinvestment in these projects in the absence of government intervention. Providing the credit addresses this underinvestment. It is important to note, though, that the credit is typically used to subsidize applied research activities conducted by private-sector firms. This business R&D activity is likely to have less of a spillover effect than basic research activities.

³³ Any business engaged in manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, and research and development industries is eligible. Retail businesses are excluded.

The review continues as follows: a description of the Georgia R&D tax credit and other incentives that are typically used in combination with the state tax credit; information on the usage of the credit in Georgia and nationally; information on R&D expenditures; previous analyses of the program that focused specifically on the effect of the credit on research activities; and the set of criteria by which the credit is measured, followed by recommendations for improvement of the program.

State Tax Credit for Qualified Research Expenses

The state of Georgia provides a tax credit of 10 percent of a business enterprise's³⁴ increase in qualified research expenses conducted in Georgia (O.C.G.A. § 48-7-40.12). Restrictions and terms of the credit are as follows:

- a. The increase refers to the excess in qualified research expenses over a base amount. The base amount is the product of the business enterprise's Georgia gross receipts in the current taxable year and the average of the ratios of its aggregate research expenses to Georgia gross receipts for the preceding three taxable years or 0.30, whichever is less.
- b. This credit is given to a Georgia business if it also claims and receives the federal R&D credit, as defined in Section 41 of the Internal Revenue Code (IRC).
- c. The credit in any one taxable year is limited to 50 percent of the business's remaining Georgia net income tax liability after all other credits have been applied. If the amount of credit exceeds this limit, the excess credit might be used against payroll withholding.³⁵
- d. Unused credits can be carried forward for 10 years.

Qualified research expenses include both in-house and contractors' research expenses. In-house research expenses include wages, supplies and computer leasing expenses.³⁶ In the case of contract research, only 65 percent of payments for qualified research by an individual contractor are eligible, but 75 percent is eligible for qualified research consortiums. The qualified research must be conducted for the purpose of discovering information that is technological in nature and is intended to be useful in the development of a new or improved business component. A substantial amount of the activity must relate to the process of experimentation with respect to a new or improved function, performance, reliability or quality.³⁷

Federal Tax Credit for Research and Development

The Georgia R&D tax credit can only be claimed if the business enterprise claims and receives the federal R&D credit. The federal credit is 20 percent of qualifying expenditures. Taxpayers have two methods of applying the federal credit.

- In the first method, the base amount is the product of the business's fixed base percentage, which is the ratio of its research expenses to gross receipts for the 1984-88 period, and the average of the

³⁴ Any business engaged in manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, and research and development industries is eligible. Retail businesses are excluded.

³⁵ As defined by O.C.G.A. § 48-7-103.

³⁶ Indirect costs related to the research such as the research department's overhead expenses, depreciation on property used in the research process and general corporate overhead are not allowed to be included in qualified research expenses.

³⁷ The research must also be in line with the criteria of IRC Section 174. Certain activities are excluded from the definition of qualified research as per IRC Section 41(d)(4).

taxpayer's gross receipts for the four preceding years.³⁸ The base must be equal to 50 percent or more of a firm's qualified research expenses (QRE) in the current tax year.

- In the second method, taxpayers use an alternative simplified credit (ASC), which equals 14 percent of QRE that exceeds a base amount, which is defined as 50 percent of the average QRE for the three preceding taxable years. The ASC rate is reduced to 6 percent if the taxpayer has no QRE in any of the three preceding taxable years.

It is important to note that corporate taxpayers can deduct QRE from their taxable income. However, they have to choose between reducing the amount of their deduction of research expenditures by the amount of the claimed credit, and electing a smaller credit, one that is decreased by a proportion equal to the maximum statutory corporate tax rate.

R&D Tax Credits in Other States

Table 7 summarizes the R&D credits available in other southeastern states.

Table 7. R&D Credits in Southeastern States

| STATE | R&D CREDIT | LIMITATIONS | SPECIFICS |
|-----------------------------|------------------------|---------------------------------------|---|
| Alabama | No credit | N/A | N/A |
| Arkansas | 20% | 100% of tax liability | 33% rate for R&D in strategic value, via university or within a target business sector |
| Florida | 10% | 50% of tax liability | Only for target business sectors |
| Georgia | 10% | 50% of tax liability | Excess R&D credit can be used against state payroll withholding |
| Kentucky | No credit ^a | N/A | N/A |
| Louisiana | 40% ^b | Refundable tax credit | |
| Mississippi | No credit | N/A | N/A |
| North Carolina ^c | Expired in 2016 | N/A | N/A |
| South Carolina | 5% | 50% of tax liability | Carry-forward is 10 years |
| Tennessee | No credit | N/A | N/A |
| Virginia | 15% | % of first \$234,000 in Virginia QREs | If aggregate credit paid out exceeds the cap, each taxpayer will receive a pro rata amount determined by responsible department |
| West Virginia | No Credit | N/A | N/A |

a A 5 percent credit is available for the construction of qualified research facilities but not for qualified research expenses.

b For firms with more than 50 employees. For firms with fewer than 50 employees, the credit rate is lower.

c North Carolina provides a sales tax exemption for certain R&D activities.

The federal government and most states offer an incremental tax credit such that only research expenditures over a defined base qualify for the credit. Specifications for computing the base of the tax

³⁸ For taxpayers not in existence during 1984-88, a modified rule is used to estimate the fixed base percentage.

credit vary widely among states. Among Georgia's bordering states, Florida's base amount is calculated as the average of the previous four tax years' QREs. However, the South Carolina credit is applied to all QRE (i.e., it is non-incremental). Georgia's other bordering states — Alabama, Tennessee and North Carolina — currently do not offer R&D tax credits.

Usage of the Tax Credit

State Credit

Table 8 shows the utilization of the state tax credit for years 2011-14. Utilization of this credit sharply increased in 2014, the majority of which was taken against employee withholding. This is likely a result of both an overall uptick in R&D expenditures as the economy recovered from the recession and the ability of the credit to be taken against withholding in some cases. In 2009, the state modified the calculation for the base of the credit and allowed firms in the first five years of operations to take the credit against employee withholding. Based on the data available from the Department of Revenue, we do not know if the \$68 million for 2014 represents a one-time spike in credit utilization or a new trend in the value of claims for the credit.

Table 8. Georgia R&D Credit Utilized by Tax Year (\$ in millions)

| | 2011 | 2012 | 2013 | 2014 |
|------------|--------|--------|--------|--------|
| R&D Credit | \$14.7 | \$13.8 | \$20.1 | \$67.7 |

Source: Georgia Department of Revenue

Table 9. Estimated Utilization for Fiscal Years (FY) 2016-18

| | 2016 | 2017 | 2018 |
|------------|------|------|------|
| R&D Credit | \$28 | \$29 | \$31 |

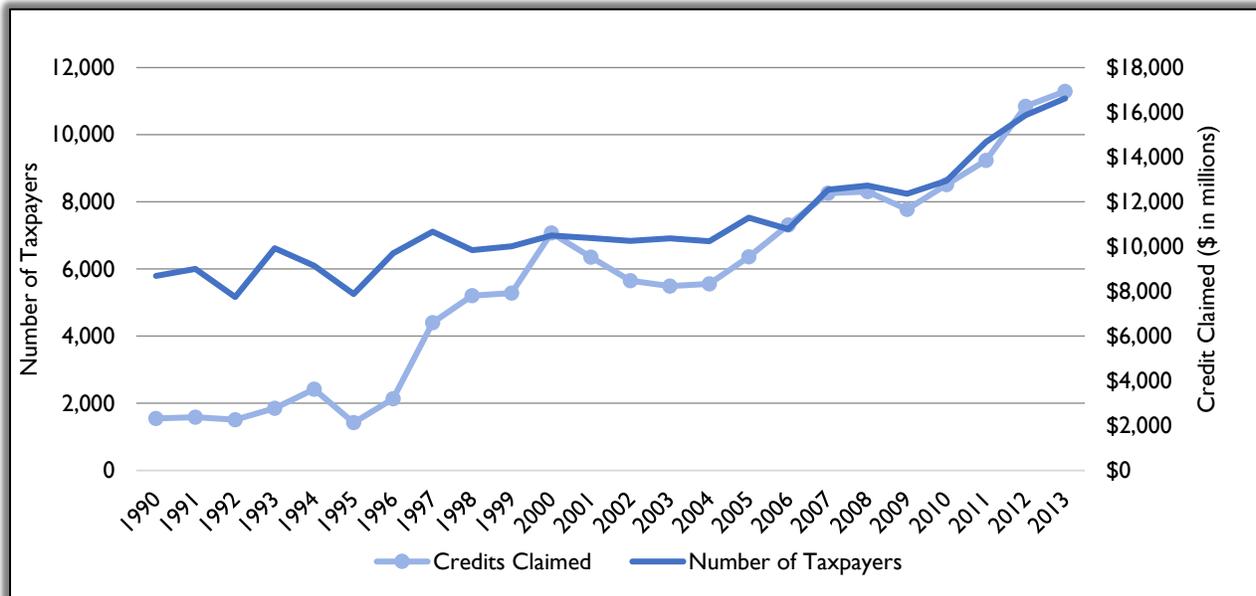
Source: Georgia Tax Expenditure Report for FY 2018, Fiscal Research Center

Federal Credit

The federal R&D credit was permanently extended as of January 1, 2015. Prior to this, the credit had expired and was extended, typically retroactively, multiple times over the previous decade. This lack of permanency of the federal credit, and by extension the state credit, may have curtailed research activities.

Figure 7 shows the upward trend in the number of corporate tax credits claimed and the number of taxpayers claiming the federal tax credit over the 1990-2013 period.

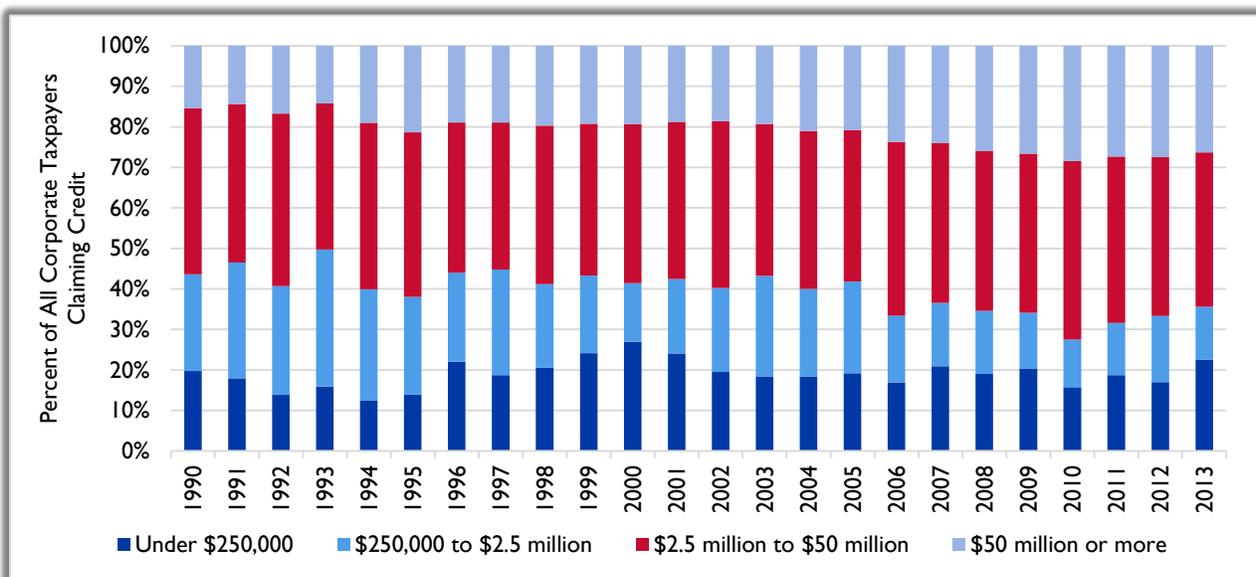
Figure 7. Usage of the Federal R&D Tax Credit, 1990-2013



Note: Information includes corporate tax filers only.
 Source: Internal Revenue Service, Statistics of Income

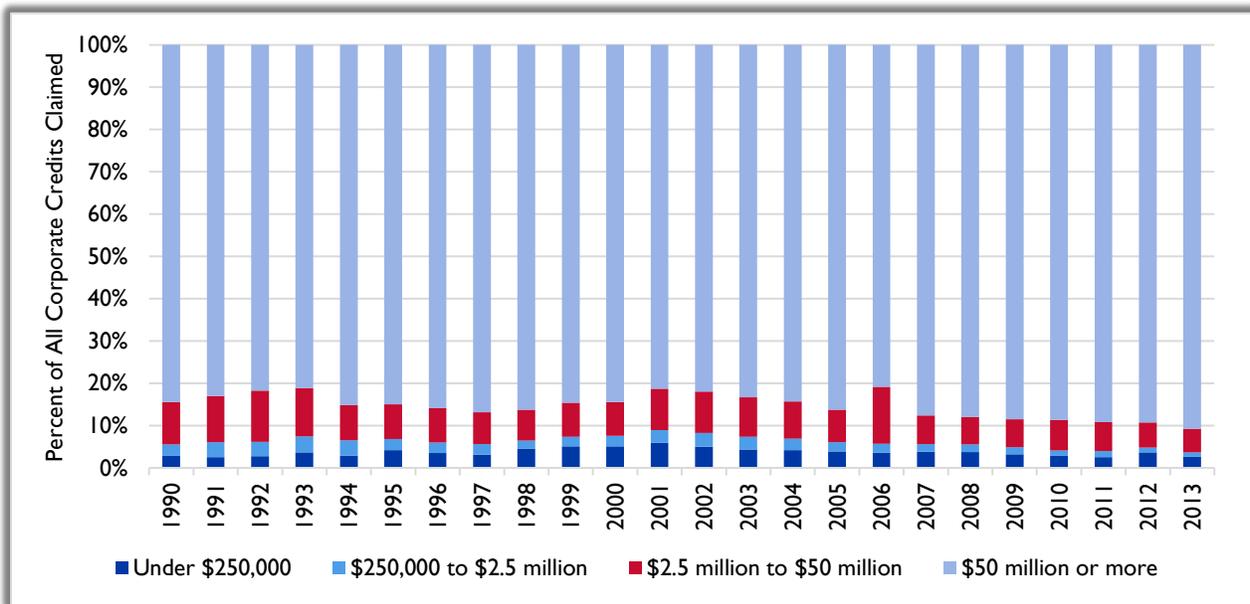
Figure 8 displays the distribution of corporate taxpayers claiming the federal R&D tax credit by size of business receipts. Most corporations claiming the credit have receipts of at least \$2.5 million. Figure 9 shows the distribution of credits claimed by size of business receipts. Typically, 80 percent or more of all R&D credits are claimed by corporate taxpayers with receipts of \$50 million or more.

Figure 8. Distribution of Taxpayers Claiming Credit, by Size of Corporation, 1990-2013



Note: Information includes corporate tax filers only.
 Source: Internal Revenue Service, Statistics of Income

Figure 9. Distribution of Credits Claimed, by Size of Corporation, 1990-2013



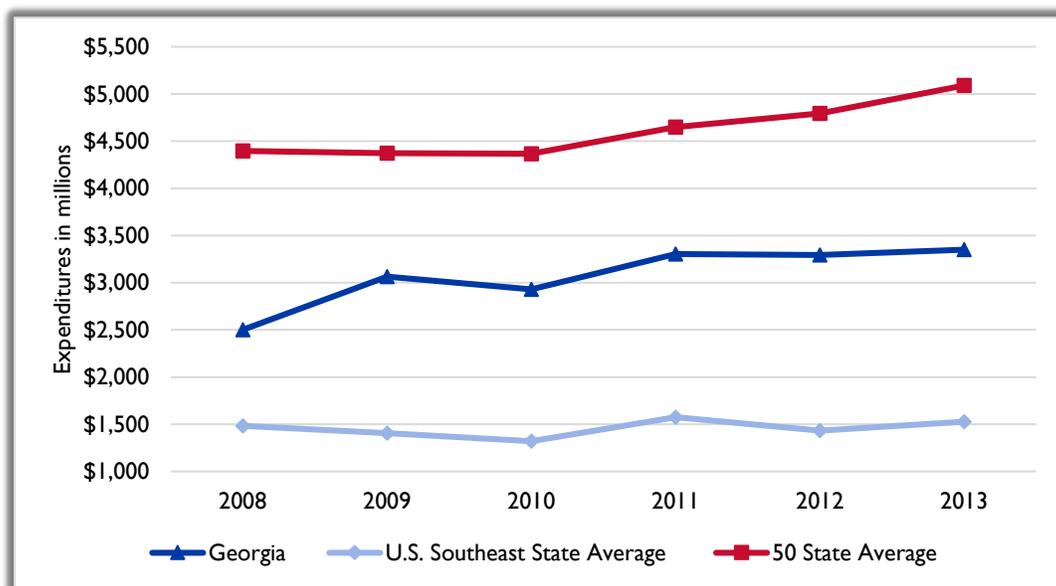
Note: Information includes corporate tax filers only.

Source: Internal Revenue Service, *Statistics of Income*

R&D Expenditures

Figure 10 shows the trends in business R&D expenditures for Georgia, the United States and the average for southeastern states over the 2008-13 period.³⁹ Georgia consistently outperformed the southeastern state average over this time period. About 72 percent of all business R&D in Georgia was performed in the following industries: information, finance and insurance, computer and electronic products, chemical and transportation.

³⁹ The southeastern states included in this average are North Carolina, South Carolina, Tennessee, Virginia, West Virginia, Mississippi, Louisiana, Kentucky, Florida, Arkansas and Alabama.

Figure 10. Business R&D Expenditures, 2008-13

Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Industrial Research and Development and Business R&D and Innovation Survey (various years)

Effect of the R&D Credit

Although not explicitly stated in statute, we assume that the purpose of the provision is to encourage R&D activities within the state. The extent to which this occurs has been studied globally, for the United States and for individual states. For instance, Bloom et al. (2002) analyzed R&D credits in nine member countries of the Organisation for Economic Co-operation and Development (OECD) over 1979-97 and found that a 10 percent reduction in the cost of R&D stimulates just over a 1 percent increase in the level of R&D in the short run, and just under a 10 percent increase in R&D activity in the long run. Gupta et al. (2011) found that a \$1 increase in the federal tax credit resulted in a \$2.08 increase in R&D spending nationally. Rao (2016) examined the effect of the U.S. federal R&D credit between 1981 and 1991 using Internal Revenue Service data and found that a 10 percent reduction in the cost of R&D led to an increase in the ratio of R&D spending to sales of approximately 20 percent in the short run for the average firm.

The findings from research on R&D credits at the state level have more mixed findings. Wu (2005) analyzed data from 13 states⁴⁰ from 1979 to 1995 and found that the state R&D tax credits had a positive impact on R&D activity. Wu (2008) also analyzed 49 states over 1994-2002 and found that the existence of a state tax credit had a positive impact on the size of the high-tech business sector within that state, as measured by the number of high-tech firms in the state relative to its population or total number of businesses. Ho (2006) studied state R&D tax credits using a quasi-experimental approach in which he compared states with no R&D credits to states with R&D credits. He found that the credits led to an increase in R&D spending and employment and that the positive effects on R&D spending were widespread across all industries and firms of various sizes, while positive effects of employment were limited to large firms in high-tech industries. Wilson (2009) studied all U.S. states from 1981 to 2004 and

⁴⁰ Alabama, Arizona, California, Colorado, Connecticut, Florida, Illinois, Massachusetts, New Jersey, New York, Ohio, Pennsylvania and Virginia.

found that R&D state tax credits increased R&D spending in the long run in states with a generous tax credit but also found a corresponding drop in expenditures from other states, suggesting that the aggregate effect of state R&D credits on national R&D expenditures is zero.

Evaluation of the R&D Credit

| MEASURE | SCORE |
|---------------|-------|
| Justification | + |

It has long been accepted that R&D activities are an example of a classic public good for which the benefits accrue not only to those engaged in the activity but to others in society. As such, a subsidy is required to incentivize an optimal level of this activity. From this perspective, there is justification for some type of government support.

| MEASURE | SCORE |
|---------------|-------|
| Effectiveness | + |

Based on the research on R&D credits in general, the subsidy stimulates additional R&D activities. In addition, there is some evidence that states compete with each other for research activities. This indicates that the subsidy could be responsible for attracting more activity to Georgia from other states. The increase in activity is likely to equate to increased employment in R&D industries; such jobs tend to offer higher-than-average wages.

| MEASURE | SCORE |
|------------|-------|
| Efficiency | - |

Because the credit is incremental in nature and complex in structure, it likely creates an incentive to adjust the timing of activities and classification of expenses to maximize the credit. We found no research to indicate the degree to which this may be occurring.

| MEASURE | SCORE |
|---------|-------|
| Equity | -/+ |

The credit is available to all firms with the exception of retail, regardless of size or location. In its current structure, it becomes more difficult to qualify for the credit as the value of the firm's gross receipts increase. This may place some firms at a disadvantage if they also have high costs and therefore low profits.

| MEASURE | SCORE |
|----------------------|-------|
| Return on Investment | N/A |

Our research did not find an analysis that measured the return on investment for this tax credit. Based on the information we found on the effectiveness of the credit, it is possible that this credit results in some additional research activities in the state. These activities will likely lead to increased employment,

with such jobs typically associated with higher-than-average wages. The increased tax revenue from these wages and consumption would offset some, but not all, of the incentive.

| MEASURE | SCORE |
|-------------------------------------|-------|
| Credit Structure and Administration | - |

The credit is incremental in structure and as such is designed to reward research activity over a historical base amount for each company. However, this adds greatly to its complexity. The federal credit allows a base calculation that is a function of a firm's qualified research expenses over the past three years. This form of the credit (also referred to as the ASC method or the alternative simplified credit) is simpler to compute and still maintains the incremental nature of the credit.

| MEASURE | SCORE |
|----------------|-------|
| Budgetary Risk | - |

Under the current structure of the credit, there is no annual limit on credits awarded by the state. On the one hand, a lack of a limitation increases the power of the credit because firms are assured of receiving the credit for qualified research activities. On the other hand, this lack of a cap increases the budgetary risk to the state. Because under certain conditions the credits can be taken against employee withholding, there are fewer credits carried forward, which results in less of an outstanding liability for the state in future years.

| MEASURE | SCORE |
|-------------------------|-------|
| Local Government Impact | None |

There are no direct local government impacts from this credit.

| MEASURE | SCORE |
|-------------------|-------|
| Opportunity Costs | - |

This credit faces the same opportunity costs as other credits evaluated for this study committee. The credit represents a loss of state revenue that equates either to an increase in state tax rates or a reduction in state spending.

Suggested Policy Recommendations

- To better understand the employment gains associated with this tax credit, the state should consider requiring increased reporting by the firms claiming this credit.
- The state should explore the extent to which firms in Georgia might benefit from using the alternative simplified credit calculation at the state level.

GEORGIA QUALIFIED TRANSPORTATION TAX CREDIT

Credit Review Summary

Employers are eligible for a maximum \$25 tax credit per employee for subsidizing a qualified transportation benefit, such as vanpools or public transportation passes (O.C.C.A. 48-7-29.3).

Findings

Utilization of the credit equaled \$122,074 for the 2011-15 tax years.

Evaluation Criteria

| MEASURE | SCORE |
|-------------------------------------|---------|
| Justification | + |
| Effectiveness | - |
| Efficiency | - |
| Equity | -/+ |
| Return on Investment | N/A |
| Credit Structure and Administration | - |
| Budgetary Risk | + |
| Local Government Impact | + |
| Opportunity Costs | Minimal |

Suggested Policy Recommendations

Based on this review of the tax credit, we offer the following recommendations:

- Further research should be done to determine why this credit is not more widely used. At this point, it is not known whether lack of awareness of the credit, administrative and compliance hurdles, or other factors are limiting its use.
- The state could consider a refundable tax credit for employees for the purchase of transportation options such as MARTA cards or Xpress bus passes.
- The state may wish to consider increasing the value of the credit and modifying it to represent a percentage of the transit pass instead of a fixed dollar value.

Introduction

Although not explicitly stated in the transportation tax credit statute, this analysis assumes that the purpose of the tax incentive is to stimulate the use of shared rides and public transportation options by commuters. The credit reduces the cost of the transportation option by subsidizing the activity. Increasing the use of carpooling and public transportation reduces congestion on the road and improves air quality for all commuters. Because of these positive spillover effects associated with these transportation options, there may be an underinvestment in these projects in the absence of government intervention. Therefore, providing the credit addresses this underinvestment.

The review continues as follows: a description of the Georgia transportation credit; information on credit utilization; examples of employers who offer commuting options; previous analyses that focused

on the effect of subsidies on commuting behavior; and the set of criteria by which the credit is measured, followed by recommendations for improvement of the program.

Credit Structure

In Georgia, employers can claim an annual \$25 tax credit⁴¹ against their state income tax liability for each employee that uses a federally qualified⁴² transportation fringe benefit subsidized by the employer.⁴³ Qualifying benefits include the following:

- A subsidized commuter highway vehicle⁴⁴ that transports employees from a place of residence/common site to the place of employment, such as a van pool;
- Transit passes; and
- Qualified parking at or near the common site from which the employees are transported.⁴⁵

The credit can only be utilized if the employee uses the particular fringe benefit for at least 10 workdays per month. The credit has been in effect since 2001.

Other State Incentives

The state also provides a tax credit for purchasing or leasing a vehicle for the exclusive purpose of transporting employees to their place of work. The credit only applies to employers with business enterprises in counties designated as tier 1 or tier 2 by the Georgia Department of Community Affairs.⁴⁶ Business enterprises in the following industries qualify: manufacturing, warehousing and distribution, processing, telecommunications, broadcasting, tourism, research and development, child care, and retail. The credit equals \$3,000 in tier 1 counties and \$2,000 in tier 2 counties. Qualifying businesses must certify that the vehicles carried an average of at least four people for the full taxable year.

In addition, sales of MARTA passes are exempt from state and local sales tax.

Credit Administration

The credit is administered by the Georgia Department of Revenue.

Federal Deduction for Commuter Tax Benefits

This state income tax credit operates in combination with federal transportation tax benefits available to both employer and employee under Section 132(f) of the Internal Revenue Code. These federal benefits allow employers to provide employees up to \$255 per month for transit and commuter highway vehicle expenses, and up to \$255 per month for qualified parking⁴⁷ by subsidizing such expenses or allowing

⁴¹ The cost of providing the transportation benefit to all employees cannot be less than the total tax credit claimed by the employer.

⁴² As provided in Section 132(f) of the Internal Revenue Code of 1986.

⁴³ 1981 G.A. § 48-7-29.3; gacommuteoptions.com/How-We-Can-Help/Tax-Benefits

⁴⁴ A commuter highway vehicle should have a seating capacity of at least six adults (excluding the driver). At least 80 percent of the vehicle's mileage for the year should be reasonably connected to transportation of employees to their place of employment, and during such trips, the number of transported employees should be at least half of the adult seating capacity of the vehicle (excluding the driver).

⁴⁵ This does not include parking at or near the employee's place of residence or employment.

⁴⁶ Tier 1 and tier 2 counties represent the 106 most economically distressed counties in Georgia.

⁴⁷ This includes parking at or near the employee's place of employment but not the employee's place of residence. Employers can reimburse employees up to \$20 per month tax-free for eligible bicycle expenses as long as employees do not receive any other federal qualified transportation fringe benefit.

employees to deduct such expenses from their pre-taxable income (National Center for Transit Research 2017a). The federal incentive structure, in its current form, has been in effect since December 18, 2015 (National Center for Transit Research 2017b).⁴⁸ As per the Association for Commuter Transportation (2017), the vast majority of private-sector employers offer federally qualified commuter benefits as a pre-tax benefit but most do not offer a direct subsidy. However, even if the employer does not subsidize any portion of the commuter benefit, it still may incur some administrative cost when offering the pre-tax option to its employees. Many firms hire third parties to provide this service (Zenefits 2017).⁴⁹

Commuter Tax Credits in Other States

Several states provide similar subsidies, including Washington, Maryland, Minnesota, Delaware, Connecticut, Oregon and New Jersey (U.S. Environmental Protection Agency 2005).

Usage of the Credit

Over the 2011-15 period, \$122,074 in state income tax credits were claimed by employers for providing qualified transportation fringe benefits, as shown in Table 10. This implies that employer subsidies were provided to approximately 4,883 employees. Data on the number of employers claiming the credit are not available.

Table 10. Credit Utilization by Year

| 2011 | 2012 | 2013 | 2014 | 2015 |
|----------|----------|----------|---------|----------|
| \$15,058 | \$12,650 | \$73,391 | \$8,129 | \$12,846 |

Note: 2015 returns are not complete.

Source: Department of Revenue, returns processed as of June 19, 2017

Examples of Commuting Behavior in Georgia

Table 11 shows the methods of commuting for the Georgia workers based on data from the U.S. Census Bureau's 2016 American Community Survey.

Table 11. Georgia Commuting Modes, 2016

| MODE OF COMMUTE | PERCENTAGE OF WORKERS |
|--|-----------------------|
| Drive Alone to Work | 84.08% |
| Carpool (Car, Van, Truck) | 10.21% |
| Public Transit | 2.26% |
| Walking | 1.65% |
| Taxicab, Motorcycle, Bicycle and Other | 1.80% |

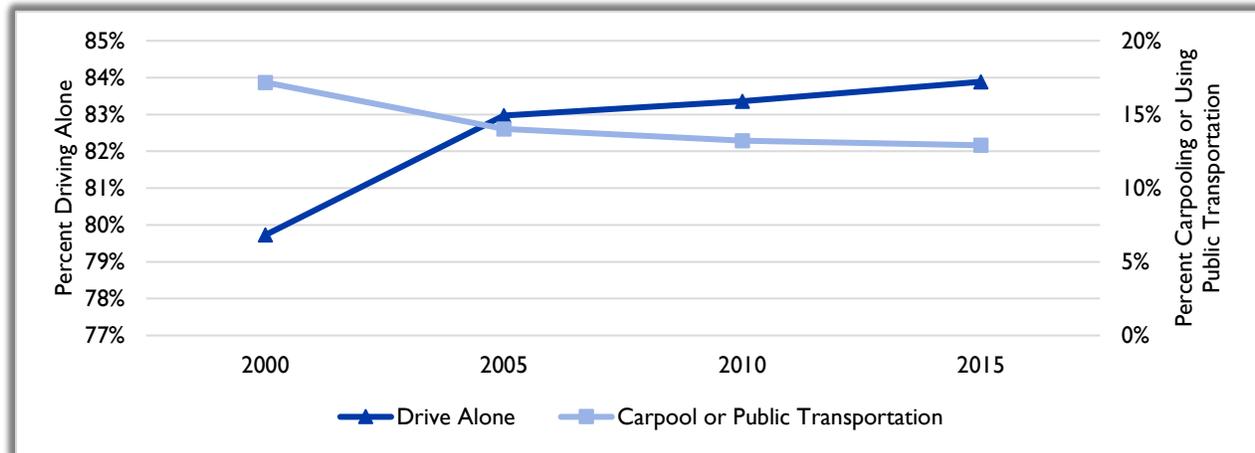
Source: American Community Survey, U.S. Census Bureau

⁴⁸ See pages 39-41 of National Center for Transit Research (2017a) for a brief history of commuter benefits, which have existed in some form since the tax reform act of 1984.

⁴⁹ See also www.wageworks.com/employers/benefits/commuter/; commuterbenefits.com/employers/products/; gacommuteoptions.com/Services-In-Your-Area/Metro-Atlanta-Services-Map. Note that Georgia Commute Options provides third-party partners for the provision of commuter tax benefits in different areas of Atlanta.

Figure 11 shows the trend from 2000 to 2015 of the percentage of workers in Georgia who drive alone and those who carpool or use public transportation.

Figure 11. Trends in Commuting Modes in Georgia, 2000-15



Source: American Community Survey, U.S. Census Bureau

Commuting Programs in Georgia

Several transportation management associations (TMA) operate within the metro-Atlanta region such as Cumberland Corridor, Livable Buckhead, Perimeter Connects, ASAP+, Midtown Alliance, Central Atlanta Progress and Aero ATL.⁵⁰ These organizations assist employers with establishing payroll deduction programs and make bulk purchases of MARTA passes on behalf of local employers. All MARTA passes purchased by these organizations are subject to a 20 percent discount through the partnership program, reducing the cost of an unlimited monthly pass from \$95 to \$76.⁵¹

For example, the Midtown Alliance supports 92-95 employers in providing commuting benefits. Most of these employers allow employees to fund their transportation expenses with pre-tax dollars,⁵² but the employers generally do not directly subsidize the commuting benefits. Most of the benefits are in the form of MARTA passes and Xpress bus service passes.⁵³ Perimeter Connects, another TMA serving the Perimeter Dunwoody area, works with approximately 50 employers. According to a Perimeter Connects representative, about 30 to 40 percent of these employers subsidize commuter benefits to some degree, with most of the benefits in the form of MARTA passes and Xpress bus service passes. While transit passes are the most popular benefit used in both of these regions, both organizations also assist employers in providing other commuting benefits related to car parking,⁵⁴ ride-sharing and bicycling to work. TMAs also offer services directly to commuters. For instance, Georgia Commute

⁵⁰ gacommuteroptions.com/Be-the-Solution/Frequently-Asked-Questions/General-Information

⁵¹ MARTA passes purchased directly by the employer may also be eligible for the 20 percent discount if at least 1,500 passes are purchased at a time.

⁵² As per the CCTMA administrator at Clifton Corridor, employers must utilize third parties to offer commuting benefits to their employees.

⁵³ www.xpressga.com

⁵⁴ The goal of Georgia Commute and these other organizations is to reduce the number of lone drivers on the road.

Options allows commuters to register with their ride-sharing database to connect them with other riders in their area so they can carpool to work.⁵⁵

IBM and Coca-Cola are the two companies in Atlanta in the 2017 list of Best Workplaces for Commuters (Center for Urban Transportation Research 2017a). To be recognized for this designation, the employer must provide commuting benefits that result in at least 14 percent of their employees no longer driving alone to work within a year (Center for Urban Transportation Research 2017b). As per Central Atlanta Progress (2016), Coca-Cola created a branded shuttle called the “red bus” that transports its employees from nearby transit stops to the main Coca-Cola Atlanta campuses. This decreases midday commutes by about 800 trips a day. It also offers a rideshare program and a commuter benefits program by which employees are eligible for MARTA and regional bus service subsidies of up to \$50 per month. As of January 1, 2017, approximately 250 employees were participating in the program.

Commuter Tax Benefits and Traffic Congestion

Overall, research on how transportation subsidies affect the use of public transportation options has been limited. We identified two studies with conflicting results. The first study, by the National Academies of Sciences, Engineering and Medicine (2005), analyzed the effect of transit benefit programs on travel behavior. The researchers found some indication that the use of public transit increased because an employer subsidy reduced the cost to the employee. Conversely, de Grange et al. (2012) found no evidence that fare subsidies increased transit ridership.

Evaluation of the Georgia Qualified Transportation Credit

| MEASURE | SCORE |
|---------------|-------|
| Justification | + |

Because the use of carpooling and public transportation reduces road congestion and improves air quality for all commuters, the benefits are experienced by more than those participating in the transportation program. Consequently, there is likely to be an underinvestment in this activity in the absence of government support.

| MEASURE | SCORE |
|---------------|-------|
| Effectiveness | - |

Given the minimal use of the credit, it is difficult to argue that this is an effective credit. It is likely that the size of the credit is insufficient to stimulate a change in commuting behavior. For example, a monthly MARTA pass is \$95 or \$1,140 annually. Thus, \$25 represents just 2 percent of this cost. It is therefore likely that a higher subsidy would have a greater effect on credit use but would also increase the state’s costs.

In addition, the credit may not be widely known. As part of our research, we reached out to representatives from MARTA and a local TMA. Both suggested that employers probably were not aware of the credit.

⁵⁵ www.mygacommuteroptions.com

| MEASURE | SCORE |
|------------|-------|
| Efficiency | - |

The purpose of the credit is to encourage individuals to use public transportation and to carpool. Due to the low utilization of the tax credit, there is little evidence to suggest it is resulting in this change in behavior.

| MEASURE | SCORE |
|---------|-------|
| Equity | -/+ |

Geographically, this benefit would be most attractive to those living in congested, urban areas such as metro Atlanta. Because the credit is provided to the employer, all employees regardless of income are equally affected.

| MEASURE | SCORE |
|----------------------|-------|
| Return on Investment | N/A |

The societal benefit from this incentive is primarily in the form of reduced traffic congestion and improved air quality. Although these benefits are material and valuable, they tend to be dispersed over many individuals and are difficult to quantify.

| MEASURE | SCORE |
|-------------------------------------|-------|
| Credit Structure and Administration | - |

The value of the credit is a fixed dollar amount. As such, the credit becomes a less valuable incentive as the cost of a MARTA ticket or other transportation option increases. The cost of administration is kept relatively low because the credit only applies to employers and is therefore limited in scope. Restructuring the credit so that it is available to employees would increase administrative costs but could also encourage more use of the credit. For instance, the credit is ineffective in incentivizing nonprofit employers because they do not incur a tax liability. If the credit is provided to both employers and employees, it would be important to allow the unused portion of the credit to be carried forward against future tax liabilities or provided as a refundable tax credit.

| MEASURE | SCORE |
|----------------|-------|
| Budgetary Risk | + |

Given the current level of usage, the risk to the budget is minimal.

| MEASURE | SCORE |
|-------------------------|-------|
| Local Government Impact | + |

Although there are no direct revenue implications for local governments, it is likely that they benefit from the reduction in traffic congestion.

| MEASURE | SCORE |
|-------------------|---------|
| Opportunity Costs | Minimal |

Because so few state resources are used for this incentive, the opportunity cost is minimal.

Suggested Policy Recommendations

Based on this review of the tax credit, we offer the following recommendations:

- Further research should be done to determine why this credit is not more widely used. At this point, it is not known whether lack of awareness of the credit, administrative and compliance hurdles, or other factors are limiting its use.
- The state could consider a refundable tax credit for employees for the purchase of transportation costs such as MARTA cards or Xpress bus passes.
- The state may wish to consider increasing the value of the credit and modifying it to represent a percentage of the transit pass instead of a fixed dollar value.

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