Georgia Tech Center for Economic Development Research

Economic and Fiscal Impact of the Georgia Agribusiness and Rural Jobs Act

Prepared for: **Rural Jobs Coalition**

Rural Jobs COALITION

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Executive Summary

The Georgia Agribusiness and Rural Jobs Act (GARJA) seeks to provide capital for small businesses in rural Georgia. The GARJA would encourage $100 million of private capital investment over the first two years in rural areas in part by making tax credits available to private sector investors. The investments can be in qualified rural businesses, including manufacturing, agribusiness, and tech firms among others. One hundred percent of the investment capital must be in qualified small businesses by 2019 and investors cannot redeem any credits until 2019. The state credit is capped at $15 million for 2019, 2020, 2021, and 2022. The credits would be subject to recapture for non-compliance, and the investment funds would have to file annual reports showing job creation and retention, average compensation, and rural impact. Finally, the funds must demonstrate that they will create more state revenue than the cost of the credits.

Using an input-output model of the 128 county area identified as "rural" Georgia, researchers used the nationally recognized IMPLAN input-output model to conduct a multi-regional analysis of the potential economic and fiscal impact of the GARJA on Georgia. This analysis is based on data from the New Markets Tax Credit program in Louisiana. That program has a decade of actual investments and resulting number of new jobs across dozens of industries. The data was scaled down to reflect this size of the proposed Georgia program, and assumed that the investments in rural Georgia resulted in the same type of industries that benefited from the investments in Louisiana.

Combined, $100 million invested in rural Georgia in these industries would support the creation of more than 3,000 jobs, $117 million in new personal income, and $413.0 in new economic output. That new economic activity is projected to generate $14.6 million annually for governments around the state — $6.9 million to the State of Georgia. For the first two years of the program, the state would receive a smaller portion of these revenues, commensurate to the amount of investment. Beginning in 2019, after all the investments are implemented, the state would receive the full amount of new revenue. Given the assumptions previously presented, it is expected that within 10 years, the state will recoup the entire amount of the credit through new revenues.

Section 1

Introduction

About the Enterprise Innovation Institute

The Enterprise Innovation Institute (EI²) is Georgia Tech's primary economic development outreach unit. EI²'s roots date back to 1960 when the Georgia General Assembly created its predecessor organization. EI² continues Georgia Tech's sixty-year legacy of commitment to community economic development, by providing research, technical, and management assistance to support economic development efforts in local communities.

The Center for Economic Development Research (CEDR), a unit within EI², assists local elected officials, economic developers, policy makers, and community and state leaders. CEDR provides innovative tools and methods to leverage local advantages and improve the quality of life of residents. CEDR economic development professionals help communities attract, maintain, and grow business and industry. The services offered by CEDR include economic and fiscal impact analysis, professional development for economic developers, labor market analysis, and strategic planning.

Learn more about CEDR at cedr.gatech.edu.

Project Overview

CEDR is pleased to present this report: *Economic and Fiscal Impact of the Georgia Agribusiness and Rural Jobs Act*. A recent study by The Center for State and Local Finance at the Andrew Young School at Georgia State University showed that rural Georgia lost more than 58,000 jobs between 2007 and 2014. That represented a 6.9 percent job loss, compared to only a 1 percent loss statewide over the same period. In recent years (2012 to 2014), jobs have started to return, but at a much slower rate than the state as a whole – 2.9 percent vs. 5.0 percent, respectively.[1] In addition, this situation is not limited to Georgia. Nationally, the employment gap between rural and urban areas widened significantly between 2012 and 2014. Of the many contributing factors,

[1] Bluestone, P. and de Zeeuw, M., 2016, *Jobs in Georgia's Urban and Rural Regions and Counties: Changes in Distribution, Type, and Quality from 2007 to 2014*, p. 3.

experts suggest that a lack of investment capital may be contributing to the decline in the economic prospects of rural America.[2]

It is this deficiency that the Georgia Agribusiness and Rural Jobs Act (GARJA) seeks to address. The GARJA would encourage $100 million of private capital investment over the first two years in rural areas in part by making tax credits available to private sector investors. The investments can be in qualified rural businesses, including manufacturing, agribusiness, and tech firms among others. One hundred percent of the investment capital must be in qualified small businesses by 2019 and investors cannot redeem any credits until 2019. The state credit is capped at $15 million for 2019, 2020, 2021, and 2022. The credits would be subject to recapture for non-compliance, and the investment funds would have to file annual reports showing job creation and retention, average compensation, and rural impact. Finally, the funds must demonstrate that they will create more state revenue than the cost of the credits.

It is this last point that this study addresses. It is difficult to isolate the state and local tax revenues attributable to any specific activity. In addition to the activity itself, there are indirect and induced impacts that will occur and these will have tax impacts as well. After an investment is made, an ex post economic impact analysis using traditional input-output models can be conducted to estimate the state tax revenue effects. This type of analysis can and should accompany each investment.

However, while an ex-post analysis is difficult, an ex-ante economic and fiscal impact analysis brings even more challenges. After the fact, the actual investment levels and related number of new jobs are a given. Beforehand, we can only speculate. Given that this is a new program in Georgia, there is no record of accomplishment to analyze.

The GARJA is similar in nature to various state New Markets Tax Credit (NMTC) programs, and there is a long record of investment and resulting impacts related to these programs. Specifically, for this study, we will use data from the NMTC program in Louisiana. The Louisiana program began in 2006 and there is a decade of actual investments and resulting number of new jobs from which to draw. The dataset used included $175 million in capital investment across more than two dozen industries. Because the GARJA is a $100 million program, researchers scaled down the Louisiana results to reflect that level of investment for Georgia. They modeled the various investments using an input-output model of the 128 counties that qualify as "rural" for purposes of GARJA (Appendix A).

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[2] *The State of Rural Small Business and Access to Capital*. Rural Jobs Coalition, 2016. Retrieved from http://ruraljobscoalition.com/clientuploads/pdf/TheStateofRuralSmallBusinessesandAccesstoCapital.pdf

Researchers then built another model of the remaining 31 "non-rural" counties and, using multi-regional input-output analysis performed a multi-regional evaluation of the potential economic and fiscal impact of the GARJA on Georgia.

Report Organization

The report contains the following sections:

Section 2: Potential Economic Impact of the Georgia Agribusiness and Rural Jobs Act

This section presents the economic impact results from a hypothetical set of investments made in rural Georgia. The analysis assumes that similar investments made in Louisiana under that state's NMTC program are made in rural Georgia. The results include the number of new jobs, new income, and new economic output that would result from those investments in those industries.

Section 3: Potential Fiscal Impact of the Georgia Agribusiness and Rural Jobs Act

This section presents the fiscal impact results from a hypothetical set of investments made in rural Georgia. As with Section 2, the analysis assumes that similar investments made in Louisiana under that state's NMTC program are made in rural Georgia. The results include the level of new state tax revenues that could be expected over 10 years, and the coverage ratio of those revenues as compared to the credits.

Section 2

Potential Economic Impact

The foundation of this type of analysis is economic base theory, which states that economic growth occurs when there is an increase in the flow of money into an area through the export of goods and/or services. In other words, it is the difference in the Georgia economy between having and not having these investments. The focus here is on resources that would likely not exist in the state were it not for these investments. This includes 1) new jobs created in rural Georgia, and 2) jobs retained in rural Georgia that were are risk of loss without critical investments.

The number of jobs, amount of income, and level of economic output associated with new economic activity are the primary measure these investments. The "direct" effects quantify jobs and income that result "directly" from the investments. "Total" effects estimate how that new income circulates through the economy in the form of additional spending by both industry and households (also called the "indirect" and "induced" impacts respectively).[3]

This process described above is simulated using an input-output model of the economy under consideration, which in this case, is the combined 128 county area identified as "rural" Georgia for purposes of the Act. Specifically, researchers used the nationally recognized model, IMPLAN, developed by the Minnesota IMPLAN Group, to conduct the analysis. IMPLAN is an input-output model configurable for any multi-county region, state, or even a single county.

As previously mentioned, the dataset used included $175 million in capital investment across more than two dozen industries. It is important to include only new economic activity resulting from these investments. For example, an existing company with 10 employees that is able to add 5 more employees and double sales because of an investment under GARJA already had some economic impact in the state. For purposes of estimating the economic impact of the investment, only the five additional jobs and the additional sales are considered. An exception to this would be a company at risk of going out of business without the investment. In that case, it is legitimate to include retained jobs and the new employees, as well as all of the sales and wages.[4]

[3] See Appendix B for definitions.

[4] *The Economic and Fiscal Impact of the Louisiana New Markets Tax Credit Program*. Economic Impact Group, LLC. May 2015. p. 6.

Because the GARJA is a $100 million investment program, researchers scaled down the Louisiana results to reflect that level of investment for Georgia. They modeled the various investments using an input-output model of the 128 counties that qualify as "rural" for purposes of GARJA. Researchers then built another model of the remaining 31 "non-rural" counties and, using multi-regional input-output analysis performed a multi-regional evaluation of the potential economic and fiscal impact of the GARJA on Georgia.

Results

One result of the multi-regional analysis used here, is that the economic impacts are available for each region. Table 1 below shows the economic impact of these investments on rural Georgia. In rural Georgia, $100 million of investment in the same industries that experienced investments under the Louisiana NMTC program would directly result in more than 1,400 jobs and $55 million in new personal income. Through additional induced and indirect impacts, those numbers increase to more than 2,600 jobs and $92 million in new personal income.

TABLE 1: Potential Economic Impact of the GARJA on Rural Georgia

	Employment	Wages & Salaries*	Economic Output*
Direct	1,416	$55.7	$192.3
Indirect & Induced	1,207	$36.6	$149.8
Total	**2,623**	**$92.3**	**$342.1**

* Wages & Salaries and Economic Output are in millions of dollars.
Source: Center for Economic Development Research; IMPLAN model for rural Georgia

However, the 31 non-rural counties would also experience job and wages increases due to induced and indirect spending. According to the model, the non-rural portions of the state would see more than 400 new jobs and nearly $25 million in new personal income (Table 2). Notice that there is no direct impact in the non-rural areas because by definition of the Act, all of the direct jobs are located in the rural areas.

TABLE 2: Potential Economic Impact of the GARJA on Non-Rural Georgia

	Employment	Wages & Salaries*	Economic Output*
Direct	0	$0	$0
Indirect & Induced	414	$24.6	$70.9
Total	**414**	**$24.6**	**$70.9**

* Wages & Salaries and Economic Output are in millions of dollars.
Source: Center for Economic Development Research; IMPLAN model for non-rural Georgia

Combined, $100 million invested in rural Georgia in these industries would support the creation of more than 3,000 jobs, $117 million in new personal income, and $413.0 in new economic output (Table 3).

TABLE 3: Potential Economic Impact of the GARJA on Georgia

	Employment	Wages & Salaries*	Economic Output*
Direct	1,416	$55.7	$192.3
Indirect & Induced	1,621	$61.2	$220.7
Total	**3,037**	**$116.9**	**$413.0**

* Wages & Salaries and Economic Output are in millions of dollars.
Source: Center for Economic Development Research; IMPLAN model for rural and non-rural Georgia

Section 3

Potential Fiscal Impact

In addition to the economic impact of these businesses, there are fiscal impacts in the form of new revenues that will accrue to the state and local governments in Georgia. In the IMPLAN model, the tax impacts represent the historical distribution of collected indirect business taxes (IBT) for Georgia and are based on data from the *Annual Census of Government Finance*. The amount of IBT paid is state-specific and industry-specific; however, the distribution of IBT across the various types of tax (property, sales, severance, etc.) is not industry-specific. It is based on the state's distributions as defined by the *Annual Census of Government Finances*. By design, the IMPLAN model does not distinguish between state and local revenues. However, data provided by the *Annual Survey of State and Local Government Finances* published by the U.S. Bureau of the Census[5], allows for the disaggregation of the IMPLAN outputs into individual state and local revenue estimates.

The credit available under the proposed Georgia Agribusiness and Rural Jobs Act is a credit against corporate income tax and premium tax starting in the third year at a rate of $15 million annually for four consecutive years for a total of $60 million in state tax credits. Again, given that this is an ex ante analysis, researchers assumed that one quarter of the investments in qualified rural businesses will occur in the first year, half of the investments in year 2, and the balance will be made in year 3 which is the first year of the credits. Under this schedule, the state would begin receiving revenues in 2017, while not providing any credits until 2019.

Results

The same multi-regional IMPLAN model used to calculate the economic impacts, generated an estimate of the new state and local revenues attributable to these investments (Table 4). Once all the investments have been made, the resulting new economic activity is projected to generate $14.6 million annually for governments around the state. However, less than half of that — $6.9 million — is expected to accrue to the state. For the first two years of the program, the state would receive a smaller portion of these revenues, commensurate to the amount of investment. Beginning in 2019, after all the investments are implemented, the state would receive the full amount of new

[5] https://www.census.gov/govs/local/

revenue. Given the assumptions previously presented, it is expected that within 10 years, the state will recoup the entire amount of the credit through new revenues (Table 5).

TABLE 4: Potential Fiscal Impact of the GARJA on Georgia Governments

	State	Local	Total
Sales Taxes	$ 3.3	$ 2.4	$ 5.8
Property Taxes	$ 0.4	$ 4.6	$ 4.9
Employee Compensation	$ 0.2	$ 0.0	$ 0.2
Corporations	$ 2.5	$ 0.0	$ 2.5
Other Taxes & Revenues	$ 0.5	$ 0.7	$ 1.2
Total New Revenue	**$ 6.9**	**$ 7.7**	**$ 14.6**

Source: Center for Economic Development Research; IMPLAN model for rural and non-rural Georgia.

TABLE 5: Return Ratio of GARJA

	Tax Credit	New State Revenue	Cumulative Return Ratio
2017	$ 0.0	$ 1.7	~
2018	$ 0.0	$ 5.1	~
2019	$ 15.0	$ 6.9	0.91
2020	$ 15.0	$ 6.9	0.69
2021	$ 15.0	$ 6.9	0.61
2022	$ 15.0	$ 6.9	0.57
2023	$ 0.0	$ 6.9	0.69
2024	$ 0.0	$ 6.9	0.80
2025	$ 0.0	$ 6.9	0.91
2026	$ 0.0	$ 6.9	1.03
Total:	**$ 60.0**	**$ 61.7**	**1.03**

Source: Center for Economic Development Research; IMPLAN model for rural and non-rural Georgia.

Appendix A

Rural and Non-Rural Georgia Counties

The following 128 counties are classified as "rural" for purposes of the Georgia Agribusiness and Rural Jobs Act.

Appling	Crawford	Irwin	Montgomery	Telfair
Atkinson	Crisp	Jackson	Morgan	Terrell
Bacon	Dade	Jasper	Murray	Thomas
Baker	Dawson	Jeff Davis	Oconee	Tift
Baldwin	Decatur	Jefferson	Oglethorpe	Toombs
Banks	Dodge	Jenkins	Peach	Towns
Ben Hill	Dooly	Johnson	Pickens	Treutlen
Berrien	Early	Jones	Pierce	Troup
Bleckley	Echols	Lamar	Pike	Turner
Brantley	Effingham	Lanier	Polk	Twiggs
Brooks	Elbert	Laurens	Pulaski	Union
Bryan	Emanuel	Lee	Putnam	Upson
Burke	Evans	Liberty	Quitman	Walker
Butts	Fannin	Lincoln	Rabun	Ware
Calhoun	Franklin	Long	Randolph	Warren
Camden	Gilmer	Lowndes	Schley	Washington
Candler	Glascock	Lumpkin	Screven	Wayne
Catoosa	Gordon	McDuffie	Seminole	Webster
Charlton	Grady	McIntosh	Spalding	Wheeler
Chattahoochee	Greene	Macon	Stephens	White
Chattooga	Habersham	Madison	Stewart	Wilcox
Clay	Hancock	Marion	Sumter	Wilkes
Clinch	Haralson	Meriwether	Talbot	Wilkinson
Coffee	Harris	Miller	Taliaferro	Worth
Colquitt	Hart	Mitchell	Tattnall	
Cook	Heard	Monroe	Taylor	

The following 31 counties are classified as "non-rural."

Barrow	Clarke	Douglas	Hall	Rockdale
Bartow	Clayton	Fayette	Henry	Walton
Bibb	Cobb	Floyd	Houston	Whitfield
Bulloch	Columbia	Forsyth	Muscogee	
Carroll	Coweta	Fulton	Newton	
Chatham	DeKalb	Glynn	Paulding	
Cherokee	Dougherty	Gwinnett	Richmond	

Appendix B

Definitions

Direct Impacts. The initial economic activity that results from changes in production or expenditures by producers and/or consumers.

Indirect Impacts. The economic activity that results from local industries buying goods and services from other local industries. This cycle of spending continues until all the money leaks out from the regional economy.

Induced Impacts. The economic activity that results from the spending of employees' labor income. This cycle of household spending continues until all the money leaks out from the regional economy.

Economic Output. Final value of industry production. For manufacturing companies, output is sales plus/minus changes in inventory. For service sectors, output is equal to sales. For retail and wholesale trade companies, output equals gross margin, NOT gross sales.

Value Added. The difference between an industry's output and the cost of its intermediate inputs. This includes employee compensation, taxes on production, and gross operating surplus. This is the measure of the contribution to GDP made by the industry.

Wages/Income. All forms of employment income, including employee compensation and proprietor income. Employee compensation is the total payroll cost of the employee paid by the employer including wages and salary, all benefits (health, retirement, etc) and employer-paid payroll taxes (social security, unemployment, etc). Proprietor income consists of payments received by self-employed individuals and unincorporated business owners, and includes the capital consumption allowance.