

FISCAL IMPACT OF THE GEORGIA RURAL JOBS TAX CREDIT

Georgia Tech  Center for
Economic Development
Research

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1. EXECUTIVE SUMMARY

GARJA Portfolio

Five companies received an investment allocation under the Georgia Agribusiness and Rural Jobs Act (GARJA). Each of these provided the research team with their portfolio including the name of the company; the NAICS code in which the company operates; the date and level of investment; the number of jobs at investment; the number of jobs retained as a result of the investment; the number of jobs created as a result of the investment; the average wage of those jobs; and the city and county in which those jobs are located. Each company was given a \$20 million investment allocation, for a total program allocation of \$100 million.

The portfolio provided to the research team represented \$99.8 million of investments that were made in 33 rural Georgia companies. These investments were directly responsible for the creation, or retention, of more than 1,000 jobs across rural Georgia in various industries. Combined, these jobs represent nearly \$50 million in personal income in rural Georgia.

Fiscal Impact

These jobs and their related economic activity are projected to generate \$23.4 million annually for all levels of government across the state. About \$10.7 million of that is expected to accrue to the state. For the first two years of the program, the state received a smaller portion of these revenues, commensurate to the amount invested the previous year. Specifically, 68.6 percent of the allocation was invested in the first year and the remaining 31.4 percent was invested in the second year. This analysis assumes that there will be no new tax revenues to the state from these investments until the year after they are made. Given this assumption and this actual investment schedule, the return ratio to the State of Georgia would be 1.56 after 10 years. In other words, over a 10-year period, if these jobs are maintained, the state could expect to get back 56 percent more in revenue than it gave in credits.

2. 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: *Fiscal Impact of the Georgia Rural Jobs Tax Credit*. The Georgia Agribusiness and Rural Jobs Act (GARJA) seeks to provide investment capital to rural areas of Georgia 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 and investors cannot redeem any credits for two years. The state credit is capped at \$15 million for four consecutive years. The credits are subject to recapture for non-compliance, and the investment funds must 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 over a 10-year period.

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. That is what is presented here. The five companies who received an investment allocation under GARJA each provided CEDR with their portfolio including the name of the company; the NAICS code in which the company operates; the date and level of investment; the number of jobs at investment; the number of jobs retained as a result of the investment; the number of jobs created as a result of the investment; the average wage of those jobs; and the city and county in which those jobs are located.

Using this information, CEDR modeled the economic impact these new and retained jobs have on the state's economy. In addition, the model generates an estimate of tax revenue generated

by that economic activity. That revenue was then compared to the level of state tax credit to determine if the investments made under GARJA will create more state revenue than they cost in tax credits.

3. FISCAL IMPACT

Economic Base Theory

To conduct this analysis, CEDR used an IMPLAN input-output model of rural Georgia. IMPLAN is a nationally recognized model developed by the Minnesota IMPLAN Group and is configurable for any state, multi-county region, or even a single county. For this analysis, the research team built an IMPLAN model for rural Georgia using 2018 data¹ on industry interactions within 128 rural Georgia counties as well as commuting patterns and other demographic information. (Appendix A). The research team also built a second 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. Specifically, the direct activity resulting from these investments was used as an input into the rural model, and then the two models were run simultaneously to derive additional induced and indirect impacts that occur statewide. (See Appendix B for a definition of terms.)

The foundation of this type of model 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. This “direct” impact is commonly measured in terms of the number of jobs and/or amount of income the activity represents and can also be measured in terms of contribution to GDP (“value added”) or total output. However, the “direct” activity is just the beginning. Companies use the money that flows into the region to purchase goods and services, and to the extent they purchase those goods and services locally, they represent an increase in local employment and income, and therefore, have additional economic impact (or indirect impact). Finally, the extent to which employees (and/or new residents) spend their income locally also generates an additional increase in local employment and income (or induced impact). The sum of these three represents the “total” economic impact of the economic activity under review.

When looking at economic impact, it is important to note that only *new* economic activity should be considered. For example, an existing company with 10 employees that can add 5 more employees and double sales because of an investment already had some economic impact in the state. For purposes of estimating the economic impact of the investment, only the 5 additional jobs, and the additional sales should be considered. An exception to this would be if the company were 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 the sales and wages.

GARJA Investment Portfolio

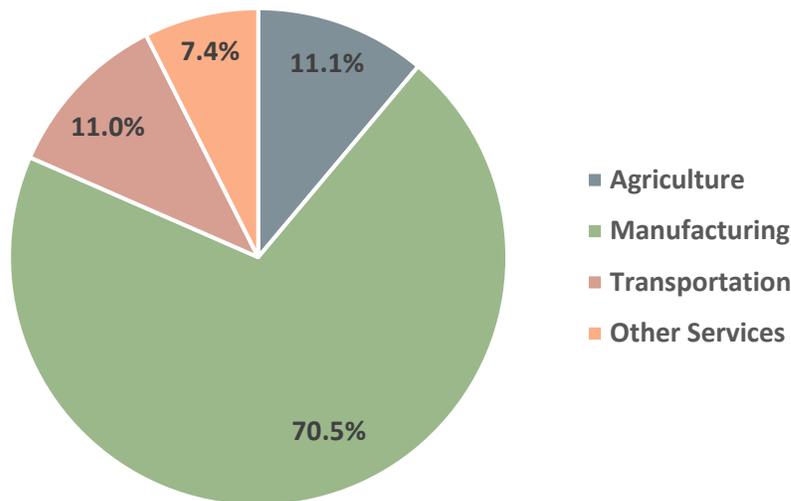
As mentioned previously, the five companies who received an investment allocation under GARJA each provided CEDR with their portfolio including the name of the company; the NAICS code in which the company operates; the date and level of investment; the number of jobs at investment; the number of jobs retained as a result of the investment; the number of jobs created as a result of the investment; the average wage of those jobs; and the city and county in which

¹ 2018 is the latest data available for the IMPLAN model. It was released in late 2019.

those jobs are located. Each company was given a \$20 million investment allocation, for a total program allocation of \$100 million.

As of this writing, \$99.8 million has been allocated to 33 rural Georgia companies. These investments were directly responsible for the creation, or retention, of more than 1,000 jobs across rural Georgia in various industries (Figure 1). Combined, these jobs represent nearly \$50 million in personal income in rural Georgia.

FIGURE 1: GARJA PORTFOLIO BY SECTOR



Fiscal Analysis Results

The IMPLAN model generates an estimate of the new state and local revenues attributable to these investments. 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, allows for the disaggregation of the IMPLAN outputs into individual state and local revenue estimates. The results of this disaggregation are shown in Table 1.

TABLE 1: NEW REVENUE RESULTING FROM GARJA INVESTMENTS

	STATE	LOCAL	TOTAL
SALES TAXES	\$6.60	\$3.66	\$10.26
PROPERTY TAXES	\$0.74	\$8.31	\$9.05
EMPLOYEE COMPENSATION	\$0.04	\$0.00	\$0.04
CORPORATIONS	\$2.81	\$0.00	\$2.81
OTHER TAXES & REVENUES	\$0.55	\$0.74	\$1.29
TOTAL NEW REVENUE	\$10.73	\$12.71	\$23.44

Source: Center for Economic Development Research; IMPLAN model for rural and non-rural Georgia. Totals may not add due to rounding.

The credit available in GARJA is a credit against corporate income tax and premium tax starting in the third year at a rate not to exceed \$15 million annually for four consecutive years for a total of \$60 million in state tax credits. Given that the portfolio represents \$99.8 million in investments, the associated state tax credits would be \$14.97 million per year for four years. The jobs and their related economic activity are projected to generate \$23.4 million annually for all levels of government across the state. However, less than half of that — \$10.7 million — is expected to accrue to the state. For the first two years of the program, the state received a smaller portion of these revenues, commensurate to the amount invested the previous year. Specifically, 68.6 percent was invested in the first year and the remaining 31.4 percent was invested in the second year. This analysis assumes that there will be no new tax revenues to the state from these investments until the year after they are made. This is because investments can be made either early or late in the year. Delaying any tax benefits until the following year introduces a conservative bias to the analysis. Given this assumption and this actual investment schedule, the return ratio to the State of Georgia would be 1.56 after 10 years. In other words, over a 10-year period, if these jobs are maintained, the state could expect to get back 56 percent more in revenue than it gave in credits (Table 2). Because the stream of new revenues extends longer than the tax credits, it is appropriate to consider the present value of both the stream of tax credits and the stream of new state tax revenues. Using a discount rate of 3 percent,² the present value (PV) of the return ratio using only state revenue is still 1.49.

² The discount rate represents the opportunity cost of capital, that is, it is the interest lost by receiving funds in the future rather than in the present. A true opportunity cost of capital for a government would be bracketed by the interest that must be paid on current debt and the interest that could be earned in the appropriate investment funds market. Because inflation is not included in the analysis, we should subtract the inflation rate from the discount rate calculated as described above. Given the current interest rate environment, however, that would result in a discount rate of nearly zero. In order to be conservative in the analysis, a discount rate slightly higher than the inflation rate was chosen.

TABLE 2: GARJA RETURN RATIO (MILLIONS OF DOLLARS)

	TAX CREDIT	NEW STATE REVENUE	CUMULATIVE RETURN RATIO
2019	\$ 0.00	\$0.00	~
2020	\$ 0.00	\$ 7.37	~
2021	\$ 14.97	\$ 10.73	1.21
2022	\$ 14.97	\$ 10.73	0.96
2023	\$ 14.97	\$ 10.73	0.88
2024	\$ 14.97	\$ 10.73	0.84
2025	\$ 0.0	\$ 10.73	1.02
2026	\$ 0.0	\$ 10.73	1.20
2027	\$ 0.0	\$ 10.73	1.38
2028	\$ 0.0	\$ 10.73	1.56
TOTAL:	\$ 59.87	\$ 93.23	1.56
PV @ 3%	\$52.44	\$77.96	1.49

Source: Center for Economic Development Research; IMPLAN model for rural and non-rural Georgia.
Totals may not add due to rounding.

4. APPENDIX A

GARJA Rural and Non-Rural Georgia Counties

The following 128 counties are classified as “rural:”

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

The following 31 counties are classified as “non-rural:”

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

5. 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.