# 2023 RETURN ON INVESTMENT ANALYSIS

*FOR SELECTED LOUISIANA TAX INCENTIVE PROGRAMS*

LOUISIANA
DEPARTMENT *of* REVENUE

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# Economic & Fiscal ROI Results

The analysis in this report employed an assumption of a balanced budget for government spending where a reduction in state revenues leads to a proportional decline in state expenditures to estimate the economic and fiscal impacts generated by the selected tax incentive programs by calculating the average annual expected GDP and state revenue, economic ROI, and fiscal ROI.

In 2022, eleven business incentive programs provided more than $1 million as tax incentives with a total of more than $500 million that is expected to grow Louisiana's economy by approximately $700 million while the state recoups slightly above $35 million. These programs have a net economic impact of approximately $200 million whereas the state bears a net revenue loss of around $450 million.

| Return on Investment of Tax Incentives (FY 2022) | | |
|---|---|---|
| **Incentive** | **Economic Return on Investment** | **Fiscal Return on Investment** |
| Retention and Modernization Credit<br>***R&M*** | 110.34% | -89.06% |
| Louisiana Quality Jobs Program<br>***QJ*** | 70.56% | -91.38% |
| Enterprise Zones<br>***EZ*** | 46.21% | -94.30% |
| Digital Interactive Media & Software Tax Credit<br>***DM*** | 38.13% | -92.92% |
| Research & Development Tax Credit<br>***R&D*** | 29.28% | -91.68% |
| Rehabilitation of Historic Structures<br>***RHS*** | 24.78% | -91.38% |
| Motion Picture Investor Tax Credit<br>***Film*** | 24.12% | -93.59% |
| Musical & Theatrical Productions Tax Credit<br>***Live*** | 14.48% | -93.59% |
| Procurement Processing Company Rebate Program<br>***PPC*** | 4.34% | -93.61% |
| Industrial Tax Equalization Program<br>***TE*** | 1.85% | -93.93% |
| Angel Investor Tax Credit<br>***AITC**** | -40.03% | -95.42% |

***AITC*:*** *More than 97% of the Angel Investor Tax Credit was claimed as a refundable individual income tax credit. The original expenditure may be in the form of capital improvements, plant equipment, research and development, and working capital. Due to this incentive's nature as investments in LED-certified businesses, the resulting economic activity may be realized in future years.*

# Major ROI Variances

## General Factors Impacting Variances

- The economic value added component of the Department's analysis varies based on the industrial sector (NAICS) in which the incentive benefits.
- The Department's analysis includes a review of taxpayers' income tax returns. With some incentives, the tax year in which the incentive is claimed (e.g. refundable or nonrefundable income tax credit) on an income tax return may differ from the tax year in which the desired action of the incentive program is performed (e.g. creating new jobs, rehabilitating a historic building).
- Due to allocation of incentives within a consolidated group of businesses and passthrough entities, the entity that earns an incentive may differ from the entity that claims the incentive.

## Review of Specific Incentives

The following chart offers the Department's observations on selected major ROI variances. In addition to the factors presented above, it is recognized that, in general, FY 2021 provides limited reliability due to the impacts of the COVID-19 pandemic, including response and recovery measures.

**Major Variances & Observations Comparison of FY 2021 to FY 2022**

| Incentive | Economic ROI | | | Fiscal ROI | | | Observations |
|---|---|---|---|---|---|---|---|
| | FY 21 | FY 22 | Variance | FY 21 | FY 22 | Variance | |
| Retention & Modernization Credit ***R&M*** | 397.00% | 110.34% | -286.66% | -73.73% | -89.06% | -15.33% | The Computer and Electronic Manufacturing Sector claimed 11.27% less in incentives in FY22 than FY21. The higher ROI in FY21 may have been driven by an increase in production and sales of computers and electronic products due to an increase in remote work and online shopping during the first full fiscal year impacted by the COVID-19 pandemic. |
| Louisiana Quality Jobs Program ***QJ*** | 25.67% | 70.56% | +44.89% | -93.65% | -91.38% | +2.27% | The Utilities Sector's share in this incentive program increased by 29.21% from FY21 to FY22, while the Chemical Manufacturing Industries Sector decreased by 12.39%. It is plausible that the value-added resulting from increased investment in the Utility Sector may be the driving force behind the increased Economic ROI.<br>Act 29 (1ES2020) expanded the types of industries eligible to participate in this program as a COVID-19 recovery measure. |
| Digital Interactive Media & Software Tax Credit ***DM*** | 72.42% | 38.13% | -34.29% | -90.88% | -92.92% | -2.04% | The Professional, Scientific, and Technical Services Sector's share is 85% and 33% in FY21 and FY22, respectively. DM's FY22 credits issued were $23M, and for FY23, credits are projected to increase to $83M. |
| Motion Picture Investor Tax Credit ***Film*** | 40.67% | 24.12% | -16.55% | -93.03% | -93.59% | -0.56% | In FY22, the Film tax credits claimed on returns and buybacks of credits totaled $143.7M out of the $180M cap. With $21.9M in priority claims from FY21, the unused portion ($14.4M) is added to the FY23 cap ($194.4M). |
| Research & Development Tax Credit ***R&D*** | -26.67% | 29.28% | +55.95% | -95.50 | -91.68% | +3.82% | Although the credits issued only increased about $200k from FY21 to FY22, the value-added nearly doubled ($7.1M) for Louisiana's economic growth. |
| Musical & Theatrical Productions Tax Credit ***Live*** | 105.56% | 14.48% | -91.08% | -84.88% | -93.10% | -8.22% | The Economic ROI of 14.48% should be interpreted as this program's ROI under normal circumstances. FY21's Economic ROI of 105.56% is likely due to the reopening of musical and theatrical sectors during late 2020 and 2021. |

# Methodology

This report employs a Louisiana-specific version of the REMI Tax-PI model to perform an impact analysis of tax incentives. The Tax-PI model is calibrated by REMI with state revenue and expenditure data along with data on Louisiana's industrial composition. While employing a single-region 70-sector model, changes in the region do not have an endogenous effect on the rest of the nation. Furthermore, the model assumes that firm and industry growth is endogenous, and induced within the state.

Readers should consider this study a "but for" analysis that simulates the potential economic and fiscal gains driven exclusively by the selected tax rebate programs on the Louisiana economy. Tax incentives, along with many other state and local characteristics induce firms to locate, expand, or retain jobs but the forecasted fiscal and economic impacts only capture the effects of the tax incentives the firms receive.

The analysis reflects structural simulations of the economic and fiscal effects of reductions in firm capital costs – through tax exemptions in corporate, franchise, and fiduciary income taxes – along with tax exemptions in personal income taxes and sales taxes for the Louisiana economy under a balanced budget scenario. We employ administrative data from the Louisiana Department of Revenue for the fiscal year 2022 on the actual total credits/rebates issued, the industries where rebates were concentrated, and data on the type of rebates allotted (corporate, individual, and sales taxes). Additionally, we analyzed administrative data of companies receiving job credits or payroll tax rebates from the EZ and QJ programs to calibrate the distribution of industries receiving tax incentives. The latter was required due to the gaps in self-reported industry classification provided by tax incentive recipients.

For maximum specificity, we link tax exemption amounts to industries and to the tax exemption types provided by the LDR, to create a calibrated model that best captures the collective economic impacts of each tax incentive program. We then model the economic impact of different types of tax incentives across the industries covered by the selected programs to run a forecast that encompasses all of the potential gains from a selected tax incentive for the selected period. This allows us to report the broader economic return on investment as well as the fiscal return on investment using the personal income growth estimates and an income tax rate of 7.63 percent as employed in the Louisiana Legislative Auditor's Quality Jobs report.

We calculate the estimated economic return on investment from each program to the Louisiana economy through 2031 by calculating the net benefit of each program (the economic value added minus the total program costs), dividing that number by the total program cost, and multiplying times 100 as follows.

$$\text{Economic ROI} = \frac{(\text{Value Added - Total Cost})}{\text{Total Cost}} \times 100\ \%$$

Economic ROI reflects the growth in the GDP of the state by affecting the growth in consumption expenditures, private investment, government expenditure, and net exports after accounting for the costs of the incentives.

Similarly, the fiscal return on investment is revenue added minus the total program costs, dividing that number by the total program cost, and multiplying times 100.

$$\text{Fiscal ROI} = \frac{(\text{Tax Revenue - Total Cost})}{\text{Total Cost}} \times 100\ \%$$

Return on Investment (ROI) is a measure of the profitability of an investment widely used by businesses and governments. While ROI can be calculated using either a gross calculation method or a net calculation method, utilization of the net calculation method provides a more realistic measurement of return.

Consider the methods used below to calculate ROI using both approaches for fiscal return.

$$\text{Gross Fiscal ROI} = \frac{(\text{State tax revenue})}{(\text{Cost of incentive})} \times 100\ \%$$

$$\text{Net Fiscal ROI} = \frac{(\text{State tax revenue - Cost of incentive})}{(\text{Cost of incentive})} \times 100\ \%$$

As illustrated in the equations above, only the net approach deducts the cost of the incentives while calculating ROI. Deducting the cost of the incentive is important in determining whether Louisiana realized a gain or loss to state tax revenues by providing certain tax incentives.

It is worth noting that if the tax revenue generated by the incentive is higher than the cost, the fiscal ROI is positive; however, if the tax revenue is lower than the cost, the fiscal ROI is negative. It is impossible to determine whether the state realized a gain or loss from the incentives if the cost of the incentive is not included in the calculation. The net calculation method will always result in a lower ROI than the gross calculation method because the cost of the incentive is deducted from the state tax revenue gained from the incentive itself. Gross and net economic ROIs are also analogous to fiscal ROI with the only difference being that the economic ROI accounts for gross domestic product/value-added instead of solely looking at the increase in state tax revenues from the incentive.

Tax incentives can have economic impacts beyond the jobs and income generated by the targeted industry/sector. Often it is not easy to decipher complex economic data to evaluate the benefits and costs of tax incentives aimed toward industries to locate, expand, or create jobs. A multiplier is a single number that summarizes the total economic benefits of government spending that stems from the change in the local economy. In other words, a multiplier summarizes the expected impact on the economy from a change in given economic activity. For example, increased investment by a chemical manufacturing facility receiving tax incentives can have ripple effects on the economy beyond the chemical manufacturing sector. Industries with high multipliers have strong backward linkages in their supply chain.

The source of such impacts can be broken down into different components: direct, indirect, or induced effects. The direct effects of tax incentives are the initial changes in economic activity in the targeted sector. Indirect effects result from the business-to-business purchases in the supply chain that stems from the direct effects. The induced effects result from the increased personal income caused by both direct and indirect effects. The multiplier effect of tax incentives in this study represents the summation of these three effects. Different types of multipliers are available to gauge the change in employment or the economic activity in the local economy. Here, we focus on the economic multiplier often calculated as the ratio of total effects to the direct effect and expressed as a dollar-of-impact per dollar-of-change. Economic multipliers (multiplier effects) provide estimates of the additional value added to the economy because of the economic activity from the firms receiving tax incentives. For example, a multiplier effect of 2.5 means that the increase in every dollar of economic output results in an additional \$1.5 of indirect and induced economic activity in the local economy. In other words, for every dollar of economic output in targeted industries, \$2.5 of activity is generated in the local economy i.e. the original dollar and the spillover effect of a further \$1.5. This study calculates the economic multiplier defined as a Type II multiplier by REMI as follows.

$$\textit{Multiplier} = \frac{\textit{(Direct + Indirect + Induced Effects)}}{\textit{Direct Effects}}$$

Readers should keep in mind the distinction between the ROI and multipliers reported in this study. Economic ROI explains the net growth in GDP the state experiences because of each dollar it spends in tax incentives whereas fiscal ROI explains the net amount the state receives as tax revenues for every dollar it spends in tax incentives. Economic multipliers, on the other hand, explain the economic activity from the spillover effects of each dollar of economic activity generated by the targeted industries. REMI takes into account the multipliers of all major industry groups in the models used in the forecasts. Readers may also find it helpful to interpret the ROIs in percentages and multipliers as simple ratios.

We simulated the forecasts for tax revenue and state GDP for each tax incentive one at a time in REMI's Tax-PI software. The estimated revenue and GDP given by the REMI software are forecasted based on the expenditures for particular tax incentives where all other factors remain unchanged. This allows us to interpret our estimates to be the direct effect of a given tax incentive thus allowing our estimates to be "but for" estimates. This methodology follows standard approaches of fiscal and economic impact analysis performed using state-specific REMI Tax-PI software. Future values of ROI indeed depend on correctly calibrating the REMI software. However, the effectiveness of the incentives to generate tax revenue and grow state GDP is also equally important in determining whether the future values of ROI will be positive or negative.

# Executive Summary

Act 87 of the 2018 Regular Session requires that the Louisiana Department of Revenue (LDR) "perform a comprehensive return on investment analysis for all tax incentives for which the revenue loss was one million dollars or more in the previous fiscal year." This report serves as a comprehensive analysis of the return on investment of eleven of Louisiana's largest tax incentive programs that had revenue loss of more than one million dollars in the fiscal year 2022.

This report details the economic and fiscal impact of the following tax incentives provided during the Fiscal Year 2022:

1. Motion Picture Investor Tax Credit (Film)
2. Enterprise Zone Program (EZ)
3. Louisiana Quality Jobs Program (QJ)
4. Digital Interactive Media & Software Tax Credit (DM)
5. Rehabilitation of Historic Structures (RHS)
6. Industrial Tax Equalization Program (TE)
7. Retention and Modernization Credit (R&M)
8. Procurement Processing Company Rebate Program (PPC)
9. Research and Development Tax Credit (R&D)
10. Musical & Theatrical Productions Tax Credit (Live)
11. Angel Investor Tax Credit (Angel)

This report divides the tax incentives into two groups Group 1 and Group 2, based on their cost. Group 1 includes the five incentives with the largest annual revenue loss, and Group 2 includes six other incentives with annual revenue loss which meet the reporting requirements of Act 87. Using the methodology detailed in this report, all ten tax incentives listed above had a negative fiscal ROI but a positive economic ROI.

# Introduction

Act 87 of the 2018 Regular Session requires the Louisiana Department of Revenue (LDR) to "perform a comprehensive return on investment analysis for all tax incentives for which the revenue loss was one million dollars or more in the previous fiscal year." This report provides a comprehensive analysis of the return on investment of ten selected Louisiana tax incentive programs. The report divides them into two groups, Group 1 and Group 2 tax incentives based on the cost of exemptions with the five costliest incentives and six less costly incentives in each group.

The economic and fiscal impact of Group 1 of tax incentives includes the Louisiana Department of Economic Development's (LED) Enterprise Zones, Louisiana Quality Jobs Program, Motion Picture Investor Tax Credit, Department of Culture, Recreation, and Tourism's (CRT) Rehabilitation of Historic Structures, and LDR's Procurement Processing Company Rebate Program.

In Group 2 of the study, the report details the economic impact of tax incentives provided by the LED's Research and Development Tax Credit, Industrial Tax Exemption Program, Retention and Modernization Tax Credit, Musical & Theatrical Production Tax Credit, Digital Interactive Media & Software Tax Credit, and Angel Investor Tax Credit.

Using administrative data from the Louisiana Department of Revenue for the FY 2022 on total tax credits/rebates (corporate income and franchise, individual income, and sales taxes), this report presents the fiscal and economic impacts of eleven business incentive programs on the economy of the State of Louisiana. Additionally, the report also ranks the tax incentive programs from the highest to the lowest return on investment.

The report details the following:

1. General Overview of the selected Tax Incentives (summary of the structure of the tax incentives and major industries affected),
2. Return on Investment Analysis,
3. Summary of Results, and
4. Comparison of Results.

# General Overview of Tax Incentives

The design and administration of tax incentive programs substantially shape the potential economic and fiscal returns to the state by affecting the location, hiring, and investment decisions of the businesses. State governments aim to attract and increase business activities with economic development policies, including lower business tax rates and higher tax incentives. These incentives target both new and existing businesses with special tax credits/rebates along with other financial benefits or services. This section provides an overview of the selected tax incentive programs with an emphasis on the structure of the tax incentives

## Group 1 Tax Incentives

Table 1 reviews the major industries affected by the Group One of the selected tax incentives.

### *Rehabilitation of Historic Structures*

The Rehabilitation of Historic Structures tax credit program provides a non-refundable credit for the eligible cost and expenses incurred during the rehabilitation of a historic structure located in a downtown development or a cultural district. Eligible structures must be nonresidential real property or residential rental property. The benefits include:

- A credit equal to 25 percent of the eligible costs and expenses of the rehabilitation incurred before January 1, 2018; and
- A credit equal to 20 percent for eligible costs and expenses incurred on or after January 1, 2018.

No taxpayer or affiliate shall claim more than five million dollars of credit per year for any number of structures rehabilitated within a particular downtown development or a cultural district.

**Table 1: Group One of Selected Louisiana Tax Incentive Programs and Main Industries Impacted: Source: Louisiana Department of Revenue FY 2022**

| Agency | Program | Largest Industries Impacted | Effective | Sunset |
|---|---|---|---|---|
| Department of Culture, Recreation and Tourism | Rehabilitation of Historic Structures | NAICS 42, 55 | 7/1/2002 | 1/1/2026 |
| Department of Revenue | Procurement Processing Company | NAICS 561 | 7/1/2012 | N/A |
| Department of Revenue | Enterprise Zone | NAICS 324,622 | 9/11/1981 | 7/1/2026 |
| Department of Revenue | Louisiana Quality Jobs | NAICS 325, 22 | 7/1/1995 | 6/30/2026 |
| Department of Economic Development | Motion Picture Investor Tax Credit | NAICS 512 | 1/1/1993 | 7/1/2025 |

### *Procurement Processing Company Rebate Program*

The Procurement Processing Company Rebate Program is intended to recruit in Louisiana, purchasing companies that generate sales of items subject to state sales and use taxes. The secretary of LED is authorized to enter into contracts with procurement processing companies and these contracts provide a rebate to these procurement processing companies which are derived from a portion of the state sales and use taxes collected on new taxable sales by the purchasing company which is managed by the procurement processing company under contract with LED. The initial term of the contract cannot exceed twenty years and can be renewed for up to an additional twenty years. Program benefits include:

- A rebate of the contractually agreed upon percentage of state sales tax on new taxable sales by the purchasing company.

### *Enterprise Zones*

Enterprise zones are areas with high unemployment, low income, or a high percentage of residents receiving public assistance. The Enterprise Zone, or EZ program, is a jobs incentive program that provides Louisiana income and franchise tax credits to a new or existing business located in Louisiana that creates permanent net new full-time jobs and hires at least 50% of those net new jobs from one of four targeted groups. The benefits provided include:

- A one-time $3,500 or $1,000 job tax credit for each net new job created; and
- Either a rebate of state sales and use taxes paid at the prevailing rate on qualifying materials, machinery, furniture, and/or equipment purchased or a 1.5% refundable investment tax credit on the total capital investment, excluding tax-exempted items. The state sales and use tax rebate or 1.5% rebate shall not exceed $100,000 per net new job created under the contract.

### *The Louisiana Quality Jobs Program*

The Louisiana Quality Jobs Program provides an incentive to encourage businesses to locate or expand existing operations in Louisiana and create quality jobs focusing on Louisiana Vision 2020 and seed clusters industries. These industries include but are not limited to, biotechnology, biomedical, micro-manufacturing, software and internet, clean energy, food technology, and advanced materials. The participating business must create a minimum number of full-time jobs and provide a basic health benefit plan within 90 days of hire. The benefits provided include:

- A 4% or 6% payroll rebate for new direct jobs based on the hourly wage rate; and
- Either a rebate of state sales and use taxes paid at the prevailing rate on qualifying materials, machinery, furniture, and/or equipment purchased or a 1.5% project facility expense rebate on the total capital investment, excluding tax-exempted items.

### *Motion Picture Investor Tax Credit*

The Motion Picture Investor Tax Credit is intended to encourage the development in Louisiana of a strong capital base for motion picture production to achieve an independent, self-supporting industry. The benefits include:

- For state-certified productions meeting certain criteria, a tax credit of up to 40% for qualified expenditures; and
- For Qualified Entertainment Companies (QEC) meeting certain criteria, the program provides a payroll tax credit of up to 20%.

## Group 2 Tax Incentives

Table 2 reviews the major industries affected by the Group Two of the selected tax incentives.

### *Research and Development Tax Credit*

The Research and Development tax credit is intended to encourage new and continuing efforts to conduct research and development activities within this state. The program is open to companies that have incurred research and development expenditures in Louisiana and who meet certain requirements. Louisiana has three different types of research and development applicants who earn credits at different rates and have different filing requirements: 1) businesses who increase in Louisiana Research and Development (50+ employees), 2) businesses who receive a Small Business Innovation Research Grant (SBIR/STTR) from the federal government, and 3) businesses who employ less than 50 employees, including affiliates.

The following types of businesses that do not have a pending or issued United States patent directly related to the qualified research expenditures for which a credit is being claimed according to La. R.S. 47:6015 are ineligible to apply for or receive benefits unless specifically invited by the LED to do so: 1) a professional services firm, or 2) businesses primarily engaged in custom manufacturing and custom fabricating.

Program benefits include:

- Up to a 30% tax credit on qualified research expenditures incurred in Louisiana.

| Table 2: Group Two of Selected Louisiana Tax Incentive Programs and Main Industries Impacted: Source: Louisiana Department of Revenue FY 2022 | | | | |
|---|---|---|---|---|
| **Agency** | **Program** | **Largest Industries Impacted** | **Effective** | **Sunset** |
| Department of Economic Development | Research & Development | NAICS 482, 54 | 12/31/2002 income<br>12/31/2003 franchise | 12/31/2025 |
| Department of Economic Development | Industrial Tax Equalization Program | NAICS 517,42 | 9/3/1989 | N/A |
| Department of Economic Development | Retention & Modernization | NAICS 325 | 8/15/2009 | N/A |
| Department of Economic Development | Musical & Theatrical Production | NAICS 711 | 7/19/2007 | 7/1/2025 |
| Department of Economic Development | Digital Interactive Media & Software Tax Credit | NAICS 511, 54 | 6/30/2005 | N/A |
| Department of Economic Development | Angel Investors | Individual Income Tax | 1/1/2005 | 7/1/2025 |

### *Industrial Tax Equalization Program*

The Industrial Tax Equalization Program is intended to encourage the establishment and retention of manufacturing establishments, headquarters, or warehousing and distribution establishments in Louisiana by providing a procedure whereby the total state and local taxes imposed upon these establishments may be reduced, after all, other tax incentives for specific sites are applied, to the levels imposed by other competing states.

The Board of Commerce and Industry may enter into a tax equalization contract only if each of the following requirements is met by the manufacturing establishment, headquarters, or warehousing and distribution establishment:

- The establishment must either be located in another state or be located in Louisiana and contemplating locating in another state that has equivalent or comparable advantages as the area in Louisiana in which the establishment is or seeks to be located.
- The state in which the establishment is located or is contemplating locating must have a total state, parish, and local tax structure that offers a greater tax advantage to the establishment than does the taxing structure of Louisiana.
- The applicant for tax equalization may be any form of business entity.
- The sites under consideration in Louisiana and the competing state must be valid and viable for the proposed operations.
- The secretary of the Department of Economic Development must make a recommendation to the governor to extend an invitation to apply for tax equalization.
- The applicant must receive an invitation to apply from the governor.

### *Retention and Modernization Credit*

The Retention and Modernization credit is intended to provide an inducement for businesses to remain in the state and not relocate outside the state and to modernize their existing operations in Louisiana. The program is discretionary and businesses must be invited by the Secretary of LED to participate in the program. The credit is a non-refundable income and franchise tax credit with a ten-year carryforward period. Program benefits include:

- A credit at the rate of up to five percent of the qualified expenditures incurred by the employer for modernization with the credit divided into equal portions for five years.

### *Musical & Theatrical Productions Tax Credit*

The purpose of the tax credit is to establish and promote Louisiana as one of the primary places in the United States in which live performances, from creation to presentation, are present and thriving. For state-certified productions meeting certain criteria, the program provides a tax credit for qualified production expenditures with additional tax credits available for payroll. The program has an annual cap of $10 million each year with 50% of that reserved for productions by non-profit organizations. Program benefits currently include:

- A credit equal to 18% of the base investment; and
- A credit equal to 7% of payroll expended on Louisiana residents.

### *Digital Interactive Media and Software Tax Credit Program*

The Digital Interactive Media and Software Tax Credit is intended to encourage the development of a strong capital base for the production of digital interactive media to achieve a more independent, self-supporting industry. The benefits provided include:

- Up to a 25 percent refundable tax credit for in-state labor; and
- Up to an 18 percent refundable credit for eligible production expenses.

The program has no annual cap and no minimum spending requirement. The tax credit is available for a refund of 100% of its value claimed on Louisiana state tax return or certified applicants can receive 85% of the value earned as a rebate any time during the year.

### *Angel Investor Tax Credit*

The Angel Investor Tax Credit Program intends to encourage third parties to invest in early-stage wealth-creating businesses in the state, expand the economy of the state by enlarging its base of wealth-creating businesses, and enlarge the number of quality jobs available to retain the presence of young people educated in the state. The benefits of this program include:

- A 25% tax credit on investments by accredited investors who invest in LED-certified businesses such as Louisiana Entrepreneurial Businesses (LEB).
- An enhanced tax credit of 35% on investments by accredited investors who invest in LEBs located in qualified Opportunity Zones.

This program has a $7.2 million annual cap and the investors can invest $720,000 per business per year and $1.44 million per business over the life of the program. The qualifying uses of investment funds include capital improvements, plant equipment, research and development, and working capital. The incentive is available to businesses in Louisiana that are not involved in retail, real estate, professional services, gaming or gambling, natural resource extraction or exploration, or financial services like venture capital funds. Furthermore, the investment funds are non-eligible to pay dividends, redeem shares, repay debts, and repay shareholder’s loans.

# Findings

## FY 2022

### The findings for Group 1 are as follows:

- Louisiana's economy gains an annual average of $641.2 million in state gross domestic product with a net economic impact of $183.8 million from the tax incentives issued under the five selected programs.
- Louisiana's fiscal budget is projected to have an annual revenue loss of $423.4 million from the tax incentives issued under the five selected programs. Of the $457.3 million of total incentives issued for the top five programs in FY 2022, the state of Louisiana recoups an annual average of $33.8 million as tax revenue.
- The economic return on investment (the net economic benefit for the Louisiana economy observed in the state gross domestic product) for the top five programs ranked from highest to the lowest are:

  1. Quality Jobs (70.56%)
  2. Enterprise Zones (46.21%)
  3. Rehabilitation of Historic Structures (24.78%)
  4. Motion Picture Investor Tax Credit (24.12%)
  5. Procurement Processing Company Rebate Program (4.34%)

  This means that the state economy measured by state gross domestic product grows by 70.56 cents for every dollar spent on the Quality Jobs program after accounting for the program costs. Similarly, the Louisiana economy expands by 4.45 cents for every dollar spent on the Procurement Processing Company Rebate Program in addition to the initial dollar circulated in the state economy under this program.

- The fiscal return on investment (the net fiscal benefit for the Louisiana state budget observed in state tax revenues) for the top five programs ranked from the highest to the lowest are:

  1. Rehabilitation of Historic Structures (-91.38%)
  2. Quality Jobs (-91.38%)
  3. Motion Picture Investor Tax Credit (-93.59%)
  4. Procurement Processing Company Rebate Program (-93.61%)
  5. Enterprise Zones (-94.30%)

  This means that the state revenue shrinks by 91.38 cents to 94.30 cents for each dollar spent in the top five incentive programs. Conversely, the state recoups only 5.7 cents to 8.62 cents of each dollar spent in the selected five incentive programs.

Following are the highlights of the fiscal and economic impacts of Group 1 of tax incentive programs in FY 2022:

- Rehabilitation of Historic Structures
  - Total incentives: $63.4 million.
  - Average annual estimated gross domestic product, value-added, from total incentives: $79.1 million.
  - Average annual net economic impact: +$15.7 million.
  - Average annual estimated state revenue from total incentives: $5.5 million.
  - Average annual estimated tax revenue loss: $57.9 million.
  - The economic multiplier is 1.71.
  - Mainly affected Wholesale Trade (NAICS 42) and Management of Companies and Enterprises (NAICS 55)

- Procurement Processing Company Rebate Program
    - Total incentives: $40.1 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $41.8 million.
    - Average annual net economic impact: +$1.7 million.
    - Average annual estimated state revenue from total incentives: $2.5 million.
    - Average annual estimated tax revenue loss: $37.5 million.
    - The economic multiplier is 1.94.
    - Mainly affected Professional, Scientific, and Technical Services (NAICS 561).
- Enterprise Zones
    - Total incentives: $43.8 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $64.1 million.
    - Average annual net economic impact: +$20.2 million.
    - Average annual estimated state revenue from total incentives: $2.5 million.
    - Average annual estimated tax revenue loss, $37.5 million.
    - The economic multiplier is 2.34.
    - Mainly affected Petroleum and Coal Manufacturing (NAICS 324) and Private Hospitals (NAICS 622)
- Louisiana Quality Jobs
    - Total incentives: $153.7 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $262.2 million.
    - Average annual net economic impact: +$108.5 million.
    - Average annual estimated state revenue from total incentives: $13.2 million.
    - Average annual estimated tax revenue loss, $140.5 million.
    - The economic multiplier is 1.88.
    - Mainly affected Chemical Manufacturing (NAICS 325) and Utilities (NAICS 22).
- Motion Picture Investor Tax Credit program
    - Total incentives: $156.1 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $193.8 million.
    - Average annual net economic impact: +$37.6 million.
    - Average annual estimated state revenue from total incentives: $10.0 million.
    - Average annual estimated tax revenue loss, $146.1 million.
    - The economic multiplier is 1.73.
    - Mainly affected Motion Picture and Sound Recording Industry (NAICS 512)

## The findings for Group 2 are as follows:

- Louisiana's economy gains an annual average of $40.5 million in state gross domestic product with a net economic impact of $54.9 million from the tax incentives issued under the six selected programs.
- Louisiana's fiscal budget is projected to have an annual revenue loss of $37.5 million from the tax incentives issued under the six selected programs. Of the $40.5 million of total incentives issued for the smallest six programs in FY 2022, the state of Louisiana recoups an annual average of $3.02 million as tax revenue.

- The economic return on investment (the net economic benefit for the Louisiana economy observed in the state gross domestic product) for the programs in Group 2 ranked from highest to the lowest are:

  1. Retention & Modernization Credit (110.34%)
  2. Digital Interactive Media & Software Tax Credit (38.13%)
  3. Research & Development Tax Credit (29.28%)
  4. Musical & Theatrical Productions Tax Credit (14.48%)
  5. Industrial Tax Equalization Program (1.85%)
  6. Angel Investor Tax Credit (-40.03%)

  This means that the state economy measured by state gross domestic product grows by $1.10 for every dollar spent on the Retention and Modernization Credit program after accounting for the program costs. Similarly, the Louisiana economy shrinks by 40.03 cents for every dollar spent on the Angel Investor Tax Credit Program.

  The fiscal return on investment (the net fiscal benefit for the Louisiana state budget observed in state tax revenues) for the bottom six programs ranked from the highest to the lowest are:

  1. Retention & Modernization (-89.06%)
  2. Research & Development Tax Credit (-91.68%)
  3. Digital Interactive Media & Software Tax Credit (-92.92%)
  4. Musical & Theatrical Productions Tax Credit (-93.10%)
  5. Industrial Tax Equalization Program (-93.93%)
  6. Angel Investor Tax Credit (-95.42%)

  This means that the state revenue shrinks by 89.06 cents to 94.42 cents for each dollar spent in the selected six incentive programs. Conversely, the state recoups only 5.58 cents to 10.94 cents of each dollar spent in the selected six incentive programs.

Following are the highlights of the fiscal and economic impacts of Group 2 of tax incentive programs in FY 2022:

- Research & Development Tax Credit
  - Total incentives: $5.5 million.
  - Average annual estimated gross domestic product, value-added, from total incentives: $7.1 million.
  - Average annual net economic impact: +$1.6 million.
  - Average annual estimated state revenue from total incentives: $459.6 thousand.
  - Average annual estimated tax revenue loss: $5.0 million.
  - The economic multiplier is 1.78.
  - Mainly affected Railroad Transportation (NAICS 482) and Professional, Scientific, and Technical Services (NAICS 54)
- Industrial Tax Equalization Program
  - Total incentives: $4.8 million.
  - Average annual estimated gross domestic product, value-added, from total incentives: $4.9 million.
  - Average annual net economic impact: +$90.6 thousand
  - Average annual estimated state revenue from total incentives: $296.9 thousand.
  - Average annual estimated tax revenue loss: $4.5 million.
  - The economic multiplier is 1.90.
  - Mainly affected Telecommunications (NAICS 517) and Wholesale Trade (NAICS 42)

- Retention and Modernization Credit
    - Total incentives: $4.1 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $8.7 million.
    - Average annual net economic impact: +$4.5 million.
    - Average annual estimated state revenue from total incentives: $453.1 thousand.
    - Average annual estimated tax revenue loss: $3.6 million.
    - The economic multiplier is 2.09.
    - Mainly affected Chemical Manufacturing (NAICS 325).
- Musical and Theatrical Production Tax Credit
    - Total incentives: $2.3 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $2.7 million.
    - Average annual net economic impact: +$344.5 thousand.
    - Average annual estimated state revenue from total incentives: $161.1 thousand.
    - Average annual estimated tax revenue loss: $2.2 million.
    - The economic multiplier is 1.56.
    - Mainly affected Performing Arts (NAICS 711).
- Digital Interactive Media and Software Tax Credit
    - Total incentives: $20.8 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $28.7 million.
    - Average annual net economic impact: +$7.9 million.
    - Average annual estimated state revenue from total incentives: $1.4 million.
    - Average annual estimated tax revenue loss: $19.3 million.
    - The economic multiplier is 1.65.
    - Mainly affected Professional, Scientific, and Technical Services (NAICS 54) and Publishing Industries, except Internet (NAICS 511).
- Angel Investor Tax Credit
    - Total incentives: $3.28 million.
    - Average annual estimated gross domestic product, value-added, from total incentives: $1.97 million.
    - Average annual net economic impact: -$1.3 million.
    - Average annual estimated state revenue from total incentives: $150.4 thousand.
    - Average annual estimated tax revenue loss: $3.13 million.
    - The economic multiplier is 2.09.
    - Above 97% of the incentive is in the form of individual income tax credit
- The return on investment analysis presented in this report used tax incentive data from the Louisiana Department of Revenue and the REMI Tax-PI forecasting software calibrated for the State of Louisiana.
- The analysis assumes that the tax incentives drive the industry growth and that gains from growth remained primarily in Louisiana.

| Summary of Group 1 of tax incentives (FY 2022) | | | | | | |
|---|---|---|---|---|---|---|
| | RHS | PPC | EZ | QJ | Film | Total |
| Annual tax incentives | $63.4 M | $40.1 M | $43.8 M | $153.7 M | $156.1 M | $457.3 M |
| GDP/value-added | $79.1 M | $41.8 M | $64.1 M | $262.2 M | $193.8 M | $641.2 M |
| Net economic impact | $15.7 M | $1.7 M | $20.2 M | $108.5 M | $37.6 M | $183.8 M |
| State revenue | $5.5 M | $2.5 M | $2.5 M | $13.2 M | $10.0 M | $33.8 M |
| Tax revenue loss | $57.9 M | $37.5 M | $41.3 M | $140.5 M | $146.1 M | $423.4 M |
| Fiscal ROI | -91.30% | -93.61% | -94.30% | -91.38% | -93.59% | |
| Economic ROI | 24.78% | 4.34% | 46.21% | 70.56% | 24.12% | |

*Notes: RHS – Rehabilitation of Historic Structures, PPC- Procurement Processing Company Rebate Program, EZ – Enterprise Zones, QJ – Louisiana Quality Jobs Program, Film – Motion Picture Investor Tax Credit*

| Summary of Group 2 of tax incentives (FY 2022) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | R & D | TE | R & M | Live | DM | AITC | Total |
| Annual tax incentives | $5.5 M | $4.8 M | $4.1 M | $2.3 M | $20.8 M | $3.28 M | $40.5 M |
| GDP/value-added | $7.1 M | $4.9 M | $8.7 M | $2.7 M | $28.7 M | $1.97 M | $54.9 M |
| Net economic impact | $1.6 M | $90.6 K | $4.5 M | $344.5 K | $7.9 M | -$1.31M | $14.4 M |
| State revenue | $459.6 K | $296.9 K | $453.1 K | $164.1 K | $1.4 M | $150.4 K | $3.02 M |
| Tax revenue loss | $5.0 M | $4.5 M | $3.6 M | $2.2 M | $19.3 M | $3.13 M | $37.5 M |
| Fiscal ROI | -91.68% | -93.93% | -89.06% | -93.10% | -92.92% | -95.42% | |
| Economic ROI | 29.28% | 1.85% | 110.34% | 14.48% | 38.13% | -40.03% | |

*Notes: R & D – Research & Development Tax Credit, TE – Industrial Tax Equalization Program, R & M – Retention & Modernization Credit, Live – Musical & Theatrical Productions Tax Credit, DM – Digital Interactive Media & Software Tax Credit, and AITC – Angel Investor Tax Credit*

# Return on Investment of Selected Tax Incentive Programs

## FY 2022

Using administrative data on total tax credits/rebates (corporate income and franchise, individual income, and sales & use taxes) from the Louisiana Department of Revenue for the Fiscal year 2022, this section summarizes the cost of incentives, the major industries impacted, and the economic and the fiscal effect of the business incentive programs that cost more than a million dollar to the state of Louisiana. This study used REMI Tax-PI forecasting software calibrated for the state of Louisiana to analyze the tax incentive data for FY 2022. This section reports the summary of the economic and fiscal impacts of the business incentive programs from two approaches. First, based on the Tax-PI simulations using available data, it summarizes the forecasts till 2031 and reports the average annual expected dollar amounts of gross domestic product (GDP)/value-added, net economic impact, state tax revenue, and tax revenue gain/loss for the state of Louisiana as a result of the business incentives programs under consideration. Second, it presents the calculated economic return on investment (Economic ROI) and fiscal return on investment (Fiscal ROI) to those programs based on the forecasts obtained from the REMI Tax-PI software. During the analysis, each incentive program is treated as a shock to the Louisiana economy, and the resulting changes in the economy due to the economic shock are compared with the control scenario which assumes the absence of economic shocks in the form of business tax incentives. The expected fiscal and economic effects of the tax incentive programs are thus obtained from the differences in the control scenario and the so-called shock/presence of tax incentives scenario. It is worth noting that this study is a "but for" analysis where the interpretation of the results elucidates the potential fiscal and economic gain/loss in the Louisiana economy exclusively resulting from the specific tax incentives program. In addition to that, this study also employs an assumption of a balanced budget for government spending where a reduction in state revenues leads to a proportional decline in state expenditures. We report the analysis of the most recent data of the selected tax incentives into two groups for ease of comparison. The two groups of tax incentive programs in FY 2022 are divided into two groups based on the cost of the programs where Group 1 consists of the top five costly programs and Group 2 consists of the bottom six of the eleven incentive programs analyzed.

### Group 1 Tax Incentives

The total cost of the largest five incentive programs of the selected eleven is $457.3 million for FY 2022. The cost of tax incentives ranges from $41.8 million for Procurement Processing Companies to $262.2 million for Louisiana Quality Jobs Program. The state recoups only $33.8 million in tax revenues which results in an annual average revenue loss of $423.4 million. The state does not recover the tax incentives issued to individuals and businesses over the next ten years but the selected incentives have a positive impact on the GDP meaning more economic activities with decreased consumption, capital investment, or job growth. The annual growth in GDP/value-added attributed to the incentive programs in Group 1 is expected to be $641.2 million with a net economic impact of 183.8 million. Figure 1 shows the average annual expected economic and fiscal impacts of selected tax incentive programs from 2022 to 2031.

The results show that all these tax incentives have a positive economic effect on the state economy. The average annual net economic impact of the tax credits/rebates issued to individuals and businesses ranges from $1.7 million for Procurement Processing Companies (PPC) to $108.5 million for Quality Jobs (QJ). The average annual net economic impact of other programs is $15.7 million for the Rehabilitation of Historic Structures (RHS), $20.2 million for Enterprise Zones (EZ), and $37.6 million for the Motion Picture Investor Tax Credit (Film). Here, the net economic effect implies the value added/gain in GDP in Louisiana's economy after accounting for the cost of incentives. The value added by each program, on the other hand, is the gross output of an industry/sector less its intermediate inputs, thus one can understand it as the contribution of an industry or sector to the gross domestic product (GDP). The contribution of these programs to the Louisiana GDP ranges from $41.8 million for PPC to $262.2 million for QJ. These results also show that programs with the lowest and the highest average annual value-added also exert the lowest and the highest net economic impact respectively. The cost of incentives is highest for Film in Group which is more than QJ by $3.4 million but the net economic impact of QJ is more than Film by $70.9 million suggesting that there is no linear relationship between the cost and the economic impact of the tax incentives. In other words, the higher cost of incentives does not necessarily translates into a higher economic impact.

Contrary to the economic impact of tax credits/rebates issued under most of the programs, the fiscal impact for all the programs is negative. In other words, the estimated state tax revenue for all the programs is less than the amount issued to individuals and businesses through tax exemptions. The average annual revenue loss ranges from $37.5 million for PPC to $146.1 million for Film. The estimated revenue loss per year for other programs is $57.9 million for RHS, $41.3 million for EZ, and $140.5 million for QJ. Among the top five programs, the state spends the highest amount on Film but QJ generates more annual revenue than Film. QJ is estimated to generate $3.2 million more than Film in annual tax revenue whereas QJ received $3.4 million less than Film in 2022.

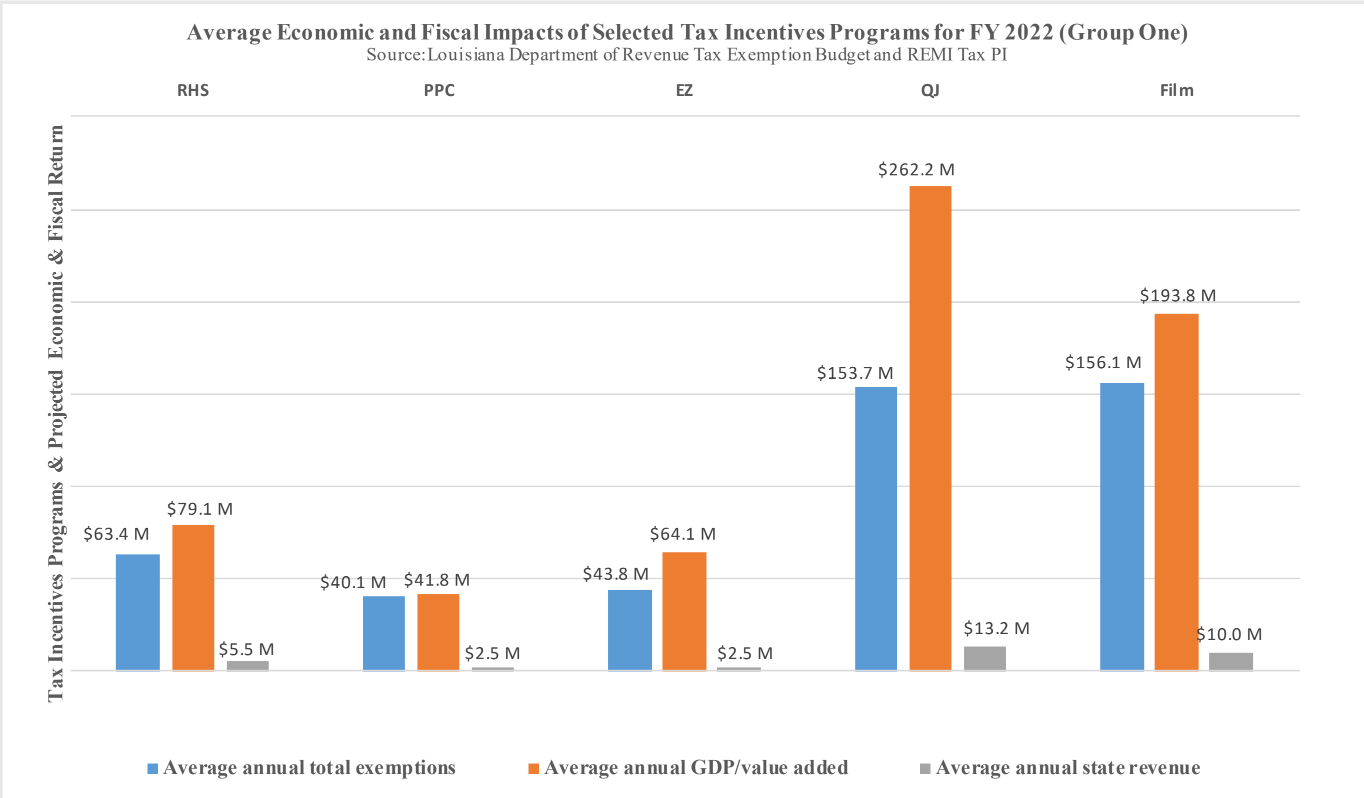


FIGURE 1: ECONOMIC AND FISCAL IMPACTS OF GROUP 1 TAX INCENTIVES FOR FY 2022

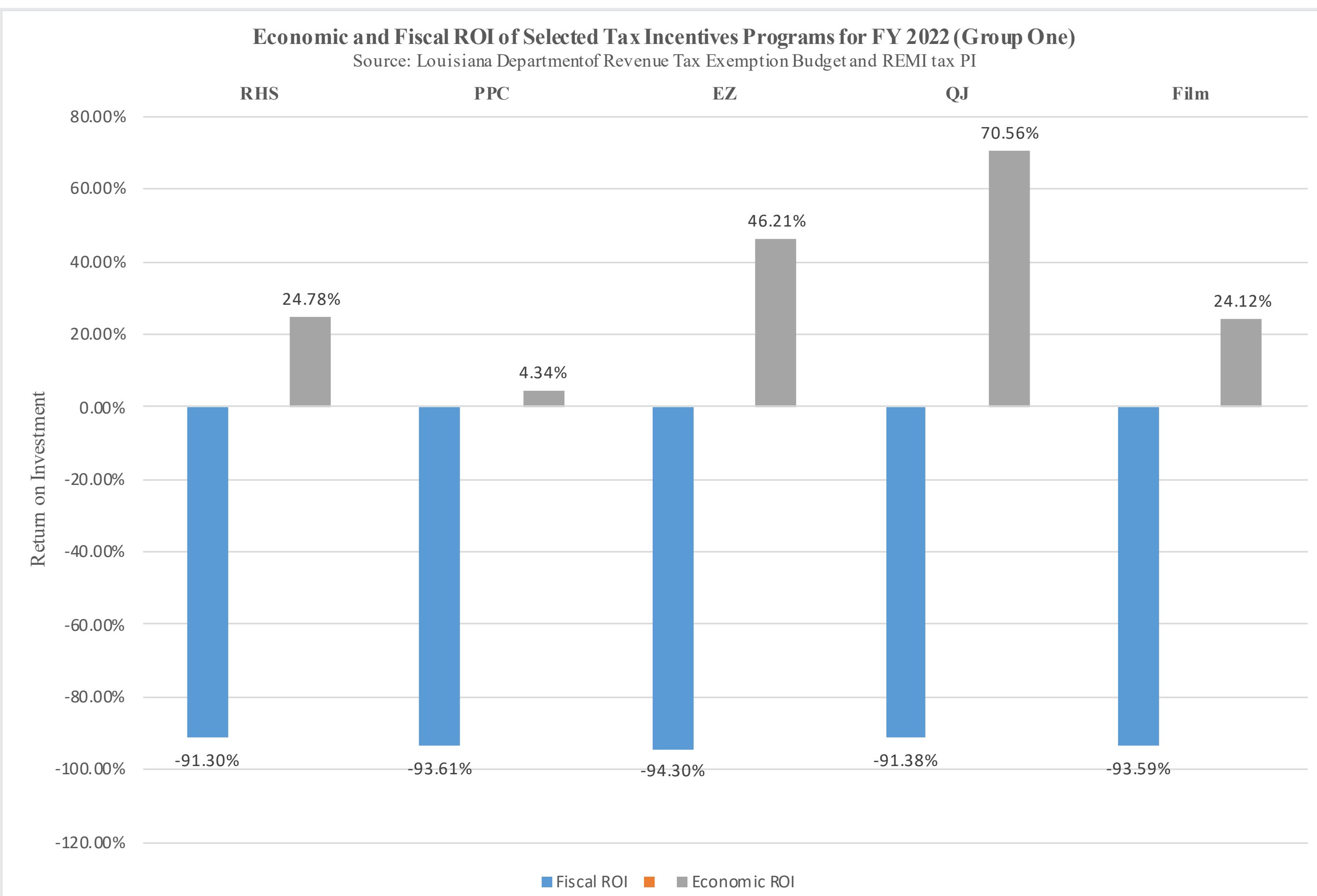


FIGURE 2: FISCAL AND ECONOMIC ROI OF GROUP 1 TAX INCENTIVE PROGRAMS FOR FY 2022

A widely used economic calculation in both the private sector and government for the effectiveness of investment is Return on Investment (ROI). ROI is a calculation of the expected gains/benefits from a program versus the costs of implementing the program, i.e. ratio of net benefits divided by its total costs. This study calculates two types of ROI: economic ROI and fiscal ROI. The net benefit of tax incentives in economic ROI is the economic value-added/GDP less the total program costs whereas in fiscal ROI it is the state tax revenue less the total program costs. In this report, we express ROI in percentages by multiplying the ratio by 100 for ease of interpretation. Figure 2 shows the economic and fiscal ROI for the first group of tax incentives.

All the tax incentive programs in Group 1 have a positive economic return on investment that ranges from 4.34% for PPC to 70.56% for QJ. The positive economic ROI means that the Louisiana economy - as measured by the State GDP – grows by 4.34 cents and 70.56 cents for every dollar spent on PPC and QJ after accounting for their program costs. Similarly, the economic ROI for RHAS is 24.78%, 46.21% for EZ, and 24.12% for Film.

The fiscal return on investment of all five tax incentives is negative suggesting that tax revenue declines for every dollar spent on these tax incentive programs. The fiscal ROI for the programs in Group 1 ranked from highest to the lowest are RHS (-91.30%), QJ (-91.38%), Film (93.59%), PPC (-93.61%), and EZ (-94.30%). It means that the state budget, as measured by the state tax revenues declines by 91.30 cents to 94.30 cents for every dollar spent on tax incentives. In other words, the state recoups only between 5.70 cents to 8.7 cents in revenue for every dollar spent in these five programs.

### *Enterprise Zones*

Enterprise Zones (EZ) are areas with high unemployment, low income, or a high percentage of residents receiving public assistance. EZ programs provide a one-time nonrefundable tax credit for each net new job created that can be used against income and corporation franchise tax with a ten-year carryforward period and a capital investment benefit of either a state sales and use tax rebate or a 1.5% refundable investment tax credit. Enterprise Zone provided $43.8 million in tax incentives to businesses in FY 2022. The effect of this incentive on the annual gross domestic product is $64.1 million which means the net economic impact of the enterprise zone is $20.2 million. Enterprise zones generate $2.5 million in annual tax revenue resulting in a revenue loss of $41.3 million. The largest sectors receiving incentives under Enterprise Zones in FY 2022 are Petroleum and Coal Manufacturing (NAICS 324), Private Hospitals (NAICS 622), and Professional, Scientific, and Technical Services (NAICS 54). The fiscal return on investment of Enterprise zones is -94.30 % and the economic return on investment is 46.21%.

### *Louisiana Quality Jobs Program*

The Louisiana Quality Jobs (OJ) Program is an incentive program intended to encourage business location and expansion in Louisiana to increase quality jobs. It provides a 4% to 6% payroll rebate for all new jobs and a capital investment benefit of either a state sales & use tax rebate or a 1.5% project facility expense rebate. Businesses received $153.7 million of tax incentives from the Quality Jobs program in FY 2022. The estimated gross domestic product in Louisiana because of QJ is $262.2 million with an average annual economic impact of $108.5 million. The average annual estimated state revenue from the incentives is $13.2 million with an estimated revenue loss of $140.5 million. Chemical Manufacturing (NAICS 325) and Utilities (NAICS 22) are the primarily affected industries by Quality Jobs with 44.39% and 29.80% of the total incentives received respectively. Based on the incentives data from FY 2022, the fiscal return on investment of the Quality Jobs program is -91.38% % whereas the economic return on investment is 70.56 %.

### *Motion Picture Investor Tax Credit*

The Motion Picture Investor (Film) Tax Credit aims to achieve an independent and self-supporting motion picture production industry with a strong capital base where a non-refundable income tax credit can be transferred back to the state of Louisiana for ninety cents on the dollar. Businesses received $156.1 in FY 2021-22 of tax incentives under the Motion Picture Investor Tax Credit Program. This investment is expected to result in $193.8 million in the increased annual gross domestic product of Louisiana with an average annual net economic impact of $37.6 million. Meanwhile, the state expects the tax revenue per year due to this program to be $10.0 million with $146.1 million of average annual loss of tax revenue. This incentive program's primary beneficiary is Motion Picture and Sound Recording Industry (NAICS 512) with almost 80 % of the incentives followed by Performing Arts, Spectator Sports, and related industries (NAICS 58) with a mere 7.42 % of the amount received under this program. The fiscal return on investment for Motion Picture Tax Credit Program is -93.59 % whereas the economic return on investment is 24.12 %.

### *Rehabilitation of Historic Structures*

Businesses qualified under the Rehabilitation of Historic Structures (RHS) receive a non-refundable credit for the eligible cost and expenses incurred during the rehabilitation of a historic structure located in a downtown development or a cultural district. RHS disbursed a total of $63.4 million in FY 2022. The average annual value added from the incentives is $79.1 million with an average annual net economic impact of $15.7 million. The average annual estimated state revenue from this incentive program is $5.5 million with an estimated revenue loss of $57.9 million. The industries most impacted by this incentive are Wholesale Trade (NAICS 42) with 24.35%, Management of Companies and Enterprises (NAICS 55) with 18.10 %, Retail Trade (NAICS 44-45) with 17.49 %, and Rail Transportation (NAICS 482) with 14.14 % of the amount received under the program. The fiscal return on investment for the Rehabilitation of Historic structures for FY 2020-21 is -91.30 % whereas the economic return on investment is 24.78 %.

### *Procurement Processing Company Rebate Program*

The Procurement Processing Company (PPC) Rebate Program is a tax incentive program that grants sales and uses tax rebates to PPCs under the provisions of their contract with LDR. Businesses received $40.1 million of tax incentives under the Procurement Processing Company Rebate Program in FY 2022. This investment expects to result in $41.8 million in the increased annual gross domestic product of Louisiana with an average annual net economic impact of $2.5 million. Meanwhile, the state expects the tax revenue per year due to this program to be $1.7 million with $37.5 million of average annual loss of tax revenue. This incentive program primarily affected Professional, Scientific, and Technical Services (NAICS 561). The fiscal return on investment for this program is -93.61 % whereas the economic return on investment is 4.34 %.

## Group 2 Tax Incentives

In 2022, the total cost of Group 2 of tax incentives disbursed under six of eleven programs that cost the state at least $1 million was $40.5 million. The state recoups only $3.02 million in tax revenue resulting in $37.49 million in annual revenue loss. The estimated annual GDP gain from Group 2 of tax incentives is $54.9 million which results in a net economic impact of $14.4

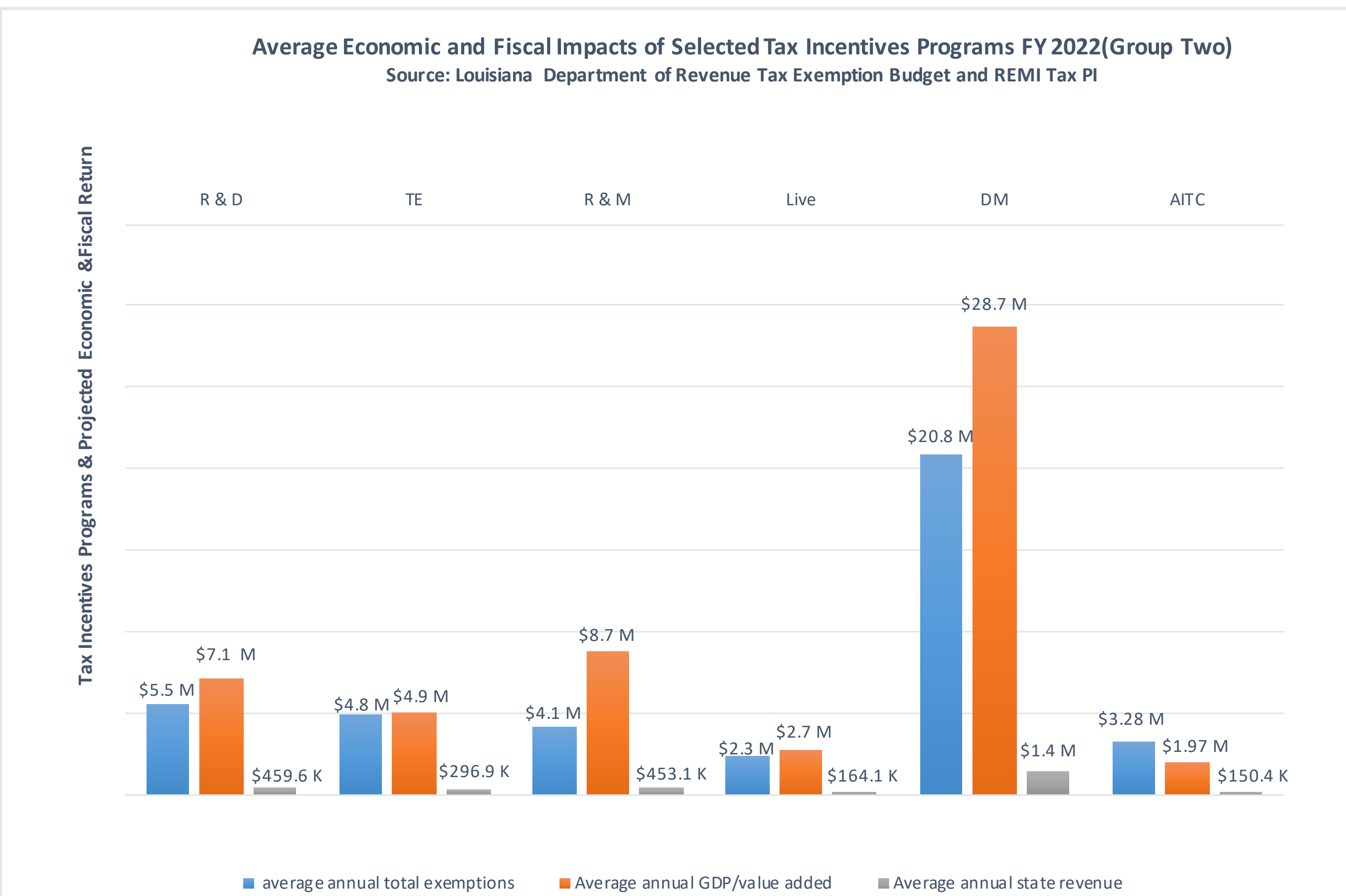


*FIGURE 3: ECONOMIC AND FISCAL IMPACTS OF GROUP 2 TAX INCENTIVES FOR FY 2022*

million. The state does not recover the tax incentives issued to individuals and businesses over the next ten years but the growth in the GDP has a positive in the Louisiana economy that translates into increased economic activities within the state. These estimates are calculated based on the expected economic and fiscal impacts of the selected tax incentives for ten years till 2031.

The results show that, of the six programs in Group 2, all but one program have a positive effect on the state economy. The annual net economic impact of tax credits/rebates to individuals and businesses for the selected programs ranges from -$1.31 million for Angel Investor Tax Credit Program (AITC) to $7.9 million for Digital Interactive Media and Software Tax Credit Program (DM). The average annual net economic impact of the remaining programs in Group two is $1.6 million for Research & Development Tax Credit (R & D), $90.6 thousand for Industrial Tax Equalization Program (TE), $344.5 thousand for the Musical & Theatrical Production Tax Credit (Live), and $4.5 million for Retention and Modernization Credit Program (R & M). The net economic impact can be interpreted as the gain in Louisiana's GDP/value-added after accounting for the cost of incentives. The value added by each program, on the other hand, is the gross output of an industry/sector less its intermediate inputs, thus one can understand it as the contribution of an industry or sector to the gross domestic product (GDP). The contribution of these programs to the Louisiana GDP ranges from $1.97 million for AITC to $28.7 million for DM. Furthermore, only for AITC, the gain in GDP/value added is lower than the annual cost of incentives in 2022.

Although five of six programs in Group 2 have a positive economic impact, the fiscal impact of all the programs is negative. This means that the estimated state tax revenue for all the programs is less than the amount issued to individuals and businesses through tax exemptions and credits. The estimated revenue loss per year ranges from $2.2 million for Live to $19.3 million for DM. The annual tax revenue loss for other programs is $5.0 million for R & D, $4.5 million for TE, $3.6 million for R & M, and $3.13 million for AITC. For Group 2 of tax incentives, DM has the highest values for both the net economic impact and tax revenue loss.

All but AITC have a positive economic return on investment. AITC has the lowest economic ROI with -40.03% whereas the highest is for R & M with 110.34%. Similarly, economic ROI for R&D is 29.28%, TE is 1.85%, Live is 14.48%, and DM is 38.13%.

Figure 3 shows the economic and fiscal impact of Group 2 tax incentives whereas Figure 4 represents the economic and fiscal ROIs for the same tax incentive programs in Group 2.

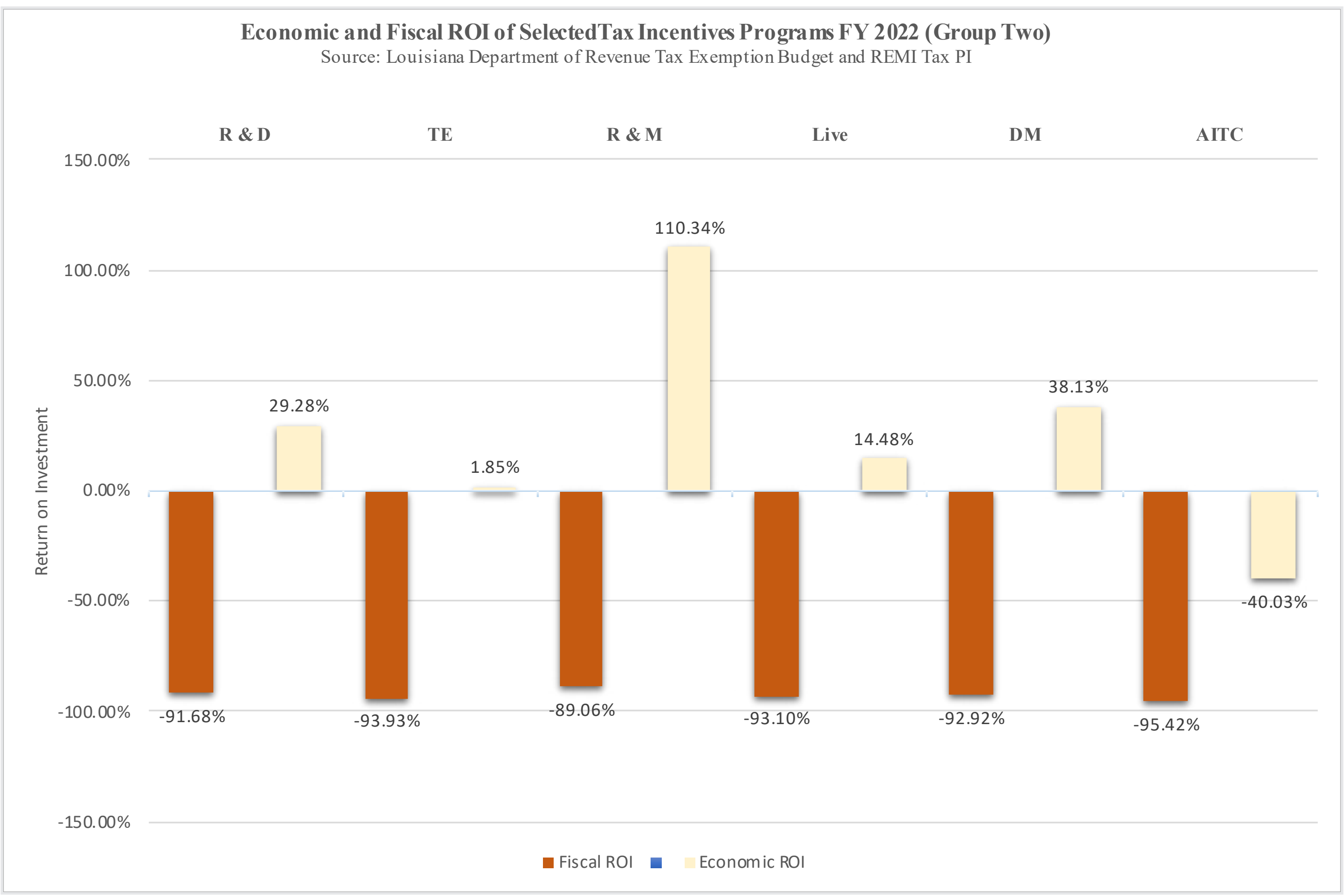


***FIGURE 3: ECONOMIC AND FISCAL IMPACTS OF GROUP 2 TAX INCENTIVES FOR FY 2022***

### *Research and Development Tax Credit*

The Research and Development (R & D) tax credit is a tax incentive program administered by LED to encourage new and continuing efforts to conduct research and development activities within the state of Louisiana. It provides up to a 30% tax credit on qualified expenditures in research incurred in the state. The annual tax incentive received by businesses under Research & Development Tax Credit was $5.5 million in 2022. The expected annual value added from the incentives is $7.1 million with an average annual net economic impact of $1.6 million. This program had a negative economic impact in 2020-2021 but the impact is positive for 2022. The average annual estimated state revenue from this incentive program is $459.6 thousand with an estimated revenue loss of $5.0 million. The industries most impacted by this incentive are Railroad Transportation (NAICS 482) with 33.20 %, Professional, Scientific, and Technical Services (NAICS 54) with 20.34 %, Petroleum and Coal Products Manufacturing (NAICS 324) with 12.42%, and Management of Companies and Enterprises (NAICS 55) with 9.42 % of the incentives received by the respective sectors. The fiscal return on investment of this incentive program for FY 2022 is -91.68 % whereas the economic return on investment is 29.28 %.

### *Industrial Tax Equalization Program*

Administered by LED, Industrial Tax Equalization (TE) Program is a tax incentive program intended to encourage the establishment and retention of manufacturing, warehousing, and distributional establishments, or headquarters. It provides a procedure whereby the state and local taxes imposed on the businesses are lowered to the levels imposed by other competing states. For FY 2022, the total amount of tax incentive businesses received under the Industrial Tax Equalization Program was $4.8 million. The estimated annual value-added created by the incentive program is $4.9 million with a net economic impact of $90.6 thousand. The estimated annual state tax revenue from the incentive is $296.9 thousand whereas the expected annual revenue loss is $4.5 million. The industries that receive the largest amount of credits are Telecommunications (NAICS 517), Wholesale Trade (NAICS 42), and Monetary Authorities (NAICS 522) with 41%, 36.09%, and 16.30% of the incentives respectively. The fiscal return on investment for this tax incentive program is -93.93 % and the economic return on investment is 1.85 %.

### *Retention and Modernization Credit*

The Retention and Modernization Tax Credit aims to attract businesses to remain in Louisiana and modernize their existing operations within the state. It is granted at a rate of up to 5% of the qualified expenditures incurred for modernization. The credit is divided into equal portions for five years and can be claimed against individual income tax, corporate income tax, or corporate franchise taxes. For FY 2022, the total cost of tax incentives for the Industrial Tax Equalization Program was $4.1 million. The estimated annual value-added created by the incentive program is $8.7 million with a net economic impact of $4.5 million. The estimated annual state tax revenue from the incentive is $453.1 thousand whereas the expected annual revenue loss is $3.6 million. The industry that receive the largest amount of credits was Chemical Manufacturing (NAICS 325) with the industries involved in chemical manufacturing receiving more than 50% of the credits. The fiscal return on investment for this tax incentive program is -89.06 % and the economic return on investment is 110.34 %.

### *Musical & Theatrical Productions Tax Credit*

The Musical and Theatrical Productions Tax Credit aims to establish and promote Louisiana as a primary place for the creation of the presentation of live performances in the US. Fifty percent of the tax credits are reserved for productions by non-profit organizations, and the total amount granted by the LED cannot exceed $10 million. Musical & Theatrical Productions Tax Credit provided $2.3 million per year in tax incentives to businesses in FY 2022. The effect of this incentive on the annual gross domestic product is $2.7 million which means the net economic impact of this incentive program is $344.5 million. Based on the tax incentives for 2022, the Musical & Theatrical Productions Tax Credit generates $164.1 thousand in annual tax revenue resulting in an average annual revenue loss of $2.2 million. The largest sector receiving incentives under this program is the Performing Arts (NAICS 711). The fiscal return on investment of Musical & Theatrical Production Tax Credits is -93.10 % and the economic return on investment is 14.48 %.

### *Digital Interactive Media and Software Tax Credit*

The Digital Interactive Media and Software (DM) Tax Credit Program encourages the development of a strong capital base to achieve a more independent and self-sufficient digital interactive media industry in Louisiana. A refundable tax credit can be used against individual income and corporate income tax. Upon final certification, the company may elect a one-time rebate of the credit at eighty-five percent of the face value of the credits. In FY 2022 the businesses received $20.8 million in tax incentives under the Digital Interactive Media & Software Tax Credit. The estimated annual value-added created by the incentive program is $28.7 million with a net economic impact of $7.9 million. The estimated annual state tax revenue from the incentive is $1.4 million whereas the expected annual revenue loss is $19.3 million. The industries that receive the largest amount of credits are Professional, Scientific, and Technical Services (NAICS 54) with almost two-thirds of the total incentives, and Publishing Industries, except Internet (NAICS 511) with 18.19 % of the total amount disbursed. The fiscal return on investment for this tax incentive program is -92.92 % and the economic return on investment is 38.13 %.

### *Angel Investor Tax Credit Program*

Angel Investor Tax Credit (AITC) incentivizes accredited investors to invest in early-stage, small wealth-creating Louisiana businesses that seek startup and expansion capital. In FY 2022 the cost of this program was $3.28 million as individual income tax credit which is expected to grow the Louisiana GDP by $1.97 million per year with an economic impact of $1.31 million in net losses. The estimated annual state tax revenue from this program is$150.4 thousand with an annual revenue loss of $3.13 million. The fiscal return on investment and economic return on investments are both negative with fiscal ROI of -95.42% and economic ROI of -40.03%.

## Economic Multipliers of Tax Incentives

Table 3 reports the economic multipliers of selected tax incentive programs for FY 2022. These multipliers summarize the total economic impact that can be expected from the change in a given economic activity of the incented firms. It reports economic multipliers of all the tax incentive programs under analysis except for the Angel Investor Tax Credit Program. All the available data on credits for this program are for individual income tax where only a fraction of the amount might have been invested back into the Louisiana economy. Based on the available information it is difficult to know which sectors receive investments from Angel investors further limits our ability to estimate the economic multipliers. For FY 2022, the highest multiplier is for Enterprise Zones with 2.34. This means that each dollar of economic activity generated by firms affected by Enterprise Zones results in $1.34 of additional indirect and induced economic activity. The lowest economic multiplier is for the Musical & Theatrical Productions Tax Credit Program with 1.56 suggesting that only $0.56 of economic activity from ripple effects can be expected from $1 of economic activity of the affected firms.

Higher economic multipliers mean that the incented firm purchased more from local suppliers. This further results in more economic activity and employment not just for firms receiving tax incentives but also along the supply chain.

**Table 3: Economic Multipliers of Tax Incentives**

| Program | Multiplier |
|---|---|
| EZ | 2.34 |
| R & M | 2.09 |
| AITC | 2.09 |
| PPC | 1.94 |
| TE | 1.84 |
| QJ | 1.88 |
| R&D | 1.78 |
| Film | 1.73 |
| RHS | 1.71 |
| DM | 1.65 |
| Live | 1.56 |