# Economic Impact of the Spending by the Alabama Housing Trust Fund on the Economy of Alabama- An Update

Prepared By: M. Keivan Deravi, Ph.D. Economic Research Services, Inc.

February 2023

This report attempts to estimate the economic impact of establishing a proposed Housing Trust Fund on the economy of the State of Alabama. The variables of interest to be analyzed are employment, earnings, and final demand.

At the very best, this economic report is an estimate, which is based on the sound theoretical foundation of the region's economy and the most updated socioeconomic, demographic, retail, and general business climate information available.

This study estimates possible changes to the regional economy predicated on an existing economic operation and does not consider the presence of any externalities, either positive or negative, in its computation.

The premise of this analysis is that there will be no major event to change the short or long term economic foundation of the region, and there will be no other competing investment in the area in the future. In other words, we assume everything else will remain constant, as we run this exercise.

Every attempt has been made to use the most recent information. The author, however, does not assume responsibility for any changes or revisions that may be made to the source data.

Executive Summary	4
Purpose	4
On-going Funding	4
Direct Impact	4
Single Family Homes	5
Multifamily Homes	
Rehabilitation	
Economic Impact	
One-time Funding	
Final Words	6
Purpose	8
Introduction	9
Economic Impact – Methodology	9
Notes about Impact (Analysis) Model	11
Direct Impact – On-going Funding	11
Economic Impact	.14
Economic Impact: One-time Funding	.18
Final Words	.18
Table 1: The Alabama Housing Trust Fund – Total Fund Distribution	
TABLE 2: NEW CONSTRUCTION – DIRECT IMPACT OF NEW SINGLE FAMILY HOMES CONSTRUCTION	
Table 3: New Construction – Direct Impact of New Multi Family Homes Construction	
Table 4: New Construction - Direct Impact of Owner Occupied and Acquisition Rehabilitation Table 5: Total Output Impact - Single Family Home Construction, Year 1 to Year 10	
Table 5: Total Employment Impact - Single Family Home Construction, Tear 1 to Tear 10	
TABLE 7: TOTAL CUMULATIVE ECONOMIC IMPACT, THE ALABAMA HOUSING TRUST FUND, YEAR 1 TO YEAR 10	
Table 8: Average Annual Economic Impact, The Alabama Housing Trust Fund	
Table 9: Total Cumulative Economic Impact, One-time Funding, the Alabama Housing Trust Fund, Yi	
1 to Year 10	18

## **Executive Summary**

### **Purpose**

- The purpose of this report is to estimate the potential economic impact of a funded and operational Alabama Housing Trust Fund (the Fund) on the economy of the State of Alabama.
- The spending by the Fund is expected to be directed towards construction of new single and multifamily housing, property acquisition and rehabilitation, and financial and educational services.
- The properties and services generated by the Fund are to provide relief to individuals and households that are considered to be either "cost burdened" or "severely cost burdened" in terms of their housing costs and conditions.
- The catalyst for such spending and action is the Alabama Affordable Housing Act (HB 110), a 2012 enabling legislation, which established the Alabama Housing Trust Fund.
- The HB 110 established the Alabama Affordable Housing Act, the Alabama Housing Trust Fund, and the Alabama Housing Trust Fund Advisory Committee.
- The intent of this legislation was to increase the availability of housing opportunities for individuals and families with incomes at or below 60% of the median family income.
- For purpose of this report, we pursue two scenarios.
- The first scenario assumes that the Fund will be able to secure an ongoing annual source of revenue of \$25 million.
  - Once the fund is secured, financial resources will then be distributed and spent in accordance with provisions and stipulations in HB 110.
  - Since the funding source is presumed to be ongoing, we opted to highlight the cumulative impact of spending by the Fund over a period of 10 years.
- The second scenario assumes a one-time funding of \$25 million.

#### **On-going Funding**

#### **Direct Impact**

- The premise of this report is that the Low-Income Housing Coalition of Alabama (LIHCA) will succeed in securing a dedicated and ongoing source of funds of \$25 million per year.
- It is assumed that out of the \$25 million of annual funds, \$17 million will go towards construction of new single and multifamily units and existing property rehabilitation activities.

- This investment, by the Fund, leveraged with other public and private funds, will generate new economic activity, with corresponding direct, indirect, and induced impacts.
- The remaining \$8 million goes to the acquisition of housing opportunities, down payment assistance programs, revolving loan funds, rental assistance, homeless prevention, and rapid rehousing programs.
- It is assumed that the majority of funds used for property acquisitions represent a transfer of capital rather than new economic activity.
- The funds allocated for down payment assistance and homeless prevention can be considered a transfer payment and does not create any additional economic impacts.
- For the purpose of illustration, we divided the Funds general financial transactions into three distinct spending categories. They are as follows:
  - Construction of new single-family homes
  - Construction of multifamily homes
  - Spending on owner occupied and acquisition rehabilitation
- Next we assumed a leverage ratio of 1:5. That is, we assumed that \$5 of additional spending by the private and or federal funds would match every \$1 of spending by the Fund. This leverage ratio is on the low end of the estimated rage of 7 to 25 customarily used in similar reports.

## **Single Family Homes**

- The direct impact of the construction of new single-family homes over the first ten years of operation of the Fund, is \$218.9 million of construction spending, \$87.6 million of wages to construction labor, and \$131.7 million in purchases of construction related materials.
- It is our estimate that a total of 1,519 FTE jobs will be generated and a total
  of 1,409 housing units will be constructed over the first ten years of
  operation of the Fund.

## **Multifamily Homes**

- The direct impact of the construction of new multifamily homes over the first ten years of operation of the Fund, is \$383.1 million of construction spending, \$153.3 million of wages to construction labor, and \$229.9 million in purchases of construction related materials.
- It is our estimate that a total of 2,659 FTE jobs will be generated and a total of 3,538 multifamily housing units will be constructed over the first ten years of operation of the Fund.

### Rehabilitation

 The direct impact of the investment directed towards owner occupied and acquisition rehabilitation homes over the first ten years of operation, of the Fund, is \$159.2 million of construction spending, \$47.8 million of wages to

- construction labor, and \$111.5 million in purchases of construction related materials.
- It is our estimate that a total of 833 FTE jobs will be generated and a total of 3,241 will be rehabilitated over the first ten years of operation of the Fund.

#### **Economic Impact**

- It is our estimate that within the first 10 years of the creation of the Alabama Housing Trust Fund the total impact will equal \$1.2 billion of output and 7,000 FTE jobs.
- In terms of taxes generated for the State and various municipalities, it is our estimate that the taxes collected at the state and local municipality levels will be \$163.7 million.
- The revenue realized to the Alabama Trust Fund and General Fund over the first ten years of the Fund is estimated to be \$58.5 million and \$23.4 million, respectively.
- It is important to note that the figures presented above are total cumulative economic impacts.
- The economic impact of the Fund on an annual average basis, is predicted to be \$116.92 million on Alabama's GDP, 700 FTE employment, \$16.42 million to the state, local, and municipal governments, and \$8.1 million to the Education Trust Fund and General Fund.
- Our annual estimates are in line with the figures produced for the Housing Trust Funds for Arizona and Virginia.
- For example, Arizona Department of Housing forecasts that a \$15 million housing trust fund spending will lead to 990 jobs and \$73.6 million of output-impact annually in Arizona. Likewise, for the Virginia Housing Trust Fund it is estimated that a \$10 million housing investment will lead to an average annual impact of \$92.9 million and the employment impact of 536 jobs per year.

#### **One-time Funding**

- It is our estimate that within the first 10 years of the creation of the Alabama Housing Trust Fund, with one-time funding of \$25 million, the total impact will equal \$175.9 million of output and 1,000 FTE jobs.
- In terms of taxes generated for the State and various municipalities, it is our estimate that the taxes collected at the state and local municipality levels will be \$24.6 million.

#### **Final Words**

- Over in 42 states, the investment in housing trust funds and spending by the funds have produced measurable and real benefits to the families that are cost burdened by the prevailing housing conditions.
- The financial reliefs received by these families and the reasonable accommodations provided to them are only half the story.

- The additional purchasing power realized by low income families as a result of lower housing payments will be spent on other economic necessities, e.g., grocery, health, education, etc.
- This additional spending in itself creates and generates economic impacts above and beyond the construction impact.
- Furthermore, construction of affordable housing along with current property rehabilitation efforts will reverse the decaying of old housing and properties. It preserves the existing aging homes, neighborhoods and communities.
- Positive externalities of a housing trust fund can be as important as its economic impact.
- While our estimate of \$1.1 billion of economic impact, over a period of ten years is impressive, in our opinion, the positive externalities can impact future generations for years to come.
- As stated earlier, along with improving education, a housing trust fund can be the best win-win policy that the state may implement to insure long term economic viability of its labor force.

## **Purpose**

A housing trust fund is defined as a distinct fund established through state legislation to receive dedicated public revenues. The funds have to be spent, by legislative statues, towards the preservation and production of affordable housing.

There are 42 states with publicly sponsored state housing trust funds. Eight of these states have created more than one state housing trust fund. There are only five states that do not provide a dedicated revenue source to their housing trust fund. They are Alabama, California, Rhode Island, Arkansas, and Idaho<sup>1</sup>.

The U.S. Department of Housing and Urban Development considers a home affordable when individuals and families spend no more than 30 % of their gross income on housing and housing related expenses, including utilities. Individuals and families that exceed this threshold of 30% are considered "cost burdened" while those who spend 50% or more of their gross income on housing is considered to be "severely cost burdened."<sup>2</sup>

The purpose of this report is to estimate the potential economic impact of a funded and operational Alabama Housing Trust Fund (the Fund) on the economy of the State of Alabama. The spending by the Fund is expected to be directed towards construction of new single and multifamily housing, property acquisition and rehabilitation, and financial and educational services. The properties and services generated by the Fund are to provide relief to individuals and households that are considered to be either "cost burdened" or "severely cost burdened" in terms of their housing costs and conditions.

The catalyst for such spending and action is the Alabama Affordable Housing Act (HB 110), a 2012 enabling legislation, which established the Alabama Housing Trust Fund. The HB 110 established the Alabama Affordable Housing Act, the Alabama Housing Trust Fund, and the Alabama Housing Trust Fund Advisory Committee. The intent of this legislation is to increase the availability of housing opportunities for individuals and families with incomes at or below 60% of the median family income.

Section 3 of the HB 110 stipulates that, "It is herby found and declared that Alabama is in need of more safe, decent, and affordable housing for residents with income at or below 60 percent of median family income". In Section 3 (b) the Act also states, "It is further declared that the lack of affordable housing in Alabama adversely affects a community's ability to develop and maintain a viable and stable economy".

For purpose of this report, we pursue two scenarios. They are as follows:

1. The first scenario assumes that the Fund will be able to secure an ongoing annual source of revenue of \$25 million. Once the fund is secured, financial resources

<sup>&</sup>lt;sup>1</sup> The Status of State Housing Trust Funds, Center for Community Change, 2011

<sup>&</sup>lt;sup>2</sup> Low Income Housing Coalition of Alabama

will then be distributed and spent in accordance with provisions and stipulations in HB 110. Since the funding source is presumed to be ongoing, we opted to highlight the cumulative impact of spending by the Fund over a period of 10 years.

2. The second scenario assumes a one-time funding of \$25 million.

## Introduction

According to the National Low Income Housing Coalition, over one quarter of all Alabama households are severely cost burdened meaning that they spend more than half of their total income on housing related expenses.

The National Low Income Housing Coalition highlights the severity and seriousness of affordable housing for the low-income cohort in Alabama. In its 2014 report, it argues that nowhere in Alabama can a full-time minimum wage earner afford a modest two-bedroom rental without being cost burdened. The report also estimates that Alabamians, who earn minimum wage, must work 72 hours per week to afford a modest two-bedroom rental apartment.

In 42 states, housing trust funds are proven to be an efficient, effective, and flexible policy tool that addresses specific housing needs.

As stated earlier, HB 110 is an enabling legislation, which means there is no dedicated public source of revenue to capitalize the trust fund. Once a stable and ongoing revenue source is secured then the investment by the Alabama Housing Trust Fund can reduce the housing challenges that Alabama's low income families face.

Such investments will also produce significant and meaningful economic impact for the State's economy. In short, it has the potential to be a win-win policy for the target population cohort and the Alabama economy at large.

# **Economic Impact – Methodology**

The methodology employed to estimate the impact of the spending by the Fund, on the State's economy, is derived from regional economic models. The basic premise is that the spending by the Fund stimulates various sectors in the economy. First, the transaction activities originated due to construction spending increase the demand for goods and services in the local economy. Next, the affected sectors increase their demand from their suppliers throughout the region to respond to the demand for their products.

Classifying the impacts into three broad categories facilitates an understanding of how an initial change in the demand for goods and services, on the economy, due to an economic activity, is multiplied into additional impacts.

The three categories of impacts are:

**Direct:** The direct impact of spending by the fund is the additional demand and expenditures in the economy that are directly attributable to the regular and day-to-day operation originated by various activities of the Fund.

Indirect: To the extent that direct purchases of goods and services associated with the Funds spending reverberate throughout the economy and result in further increases in business transactions, there will be indirect impacts. An indirect impact, for example, results when a business needs additional construction materials and labor to service the increased demand directly attributable to the operation of the funds. The suppliers of these items find their sales increasing and, in turn, need more input to meet the new demand. This process continues, yielding a multiplied effect on the output of the State economy. Whenever the extra demands are met by industries, outside the local economy, there are leakages from the flow of products and income from the local economy. The greater the number of leakages, the lower the indirect impacts, and the lower the multiplier. On the other hand, the more diversified the local economy, the higher the value of multipliers.

**Induced:** Additional indirect effects are induced by the change in income in the economy. For example, when a business hires an additional worker to meet the demand caused by the Fund, the worker's spending further enhances economic activity in the region.

Determining multipliers for the project under consideration is a fundamental step toward conducting an economic impact analysis. The term multiplier refers to the ratio of all direct, indirect, and induced effects to the direct effects. Once the total direct impact of the Fund's spending —specifically, earnings, employment, and output directly attributable to—are estimated, they are linked to other relevant criteria to estimate the pursuant demand on housing, labor force, and any addition to sales tax, property tax, and income tax revenues realized by the state officials.

For the purpose of estimating the economic impact of this project, economic, demographic, and housing market information were gathered from:

The U.S. Department of Labor
The U.S. Census Bureau
The U.S. Bureau of Economic Analysis
Alabama Department of Revenue
Economic Development Partnership of Alabama

# Notes about Impact (Analysis) Model<sup>3</sup>

The following observations should be noted about the model that has been used for conducting the analysis in this study.

- The Input-Output model used for this study deals with readily available quantifiable impacts such as dollars of spending or employment. The model does not consider social costs or benefits of economic activities.
- The model used is a static process that does not take into effect changes over time in a dynamic economy. This suggests that the relationships between economic sectors are fixed, as of the date of the model's underlying database, and does not account for adjustments that may take place over time.
- The model assumes that the relationship between changes in demand for products and services and the resulting changes in income and employment are linear. That is, it does not take into account the changes in productivity over time.
- The model assumes that a response to any incremental changes in demand for goods and services is at the average rather than the marginal rate.
- Finally, the model does not take into consideration the additional capital expenditures required to support indirect and induced effects on the local economy.

# **Direct Impact – On-going Funding**

The premise of this report is that the Low-Income Housing Coalition of Alabama (LIHCA) will succeed in securing a dedicated and ongoing source of funds of \$25 million per year. Once the revenue source is secured and all the operational aspects are in place, the spending pattern of the fund's disbursement will be highlighted in Table 1.

Table 1: The Alabama Housing Trust Fund - Total Fund Distribution

Total Fund Available	\$25,000,000
New Construction- Single Family Homes	\$4,000,000
New Construction Multi Family Homes	\$7,000,000
Owner Occupied Home Rehabilitation	\$2,000,000
Acquisition Rehabilitation	\$4,000,000
Supportive Services	\$1,500,000
Down Payment Assistance	\$1,000,000
Rental Assistance/Homeless Prevention/Rapid	\$4,000,000
Rehousing	
Revolving Loan Funds	\$1,500,000

<sup>&</sup>lt;sup>3</sup> The author of this report has developed the economic impact model used in this report. This model is specific to the State and has been used in estimating the economic impact of all the mega industrial projects recently located in the State of Alabama. This includes, Mercedes, Honda, Hyundai, ThyssenKrupp Steel, and Northrop - Grumman. The model uses the multipliers estimated by RIMS II.

It is assumed that out of the \$25 million of annual funds, \$17 million will go towards construction of new single and multifamily units and existing property rehabilitation activities. This investment, by the Fund, leveraged with other public and private funds, will generate new economic activity, with corresponding direct, indirect, and induced impacts.

The remaining \$8 million goes to the acquisition of housing opportunities, down payment assistance programs, revolving loan funds, rental assistance, homeless prevention, and rapid rehousing programs. It is assumed that the majority of funds used for property acquisitions represent a transfer of capital rather than new economic activity. The funds allocated for down payment assistance and homeless prevention can be considered a transfer payment and does not create any additional economic impacts.

For the purpose of illustration, we divided the Funds general financial transactions into three distinct spending categories. They are as follows:

- 1. Construction of new single-family homes
- 2. Construction of multifamily homes
- 3. Spending on owner occupied and acquisition rehabilitation

Next we assumed a leverage ratio of 1:5. That is, we assumed that \$5 of additional spending by the private and or federal funds would match every \$1 of spending by the Fund. This leverage ratio is on the low end of the estimated rage of 7 to 25 customarily used in similar reports.

Furthermore, the following assumption is made about the Alabama Housing Trust Fund operation:

- 20% of the funds disbursed for new construction will be in the form of loans. The remaining 80% will be in grants to private developers.
- The loans will carry an interest rate of 3% with a maturity term of three years.
- The Funds will receive a \$25 million fund allocation net of any administrative fees each year.
- Each year's fund allocation will be invested over a period of two years.
- Beginning with the second year, interest payments will be added to the annual allocation.
- Beginning with the fourth year, in addition to the annual fund allocation of \$25 million, the repayment of loans will be added to the Fund.
- Finally, we assume that 55% of the owner occupied home rehabilitation and acquisition rehabilitation will be spent on the rehabilitation construction.

In Tables 2 to 4, we highlight the direct impact of the spending from the Fund on the construction of single-family homes, multifamily homes, and existing home rehabilitation projects.

The direct impact of the construction of new single family homes over the first ten years of operation, of the Fund, is \$218.9 million of construction spending, \$87.6 million of wages to construction labor, and \$131.4 million in purchases of construction related materials. It is our estimate that a total of 1,519 FTE jobs will be generated and a total of 1,409 housing units will be constructed over the first ten years of operation of the Fund.

Table 2: New Construction - Direct Impact of New Single Family Homes Construction

	Housing						
	Trust Fund	Construction					
	Per Year	Spending	Labor	Material	Unit Cost	Units	Employment
Year 1	\$4,000,000	\$10,000,000	\$4,000,000	\$6,000,000	\$134,820	74	80
Year 2	\$4,048,000	\$20,120,000	\$8,048,000	\$12,072,000	\$138,865	145	156
Year 3	\$4,072,000	\$20,300,000	\$8,120,000	\$12,180,000	\$143,031	142	153
Year 4	\$4,872,000	\$22,360,000	\$8,944,000	\$13,416,000	\$147,321	152	164
Year 5	\$4,872,000	\$24,360,000	\$9,744,000	\$14,616,000	\$151,741	161	173
Year 6	\$4,872,000	\$24,360,000	\$9,744,000	\$14,616,000	\$156,293	156	168
Year 7	\$4,872,000	\$24,360,000	\$9,744,000	\$14,616,000	\$160,982	151	163
Year 8	\$4,872,000	\$24,360,000	\$9,744,000	\$14,616,000	\$165,812	147	158
Year 9	\$4,872,000	\$24,360,000	\$9,744,000	\$14,616,000	\$170,786	143	154
Year 10	\$4,872,000	\$24,360,000	\$9,744,000	\$14,616,000	\$175,910	138	149
Total	\$46,224,000	\$218,940,000	\$87,576,000	\$131,364,000		1409	1519

The direct impact of the construction of new multifamily homes over the first ten years of operation of the Fund, is \$383.1 million of construction spending, \$153.37 million of wages to construction labor, and \$229.9 million in purchases of construction related materials. It is our estimate that a total of 2,659 FTE jobs will be generated and a total of 3538 multifamily housing units will be constructed over the first ten years of operation of the Fund.

Table 3: New Construction - Direct Impact of New Multi Family Homes Construction

	Housing Trust Fund	Construction					
	Per Year	Cost	Labor	Material	Unit Cost	Units	Employment
Year 1	\$7,000,000	\$17,500,000	\$7,000,000	\$10,500,000	\$93,925	186	140
Year 2	\$7,084,000	\$35,210,000	\$14,084,000	\$21,126,000	\$96,743	364	273
Year 3	\$7,126,000	\$35,525,000	\$14,210,000	\$21,315,000	\$99,645	357	268
Year 4	\$8,526,000	\$39,130,000	\$15,652,000	\$23,478,000	\$102,634	381	286
Year 5	\$8,526,000	\$42,630,000	\$17,052,000	\$25,578,000	\$105,713	403	303
Year 6	\$8,526,000	\$42,630,000	\$17,052,000	\$25,578,000	\$108,885	392	294
Year 7	\$8,526,000	\$42,630,000	\$17,052,000	\$25,578,000	\$112,151	380	286
Year 8	\$8,526,000	\$42,630,000	\$17,052,000	\$25,578,000	\$115,516	369	277
Year 9	\$8,526,000	\$42,630,000	\$17,052,000	\$25,578,000	\$118,981	358	269
Year	\$8,526,000	\$42,630,000	\$17,052,000	\$25,578,000	\$122,551	348	261
10							
Total	\$80,892,000	\$383,145,000	\$153,258,000	\$229,887,000		3538	2659

The direct impact of the investment directed towards owner occupied and acquisition rehabilitation homes over the first ten years of operation, of the Fund, is \$159.2 million of construction spending, \$47.8 million of wages to construction labor, and \$111.5 million in purchases of construction related materials. It is our estimate that a total of 833 FTE jobs will be generated and a total of 3,241 will be rehabilitated over the first ten years of operation of the Fund.

Table 4: New Construction - Direct Impact of Owner Occupied and Acquisition Rehabilitation

	Housing						
	Trust Fund	Construction					
	Per Year	Cost	Labor	Material	Unit Cost	Units	Employment
Year 1	\$3,351,975	\$8,379,937	\$2,513,981	\$5,865,956	\$42,855	196	50
Year 2	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$44,141	380	98
Year 3	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$45,465	369	95
Year 4	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$46,829	358	92
Year 5	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$48,234	347	89
Year 6	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$49,681	337	87
Year 7	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$51,171	328	84
Year 8	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$52,706	318	82
Year 9	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$54,287	309	79
Year 10	\$3,351,975	\$16,759,875	\$5,027,962	\$11,731,912	\$55,916	300	77
Total	\$33,519,750	\$159,218,811	\$47,765,643	\$111,453,168		3,241	833

# **Economic Impact**

The economic impact of the investment by the Fund is estimated as follows:

- ✓ The first aspect of the economic impact works through the salaries and wages that are paid directly to construction workers employed. These workers will spend their realized income and will, in turn, create taxes and additional income as the multiplier process continues to complete its cycle.
- ✓ The second aspect of the economic impact is through the spending associated with non-payroll purchases. This expenditure creates direct demand and additional sales revenue for locally based companies. These additional revenues, following the national income and product account mechanism, will trickle throughout the economy in the form of earnings for the firms and the workers who provided the material and services. The additional earnings, so generated, will become purchasing power, which in turn will be spent on the purchase of goods and services. These purchases will create taxes and additional income as the multiplier process works through its cycle.

Following the methodology described above, the computation for the economic impact calculation is presented in Tables 5-8. In Table 5, we show the output impact of the construction of new single-family homes. For illustration purposes, we opted to show the total economic impact for the 10-year cumulative spending on construction of single family home (year 1 to 10).

By the end of year 10, construction spending on a single family home is projected to inject a total of \$87.6 million of direct wages and salaries on the State economy. This income (earned income) will be spent on the purchase of goods and services (output) throughout the region's economy. The total output impact of payroll spending is estimated as follows:

- ✓ First, withholdings and spending leakages are subtracted from the gross payroll. This provides us with "contributory direct payroll".
- ✓ Next, the output multiplier for payroll spending is estimated to be 1.376.
- ✓ Finally, applying this multiplier to the contributory direct payroll yields an output impact contribution from payroll of \$85.8 million for the annual operation phase of this project.

Next, we concentrate on the output contribution from non-payroll expenditures. In addition to the payroll spending, construction also requires purchases of materials and services. This non-payroll spending, in turn, will boost sales and revenues for the local suppliers of such products and services and also supports additional employment. The output impact of this category of spending is in the lower section of Table 5.

As presented in Table 5, construction non-payroll expenditure is estimated to total \$131.4 million. This figure is estimated by subtracting the payroll expenditure from the construction value in place (added contribution to the State's GDP). We applied a leakage factor of 20% in order to estimate the in-state portion of spending. Finally, we applied a multiplier of 2.3437 to this class of spending. This resulted in an estimate of output impact from non-payroll expenditure of \$246.3 million.

The total output impact of the operation phase, of this project, on the regions' economy is the sum of these two subcomponents. Our calculation indicates the total output impact of construction spending on single-family homes, over a period of 10 years could be more than \$332.1 million.

Table 5: Total Output Impact - Single Family Home Construction, Year 1 to Year 10

Gross payroll	\$87,576,000
Withholding	\$21,894,000
Leakages	\$3,284,100
Contributory Payroll	\$62,397,900
Weighted Average Sales Multiplier	1.376
Total Economic Contribution from W &S	\$85,841,106
Industry Value Put in Place	\$218,940,000
Industry Payroll	\$87,576,000
Non-Payroll Expenditure	\$131,364,000
Leakage	\$26,272,800
Total In State Non-Payroll Expenditures	\$105,091,200
Multiplier	2.3437
Total Economic Contribution (non-payroll	\$246,302,245
expenditures)	
Total Economic Contribution	\$332,143,352

Next, we concentrate on the employment impact. Similar to the output case, we compute the employment impact using both the payroll and non-payroll components. It is important to note that these two sub-components of spending have their own distinct multipliers. The exact process and results are in Table 6. As reported, it is our estimate the single family construction spending, associated with the Alabama Housing Trust Fund disbursement of resources, will be responsible for 1,967 Full Time Equivalent (FTE) jobs over a period of 10 years.

Table 6: Total Employment Impact - Single Family Home Construction, Year 1 to Year 10

Employment Impact	
Total In State Non-Payroll Expenditures	\$105,091,200
Employment Multiplier	33.4027
Added Jobs	1,755
Employment Multiplier	152
Direct Job	2.1109
Jobs Created	212
Total Employment Impact	1,967

The exact same procedure was repeated for the construction spending and material purchases of the Fund as they relate to construction of multifamily homes and rehabilitation expenditures. The results are reported in Tables 7 and 8. It is our estimate that within the first 10 years of the creation of the Alabama Housing Trust Fund the total impact will equal \$1.2 billion of output and 7,000 FTE jobs. In terms of taxes generated for the State and various municipalities, it is our estimate that the taxes collected at the state and local municipality levels will be \$163.7 million. The revenue realized to the Alabama Trust Fund and General Fund over the first ten years of the Fund is estimated

to be \$58.5 million and \$234 million, respectively. It is important to note that the figures presented above are total cumulative economic impacts.

Table 7: Total Cumulative Economic Impact, the Alabama Housing Trust Fund, Year 1 to Year 10

	Single Family Homes	Multi Family Homes	Rehabilitation	Total
Total Economic Impact	\$332,143,352	\$581,250,865	\$255,789,630	\$1,169,183,847
Total Non-Payroll Impact	\$246,302,245	\$431,028,930	\$208,970,231	\$886,301,406
Total Wages Impact	\$85,841,106	\$150,221,936	\$46,819,399	\$282,882,440
Job Impact	1,967	3,442	1,605	7,014
Taxes (state, local, and municipal)	\$46,500,069.21	\$81,375,121	\$35,810,548	\$163,685,739
Taxes to Education Trust Fund	\$16,607,168	\$29,062,543	\$12,789,482	\$58,459,192
Taxes to General Fund	\$6,642,867	\$11,625,017	\$5,115,793	\$23,383,677

In Table 8, we highlight the economic impact of the Fund on an annual average basis. Here, the annual economic impact is predicted to be \$116.9 million on Alabama's GDP, 701 FTE employment, \$16.4 million to the state, local, and municipal governments, and \$8.1 million to the Education Trust Fund and General Fund. Our annual estimates are in line with the figures produced for the Housing Trust Funds for Arizona and Virginia. For example, Arizona Department of Housing forecasts that a \$15 million housing trust fund spending will lead to 990 jobs and \$73.6 million of output-impact annually in Arizona. Likewise, for the Virginia Housing Trust Fund it is estimated that a \$10 million housing investment will lead to an average annual impact of \$92.9 million and the employment impact of 536 jobs per year.

Table 8: Average Annual Economic Impact, The Alabama Housing Trust Fund

	Single Family Homes	Multi Family Homes	Rehabilitation	Total
Total Economic	\$33,214,335	\$58,125,087	\$25,578,963	\$116,918,385
Impact				
Total Non-payroll	\$24,630,225	\$43,102,893	\$20,897,023	\$88,630,141
Impact				
Total Wages Impact	\$8,584,111	\$15,022,194	\$4,681,940	\$28,288,244
Job Impact	197	344	161	701
Taxes (state, local,	\$4,650,007	\$8,137,512	\$3,581,055	\$16,368,574
and municipal)				
Taxes to Education	\$1,660,717	\$2,906,254	\$1,278,948	\$5,845,919
Trust Fund				
Taxes to General	\$664,287	\$1,162,502	\$511,579	\$2,338,368
Fund				

## **Economic Impact: One-time Funding**

In Table 9, we report the economic impact of our second scenario, namely, a one-time funding of \$25 million for the Alabama Housing Trust Fund. This exercise follows the exact process described in the previous section, using the same assumptions and model.

It is our estimate that within the first 10 years of the creation of the Alabama Housing Trust Fund, with one-time funding of \$25 million, the total impact will equal \$175.9 million of output and 1,000 FTE jobs. In terms of taxes generated for the State and various municipalities, it is our estimate that the taxes collected at the state and local municipality levels will be \$24.6 million.

Table 9: Total Cumulative Economic Impact, One-time Funding, the Alabama Housing Trust Fund, Year 1 to Year 10

	Single Family Homes	Multi Family Homes	Rehabilitation	Total
Total Economic	\$59,074,003	\$103,379,504	\$13,462,612	\$175,916,119
Impact				
Total Non-payroll	\$43,806,565	\$76,661,490	\$10,998,433	\$131,466,488
Impact				
Total Wages Impact	\$15,267,437	\$26,718,015	\$2,464,179	\$44,449,631
Job Impact	350	613	85	1,049
Taxes (state, local,	\$8,270,360.35	\$14,473,131	\$1,884,766	\$24,628,257
and municipal)				
Taxes to Education	\$2,953,700	\$5,168,975	\$673,131	\$8,795,806
Trust Fund				
Taxes to General	\$1,181,480	\$2,067,590	\$269,252	\$3,518,322
Fund				

## **Final Words**

Over in 42 states, the investment in housing trust funds and spending by the funds have produced measurable and real benefits to the families that are cost burdened by the prevailing housing conditions. The financial reliefs received by these families and the reasonable accommodations provided to them is only half the story. The additional purchasing power realized by low income families as a result of lower housing payments will be spent on other economic necessities, e.g., grocery, health, education, etc. This additional spending in itself creates and generates economic impacts above and beyond the construction impact. Furthermore, construction of affordable housing along with current property rehabilitation efforts will reverse the decaying of old housing and properties. It preserves the existing aging homes, neighborhoods and communities.

Positive externalities of a housing trust fund can be as important as its economic impact. While our estimate of \$1.2 billion of economic impact, over a period of ten years is impressive, in our opinion, the positive externalities can impact future generations for years to come. As stated earlier, along with improving education, a housing trust fund

can be the best win-win policy that the state may implement to insure long term economic viability of its labor force.