



CENTER FOR
ECONOMIC ANALYSIS

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Houston County Habitat for Humanity

UPDATED ECONOMIC IMPACT STUDY RIMS II BASED MODEL

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This study presents the estimated economic impacts resulting from the activities conducted by Habitat for Humanity in Houston County since 1991, including ReStore sales. In order to ensure transparency and the reproducibility of results, standard methodologies and techniques common in the field of applied economics are utilized. Due to the nature of this type of calculation, actual outcomes may vary from the estimates produced herein. The outcomes represent my best estimates given the information provided and under a reasonable set of assumptions. In the event circumstances or data change, please notify the director of the CEA so that the estimates can be properly amended.

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References

001	US Department of Commerce, Bureau of Economic Analysis <i>RIMS II Multipliers (2002/2010)</i> <i>Table 2.5 Total Multipliers for Output, Earnings, Employment, and Value Added by Industry Aggregation</i> <i>State of Georgia (Type II)</i>
002	US Department of Commerce, Bureau of Economic Analysis <i>REGIONAL MULTIPLIERS</i> <i>A User Handbook for the Regional Input-Output Modeling System (RIMS II)</i> Third Edition, March 1997
003	Wayne P. Miller <i>Economic Multipliers: How Communities Can Use Them for Planning</i> University of Arkansas

1. EXECUTIVE SUMMARY

This report updates the estimates from my 2017 report of the economic impact of the Houston County Habitat for Humanity (HCHF, hereafter) since 1991. Using the latest Bureau of Economic Analysis's RIMS II multipliers for the state of Georgia, we estimate that the total economic impact since 1991 in the Warner Robins region has increased from **\$7,257,963** (as of 2017) to **\$17,713,905** as of the writing of this report. Total earnings in the area rose by an estimated **\$8,696,040** (up from **\$3,563,052** in 2017), and a total of 186 jobs total jobs have been created as a consequence of HCHF's contribution to the local economy since 1991 (up from **76** in 2017). This means that in the seven years since my last report, HCHF has contributed over \$10 million in economic output to the region, while increasing local earnings by more than \$5 million, along with 110 new jobs.

2. INTRODUCTION

This report is prepared at the request of HCHF to update my previous estimates from my last report. After obtaining the relevant figures from HCHF, the Bureau of Economic Analysis (BEA) was contacted to generate the relevant RIMS II multipliers for the affected region. Subsequently, the RIMS II multipliers were used to estimate the overall economic impact. The report includes both the impacts of construction activities and their ReStore retail outlet, as well as their contributions in terms of *Social Assistance*.

3. METHODOLOGY

- The BEA has provided five sets of multipliers for the industries in the state. The sheet containing the multipliers is available as an attachment. By the nature of its business, the HCHF primarily falls into the industrial codes labelled: 2334B0 (Residential Construction), 4B0000 (All Other Retail Trade) and 624A00 (Community Food, Housing, and other Relief Services, including Rehabilitation Services). More general industrial classifications could be utilized to capture other, less significant elements of HCHF activities, however, such multipliers might exaggerate the economic impacts of their work.

The BEA divides RIMS II multipliers into five categories, three Final Demand categories and two Direct Effect categories.

The Final Demand multipliers considered for use in this economic impact analysis are the:

- **Output Multiplier**—shows the total dollar change that occurs in all industries in the state for each additional dollar of output produced by a company in a given industry. In layman’s terms, this multiplier shows the total economic impact on the state of each dollar spent by a company in a given industry.
- **Earnings Multiplier**—shows the total dollar change in earnings of households in the state employed by all industries for each additional dollar of output produced by a company in a given industry.
- **Employment Multiplier**—shows the total change in jobs that occurs in all industries in the state for each addition 1 million dollars of output produced by a company in a given industry.

The Direct Effect multipliers considered for use in this economic impact analysis are the:

- **Earnings multiplier**—shows the total change in earnings of households in the state employed by all industries for each additional dollar of earnings paid directly to the households employed by a company in a given industry.
- **Employment Multiplier**—shows the total change in the number of jobs in all industries in the state for each additional job in a given industry. Since the approximate number of jobs associated with each investor is provided, these estimates are included as well.

Following the methodology set forth in the BEA’s publication *Regional Multipliers—A User Handbook for the Regional Input-Output Modelling System (RIMS II)*, and the methodology described in *Economic Multipliers: How Communities Can Use Them for Planning*, we use the final demand output multiplier for output effects and earnings, and the direct effect multipliers for the employment numbers. We describe the meaning of multipliers and associated calculations in the following sections. Budget data were provided by HCHF and multipliers were provided by the U.S. Department of Commerce’s Bureau of Economic Analysis.

2.1. TOTAL ECONOMIC IMPACT

The total economic impact of an enterprise represents the total new spending generated within the community as a result of a given facility’s “export sales.” In the context of economic impact modelling, “export sales” refers to sales outside of the studied region, not only international sales. Sales within the region must be excluded, to avoid double-counting. For example, regarding the economic impact of a new restaurant, it would be inappropriate to count all of the sales of the new restaurant as new economic activity, as it is quite feasible

(indeed probable) that some of the sales of the new restaurant would come at the expense of sales from existing restaurants. The only relevant number for analysis would be sales (revenues) that are either in excess of existing restaurant revenues, or revenue from sales to customers outside of the region. In the case of HCHF all business activity is considered to be local, requiring us to use Type I multipliers.

When HCHF spends on administrative costs and construction, or engages in retail sales, a certain percentage of that activity is spent within the region, whether as payment of salaries, purchases of materials, payment of utilities, etc. The recipients of those funds also spend a certain portion locally creating further economic activity, and the process continues until the funds are exhausted. The total output multiplier generated by RIMS II shows how much economic activity is generated by an additional \$1 of activity generated by HCHF. Once the multipliers are known, the calculation is straightforward:

$$\text{TOTAL ECONOMIC IMPACT} = \text{GROSS REVENUE (FINAL DEMAND)} * \text{OUTPUT MULTIPLIER}$$

In the case of HCHF, the relevant multipliers ranged from 1.46 to 1.62, which means that every additional \$1 spent by HCHF will result in \$1.46 to \$1.62 of economic activity in the region, specifically \$1 is generated by HCHF (direct effect), and an additional \$0.46 to \$0.62 is generated by other businesses in the state (indirect and induced effects). Activity created in the backward-linked industries that supplied HCHF are classified as indirect effects, while new activity due to an increase in household spending are an example of induced effects.

The total economic impact of all of HCHF activities since 1991 is estimated to be: **\$17,713,905** in 2024 dollars. While it was beyond the scope of this project to adjust past expenditures for inflation, it is worthwhile to note that a dollar in 1991 is worth \$2.34 in 2024 dollars. This means that the present value of past efforts completed by HCHF would have contributed over twice as much to the local economy in earlier years as they do today. These estimates should therefore be considered quite conservative.

2.2. EARNINGS IMPACT

As HCHF conducts its operations, it pays out compensation to its employees and hires. Its employees and hires spend part of their compensation locally, hence boosting the revenues of local businesses. Increased revenues of local businesses lead to higher earnings for their employees as well. Those employees will spend portions of the increase locally, generating additional increases in revenue and related increases in earnings, and so on. In the end, as results of the increased earnings of HCHF employees and hires, total earnings in the state will increase more than the initial increase provided by HCHF.

There are two methods for calculating the earnings effect. One is to use revenues as a base and multiply them by the final demand earnings multiplier. The other method is to use projected earnings (compensation of employees) as a base and multiply them by the direct effects earnings multiplier. When data on projected earnings is available, this method is preferable. Since HCHF did not provide complete data on proposed earnings of employees and hires for every year, we use the final demand multiplier to calculate the total earnings impact. The calculation is as follows:

$$\text{TOTAL EARNINGS IMPACT} = \text{EMPLOYMENT EXPENSES} * \text{FINAL DEMAND EARNINGS MULTIPLIER}$$

The relevant multipliers for HCHF ranged from 0.48 to 0.55. This means that every \$1 spent by HCHF is expected to generate \$0.48 to \$0.55 of total earnings of employees in the state. This includes direct effects, indirect and induced effects. Earnings created in the backward-linked industries that will supply HCHF are classified as indirect effects, while new earnings due to an increase in household spending are an example of induced effects. Total earnings impacts since 1991 are estimated to be **\$8,696,044** in 2024 dollars as compared to **\$3,536,052** in 2017 dollars. Again, these estimates do not reflect the impact of inflation over the past 33 years and therefore underestimated the actual impact on earnings.

2.3. EMPLOYMENT (JOBS) EFFECTS

All the activity mentioned above ultimately leads to the creation of jobs. First, HCHF directly employed workers needed to carry out its operations. The economic activity at HCHF as well as the local spending of its employees, results in other businesses facing increased demand, and therefore had to hire additional employees. Hence, jobs were created both at HCHF (direct effect) and in other local businesses as the funds were spent first by HCHF, and subsequently by businesses and employees benefiting from increased revenues from indirect and induced effects. Jobs created in the backward-linked industries that supplied HCHF are classified as indirect effects, while new jobs created due to an increase in household spending are an example of induced effects. Ultimately, the total number of jobs created in the region will exceed the number of employees actually hired by HCHF.

As with earnings, there are two methods to calculate total job creation. The first method involves using revenue or expenditures as a base and multiplying it by the final-demand employment multiplier. The other method is taking the number of employees that HCHF actually hired and multiplying it by the direct-effect employment multiplier. Since complete employment records were unavailable at the time of this report, we used the final demand multiplier to calculate the total jobs impact. The calculation is as follows:

$$\text{TOTAL JOBS CREATED} = \text{TOTAL EXPENDITURES}/1,000,000 * \text{FINAL DEMAND EMPLOYMENT MULTIPLIER}$$

The relevant multiplier for this report ranged from 14.1 to 22.2. This means that for every \$1,000,000 of economic expenditure, 14.1 to 22.2 jobs were created in the region. This includes direct, indirect and induced jobs. The total impact on jobs over the past 33 years due to HCHF's efforts have totalled **186** full time equivalent jobs.

3. RESULTS

Based on the information provided, we estimate that the total economic impact since 1991 has been **\$17,713,905**, most of which was concentrated in Houston County. Total earnings in the area rose by an estimated **\$8,696,044**, and a total of **186** total jobs were created as a consequence of HCHF's contribution to the local economy.

It should be noted that the impacts mentioned in this report do not account for the increases in social welfare that were undoubtedly generated by HCHF over the past 26 years that they have been in operation and do not adjust for inflation. The estimates in this report are therefore to be considered conservative.

Respectfully submitted on October 30, 2024 by:



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