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Houston County Habitat for Humanity

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

1. EXECUTIVE SUMMARY

This report estimates the economic impact of the Houston County Habitat for Humanity (HCHFH, hereafter) since 1991. Using the Bureau of Economic Analysis's RIMS II multipliers for the state of Georgia, we estimate that the total economic impact since 1991 has been **$7,257,963**, most of which was concentrated in Houston County. Total earnings in the area rose by an estimated **$3,563,052**, and a total of **76** total jobs were created as a consequence of HCHFH's contribution to the local economy.

2. INTRODUCTION

This report is prepared at the request of HCHFH to estimate the economic impact of their activities since 1991. After obtaining the relevant figures from HCHFH, 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

o   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 HCHFH primarily falls into the industrial codes labelled: 230000 (Construction), 4A0000 (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 HCHFH activities, however, such multipliers might exaggerate the economic impacts of their work.

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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 HCHFH 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 HCHFH all business activity is considered to be local, requiring us to use Type I multipliers.

When HCHFH 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 HCHFH. Once the multipliers are known, the calculation is straightforward:

TOTAL ECONOMIC IMPACT = GROSS REVENUE (FINAL DEMAND) * OUTPUT MULTIPLIER

In the case of HCHFH, the relevant multipliers ranged from 1.44 to 1.64, which means that every additional $1 spent by HCHFH will result in $1.44 to $.164 of economic activity in the region, specifically $1 is generated by HCHFH (direct effect), and an additional $0.44 to $.064 is generated by other businesses in the state (indirect and induced effects). Activity created in the backward-linked industries that supplied HCHFH 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 HCHFH activities since 1991 is estimated to be: **$7,257,963** in 2017 dollars.

2.2. *EARNINGS IMPACT*

As HCHFH 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 HCHFH employees and hires, total earnings in the state will increase more than the initial increase provided by HCHFH.

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 HCHFH 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:

TOTAL EARNINGS IMPACT = EMPLOYMENT EXPENSES * FINAL DEMAND EARNINGS MULTIPLIER

The relevant multipliers for HCHFH ranged from 0.47 to 0.56. This means that every $1 spent by HCHFH is expected to generate $0.47 to $0.56 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 HCHFH 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 **$3,536,052** in 2017 dollars.

2.3. EMPLOYMENT (JOBS) EFFECTS

All the activity mentioned above ultimately leads to the creation of jobs. First, HCHFH directly employed workers needed to carry out its operations. The economic activity at HCHFH 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 HCHFH (direct effect) and in other local businesses as the funds were spent first by HCFHF, and subsequently by businesses and employees benefiting from increased revenues from indirect and induced effects. Jobs created in the backward-linked industries that supplied HCHFH 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 HCHFH.

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 HCHFH 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:

TOTAL JOBS CREATED = TOTAL EXPENDITURES/1,000,000 * FINAL DEMAND EMPLOYMENT MULTIPLIER

The relevant multiplier for this report ranged from 13.8 to 22.5. This means that for every $1,000,000 of economic expenditure, 13.8 to 22.5 jobs were created in the region. This includes direct, indirect and induced jobs. Column H of Table 1 shows the total earnings that will be generated in Georgia annually and in total over the 5-year period.

3. RESULTS

Based on the information provided, we estimate that the total economic impact since 1991 has been **$7,257,963**, most of which was concentrated in Houston County. Total earnings in the area rose by an estimated **$3,563,052**, and a total of **76** total jobs were created as a consequence of HCHFH'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 HCHFH over the past 26 years that they have been in operation. The estimates in this report are therefore to be considered conservative.

Respectfully submitted on January 13, 2017 by:

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