

Economic Impact of Tennessee HOUSE Grants

I. Introduction

Overview. The HOUSE (Housing Opportunities Using State Encouragement) program was a State funded program administered by the Tennessee Housing Development Agency (THDA) between 1989 and 1999. In this period, a total of \$98.692 million (in current values) grants were awarded in the following program areas:

- ✓ Homeowners Rehabilitation (\$48.453 million)
- ✓ Rental Acquisition (\$2.540 million)
- ✓ Rental New Construction (\$8.732 million)
- ✓ Rental Rehabilitation (\$7.620 million)
- ✓ Single Family New Construction (\$20.405 million)
- ✓ Single Family Rehabilitation (\$2.186 million), and
- ✓ Down payment Assistance (\$8.757 million)

Beneficiaries. This program benefited nearly 13,300 households across Tennessee between 1989 and 1999. More than 75 percent of the beneficiaries were very low income, and the rest were low income households. Furthermore, more than 50 percent of the beneficiaries were minorities. Annual median income of HOUSE grant beneficiaries was less than \$14,000.

While many low income families benefited from this program, its economic impact goes well-beyond the immediate program beneficiaries. A review of previous studies suggests that affordable housing programs like the HOUSE program have both social and economic benefits to the communities in which the program is administered. This document briefly summarizes the economic benefits of the HOUSE program in Tennessee.

II. Impact of the HOUSE Program

(a) Overview. The studies suggest that affordable housing programs have substantial social and economic benefits. Even though it is hard to precisely measure social benefits, it is nevertheless worth mentioning some prominent ones from the literature. The most significant impact of the affordable housing programs is the economic impact. The

money spent for new residential construction, house repair and maintenance and down payment assistance creates “ripple” effect through the economy benefiting many individuals and sectors beyond the construction.

(b) Social benefits. The HOUSE program served more than 13,300 households in the period between 1989 and 1999. All of these households were considered very low to low income households. Furthermore, these households include a whole range of demographic groups from seniors to minorities. Based on the previous studies and considering the range of demographic characteristics of the HOUSE program, this program was likely to generate the following social impacts in the communities across Tennessee:

- ✓ providing stability to substantial number of families and their children,
- ✓ helping students become successful because of this stable family environment,
- ✓ increasing civic participation in the communities,
- ✓ helping seniors live independently and healthy, and
- ✓ creating strong communities through homeownership.

(c) Economic Impact of the HOUSE program:

The economic impact of the HOUSE program goes beyond the sectors in which program money was spent. Through the impact multipliers or “ripple” effect, the affordable housing program affects all industries in the economy. THDA used the IMPLANpro input-output model to calculate these “ripple” effects on the Tennessee’s economy. The IMPLAN model calculates total business revenues, personal income, and total employment. For each of these categories, the IMPLAN model provides direct, indirect, and induced impacts.¹ Here is a brief description of each of these concepts:

1. *Business revenue.* This refers to total economic activity generated by the affordable housing program spending in the economy.
2. *Personal income.* This refers to how much income people in the economy receive because of the spending associated with the HOUSE program.

¹ THDA thanks Business and Economic Research Center (BERC) of Jennings A. Jones College of Business, Middle Tennessee State University, for allowing THDA to use their IMPLAN model in calculating economic impact figures. BERC is not responsible for any errors in interpreting and presenting the results.

3. *Employment.* This concept refers to how many jobs are generated because of the administration of the HOUSE program in the economy.

Each of these impact categories is further breakdown into three sub groups:

1. *Direct impact.* This refers to the dollar amount of direct spending because of the HOUSE program. THDA also reports corresponding direct personal income and employment figures.
2. *Indirect impact.* This concept refers to the economic impact that is generated because of the subsequent rounds of business to business transactions in the Tennessee's economy. The original program spending creates "ripple" effect in the economy through the business to business transactions.
3. *Induced impact.* This concept refers to the economic impact that is generated through the employee spending in the economy. A portion of the program spending goes to individuals as wages and salaries. Then, individuals spend these wages and salaries in the economy according to their consumption patterns. Each round of spending creates ripple effect in the economy.

In calculating these various impacts for each year, THDA converts all monetary values to the 2005 values to provide a cohesive picture of the HOUSE program's effect. THDA used IMPLAN's default price index to get inflation adjusted 2005 dollar values of the program spending and its economic impact.

Assumptions. In calculating the economic of impact of the HOUSE program, THDA used the following assumptions:

- ✓ rehabilitation spending is used for repair and maintenance of non-farm residential housing,
- ✓ new construction spending for rental housing is primarily used to build multifamily units,

- ✓ new construction spending for single family units is used to build independent single family houses,
- ✓ down payment assistance is allocated across the following services: lender fees (10 percent), real estate (62 percent), insurance premiums (2.6 percent), local government fees (13 percent), and legal fees (12.4 percent).²
- ✓ rental acquisition payments represent real estate purchases to provide shelter to the needy individuals.

It is important to note that THDA has not attempted to develop any assumptions on the following potential impact categories:³

- ✓ THDA *did not* take into account any spending that might be associated with the consumption shift that might occur because of homeownership.
- ✓ THDA *did not* develop assumptions regarding rental savings of beneficiaries and their spending of these savings across the various consumption categories.
- ✓ THDA *did not* treat new homeowners and their spending as net new to the communities.

The table below presents the assumptions that are used to calculate the economic impact in current dollars.

² For a general breakdown of down payment assistance, see J. Michael Collins, Eric S. Belsky, and Micky Tripathi. (1999). *Estimating Economic Impacts of Community Lending*. Joint Center for Housing Studies: Harvard University.

³ Many studies that deal with the economic impact of affordable housing develop assumptions about the spending pattern of new homeowners. Many treat new homeowners as net new to the communities, while some calculate only the rental savings of these individuals due to the homeownership. These studies then allocate these household consumptions across various consumption categories using “Consumption Expenditure Survey” administered by the Census Bureau (www.census.gov).

Assumptions Regarding the HOUSE Program Economic Impact (In Current Dollars)

Years	Rehabilitation	New Construction		Down Payment Assistance and Acquisition					ANNUAL TOTAL
	Homeowners, Rental and Single Family	Rental Housing	Single Family	Lender Fees	Real Estate	Insurance	Local Government	Legal Fees	
1989	\$2,583,906	\$1,070,230	\$193,000	\$193,096	\$1,358,860	\$49,767	\$248,835	\$238,882	\$5,936,576
1990	\$3,659,582	\$778,100	\$50,000	\$146,914	\$1,265,557	\$37,864	\$189,322	\$181,749	\$6,309,090
1991	\$4,790,600	\$1,042,707	\$509,000	\$147,330	\$1,321,823	\$37,972	\$189,858	\$182,264	\$8,221,553
1992	\$5,690,906	\$564,992	\$415,000	\$202,292	\$1,521,413	\$52,137	\$260,686	\$250,259	\$8,957,686
1993	\$6,034,196	\$1,123,972	\$1,012,000	\$187,660	\$1,248,784	\$48,366	\$241,830	\$232,157	\$10,128,965
1994	\$4,785,608	\$1,072,058	\$1,541,600	\$0	\$0	\$0	\$0	\$0	\$7,399,266
1995	\$7,867,557	\$240,809	\$2,324,566	\$0	\$0	\$0	\$0	\$0	\$10,432,932
1996	\$5,945,374	\$555,190	\$2,760,060	\$1,128	\$856,856	\$291	\$1,454	\$1,396	\$10,121,750
1997	\$7,104,500	\$219,300	\$3,531,200	\$0	\$250,000	\$0	\$0	\$0	\$11,105,000
1998	\$4,623,644	\$1,613,500	\$3,812,308	\$0	\$150,000	\$0	\$0	\$0	\$10,199,452
1999	\$5,172,661	\$420,636	\$4,256,703	\$0	\$30,000	\$0	\$0	\$0	\$9,880,000
TOTAL	\$58,258,534	\$8,701,494	\$20,405,437	\$878,421	\$8,003,294	\$226,397	\$1,131,986	\$1,086,707	\$98,692,270

Economic Impact Results

Business Revenue. THDA disbursed a total of \$127 million (in 2005 value) inflation adjusted grants money for low income families between 1989 and 1999. This spending generated an additional economic impact of \$106 million (indirect and induced) through business revenue multipliers. Total contribution of the HOUSE program to the Tennessee's economy is estimated \$233 million (in 2005 dollars). The following table shows year by year business revenue impact of the HOUSE program.

**Business Revenues Generated by the HOUSE Program
(in 2005 dollars)**

	Direct	Indirect	Induced	Total	Multiplier
1989	\$9,197,197	\$3,453,643	\$3,015,684	\$15,666,524	1.70
1990	\$9,267,542	\$3,761,602	\$3,085,362	\$16,114,506	1.74
1991	\$11,743,021	\$5,022,347	\$4,078,154	\$20,843,522	1.77
1992	\$12,582,631	\$5,395,226	\$4,256,469	\$22,234,326	1.77
1993	\$13,671,249	\$6,053,994	\$4,868,493	\$24,593,736	1.80
1994	\$9,485,238	\$4,774,130	\$3,777,204	\$18,036,572	1.90
1995	\$12,841,885	\$6,673,991	\$4,984,411	\$24,500,287	1.91
1996	\$12,201,378	\$5,923,203	\$4,544,716	\$22,669,297	1.86
1997	\$12,995,195	\$6,650,354	\$5,012,872	\$24,658,421	1.90
1998	\$11,819,219	\$5,855,979	\$4,745,665	\$22,420,863	1.90
1999	\$11,113,699	\$5,721,771	\$4,403,266	\$21,238,736	1.91
Total	\$126,918,254	\$59,286,240	\$46,772,296	\$232,976,790	1.84

Note: Figures represent inflation adjusted 2005 values.

According to the above table, for every dollar spent through the program, an additional \$0.84 is generated throughout the economy.

Personal Income. The IMPLAN model also calculates personal income associated with the total spending through the HOUSE program. In the period that the program is administered, the individuals received \$32 million (in 2005 values) in wages and salaries. Additional personal income generated through the ripple effect is \$37 million (in 2005 values). The total personal income generated by the HOUSE program is \$69 million (in 2005 values). For every dollar of direct personal income, an additional \$1.14 of personal income is generated throughout the economy.

The following table demonstrates year by year personal income effect of the HOUSE program in Tennessee.

**Personal Income Generated by the HOUSE Program
(in 2005 dollars)**

	Direct	Indirect	Induced	Total	Multiplier
1989	\$2,195,768	\$1,222,428	\$1,034,605	\$4,452,801	2.03
1990	\$2,186,521	\$1,310,373	\$1,058,510	\$4,555,404	2.08
1991	\$2,867,269	\$1,753,946	\$1,399,112	\$6,020,327	2.10
1992	\$2,957,198	\$1,869,332	\$1,460,287	\$6,286,817	2.13
1993	\$3,400,449	\$2,117,548	\$1,670,257	\$7,188,254	2.11
1994	\$2,597,681	\$1,680,120	\$1,295,864	\$5,573,665	2.15
1995	\$3,328,136	\$2,321,343	\$1,710,027	\$7,359,506	2.21
1996	\$3,073,855	\$2,075,506	\$1,559,178	\$6,708,539	2.18
1997	\$3,351,363	\$2,330,585	\$1,719,791	\$7,401,739	2.21
1998	\$3,281,162	\$2,093,391	\$1,628,119	\$7,002,672	2.13
1999	\$2,961,761	\$2,028,962	\$1,510,650	\$6,501,373	2.20
Total	\$32,201,163	\$20,803,534	\$16,046,400	\$69,051,097	2.14

Note: Figures represent inflation adjusted 2005 values.

Employment (Jobs). The HOUSE program provided employment opportunities for many individuals. The direct total employment impact of the program is 860 jobs primarily in the construction sector. In addition, nearly 994 additional jobs are created throughout the economy across a variety of industries. The total employment impact of the HOUSE program across the 10 years is 1,853 jobs. For every one hundred jobs created by the HOUSE program, additional 116 jobs are created through the ripple effect. The following table presents year by year estimate of the program impact on the Tennessee's economy.

**Number of Jobs Created by the HOUSE Program
(1989-1999)**

	Direct	Indirect	Induced	Total	Multiplier
1989	58	31	30	119	2.04
1990	59	33	31	122	2.08
1991	77	44	40	162	2.10
1992	79	47	42	169	2.12
1993	91	54	48	193	2.12
1994	69	43	37	149	2.17
1995	89	59	49	197	2.23
1996	83	53	45	182	2.18
1997	90	60	50	199	2.22
1998	87	54	47	188	2.16
1999	79	52	44	174	2.22
Total	860	531	463	1,853	2.16

Impact by Industries. Even though the program spending takes place primarily in the construction sector, the program affects all industries through the ripple effect. The following table shows the economic impact of the HOUSE programs by industries.

Aggregate Economic Impact of the HOUSE Program by Major Industries

Industries	Business Revenue (in 2005 dollars)	Personal Income (in 2005 dollars)	Employment (jobs)
Construction	\$110,668,544	\$29,911,048	793
Manufacturing	\$21,989,532	\$5,139,827	122
Retail Trade	\$14,976,564	\$6,802,047	243
Finance and Insurance	\$9,276,126	\$3,201,366	50
Real Estate	\$13,683,928	\$2,158,339	86
Professional Services	\$5,903,659	\$3,682,944	66
Health and Social Services	\$7,175,464	\$4,025,359	81
Government	\$10,717,028	\$827,766	18
All Others	\$38,585,948	\$13,302,404	394
Total	\$232,976,792	\$69,051,099	1,853

Note: "All others" represent the following major industries: agriculture, mining, utilities, wholesale trade, transportation, information, management of companies, administrative and waste services, educational services, arts, entertainment and recreation, accommodation and food, and other services.

According to the above table, the largest impact is in the construction sector with \$111 million in business revenues, \$30 million in personal income, and 793 jobs. Other major sectors that substantially benefits from the HOUSE program are manufacturing, retail trade, real estate, government, finance and insurance, health and social services, and professional services.

III. Conclusion

The HOUSE program has substantial economic impact on the Tennessee's economy. To summarize;

- ✓ for every dollar of business revenue, an additional \$0.84 of business revenue is created throughout the economy.
- ✓ for every dollar of personal income, additional \$1.14 of personal income is created throughout the economy.
- ✓ for every one hundred jobs, additional 116 jobs are created throughout the economy.

THDA did not take into account any consumption spending associated with the new homeowners. Therefore, THDA's impact assessment of the HOUSE program is conservative.