



Vogt Santer  
Insights

# Economic and Job Creation Impact Study

*of*

## The Ohio Housing Trust Fund Allocations Fiscal Years 2006-2009

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Coalition on Homelessness  
and Housing in Ohio  
**COHHIO**

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## I. Executive Summary

Vogt Santer Insights has completed an economic impact analysis of the Ohio Housing Trust Fund (OHTF) allocations. The purpose of this analysis is to estimate what the total impact the funds and associated developments represent within the Ohio economy. The OHTF began in 1991, the year after voters approved a constitutional amendment making housing a public purpose. Currently, the OHTF is funded by the Housing Trust Fund Fee, which is collected at the county recorder's office. This creates a permanent, dedicated funding stream for homeless and affordable housing programs across the state. To complete this analysis, the Ohio Department of Development provided details regarding 771 programs that have been awarded funding during Fiscal Years 2006-2009. The programs were organized into six project types: Homeless Programs, Special Projects, Technical Assistance, Business Assistance, Housing Development and Home Ownership. The awarded investments were accompanied by sources of other funds from outside of the Ohio Housing Trust Fund. These other sources are both public and private in nature. The following table lists the source of funding by program type. The share that each funding source represents of the total program is provided in parentheses.

PROJECT TYPE	PROJECTS AWARDED 2006-2009	OHTF AWARD AMOUNT	OTHER FUNDS	TOTAL FUNDS
Homeless Programs	343	\$67,710,700 (26%)	\$194,333,579 (74%)	\$262,043,279 (100%)
Special Projects	51	\$8,949,300 (35%)	\$17,100,164 (65%)	\$26,049,464 (100%)
Technical Assistance	4	\$630,000 (48%)	\$687,500 (52%)	\$1,317,500 (100%)
Business Assistance	37	\$1,994,000 (28%)	\$5,046,936 (72%)	\$7,040,936 (100%)
Housing Development	140	\$73,156,845 (10%)	\$643,911,225 (90%)	\$717,067,070 (100%)
Home Ownership	196	\$26,431,000 (26%)	\$73,861,507 (74%)	\$100,292,507 (100%)
<b>TOTAL</b>	<b>771</b>	<b>\$178,871,845 (16%)</b>	<b>\$934,937,911 (84%)</b>	<b>\$1,113,808,756 (100%)</b>

The OHTF programs have different goals and target a variety of benefactors. Consequently, each project type has a different impact on Ohio's economy. For example, when money is spent on housing development, it pays for the labor and materials. This is known as direct economic impact. The money spent on development also helps keep the manufacturer of the materials in business as well as the consumer outlets where the laborers spend their money (grocery store, gas station, clothing stores). This is known as indirect and induced economic impact. The summation of direct, indirect and induced expenditures results in a phenomenon referred to as the multiplier effect.

In the 1970s the U.S. Bureau of Economic Analysis developed a method for estimating regional input-output multipliers known as RIMS (Regional Industrial Modeling System). The model has since been refined several times and the current system, RIMS II, has been in use since the 1980s. Vogt Santer Insights used the RIMS II modeling system in conjunction with the project-specific data provided by the Ohio Department of Development to compute the total estimated economic impact that the Ohio Housing Trust Fund projects have had on Ohio's economy during fiscal years 2006-2009. The following table summarizes the impact on final demand (total expenditures), total earnings and total employment by project type.

PROJECT TYPE	FINAL DEMAND	TOTAL EARNINGS	TOTAL EMPLOYMENT
Homeless Programs	\$583,151,113	\$189,483,495	9,832
Special Projects	\$59,331,382	\$19,111,414	870
Technical Assistance	\$2,764,913	\$889,164	31
Business Assistance	\$14,266,078	\$3,930,396	132
Housing Development	\$1,702,998,437	\$540,185,550	18,505
Home Ownership	\$238,187,799	\$75,552,099	2,588
<b>TOTAL</b>	<b>\$2,600,699,239</b>	<b>\$829,151,120</b>	<b>31,960</b>

The total economic impact of the Ohio Housing Trust Fund to the Ohio economy during this time period is over **\$2.6 billion** with associated **earnings of over \$829 million** for almost **32,000 workers**. Each dollar of OHTF awards results in an overall impact of \$14.54 because the awards attract other funds and their collective infusion into the regional economy results in direct, indirect and induced expenditures in many industries.

Housing Development has received the highest total investment amount (\$73 million) and has the most programs associated with the project (140), but it also produces the highest return on investment. In fact, OHTF investments in the Housing Development project type managed to attract other sources of funding most efficiently-each dollar of investment returned \$23.28 into Ohio's economy.

Each dollar invested by the OHTF has an impact of \$2.31 on Ohio's economy. OHTF projects are attracting \$6.23 for each investment dollar. When the two are multiplied together, and the rounding of numbers is taken into consideration, it results in a total impact of \$14.54 per investment dollar. It should be noted that rounding may affect the tabulation of numbers throughout the document.

OHTF AWARDS FISCAL YEARS 2006-2009	IMPACT FOR EVERY OHTF DOLLAR AWARDED	TOTAL IMPACT ON OHIO'S ECONOMY
\$178,870,845	\$14.54	\$2,600,699,239

## II. Introduction

### A. HISTORY

The Ohio Housing Trust Fund (OHTF) was established by the General Assembly in 1990, but did not begin its activities until 1991 when it received its first allocation of \$2.5 million from the Ohio Department of Commerce. Currently, the OHTF is funded by the Housing Trust Fund Fee to create a permanent, dedicated funding stream for small businesses, homeless and affordable housing programs across the state.

OHTF focuses on six core funding areas, which it refers to as Project Types.

1. *Homeless Programs:* These programs are heavily focused on helping to operate and maintain Ohio's emergency shelter programs. Funds are utilized to support gender-specific shelters, family shelters, transitional housing and homeless support programs.
2. *Special Projects:* As the name implies, these are unusual projects that do not easily fit within the parameters established for other Project Types. Funds have contributed to training for AmeriCorps/VISTA workers, foreclosure counseling, Individual Development Account (IDA) projects and affordable housing preservation efforts.
3. *Technical Assistance:* This Project Type supports the Ohio Community Development Corporation Association's (OCDCA) training and technical assistance programs. The goal of these efforts is to raise the capacity level of community-based non-profits so that they can engage in development projects that enhance the economic viability of their communities.
4. *Business Assistance:* These funds focus on MicroEnterprise programs in twelve Ohio counties: Allen, Athens, Brown, Cuyahoga, Franklin, Hamilton, Hancock, Lucas, Montgomery, Perry, Pike and Sandusky. These programs are designed to help small businesses grow by providing access to capital and training opportunities.
5. *Housing Development:* Awards in this category are directly linked to the creation of new housing and the rehabilitation of existing homes for income-qualified families and seniors through Section 42 of the Internal Revenue Code. The infusion of this capital is often an essential component in ensuring the economic viability of these housing deals.
6. *Home Ownership:* Most of these funds are divided between the emergency home repair program and a strategic home repair policies administered by municipalities throughout Ohio. Additional resources support homebuyer counseling programs. These counseling sessions

help families determine whether or not they are ready for home ownership before they enter into a mortgage.

## B. PURPOSE

The purpose of this analysis is to review investments made by the Ohio Housing Trust between Fiscal Years 2006-2009 and analyze their impact on Ohio's economy. Results have been expressed in the following manner:

- Statement of Ohio Housing Trust Fund Investment
  - Economic impact of the investment
  - Total earnings generated
  - Number of jobs created
- Funds attracted by the Ohio Housing Trust Fund Investment
  - Economic impact of the investment
  - Total earnings generated
  - Number of jobs created
- Aggregate impact
  - Economic impact of the investment
  - Total earnings generated
  - Number of jobs created

The results of the analysis are dependent upon two factors: the accuracy of the inputs used in the model and the accuracy of the multipliers that are used to determine economic impact. The source input data comes directly from the Ohio Department of Development, is a matter of public record and consequently its accuracy is not in question. The multipliers are mathematical Input/Output models, generated by the U.S. Bureau of Economic Analysis that have been refined through 40 years of data analysis and trends as observed by mathematicians and economists the world over.

### **III. Methodology and Data Sources**

The process of calculating the economic impact of the Ohio Housing Trust Fund (OHTF) programs requires at least two inputs; the direct expenditures associated with the OHTF programs and a set of industry standard economic multipliers to apply to the various expenditures depending on the type of expenditure.

#### **Direct Expenditures**

Vogt Santer Insights was provided the award amounts and the amounts of other funds invested for 771 projects managed by the Ohio Housing Trust Fund. Those projects were categorized by the Ohio Department of Development into Project Types. The Project Types were: Homeless Programs, Special Projects, Technical Assistance, Business Assistance, Housing Development and Home Ownership. Each project type is directly associated with at least one primary industry, and in some cases, there are additional direct impacts on other industries that have to be considered.

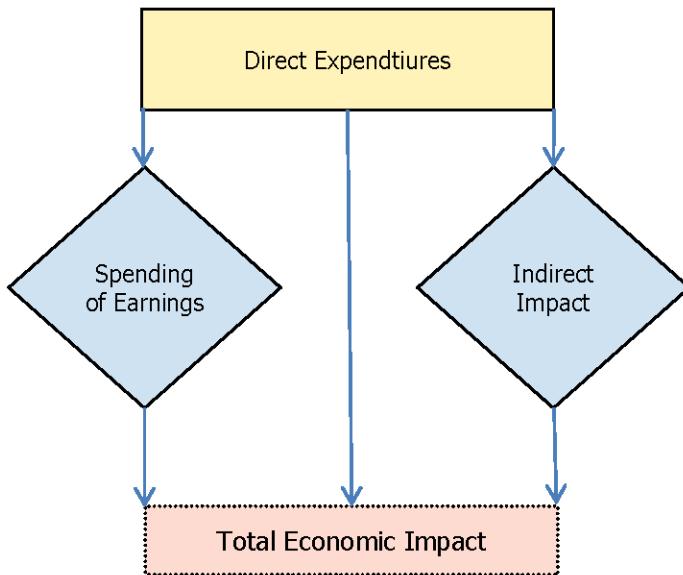
#### **Multipliers**

In the 1970s, the Bureau of Economic Analysis (BEA) developed a method for estimating regional input-output (I-O) multipliers known as RIMS (Regional Industrial Modeling System). Over the years, the system has been enhanced and the current system, RIMS II, has been in use since the 1980s. RIMS II is based on an accounting framework called an I-O table. For each industry, an I-O table shows the distribution of the inputs purchased and the outputs sold. A typical I-O table in RIMS II is derived mainly from two data sources: BEA's national I-O table, which shows the input and output structure of almost 500 U.S. industries, and the BEA's regional economic accounts, which are used to adjust the national I-O table in order to reflect a region's industrial structure and trading patterns.

RIMS II was used to calculate the indirect and induced economic impacts generated by the OHTF's direct expenditures. For example, direct expenditures are monies spent directly on the construction of housing. Indirect expenditures are those expenditures resulting from all intermediate rounds of production in the supply of goods and services. Induced expenditures are those that are generated through the spending of earnings generated by the direct activities as well as by the indirect activities of supplying firms.

#### **Calculations**

The economic impact of the OHTF, also referred to as final demand, was derived by applying the applicable multipliers to the direct expenditures (the award amounts plus other funds). The specific multiplier that was used was dependent upon the type(s) of direct expenditures. This can be represented graphically in the following manner:



The following is a list for all industries for which multipliers are available. The industries are organized by the U.S. Government's Standard Industrial Classification (SIC) code. There are almost 500 industry sectors that constitute this summary list. When possible, the specific industry sector that best describes the activity for which funds will be applied.

1. Agriculture, forestry, fishing and hunting
2. Mining
3. Utilities
4. Construction
5. Manufacturing
6. Wholesale trade
7. Retail trade
8. Transportation and warehousing
9. Information
10. Finance and insurance
11. Real estate and rental and leasing
12. Professional, scientific and technical services
13. Management of companies and enterprises
14. Administrative services
15. Educational services
16. Health care and social assistance
17. Arts, entertainment and recreation
18. Accommodation
19. Food services and drinking places
20. Other services

An examination of the project types and programs led us to the assumption that the primary industry sector multipliers to use in the calculations were the following:

1. Construction (construction industry)
2. Community food, housing and other relief services, including rehabilitation services (health care and social assistance industry)
3. Business support services (professional, scientific and technical services industry)
4. Funds, trusts and other financial vehicles (finance and insurance industry)

The sum of the direct, indirect and induced expenditures results in the total economic impact of the OHTF, or final demand as a result of OHTF investment. It should be noted that rounding may affect the tabulation of numbers throughout the document.

RIMS II also allows for estimating total employment and associated earnings. The earnings totals are included in the final demand totals.

Since OHTF investments attract a significant amount of investments from other sources, we must consider the regional impact of ALL investments. The effect of total investment can be computed by simply dividing the total funds committed for a program by the amount awarded by the OHTF for the project.

Once the multipliers have been identified, it is possible to calculate the regional impact of a program. This is simply the OHTF investment multiplier, multiplied by the total investment multiplier. This figure represents the total economic impact on Ohio's economy for every \$1 invested by the OHTF.

## IV. Analysis By Project Type

### A. HOMELESS PROGRAMS

Between Fiscal Years 2006-2009, the Ohio Housing Trust Fund has awarded more than \$67 million for 343 Homeless Programs. This investment has attracted an additional \$194 million in additional funds resulting in a total investment of more than \$262 million.

The industry sector defined as “community food, housing and other relief services, including rehabilitation services” which belongs to the Health Care and Social Assistance industry is the primary driver of economic impacts related to the Homeless Programs. In other words, the activities associated with the Homeless Programs are assumed to be most closely associated with these types of social services. Not all industries receive the same economic impact. Some benefit more than others. The following table displays the five industries whose final demand is impacted the most from the Homeless Programs.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Health Care and Social Assistance	\$286,990,799	\$111,133,554	7,277
Real Estate and Rental and Leasing	\$52,067,999	\$4,349,918	254
Manufacturing	\$51,674,934	\$9,721,805	198
Finance and Insurance	\$33,803,582	\$9,433,558	183
Retail Trade	\$20,780,032	\$7,101,372	331
All others	\$137,833,767	\$47,744,327	1,588
TOTAL	\$583,151,113	\$189,483,495	9,832

The industry that benefits the most from the OHTF’s Homeless Program is Health Care and Social Assistance. The total impact on final demand for Health Care and Social Assistance is almost \$287 million, of which more than \$111 million can be attributed to earnings for more than 7,200 jobs.

The total impact on final demand for all industries is more than \$583 million, of which more than \$189 million can be attributed to earnings for almost 10,000 jobs. This equates to an average salary of \$19,271. It is important to note that many of the service sector jobs are either temporary or part-time jobs and wages tend to be lower resulting in a lower average salary.

The following table summarizes the multiplier effect of the Homeless Programs.

REGIONAL IMPACT	
HOMELESS PROGRAMS	IMPACT OF \$1
OHTF Investment Multiplier	\$2.23
Total Investment Multiplier	\$3.87
Regional Impact	\$8.61

This simply means that \$1 invested by the OHTF results in a minimum economic impact of \$2.23 on the regional economy. However, since additional funds are attracted by these projects, we can compute the total investment multiplier for the program. In this case, \$1 invested by the OHTF attracts \$3.87. The total multiplier for projects associated with the Homeless Program is established by multiplying the OHTF investment multiplier by the total investment multiplier. Therefore, \$1 invested by the OHTF in the Homeless Program category results in a regional impact of \$8.61.

## B. SPECIAL PROJECTS

Between Fiscal Years 2006-2009, the Ohio Housing Trust Fund has awarded almost \$9 million for 51 Special Projects. This investment has attracted an additional \$17 million in additional funds resulting in a total investment of just more than \$26 million.

The industry sectors defined as “community food, housing and other relief services, including rehabilitation services” and “construction” are the primary benefactors of direct economic impacts related to Special Projects. Special Projects represent activities such as counseling and training assistance; however, four of the projects were construction-related. The following table displays the five industries whose final demand is impacted the most by Special Projects.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Health Care and Social Assistance	\$21,744,640	\$8,475,235	543
Construction	\$7,079,659	\$2,629,697	74
Manufacturing	\$6,365,454	\$1,222,372	25
Real estate and rental and leasing	\$4,819,763	\$385,328	22
Finance and insurance	\$3,226,610	\$891,370	17
All others	\$16,095,256	\$5,507,412	190
TOTAL	\$59,331,382	\$19,111,414	871

The industry that benefits the most from the OHTF’s Special Projects is again Health Care and Social Assistance and that is due to the nature of these projects. The total impact on final demand for Health Care and Social

Assistance is almost \$22 million, of which more than \$8 million can be attributed to earnings for more than 500 jobs.

The total impact on final demand for all industries is more than \$59 million, of which more than \$19 million can be attributed to earnings for almost 900 jobs. This equates to an average salary of more than \$22,000.

The following table summarizes the multiplier effect of the Special Projects.

REGIONAL IMPACT	
SPECIAL PROJECTS	IMPACT OF \$1
OHTF Investment Multiplier	\$2.24
Total Investment Multiplier	\$2.91
Regional Impact	\$6.53

This means that \$1 invested by the OHTF results in a minimum economic impact of \$2.24 on the regional economy. However, since additional funds are attracted by these projects, we can compute the total investment multiplier of the project. In this case, \$1 invested by the OHTF attracts \$2.91. The total multiplier for projects associated with Special Projects is \$6.53. Therefore, \$1 invested by the OHTF for a Special Project results in an economic impact of \$6.53.

### C. TECHNICAL ASSISTANCE

Between Fiscal Years 2006-2009, the Ohio Housing Trust Fund has awarded \$630,000 for 4 Technical Assistance projects. This investment has attracted an additional \$685,000 in other funds resulting in a total investment of \$1.3 million

The industry sector defined as “business support services” is the primary driver of economic impacts related to Technical Assistance. The following table displays the five industries whose final demand is impacted the most by Technical Assistance projects.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Administrative Services	\$1,434,195	\$516,331	20
Manufacturing	\$186,943	\$34,887	1
Real estate and rental and leasing	\$186,943	\$13,165	1
Finance and insurance	\$137,442	\$36,730	1
Health care and social assistance	\$117,168	\$54,634	1
All others	\$702,222	\$233,417	7
TOTAL	\$2,764,913	\$889,164	31

The industry that benefits the most from the OHTF's Technical Assistance program is Administrative Services. The total impact on final demand for Administrative Services is more than \$1.4 million, of which more than \$500,000 can be attributed to earnings for 20 jobs.

The total impact on final demand for all industries is almost \$2.8 million, of which \$889,000 can be attributed to earnings for 31 jobs. This equates to an average salary of more than \$28,000.

The following table summarizes the multiplier effect of the Technical Assistance projects.

REGIONAL IMPACT	
TECHNICAL ASSISTANCE	IMPACT OF \$1
OHTF Investment Multiplier	\$2.10
Total Investment Multiplier	\$2.09
Regional Impact	\$4.39

This means that \$1 invested by the OHTF results in a minimum economic impact of \$2.10 on the regional economy. However, since additional funds are attracted by these projects, we can compute the total investment multiplier of the project. In this case, \$1 invested by the OHTF attracts \$2.09. The total multiplier for projects associated with Technical Assistance is \$4.39. Therefore, \$1 invested by the OHTF for a Technical Assistance project results in a regional impact of \$4.39.

#### **D. BUSINESS ASSISTANCE**

Between Fiscal Years 2006-2009, the Ohio Housing Trust Fund has awarded almost \$2 million to 37 Business Assistance projects. This investment has attracted an additional \$5 million in other funds resulting in a total investment more than \$7 million.

The industry sectors defined as “business support services” and “funds, trusts and other financial vehicles” are the primary drivers of economic impacts related to Business Assistance. The following table displays the five industries whose final demand is impacted the most by Business Assistance projects.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Finance and insurance	\$5,288,751	\$1,090,486	33
Administrative services	\$3,922,300	\$1,419,899	57
Real estate and rental and leasing	\$837,048	\$58,783	3
Manufacturing	\$760,313	\$139,390	3
Health care and social assistance	\$517,787	\$241,469	7
All others	\$2,939,879	\$980,379	31
<b>TOTAL</b>	<b>\$14,266,078</b>	<b>\$3,930,396</b>	<b>133</b>

The industry that benefits the most from the OHTF's Business Assistance program is Finance and Insurance. The total impact on final demand for Finance and Insurance is slightly less than \$5.3 million, of which more than \$1 million can be attributed to earnings for 33 jobs.

The total impact on final demand for all industries is slightly less than \$14.3 million, of which \$3.9 million can be attributed to earnings for 133 jobs. This equates to an average salary of more than \$30,000.

The following table summarizes the multiplier effect of the Business Assistance projects.

REGIONAL IMPACT	
BUSINESS ASSISTANCE	IMPACT OF \$1
OHTF Investment Multiplier	\$2.03
Total Investment Multiplier	\$3.53
Regional Impact	\$7.15

This means that \$1 invested by the OHTF results in a minimum economic impact of \$2.03 on the regional economy. However, since additional funds are attracted by these projects, we can compute the total investment multiplier of the project. In this case, \$1 invested by the OHTF attracts \$3.53. With this in mind, it is possible to compute the total multiplier for projects associated with Business Assistance by multiplying the leverage by the multiplier. Therefore, \$1 invested by the OHTF for a Business Assistance project results in a regional impact of \$7.15.

## **E. HOUSING DEVELOPMENT**

Between Fiscal Years 2006-2009, the Ohio Housing Trust Fund has awarded more than \$73 million for 140 Housing Development projects. This investment has attracted an additional \$644 million in other funds resulting in a total investment of more than \$717 million.

The industry sectors defined as “construction” and “community food, housing and other relief services” are the primary drivers of the economic impacts related to Housing Development projects. The following table displays the five industries whose final demand is impacted the most by Housing Development projects.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Construction	\$544,110,492	\$202,141,207	5,703
Health care and social assistance	\$250,704,574	\$101,411,210	5,669
Manufacturing	\$238,209,680	\$46,770,699	968
Real estate and rental and leasing	\$114,408,051	\$8,192,491	418
Retail trade	\$84,452,574	\$28,897,802	1,348
All others	\$471,113,066	\$152,771,141	4,399
TOTAL	\$1,702,998,437	\$540,184,550	18,505

The industry that benefits the most from the OHTF’s Housing Development program is Construction. The total impact on final demand for Construction is more than \$544 million, of which more than \$202 million can be attributed to earnings for 5,703 jobs.

The total impact on final demand for all industries is slightly more than \$1.7 billion, of which \$540 million can be attributed to earnings for more than 18,500 jobs. This equates to an average salary of more than \$29,000.

The following table summarizes the multiplier effect of the Housing Development projects.

REGIONAL IMPACT	
HOUSING DEVELOPMENT	IMPACT OF \$1
OHTF Investment Multiplier	\$2.37
Total Investment Multiplier	\$9.80
Regional Impact	\$23.28

This means that \$1 invested by the OHTF results in a minimum economic impact of \$2.37 on the regional economy. However, since a large amount of additional funds are attracted by these projects, we can compute the total investment multiplier of the project. In this case, \$1 invested by the OHTF attracts \$9.80. The total multiplier for projects associated with Housing Development is \$23.28. Therefore, \$1 invested by the OHTF for a Housing Development project results in an economic impact in the State of Ohio of \$23.28.

## **F. HOME OWNERSHIP**

Between fiscal years 2006-2009, the Ohio Housing Trust Fund has awarded more than \$26 million for 196 Home Ownership projects. This investment has attracted an additional \$74 million in other funds resulting in a total investment of more than \$100 million.

The industry sectors defined as “construction” and “community food, housing and other relief services” are the primary drivers of the economic impacts related to Home Ownership projects. The following table displays the five industries whose final demand is impacted the most by Home Ownership projects.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Construction	\$76,101,195	\$28,272,175	798
Health care and social assistance	\$35,064,418	\$14,183,726	793
Manufacturing	\$33,316,838	\$6,541,513	135
Real estate and rental and leasing	\$16,001,509	\$1,145,830	58
Retail trade	\$11,811,832	\$4,041,747	188
All others	\$65,891,522	\$21,367,108	615
<b>TOTAL</b>	<b>\$238,187,314</b>	<b>\$75,552,099</b>	<b>2,588</b>

The industry that benefits the most from the OHTF’s Housing Development program is Construction. The total impact on final demand for Construction is less than \$76 million, of which more than \$28 million can be attributed to earnings for almost 800 jobs.

The total impact on final demand for all industries is more than \$238 million, of which \$75.5 million can be attributed to earnings for almost 2,600 jobs. This equates to an average salary of more than \$29,000.

The following table summarizes the multiplier effect of the Home Ownership projects.

REGIONAL IMPACT	
HOME OWNERSHIP	IMPACT OF \$1
OHTF Investment Multiplier	\$2.37
Total Investment Multiplier	\$3.79
Regional Impact	\$9.01

This means that \$1 invested by the OHTF results in a minimum economic impact of \$2.37 on the regional economy. However, since additional funds are attracted by these projects, we can compute the total investment multiplier of the project. In this case, \$1 invested by the OHTF attracts \$3.79. The total multiplier for projects associated with Home Ownership is \$9.01. Therefore, \$1 invested by the OHTF for a Home Ownership project results in a regional impact of \$9.01.

## V. Summary of Totals

Between Fiscal Years 2006-2009, the Ohio Housing Trust Fund has awarded almost \$179 million for a total of 771 projects. This investment has attracted an additional \$935 million in other funds resulting in a total investment in excess of \$1.1 billion.

The following table displays the five industries whose final demand is impacted the most by all of the OHTF projects.

INDUSTRY DESCRIPTION	FINAL DEMAND	EARNINGS IMPACT	EMPLOYMENT IMPACT
Construction	\$630,046,644	\$234,059,868	6,604
Health care and social assistance	\$595,138,387	\$235,498,831	14,290
Manufacturing	\$330,514,164	\$64,430,669	1,330
Real estate and rental and leasing	\$188,321,315	\$14,145,517	757
Finance and Insurance	\$135,880,473	\$36,708,525	727
All others	\$720,798,256	\$244,307,710	8,253
<b>TOTAL</b>	<b>\$2,600,699,239</b>	<b>\$829,151,120</b>	<b>31,960</b>

The industry that benefits the most from the OHTF's programs is Construction. The total impact on final demand for Construction is more than \$630 million, of which more than \$234 million can be attributed to earnings for over 6,604 jobs.

The total impact on final demand for all industries is more than \$2.6 billion, of which \$829 million can be attributed to earnings for almost 32,000 jobs. This equates to an average salary of slightly less than \$26,000.

The following table summarizes the multiplier effect of the all OHTF projects.

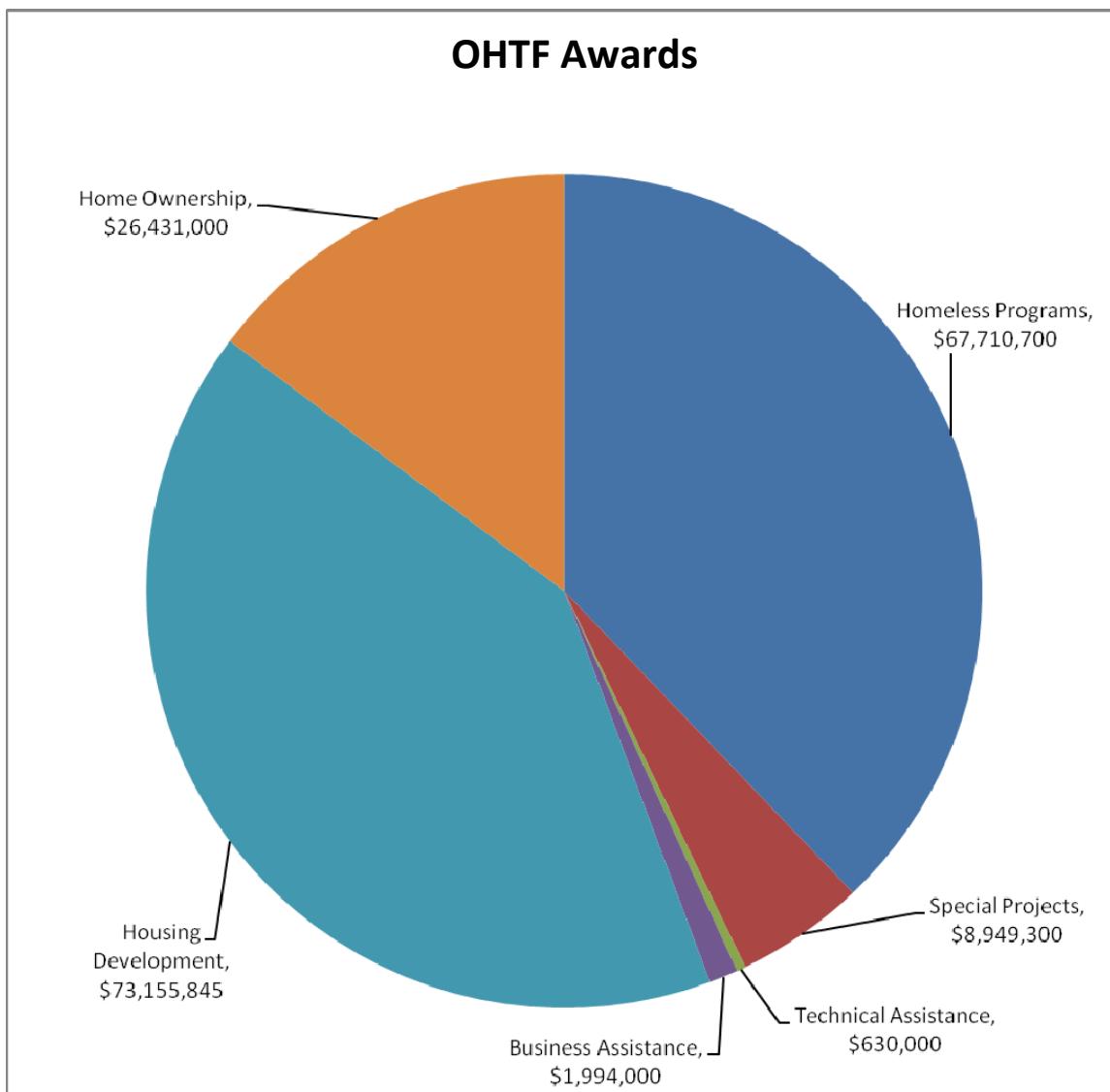
REGIONAL IMPACT	
TOTAL PROJECTION	IMPACT OF \$1
OHTF Investment Multiplier	\$2.31
Total Investment Multiplier	\$6.23
Regional Impact	\$14.54

This means that \$1 invested by the OHTF results in a minimum economic impact of \$2.31 on the regional economy. However, since additional funds are attracted by these projects, we can compute the total investment multiplier for the project. In this case, \$1 invested by the OHTF attracts \$6.23. The total overall impact of \$1 invested by the OHTF for all projects combined produces an overall impact of \$14.54.

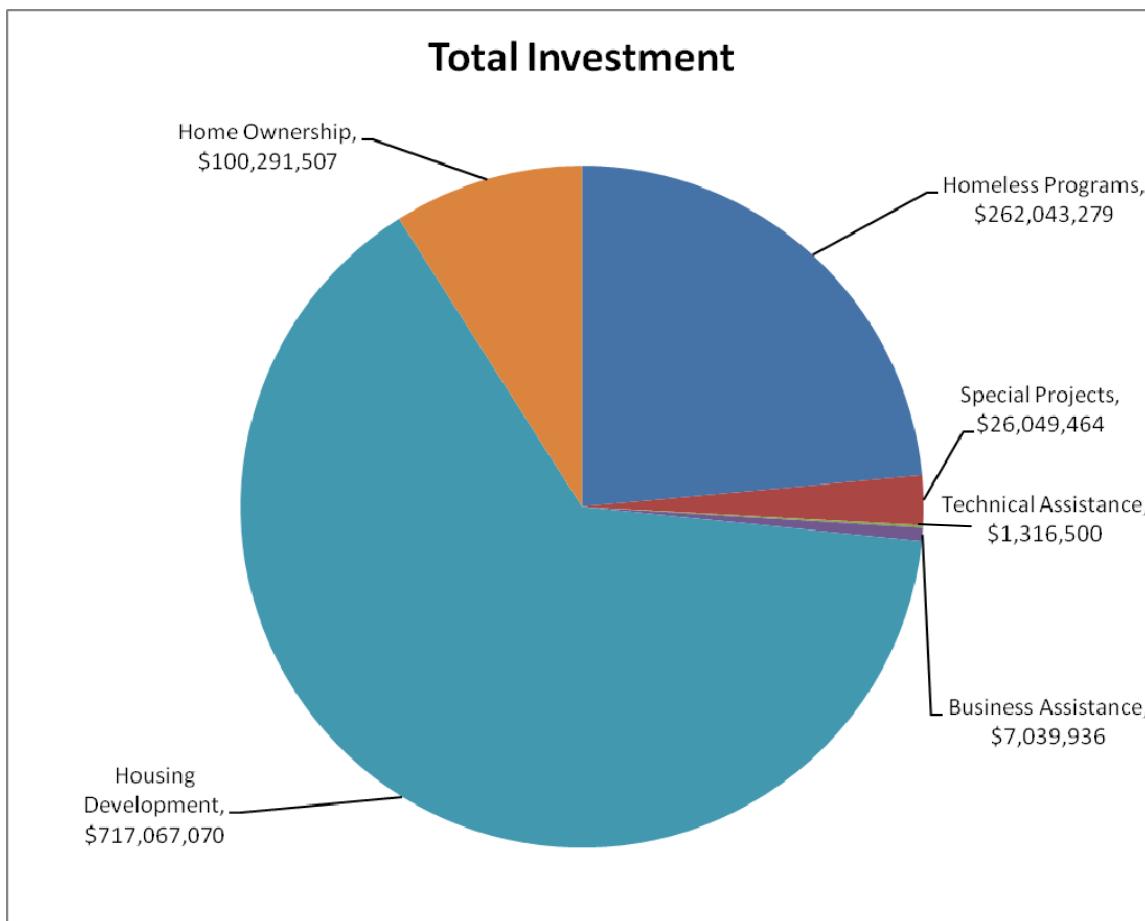
OHTF AWARDS FISCAL YEARS 2006-2009	IMPACT FOR EVERY OHTF DOLLAR AWARDED	TOTAL IMPACT ON OHIO'S ECONOMY
\$178,870,845	\$14.54	\$2,600,699,239

## VI. Conclusions

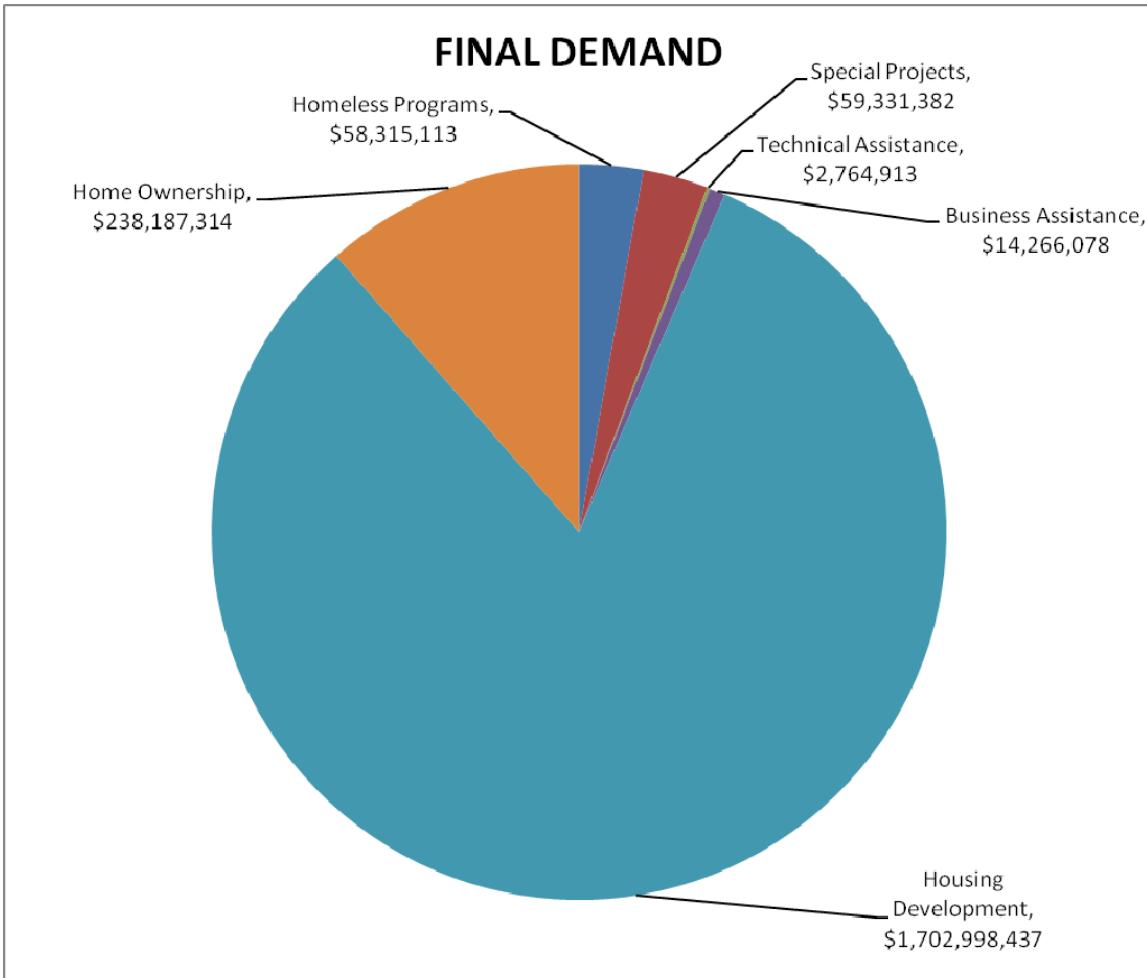
Approximately 79% of the Ohio Housing Trust Fund awards during the study period have been used for funding the Housing Development and Homeless Project Types. However, these programs account for 62% of all the 771 OHTF projects funded in Fiscal Years 2006-2009. The following chart illustrates the proportional funding of OHTF investments.



In addition to the funds that are awarded by the OHTF, there are significant amounts of other funds that are secured by these grants. These other funds are from a variety of public and private sources and have a significant impact on the success of the various OHTF projects. In fact, 84% of all the funds utilized by the OHTF comes from other sources. The following chart shows the total investment dollars (OHTF investment plus other sources of funds) for the OHTF projects.



The Housing Development program clearly is attracting the highest return on these investment dollars. When these funds are considered, over 64% of the dollars attracted by the OHTF are put toward the Housing Development Project Type. There could be a variety of reasons for this. First, there are simply more public funds available for this type of activity. Second, private investment is either more willing or more readily available to make these investments due to their higher rate of return. Each dollar of OHTF investment made towards housing development attracts an additional \$9.80 of investment. The result is a regional multiplier of 23.28. That means each dollar of OHTF investment in Housing Development has an impact of overall final demand in Ohio in the amount of \$23.28.



The Ohio Housing Trust Fund has had a profound impact on Ohio's economy. The total impact during Fiscal Years 2006-2009 is estimated to be more than **\$2.6 billion**. There have been an estimated **31,960 jobs** that have been created as a result of the OHTF with **wages totaling over \$829 million** during this time period.

OHTF AWARDS FISCAL YEARS 2006-2009	IMPACT FOR EVERY OHTF DOLLAR AWARDED	TOTAL IMPACT ON OHIO'S ECONOMY
\$178,870,845	\$14.54	\$2,600,699,239

Although this impact is significant, it has not been benchmarked against the impact of investing this money elsewhere, as doing so is beyond the scope of this analysis. In other words, there could be other opportunities for investment that have an even greater impact. However, this concept ignores the realities of the basic social need for the OHTF programs. The necessity of these programs is confirmed in part by the amount of investment offered by other public and private sources of funding.

## VII. Qualifications

### A. THE COMPANY

Vogt Santer Insights is a real estate research firm established to provide accurate and insightful market forecasts for a broad client base. The principals of the firm, Robert Vogt and Chip Santer, have more than 60 years of combined real estate and market feasibility experience throughout the United States.

Serving real estate developers, syndicators, lenders, state housing finance agencies and the U.S. Department of Housing and Urban Development (HUD), and communities throughout the country, the firm provides market feasibility studies for all real estate classes, including affordable housing, market-rate apartments, condominiums, senior housing, student housing, single-family developments, retail and commercial real estate.

### B. THE STAFF

**Robert Vogt, Partner**, has conducted and reviewed over 5,000 market analyses over the past 30 years for market-rate and Low-Income Housing Tax Credit apartments as well as studies for single-family, golf course/residential, office, retail and elderly housing throughout the United States. Mr. Vogt is a founding member and the past chairman of the National Council of Affordable Housing Market Analysts, a group formed to bring standards and professional practices to market feasibility. He is a frequent speaker at many real estate and state housing conferences. Mr. Vogt has a bachelor's degree in finance, real estate and urban land economics from The Ohio State University.

**Chip Santer, Partner**, has served as President and Chief Executive Officer of local, state and national entities involved in multifamily and single-family housing development, syndication, regulation and brokerage in both the for profit and not-for-profit sectors. As president and CEO of National Affordable Housing Trust, Mr. Santer led a turn-around operation affiliated with National Church Residences, Retirement Housing Foundation and Volunteers of America that developed and financed more than 3,000 units of housing throughout the United States with corporate and private funds, including a public fund with 1,100 investors. He was a former Superintendent and CEO of the Ohio Real Estate Commission, and serves on several boards and commissions. Mr. Santer is a graduate of Ohio University.

**Andrew W. Mazak, Vice President/Project Director**, has over eight years of experience in the real estate market research field. He has personally written nearly 1,000 market feasibility studies in numerous markets throughout the United States, Canada and Puerto Rico. These studies include the analysis of Low-Income Housing Tax Credit apartments, market-rate apartments, government-subsidized apartments as well as student housing developments, condominium communities and senior-restricted developments.

**Brian Gault, Vice President for Field Operation/Project Director**, has conducted fieldwork and analyzed real estate markets for 11 years in more than 40 states and has authored more than 1,000 market studies. In this time, Mr. Gault has conducted a broad range of studies, including Low-Income Housing Tax Credit apartments, luxury market-rate apartments, comprehensive community housing assessment, HOPE VI redevelopments, student housing analysis, condominium and/or single-family home communities, mixed-use developments, lodging, retail and commercial space. Mr. Gault has a bachelor's degree in public relations from the E.W. Scripps School of Journalism, Ohio University. In addition to his work as a project director for VSI, as Vice President of Field Operations, Mr. Gault manages a staff of eight field analysts and three field support staff members.

**Nancy Patzer, Vice President for Senior Residential Care/Project Director**, has more than 15 years of experience in community development research, including securing grant financing for a variety of local governments and organizations and providing planning direction and motivation through research for United Way of Central Ohio and the City of Columbus. As a project director for Vogt Santer Insights Ms. Patzer has conducted market studies in the areas of housing, senior residential care, retail/commercial, comprehensive planning and redevelopment strategies, among others. Ms. Patzer has extensive experience working with a variety of state finance agencies as well as the U.S. Department of Housing and Urban Development's Federal Housing Administration. She has attended the most recent FHA LEAN Program training sessions. She holds a Bachelor of Science in Journalism from the E.W. Scripps School of Journalism, Ohio University.

**Jim Beery, Project Director**, has more than 20 years experience in the real estate market feasibility profession. He has written market studies for a variety of development projects, including multifamily apartments (market-rate, affordable housing, and government-subsidized), residential condominiums, hotels, office developments, retail centers, recreational facilities, commercial developments, single-family developments and assisted living properties for older adults. Other consulting assignments include numerous community redevelopment and commercial revitalization projects. Recently he attended the HUD MAP Training for industry partners in Washington D.C. in October 2009 and received continuing education certification from the Lender Qualification and Monitoring Division. Mr. Beery has a bachelor's degree in Business Administration (Finance major) from The Ohio State University.

**Jennifer Tristano, Project Director**, has been involved in the production of more than 2,000 market feasibility studies during the last several years. During her time as an editor, Ms. Tristano became well acquainted with the market study guidelines and requirements of state finance agencies as well as the U.S. Department of Housing and Urban Development's various programs. In addition, Ms. Tristano has researched market conditions for a variety of project types, including apartments (Tax Credit, subsidized and market-rate), senior residential care facilities, student housing developments and condominium communities. Ms. Tristano holds a Bachelor of Science in Human Ecology from The Ohio State University.

**Rick Stein, Principal, Urban Decision Group**, has more than 17 years of experience as a software developer and systems analyst and over five years experience in real estate and spatial analytics. He has served as a consultant on a wide variety of urban planning and information technology projects throughout the country. Mr. Stein manages the Geographic Information Systems (GIS) department at Vogt Santer Insights, which is responsible for all spatial analysis, mapping, demographic evaluation, demographic forecasting and spatial modeling. He also performs commercial real estate market analysis, which includes tasks such as: retail site selection, facilities programming and retail supply/demand analysis. Mr. Stein earned a Bachelor of Science in Business Administration (specializing in Management Information Systems) from Bowling Green State University and a Master of City and Regional Planning from The Ohio State University. He is an active member of the American Planning Association and the Ohio Planning Conference.

**Brian Higgins, Principal, Arch City Development**, has vast experience in urban housing and development solutions. Mr. Higgins spent eight years as a Program Director at Enterprise Community Partners' Columbus office, where he specialized in housing development, environmental sustainability, economic development, brownfield redevelopment, public policy, transportation, land use planning, data analysis and information technology. Mr. Higgins also worked for a neighborhood based community development corporation, founded and ran a business association in Downtown Columbus designed specifically to leverage capital improvement dollars, and has engaged in neighborhood based grant writing. Mr. Higgins earned his Master's Degree in City and Regional Planning from The Ohio State University in 2000 and his undergraduate degree in International Studies, Urban Geography and Russian in 1995, also from The Ohio State University.

**Field Staff** – Vogt Santer Insights maintains a field staff of professionals experienced at collecting critical on-site real estate data. Each member has been fully trained to evaluate site attributes, area competitors, market trends, economic characteristics and a wide range of issues impacting the viability of real estate development.