

THE ECONOMIC IMPACT OF THE 2013 GENERAL OBLIGATION BONDS FOR AFFORDABLE HOUSING IN AUSTIN

NOVEMBER 2016



INTRODUCTION

Civic Economics and HousingWorks are pleased to present this analysis of the economic impact of General Obligation Bonds issued since 2013 to support affordable housing.

Civic Economics and HousingWorks have cooperated previously to study the impact of bonds issued in 2006. At the time of the last study in 2012, we found that \$55 million in bond money and the additional funding it leveraged would produce economic impacts approaching \$400 million in the City of Austin.

On Nov. 5, 2013, voters approved \$65 million in general obligation bonds for affordable housing. This study replicates the earlier methodology to estimate the economic impact of the \$27 million expended to date. That \$27 million in local, public funds has been leveraged by Austin's affordable housing providers to attract an additional \$190 million in development funding, for total construction expenditures of \$217 million. If the remaining 2013 funding is allocated and leveraged similarly, Austin will have generated a total of more than \$500 million in development for its initial public funding.

Summary of Findings

The construction of housing made possible by the 2013 bond funds has produced an economic impact in the City of Austin of \$378 million in today's dollars. When the remaining funds are expended in the coming years total construction impacts will exceed \$900 million, assuming comparable leverage and allocation.

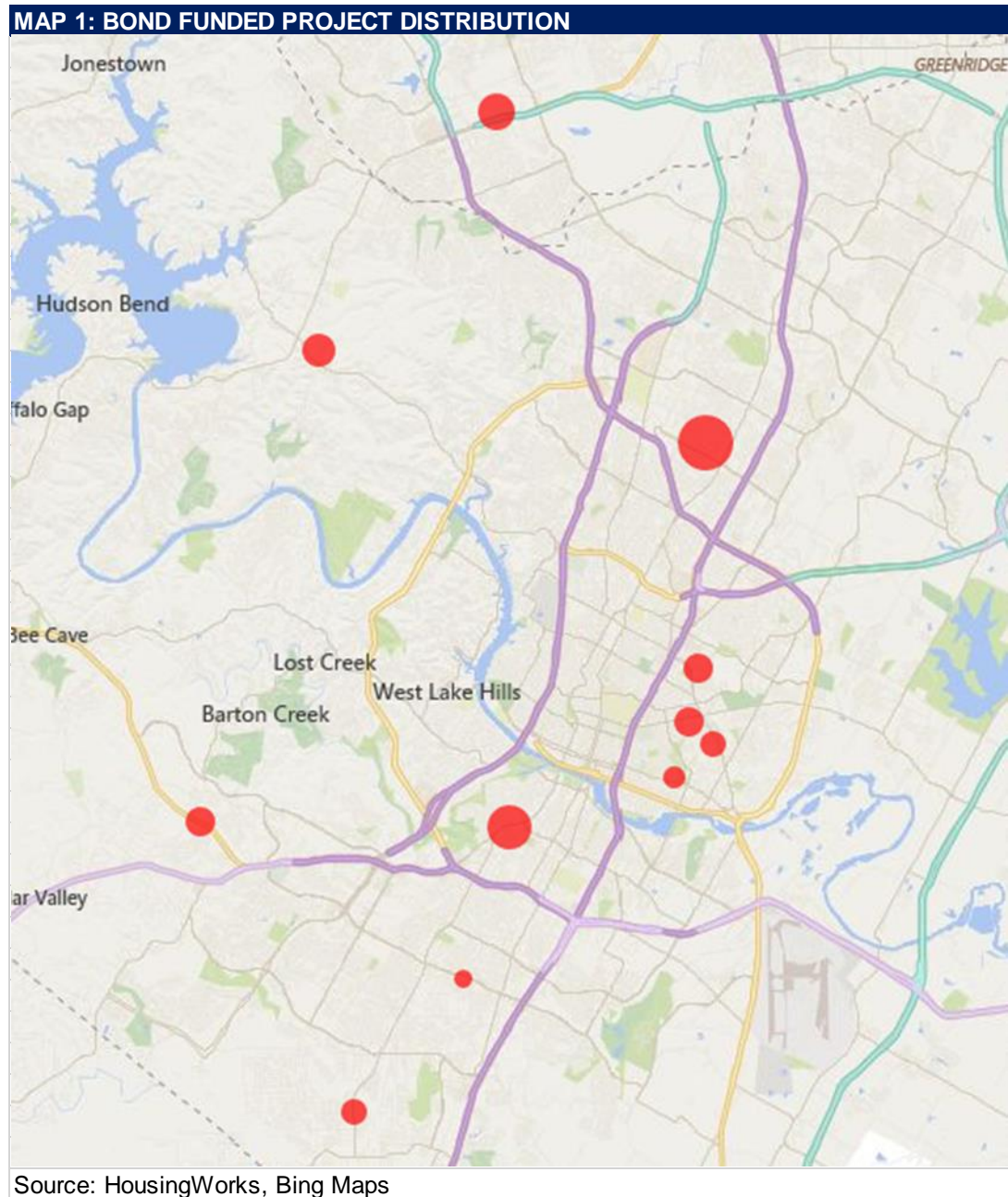
Operating and maintaining these housing units produces an annual economic impact in the City of Austin of \$18 million in today's dollars. When the remaining funds are expended in the coming years, these annual impacts will exceed \$40 million. Over just ten years these operations will produce a total economic impact of more than \$400 million.

ECONOMIC IMPACT ANALYSIS: THE SCOPE OF DEVELOPMENT

According to data provided by HousingWorks, of the \$65 million in bonds approved in 2013, roughly \$27 million has been committed to projects. Map 1 at right depicts the geographic distribution of these projects. Table 1 on the following page summarizes the essentials of each project.

Austin’s affordable housing developers have leveraged the commitment of \$27 million in general obligation bond funding to attract an additional \$190 million in financing from a variety of sources. The total development expenditure of \$216 million reflects a ratio of leveraged funds to general obligation bond funds of 7.02, nearly double that achieved with the 2006 bond expenditures.

The 11 developments and initiatives made possible by bond funds have added 713 deeply affordable units to Austin’s housing stock, with an additional 565 market rate units mixed



among them. Of those affordable units, 232 offer “supportive housing,” providing residents with a range of life-changing services.

Table 1

2013 GENERAL OBLIGATION BONDS FOR AFFORDABLE HOUSING, DEVELOPMENT AS OF SEPTEMBER 2016								
Project Name	Zip Code	Housing Type	2013 G.O. Bond Funding Amount	Leveraged Amount	Total Project Cost	Total Units	Affordable Units <=50% MFI	
Cross Creek Apartments	78758	Rental, Includes Housing First PSH Units	\$ 2,000,000	\$ 19,881,477	\$ 21,881,477	200	130	
Live Oak Trails	78735	Multifamily Rental	\$ 1,750,000	\$ 13,216,834	\$ 14,966,834	58	58	
Bluebonnet Studios	78704	Single Room Occupancy	\$ 3,700,000	\$ 16,582,632	\$ 20,282,632	107	107	
Lakeline Station	78717	Multifamily Rental	\$ 2,975,000	\$ 23,476,108	\$ 26,451,108	128	77	
Cardinal Point Apartments	78726	Multifamily Rental	\$ 2,575,000	\$ 17,401,008	\$ 19,976,008	120	72	
Garden Terrace Phase 3	78745	Single Room Occupancy	\$ 1,200,000	\$ 1,469,162	\$ 2,669,162	20	20	
Jeremiah Housing	78702	Single Parent Households in Jeremiah Program	\$ 2,000,000	\$ 7,267,546	\$ 9,267,546	35	35	
Aldrich 51 Apartments	78723	Multifamily Rental	\$ 2,000,000	\$ 33,675,975	\$ 35,675,975	240	63	
LaMadrid Apartments	78748	Multifamily Rental with "Section 811" Units	\$ 3,300,000	\$ 17,137,344	\$ 20,437,344	95	43	
The Rail at MLK Jr Station	78702	Multifamily Rental	\$ 2,500,000	\$ 30,000,000	\$ 32,500,000	225	58	
Housing First Oak Springs	78702	Single Room Occupancy, Includes Housing First PSH	\$ 3,000,000	\$ 9,584,000	\$ 12,584,000	50	50	
Total Approved			\$ 27,000,000	\$ 189,692,086	\$ 216,692,086	1,278	713	

Source: HousingWorks

THE ECONOMIC IMPACT OF AFFORDABLE HOUSING BONDS

Introduction to Economic Impact

Civic Economics utilizes the IMPLAN model, a product of the Minnesota Implan Group and an industry-standard tool for evaluating the impact of any economic activity.

For this study, Civic Economics procured IMPLAN multipliers for Travis County, which encompasses virtually all of the City of Austin. This study utilizes 2016 dollars for all values.

Economic impacts are comprised of three separate categories. Each category is analyzed separately from one another in IMPLAN.

- **Economic Output** is the total production or sales derived from the project.
- **Employment** is the total number of study-area residents employed both on a full and part time basis overall and in a given industry.
- **Wages** is the amount of salaries and benefits paid to study-area employees.

For each of the categories listed above a direct effect, indirect effect, and induced effect has been calculated.

- **Direct** effects capture the initial impact created by the initial outlay of funds.
 - Example: This captures spending on the project during either construction or operating phases.
- **Indirect** effects are additional impacts derived from businesses providing products or services to the project.

The Essence of IMPLAN: How money moves in the local economy

Input-output accounting (using the IMPLAN model as an example) describes commodity flows from producers to intermediate and final consumers. The total industry purchases of commodities, services, employment compensation, value added, and imports are equal to the value of the commodities produced. Industries producing goods and services for final use and purchases for final use (final demand) drive the model. Industries producing goods and services for final demand purchase goods and services from other producers. These other producers, in turn, purchase goods and services. This buying of goods and services continues until leakages from the region stop the cycle. The resulting sets of multipliers describe the change of output for every regional industry caused by a \$1.00 change in final demand for any given industry.

- Examples: Construction involves the purchase of building materials from suppliers. Ongoing operations involve the purchase of a variety of goods and services from a number of suppliers.
- **Induced** effects are the result of increased household spending due to the direct and indirect effects.
 - Example: Employees of firms directly or indirectly affected by the project buy new cars, homes, and groceries locally.

ECONOMIC IMPACT FORMULATIONS

Affordable housing is a diverse and complex realm and presents unique difficulties in calculating economic impacts. Civic Economics sought to include only real, quantifiable economic activity triggered by the 2013 bond issue. As a result, we would characterize our findings as conservative. For example, while central locations well served by transit undoubtedly produce savings for residents in the form of reduced transportation expenditures, this analysis does not assign value to that savings.

This study quantifies economic impacts for two distinct activities: construction and ongoing operations.

Construction Impacts

Construction impacts are based on the actual expenditure of funds to develop and/or rehabilitate housing units that would not have occurred without the bond funding and represent a one-time expenditure and impact. Since 2013, Austin developers have expended \$27 million of bond money and leveraged an additional \$190 million, for a total of \$217 million in development. In this round of development, all but one project is new construction; Cross Creek is rehabilitation of an existing apartment complex. Civic Economics distinguishes between rehabilitation and new construction because they yield slightly different impacts. Rehabilitation budgets are heavier on labor costs and thus on employment, while new construction requires a higher proportion of the budget for materials. For new construction projects, Civic Economics also sets aside 10% of the total investment to account for land purchases (excluding the expansion of Garden Terrace).

Ongoing Operation Impacts

Affordable housing is, as previously noted, a diverse and complex realm. The mix of projects here includes conventional garden apartments, single room occupancy units, and a number of supportive housing units with additional staff and facilities. To quantify these activities, Civic Economics identified three distinct classes of value:

1. Household Savings: Affordable housing is designed to allow families to afford safe, decent housing and generally provides those households with a savings relative to market rate housing.
 - a. The approach to calculating subsidies and tenant costs is highly individualized, involving a range of factors including the local housing market, the family composition and income of prospective tenants, and the mix of affordable housing programs to be tapped. Thus, Civic Economics formulated an approach to estimating average household savings based on income relative to the median with the goal of consistency among our formula outcomes and the real world costs identifiable in a sample of rent rolls of Austin affordable housing developments.

Table 2: HOUSEHOLD SAVINGS

ESTIMATING ANNUAL HOUSEHOLD SAVINGS	
Median Household Income for Travis County, 2015	\$76,800
50% of Median, Threshold for All Projects	\$38,400
Average Amount Spent on Market Rate Housing	
At 100% of Median Income	\$20,583
At 50% of Median Income	\$13,301
Estimated Average Amount Spent on Affordable Housing	
At 50% of Median Income	\$11,520
Estimated Average Savings from Affordable Housing	\$1,781

Sources:

Income and Expenditure: <http://www.bls.gov/cex/2015/combined/decile.pdf>

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- i. Travis County’s median household income for all household sizes in 2015 was \$76,800. At that level, the typical American household spent 26.4% of income on housing. Housing cost as a share of income increases as household income decreases, rising almost 52% for families earning just 30% of the median.

- ii. If those values represent market rate options, then subsidized housing options bring housing costs down in proportion to household income. A straight line estimate of savings (i.e. families at 30% of the median pay just 30% of market rate) yielded household savings more generous than real world outcomes. Thus, we added back in a factor based on the proportion of income dedicated to housing for a typical family.
 - iii. Table 2 shows the household savings estimates produced by Civic Economics and applied across the range of rental projects in this study. It should be noted that we calculated these savings for families at or below 50% of the median, which is the threshold for eligibility in the projects considered. To the extent that many households will have lower incomes, these estimates are conservative.
 - b. We have treated household savings as a positive local economic impact because that money is treated by low income households as if it were additional income, allowing an increase in spending on other goods and services.
2. Operating Costs: All of the projects described above involve ongoing operating costs.
 - a. For multifamily properties, Civic Economics relied upon the National Apartment Association's 2015 Survey of Operating Income and Expenses in Rental Apartment Communities to estimate annual costs for facilities support services, marketing, utilities, insurance, and capital improvements.
3. Supportive Housing Expenses: In addition, 232 of the units in this study provide an array of supportive services not available in typical housing situations. For the purposes of this study, those costs have been estimated at \$11,500 per year per unit, which is based upon estimates used in the City of Austin Permanent Supportive Housing Strategy. This figure is \$300 per year per unit less than we applied in the 2006 study, which was based on an earlier version of that strategy.
 - a. For the purposes of this study, Civic Economics analyzed supportive services expenditures as if the entire amount fell into the category of Home Health Services, which produces a relatively low multiplier. In reality, much of this spending will fall into higher impact categories for medical and rehabilitative services. However, lacking a solid breakdown of these costs, we elected to take a conservative approach.

- b. The costs of these supportive services are here treated as positive in terms of local economic impact. There exists a strong body of literature supporting the idea that supportive permanent housing investment results in measurable cost savings for local governments. Moreover, most of the funding for these programs is sourced beyond the City of Austin.

ECONOMIC IMPACT FINDINGS: CONSTRUCTION

As of September 2016, \$27 million dollars of the 2013 general obligation bond funding for affordable housing had been committed to projects in Austin. Developers leveraged a further \$190 million in additional funding, for a total development expenditure of \$217 million. That is the value of spending that Civic Economics utilized to calculate the economic impacts of constructing affordable housing with 2013 bond funds.

In total, projects to date have created employment for 2,300 Austinites earning \$130 million in income. The total impact on the Austin economy just from building and rehabilitating housing from these bonds is nearly \$380 million.

As the remaining \$38 million in bond money is spent, assuming the same rate of leverage for additional financing, that total impact will rise to more than \$900 million dollars.

Table 3 – CONSTRUCTION IMPACTS

CONSTRUCTION IMPACTS, 2016 DOLLARS			
Impact Type	Employment	Labor Income	Output
Direct Effect	1,088	\$ 71,321,879	\$ 212,633,476
Indirect Effect	738	\$ 34,165,210	\$ 96,227,237
Induced Effect	479	\$ 23,935,978	\$ 69,641,749
Total Effect	2,305	\$ 129,423,067	\$ 378,502,462

Source: HousingWorks, Implan, Civic Economics

CONSTRUCTION IMPACTS FOR KEY SECTORS, 2016 DOLLARS			
Description	Employment	Labor Income	Output
Construction of new multifamily residential structures	968	\$ 63,487,801	\$ 189,076,608
Maintenance and repair construction of residential structures	123	\$ 8,034,836	\$ 24,160,542
Retail - Nonstore retailers	111	\$ 3,966,377	\$ 16,734,329
Wholesale trade	44	\$ 4,545,029	\$ 12,232,727
Retail - Clothing and clothing accessories stores	126	\$ 3,646,621	\$ 11,301,811
Real estate	61	\$ 1,587,613	\$ 11,198,296
Retail - Health and personal care stores	55	\$ 2,556,507	\$ 5,139,152
Retail - Miscellaneous store retailers	74	\$ 2,534,125	\$ 3,760,088
Retail - General merchandise stores	35	\$ 1,050,764	\$ 2,764,763
Retail - Gasoline stores	31	\$ 1,114,058	\$ 2,472,952

Source: HousingWorks, Implan, Civic Economics

ECONOMIC IMPACT FINDINGS: ONGOING

Household Savings

The impact of savings to residents of affordable housing units is treated as household income. Therefore, it appears only as induced impacts for study purposes.

Operating and Homeowner Expenses

The cost of operating and maintaining both rental and owner-occupied housing units made possible by 2013 bond funds produces total annual impacts exceeding \$7.5 million.

Supportive Services Expenditures

Supportive services to residents of 2013 bond funded units produce a conservative estimate of 123 jobs, with total economic impact of more than \$8.7 million each year.

Total Annual Economic Impacts

All told, these identifiable, quantifiable activities produce a substantial economic impact on the Austin economy of \$18 million each year. Over just ten years, then, these impacts exceed \$180 million dollars. If the remaining bond funds are expended in similar ways, that cumulative impact will exceed \$430 million.

Table 4: ONGOING ANNUAL IMPACT SUMMARY

ANNUAL IMPACTS BY CATEGORY, 2016 DOLLARS			
HOUSEHOLD SAVINGS			
Impact Type	Employment	Labor Income	Output
Direct Effect	0	\$ -	\$ -
Indirect Effect	0	\$ -	\$ -
Induced Effect	11	\$ 554,114	\$ 1,620,567
Total Effect	11	\$ 554,114	\$ 1,620,567
OPERATING EXPENSES			
Impact Type	Employment	Labor Income	Output
Direct Effect	29	\$ 1,394,367	\$ 4,385,737
Indirect Effect	13	\$ 662,430	\$ 1,849,681
Induced Effect	9	\$ 464,089	\$ 1,350,341
Total Effect	51	\$ 2,520,886	\$ 7,585,759
SUPPORTIVE SERVICES			
Impact Type	Employment	Labor Income	Output
Direct Effect	95	\$ 4,245,324	\$ 4,719,981
Indirect Effect	7	\$ 342,435	\$ 969,421
Induced Effect	21	\$ 1,046,184	\$ 3,043,729
Total Effect	123	\$ 5,633,943	\$ 8,733,131
ALL IMPACTS COMBINED			
Impact Type	Employment	Labor Income	Output
Direct Effect	124	\$ 5,639,691	\$ 9,105,717
Indirect Effect	20	\$ 1,004,865	\$ 2,819,102
Induced Effect	41	\$ 2,064,388	\$ 6,014,637
Total Effect	185	\$ 8,708,943	\$ 17,939,457

Source: HousingWorks, Implan, Civic Economics

Table 6 – HOUSEHOLD SAVINGS IMPACTS

ANNUAL IMPACTS, HOUSEHOLD SAVINGS, 2016 DOLLARS				
Impact Type	Employment	Labor Income	Output	
Direct Effect	0	\$ -	\$ -	-
Indirect Effect	0	\$ -	\$ -	-
Induced Effect	11	\$ 554,114	\$ 1,620,567	
Total Effect	11	\$ 554,114	\$ 1,620,567	

Source: HousingWorks, Implan, Civic Economics

HOUSEHOLD SAVINGS IMPACTS FOR KEY SECTORS, 2016 DOLLARS				
Sector	Employment	Labor Income	Output	
Real estate	1	\$ 21,999	\$ 155,173	
Hospitals	1	\$ 56,800	\$ 103,844	
Full-service restaurants	1	\$ 13,963	\$ 27,649	
Limited-service restaurants	1	\$ 11,191	\$ 44,843	
Offices of physicians	0	\$ 42,177	\$ 59,828	
Retail - Food and beverage stores	0	\$ 11,075	\$ 23,380	
All other food and drinking places	0	\$ 8,607	\$ 11,448	
Other financial investment activities	0	\$ 16,186	\$ 50,455	
Wholesale trade	0	\$ 27,162	\$ 73,104	
Retail - General merchandise stores	0	\$ 7,863	\$ 20,688	

Source: HousingWorks, Implan, Civic Economics

Table 7 – OPERATING AND MAINTENANCE IMPACTS

ANNUAL IMPACTS, OPERATING EXPENSES, 2016 DOLLARS				
Impact Type	Employment	Labor Income	Output	
Direct Effect	29	\$ 1,394,367	\$ 4,385,737	
Indirect Effect	13	\$ 662,430	\$ 1,849,681	
Induced Effect	9	\$ 464,089	\$ 1,350,341	
Total Effect	51	\$ 2,520,886	\$ 7,585,759	

Source: HousingWorks, Implan, Civic Economics

OPERATING EXPENSES IMPACTS FOR KEY SECTORS, 2016 DOLLARS				
Sector	Employment	Labor Income	Output	
Services to buildings	13	\$ 416,758	\$ 641,064	
Maintenance and repair construction of residential structures	9	\$ 616,677	\$ 1,854,331	
Facilities support services	5	\$ 187,665	\$ 734,984	
Insurance agencies, brokerages, and related activities	1	\$ 77,693	\$ 231,124	
Real estate	1	\$ 31,286	\$ 220,677	
Insurance carriers	1	\$ 110,639	\$ 469,413	
Advertising, public relations, and related services	1	\$ 75,537	\$ 268,186	
Retail - Clothing and clothing accessories stores	1	\$ 29,136	\$ 90,300	
Retail - Nonstore retailers	1	\$ 31,989	\$ 134,963	
Full-service restaurants	1	\$ 19,007	\$ 37,638	

Source: HousingWorks, Implan, Civic Economics

Table 7 – SUPPORTIVE SERVICES IMPACTS

ANNUAL IMPACTS, SUPPORTIVE SERVICES, 2016 DOLLARS			
Impact Type	Employment	Labor Income	Output
Direct Effect	95	\$ 4,245,324	\$ 4,719,981
Indirect Effect	7	\$ 342,435	\$ 969,421
Induced Effect	21	\$ 1,046,184	\$ 3,043,729
Total Effect	123	\$ 5,633,943	\$ 8,733,131

Source: HousingWorks, Implan, Civic Economics

SUPPORTIVE SERVICES IMPACTS FOR KEY SECTORS, 2016 DOLLARS			
Sector	Employment	Labor Income	Output
Home health care services	95	\$ 4,261,818	\$ 4,738,319
Real estate	3	\$ 65,437	\$ 461,560
Employment services	2	\$ 68,074	\$ 118,072
Full-service restaurants	1	\$ 35,034	\$ 69,375
Hospitals	1	\$ 97,156	\$ 177,624
Limited-service restaurants	1	\$ 26,036	\$ 104,330
Wholesale trade	1	\$ 71,335	\$ 191,995
Other financial investment activities	1	\$ 39,874	\$ 124,296
All other food and drinking places	1	\$ 19,124	\$ 25,436
Offices of physicians	1	\$ 72,143	\$ 102,335

Source: HousingWorks, Implan, Civic Economics

Table 9 – TOTAL ANNUAL IMPACTS

ANNUAL IMPACTS, COMBINED, 2016 DOLLARS				
Impact Type	Employment	Labor Income	Output	
Direct Effect	124	\$ 5,639,691	\$ 9,105,717	
Indirect Effect	20	\$ 1,004,865	\$ 2,819,102	
Induced Effect	41	\$ 2,064,388	\$ 6,014,637	
Total Effect	185	\$ 8,708,943	\$ 17,939,457	

Source: HousingWorks, Implan, Civic Economics

ANNUAL COMBINED IMPACTS FOR KEY SECTORS, 2016 DOLLARS				
Sector	Employment	Labor Income	Output	
Home health care services	96	\$ 4,278,800	\$ 4,757,200	
Services to buildings	14	\$ 436,404	\$ 671,284	
Maintenance and repair construction of residential structures	10	\$ 629,138	\$ 1,891,800	
Facilities support services	5	\$ 188,452	\$ 738,067	
Real estate	5	\$ 118,722	\$ 837,410	
Full-service restaurants	3	\$ 68,004	\$ 134,662	
Employment services	3	\$ 106,443	\$ 184,621	
Hospitals	2	\$ 197,186	\$ 360,501	
Limited-service restaurants	2	\$ 50,156	\$ 200,980	
Insurance agencies, brokerages, and related activities	2	\$ 112,669	\$ 335,172	

Source: HousingWorks, Implan, Civic Economics

CONCLUSION

In 2013, the people of Austin voted in support of \$65 million in general obligation bond funding to the creation of affordable housing in the city, of which \$27 million has been committed to projects. Remarkably, Austin's affordable housing providers have leveraged that \$27 million in local, public money to bring in an additional \$190 million in additional funds for the development of both affordable and market rate housing in a city with a strong need for both. As a result, Austin has seen the development of \$217 million worth of housing that might never have occurred absent the availability of bond funding.

To date, with just under one third of the bond funds expended or committed, the bonds have produced 713 new housing units that are affordable to households earning less than 50% of the median income. Of those, 232 are supportive housing, providing essential and life-changing services for residents who might otherwise be homeless, hospitalized, or incarcerated.

Civic Economics previously studied the impact of 2006 affordable housing bonds for HousingWorks. For that study, Civic Economics designed a methodology to place a purely economic value on the projects made possible by this bond funding. We included only economic activities that could be identified and quantified with a high degree of confidence. For the current study, we retained that methodology and utilized updated data. As a result, our findings must be taken as conservative. For example, it is likely that many residents of these developments enjoy additional household savings for transportation and other services as a result of living in safe, clean, well-located housing. Because we could not confidently place dollar values to those savings, they are not included here. In addition, these units likely contribute to the local labor force by making it possible for residents to stay in the city and reach jobs throughout the region. Again, that value is not included in this study.

Despite the inclusion of only quantifiable impacts, the results are striking. Just building units made possible by the 2013 bonds has produced an economic impact of more than \$375 million in the City of Austin, with far more to come. On an ongoing basis, the operation and maintenance of these units produces a further \$18 million in annual economic impact, and that impact will grow as the final bond funds are expended and leveraged to create additional units.

About HousingWorks

HousingWorks Austin was created in 2006 and is a 501c3 nonprofit organization that is dedicated to increasing affordability in Austin and the surrounding region. HousingWorks' vision is that safe and affordable housing is available to all people, regardless of income, in all parts of town.

HousingWorks advances our mission to preserve and increase the supply of affordable housing through research, education, and advocacy in Austin, Texas and the surrounding region, with a commitment to ensuring those most in need have access to safe and affordable housing.

Current research includes exploration of the link between stable, affordable housing and positive health outcomes, as well as a regional look at health and housing disparities.

Major educational initiatives include our In the Works monthly newsletter; ongoing Keep Austin Affordable video series; annual City Council District Analyses of Affordable Housing Challenges and Opportunities; and leadership tours of affordable housing.

HousingWorks works with a broad range of stakeholders to develop workable policy solutions to complex affordability issues. HousingWorks' policy priorities include CodeNEXT (rewrite of the land development code); tenant displacement and relocation; use of public land for affordability; and monitoring and compliance for subsidized and density bonus units.

To learn more, visit www.HousingWorksAustin.org.



About Civic Economics

Civic Economics is an economic analysis and strategic planning consultancy with offices in Austin and Chicago. Since its establishment in 2002, the firm has earned a national reputation for creative approaches to the problems facing American communities. Civic Economics utilizes state of the art analytical tools, and has provided widely varied services from coast to coast.

To learn more, visit www.CivicEconomics.com.

