Tennessee Housing Development Agency

Andrew Jackson Building,
502 Deaderick St., Third Floor Nashville, TN 37243; (615) 815-2200

Impact THDA:
The Economic Impact of THDA Activities on the Tennessee Economy
2021

Prepared by

Hulya Arik, Ph.D.
Tennessee Housing Development Agency
Nashville, TN

DIVISION OF RESEARCH AND PLANNING

EXECUTIVE SUMMARY

The benefits of affordable housing programs administered by Tennessee Housing Development Agency (THDA) extend beyond providing individuals and families the opportunity to live in safe and affordable homes. Money spent through THDA programs has a "ripple" effect on the broader economy, which is measured using an economic multiplier. This multiplier effect quantifies the creation of additional jobs, income, and spending in the local economy as a result of THDA programs. Ultimately, the additional economic activity induced by THDA programs adds to state and local revenues.

In this study, we develop a framework to estimate the economic impact of THDA activities in providing safe and affordable housing options to low- and moderate-income households. We review THDA programs, including loans and grants, to determine the scope and monetary flows of each program's activities. Affordable housing programs include those such as the Low-Income Housing Credit (LIHC) Program and Section 8 Rental Assistance, which use subsidies to reduce housing costs to levels that low- and moderate-income households can afford. In addition to subsidy programs, affordable housing programs include those that reduce housing-related expenses and provide sound mortgage products to low- and moderate-income households, such as the Low-Income Home Energy Assistance Program (LIHEAP) and the Great Choice Loan Program, respectively. Finally, we also consider the impacts of programs that provide services for those who are homeless or at risk of homelessness, and help current homeowners keep their homes.

This study does not assume that THDA was the sole provider of financial resources in those programs administered during 2021. However, THDA plays a critical role in providing scarce resources to programs that help low- and moderate-income households and increase economic activity in the local economies.

Economic Impact of THDA-Related Activities in 2021

The total economic impact described below is the sum of direct THDA spending, indirect business to business transactions in Tennessee's economy, and additional employee spending.

Business Revenue

The total contribution of THDA-related activities to Tennessee's economy was estimated at $1.9 billion in 2021.

- Of this total, $948 million was directly injected into the economy by THDA-related activities. Every $100 of THDA-related activities generated an additional $96 in business revenues.

Personal Income

THDA-related activities generated $864 million in wages and salaries in 2021.

- Every $100 of personal income produced an additional $58 of wages and salaries in the local economy.

Employment / Job Creation

THDA-related activities created 14,609 jobs in 2021.

- Every 100 jobs created by THDA-related activities, primarily in the construction sector, generated 62 additional jobs throughout the local economy.

State and Local Taxes

THDA-related activities accounted for $64 million in state and local taxes in 2021.

I. Overview of the THDA Programs and Activities for the Calendar Year 2021

One of the primary ways THDA assists Tennesseans is by offering fixed-rate mortgage loans for low- and moderate-income homebuyers.[1] In addition to helping homebuyers, THDA administers several other housing programs to help low- and moderate-income households in Tennessee. A comprehensive account of THDA's programs and activities included in this economic impact analysis can be found in THDA Investments and Impacts: 2021. Furthermore, accompanying interactive maps provide views of THDA activities and economic impacts at various geographic levels including by county, congressional district and metropolitan statistical area (MSA). Detailed information about each program is also available at www.thda.org.

II. Economic Impact Results

We use the IMPLAN input-output model to calculate the ripple effects of THDA-related activities on the Tennessee economy. The IMPLAN model calculates total business revenues, personal incomes, and total employment. For each of these categories, the IMPLAN model provides direct, the indirect, and the induced impacts:

- Direct impact calculates the dollar amount of the initial spending as a result of THDA programs and grants. We also report the corresponding direct personal income and employment figures.
- Indirect impact calculates the dollar amount of the subsequent rounds of business-to-business transactions in Tennessee's economy as a result of each program. For example, a grantee who receives a grant to repair a critical structural problem for an elderly homeowner may buy materials from a supplier who would then purchase additional material, labor, etc. from other businesses. The initial spending creates additional rounds of spending in local and regional economies.

[1] THDA homeownership programs generally serve first-time homebuyers (those who have not owned their principal residence within the last three years), but serve all eligible homebuyers who are buying in federally targeted areas and who are veterans.

- Induced impact calculates the economic impact generated through employee spending in the economy. A portion of the direct and indirect program spending goes to individuals as wages and salaries. Depending on consumption preferences and patterns, individuals spend these wages and salaries on various sectors of the economy. Therefore, each round of spending creates additional ripple effects in the economy.

We also provide the impact of THDA-related activities on business revenue, personal income, employment and state and local taxes.

- Business revenue is the total economic activity generated by THDA programs and grants spending in the economy.
- Personal income is the income that people in the economy receive because of spending associated with THDA programs and grants.
- Employment is the number of jobs generated by THDA programs and grants spending in the economy.
- Estimated state and local taxes are derived from the IMPLAN model.

The construction of new homes and the rehabilitation of existing homes through THDA-related activities increase employment in the construction industry and in the industries with forward and backward linkages to construction. For every dollar spent in the economy through related activities, business revenue and personal income increase by more than one dollar of direct spending because of indirect and induced effects.

The social impact of programs is excluded from this analysis. Social impacts encompass the individual and collective effects of a program that are not captured through direct investment. For example, a beneficiary of the Home Modification and Ramps Program may experience several benefits, including the avoidance of unnecessary health care costs, prevention of relocation to a nursing home, as well as the joy of increased independence and longevity. Similarly, even though reduced energy consumption has both individual and regional impacts, environmentally and financially, the energy cost savings produced by weatherization are also not considered in this analysis. Other social impacts excluded from this analysis include situations in which a household avoids homelessness because of the Emergency Solutions Grant. While each

of these social impacts may have financial gains associated with them, because they do not contribute to direct investments, they are not included in this economic impact analysis.

Results

The following table represents the direct, indirect, induced and total impact of THDA-related activities on the Tennessee economy in 2021 for three categories: employment, labor income, and output (business revenue). In addition, the total impact and the multiplier (when applicable) are also provided.

Table 1: The Economic Impact of THDA-Related Activities on Tennessee Economy, 2021 (Dollar figures in millions)

	Direct	Indirect	Induced	Total	Multiplier*
Business Revenue	$948	$344	$564	$1,856	1.96
Personal Income	$546	$120	$199	$864	1.58
Employment	9,027	2,059	3,523	14,609	1.62
State and Local Taxes**	NA	NA	NA	$64	NA

**Multipliers are calculated by dividing total impact by direct impact*

***State and Local taxes are estimated from the model.*

The economic impact of THDA programs and grants was quite substantial. In 2021, for every $100 in direct industrial output created through THDA-related activities, an additional $96 in business revenues were generated.

THDA-related activities injected a total of $947,594,705 into the economy via demand for regionally supplied construction, real estate services, and financial and other services inputs (reflected in the table as ‘direct’ impact on business revenues). To meet this demand, impacted firms in these industries provided 9,027 jobs (fulltime equivalent or FTE) with a collective $545,571,945 in wages and salaries. These figures represent direct impacts of 2021 THDA-related activities.

Next, to satisfy these firms’ required supplies and raw materials, purchasing inputs totaled $343,634,003 from the local economy, which further stimulated 2,059 jobs and $120,294,059 in personal income. When workers in direct and indirect sectors converted their paychecks into household spending, they induced $564,316,692 in

industrial output from industries that served these households, yielding 3,522 more jobs making $198,556,888 in wages and salaries. Added together, THDA-related activities supported $1.9 billion in area industrial output, $864 million in labor income and 14,609 jobs.

THDA-related activities also generated sizable tax revenues for state and local governments, estimated at $64 million.

2021 Economic Impact by County, Congressional District and MSA

This analysis also calculates the economic impact of THDA-related activities at the county, Congressional District[2] and Metropolitan Statistical Area (MSA) levels, in addition to statewide analysis. All THDA activities were separated by county, Congressional District and MSA, and these activities were used as inputs for the county and regional models that were created in IMPLAN. The economic impact results by county, Congressional District and MSA are shown in the Appendix II.

Every year, changes in the volume and scope of the administered activities affect the resulting additional economic activity and jobs created in different regions (counties, metro areas and congressional districts). In 2021, THDA-related economic impacts were highest in Davidson County in terms of personal income, business revenue, and employment impact. In Davidson County, THDA programs directly injected nearly $292 million into the economy. For every $100 of THDA-related business revenue, an additional $69 of business revenue was created in the county. In the following table, the five counties with the highest economic impact (in terms of output, employment, and income) are listed. Compared to the previous year, the top five counties changed slightly. While Rutherford and Hamilton Counties moved to seventh and ninth place, respectively, in terms of impact categories, Sevier and Montgomery Counties moved to the top five.

[2] Congressional district boundaries for 2019 are based on the 113th session of the U.S. Congress. Economic impact calculations include an entire county's data for all counties represented in the district, not just the portion of the county in the district. Some counties may be included in more than one congressional district, which means the state total cannot be determined by summing the district totals.

Table 2: Five Counties with the Highest Total Economic Impact in All Categories, 2021

County	Total Employment Impact	Rank	Total Income Impact	Rank	Total Business Revenue Impact	Rank
Davidson	3,521	1	$278,265,246	1	$492,672,525	1
Shelby	2,250	2	$120,863,203	2	$274,043,033	2
Knox	1,675	3	$94,202,184	3	$204,049,036	3
Sevier	900	4	$41,853,126	4	$85,986,663	4
Montgomery	663	5	$35,953,202	5	$72,395,637	5

THDA's employment multiplier was highest in Sumner County, with 75 jobs created for every 100 employees directly employed from THDA expenditures. The business revenue multiplier was highest in Knox County, where an additional $87 of economic activity was generated for every $100 of THDA-related economic activities. In the Nashville MSA, THDA-related activities created 5,794 jobs and generated nearly $435 million in wages and salaries. Every $100 of THDA-related activities generated an additional $96 in business revenues across the MSA.

III. Methodology

When THDA helps a low- or moderate-income borrower buy a home or provides some relief to a cost-burdened renter, the compounding effects are felt by the individual, as well as by the broader community in several ways.[3] In addition to the benefits reaped by individuals and society, spending to provide affordable housing generates business revenues, incomes, and jobs in affected communities.[4]

In economic impact models, multipliers measure the secondary effects of initial spending on local economies. The Low-Income Housing Credit program, for example, illustrates the broader impacts of affordable housing. One additional low-income housing unit built with the incentives created through the tax credit program will house a low-income household. This is an important contribution to the well-being of that family as they will be able to afford their rent. This reduces the cost burden of renters and frees up personal funds for other necessities or discretionary items. The money a developer spends to build that additional rental unit will generate incomes and jobs for Tennesseans through rounds of spending. One dollar spent in the local and regional economies will support more than that one dollar in the region, by creating business revenue and income for other people in the region. In the process, some leakage may occur such that some money may be allocated towards savings, taxes and fees, or to vendors outside the local economy, rather than consumption in the local economy. However, the portion that stays within the local economy will continue to circulate and support additional rounds of spending until exhausted. The sum of these rounds of spending is represented by an "economic multiplier."

During the construction of a new house or rehabilitation of an existing one, for example, the local economy benefits directly from the money spent on the production

[3] For more information about health benefits of affordable housing see: Maqbool, N., Viveiros, J., and Ault, M. (2015). "The Impacts of Affordable Housing on Health: A Research Summary," *Center for Housing Policy* and for more information about education benefits of affordable housing see: Brennan, M., Reed, P., and Sturtevant, L.A. (2014). "The Impacts of Affordable Housing on Education: A Research Summary," *Center for Housing Policy*. See, also Newman, S. (2008). "Does Housing Matter for Poor Families? A Critical Summary of Research and Issues Still to be Resolved," Journal of Policy Analysis and Management, vol. 27, no. 4, pp. 895-925.

[4] To learn more about the economic impact of affordable housing, see, for example, "Beyond Units: Economic Benefits of Federal Home Loan Bank (FHLB) of Atlanta's Affordable Housing Program," (2010). The Hendrickson Company in conjunction with The Shimberg Center for Housing Studies, University of Florida, on behalf of FHLB of Atlanta; Economic Impact Of Affordable Housing programs in Utah – 2012, Prepared by James Wood on behalf of Utah Housing Coalition; The Economic and Social Benefits of Affordable Housing Development - Examining the Impact of Movin' Out in Southcentral Wisconsin; and Assessing the Economic Benefits of Public Housing, Econsult Corporation.

factors such as materials and labor. The builder/developer purchases cement, lumber, windows, doors, and other construction-related material from local suppliers. The indirect impact of this spending occurs when the suppliers spend money on additional materials and hire new workers to complete the orders from builders/developers. Finally, employees in construction companies and in related industries may spend a portion of their wages at the local grocery store or shopping mall, which demonstrates induced effects. Taken together, the indirect and induced impacts of housing construction on the local economy are often called "ripple" or "multiplier" effects.

Multipliers are estimated by dividing the total impact (the sum of direct, indirect and induced impacts) by the initial direct spending in the economy. The income multiplier, for example, represents a change in total income (employee compensation and proprietary income) for every dollar change in income in any given sector. The employment multiplier represents the total change in employment resulting from the change in employment in any given sector. An income multiplier of 1.90, for example, means that every $1 of personal income generates an additional $0.90 of wages and salaries in the local economy.

The size of multipliers depends on the propensity of businesses and households to purchase goods and services from within the region rather than from outside sources. Imports[5] are defined as spills or leakages from the local economy that occur when income is spent on outside sources rather than allowing it to recirculate within the region's economy. The region will have a larger multiplier if it has large and diversified economies producing a variety of goods and services, allowing for households and business to find most of the goods and services they need locally. The size of the region also impacts the size of the multiplier. In a large geographic region, transportation costs are high enough to prevent imports so businesses and consumers will spend more locally. A region that serves as a central hub for the surrounding regions will also have higher multipliers than more isolated counties.

The size of the multiplier also depends on the nature of the economic sectors under consideration, which includes whether the available industries in the region use

[5] Import, as used here, does not necessarily mean purchasing goods and services from another country. For the purpose of economic impact modelling, any purchase from outside the "region" defined in the IMPLAN Model is considered as import.

labor intensive or capital intensive techniques in the production of industry output and each sector's propensity to buy goods and services from within the region. Rehabilitation/remodeling activities, for example, are more labor intensive than new construction activities. As such, they rely more on locally available labor forces rather than capital, which is mostly imported from neighboring regions. New construction is more capital intensive resulting in lower induced impacts than rehabilitation.

Another factor that impacts the size of the multiplier is whether the multiplier is reported for specific sectors or on average. When a single or average multiplier is reported for a region aiming to capture all of the spending in different sectors, it represents an average value across many sectors. It is possible that a small county, where a large portion of initial spending is made in an industry with a high multiplier, can have a larger aggregate spending multiplier than a larger county in which the additional initial spending is disbursed across different sectors with varying multiplier values. In this case, even with a lower industrial base, the small county may have a larger multiplier than a large county. For example, the Low-Income Housing Credit (LIHC) contributes to the economy through the construction sector, which has a very high employment multiplier. When the total economic impact of THDA activities is calculated, the employment multiplier in the county with LIHC spending is higher than other counties with a relatively larger and more diversified industry base in which THDA administered several different programs with varying multiplier values.

IV. Conclusion

THDA programs provide significant investments in each of the 95 counties of Tennessee. THDA's affordable housing programs provide low- and moderate-income individuals and families opportunities to live in safe, quality housing. While THDA's programs are helping to fill the housing needs and gaps in communities across the state, the additional benefits associated with construction, real estate, and programmatic investments are felt throughout the local, regional and state economies. The total contribution of THDA-related activities to Tennessee's economy was estimated at $1.9 billion in 2021. For every $100 spent by THDA and the grantees, an additional $96 in business revenues was generated in Tennessee economy. State and local governments also benefit financially from THDA-related activities through sales tax on building materials, income taxes on construction workers and fees collected before and during construction. THDA-related activities accounted for $64 million in state and local taxes in 2021.

APPENDIX I

ASSUMPTIONS

THDA programs include increasing affordable housing stock by creating new rental and ownership units, renovating existing units, helping individuals become first time homeowners, and helping households afford their rent. When entering the spending from each THDA program into our economic impact model, we made expenditure and sector assumptions appropriate to the nature of the program. Some activities receive funding from multiple THDA programs. For example, a developer that receives Low Income Housing Credits (LIHC) to create or preserve affordable rental housing for low income Tennesseans might also borrow funds from a financial institution that receives Community Investment Tax Credits (CITC). The total costs of a development are considered in calculating the economic impact of LIHC investment, rather than costs by program. This prevents the double counting of these investments.

In the following section, we explain the assumptions made for each 2021 program in order to calculate its economic impact.[6]

Single Family Mortgage Loan Program

Modeling the single family mortgage loan program in IMPLAN depends on whether THDA borrowers purchased a new or an existing home. The construction and sale of new homes contribute directly to the regional economy, based on the cost of the construction. While it is possible that new home construction is stimulated when individuals purchase homes using THDA's mortgage program, we did not make such assumptions in our calculations.

Unlike the purchase of land for new home construction, the purchase of an existing home does not create a multiplier effect because the transaction does not represent a new production.[7] However, fees and commissions paid in the home purchase process are included in the impact analysis. We look at the mortgages funded through THDA to find out the fees and commission paid by an average THDA borrower as related to the purchase price. Based on these data, we distribute the fees, commissions and expenditures among the financial sector, real estate sector and state and local

[6] For more information about description of THDA Programs administered during 2021, please see Investments and Impacts.
[7] It might lead to the construction of new homes in subsequent rounds if those people who sold their homes to THDA borrowers purchase a new home, but we did not make any assumption to quantify this.

government (some of the fees and all of the property taxes paid at the closing are paid to government) for new and existing home purchases.

Individuals and families who purchased a home through the THDA Single Family Mortgage Loan Program are almost exclusively first-time homeowners. Yet, they may not be new to the region and therefore may not bring new spending to the region. Therefore, to employ a conservative estimate of the impact of the program, we do not add their spending as new homeowners to the local economy. Furthermore, homeowners' spending patterns are different from those of renters. To address the differences in spending patterns, we subtract the spending of new homeowners from when they were renters and add to the sectors in which they would spend as homeowners. To determine the change in the spending pattern of THDA borrowers after they became new homeowners, we use the consumer expenditure surveys published by the Bureau of Labor Statistics (BLS) which surveys individuals to determine their spending habits. The aggregate tables provide spending patterns of renters and homeowners (with and without mortgage payments). We determine the sectors in which homeowners and renters spend their income, and exclude the housing related expenditures from both groups. For income, we use the average income of the THDA borrowers in all homeownership programs.

Low Income Housing Credit (LIHC) and Multifamily Bond Authority

In the LIHC program, developers leverage additional funds to complete the projects. We assume that in the absence of the tax credit allocation, the property would not be built. Therefore, to calculate the economic impact of constructing multifamily housing units with LIHC, we use the total cost of construction rather than the tax credit allocations developers receive. Furthermore, because of the lag between the allocation of the Low Income Housing Credit and the start-up of the housing developments, we cannot use the LIHC allocations made in 2021 to determine the impact of 2021 activities.

Most spending related to the development of affordable housing occurs during construction or rehabilitation. At that point, developers inject a significant amount of money into the state economy. Nearly all developers utilizing competitive LIHC "carryover" their allocations to a placed in service deadline two years after the year of the

allocation. Generally, it is the experience of THDA that approximately 80 percent of LIHC induced spending occurs during the first year of the carryover period and the remaining 20 percent occurs during the second year. Therefore, we used 80 percent of 2019 allocations and 20 percent of 2020 allocations for the LIHC developments' economic impact.[8]

Multifamily bond authority deals can apply for noncompetitive LIHC and their impact is calculated similar to LIHC deals. We assume, similar to the LIHC developments, that without multifamily bonds these properties would not be built. For the Multifamily Tax Exempt Bond Authority, the developers have one year for the rehabilitation and the acquisition of projects to be completed and placed in service; for new construction projects, developers have two years. To allow for this timeline, we use the 2020 allocations to determine the economic impact of the multifamily tax exempt bond authority developments.

Section 8 Rental Assistance

Both tenant-based housing choice vouchers and project-based rental assistance help renters pay affordable rent. Rent savings are treated as an increase in disposable income, in that we assume that renters spend the additional money on the consumption of goods and services that they would otherwise use for paying rent. Money is distributed among sectors based on household spending patterns in the IMPLAN model.

The economic impact of rental assistance programs presented here is conservative, as it includes only an estimate of the household spending impacts related to rental assistance benefits. To determine the impact that rental subsidies have on household spending, we estimate the annual difference between income available after paying gross rent without a rental subsidy and the income available after paying gross rent with a rental subsidy. The gross rent that would be paid by THDA rental assistance participants if they did not receive a rental subsidy was estimated by using the most recent Bureau of Labor Statistics U.S. Consumer Expenditure Survey for shelter and select utilities. This percent was applied to the average gross income of rental assistance participants in 2021.

[8] We have detailed cost data including the land value, site work, architectural and engineering fees, and financing fee expenses for rental developments built with LIHC allocations. Actual total spending in these sectors are used as input in IMPLAN model.

The gross rent with a rental subsidy was calculated by using the average statewide total tenant payment after subsidy for the two programs. The estimated difference was then multiplied by the number of participants in the programs during 2021. This method of calculating rent saving through the rental assistance program is similar to the 2011 City of Norfolk HCV Economic Impact study.[9]

Community Investment Tax Credit (CITC)

The investment amount for each project is used as input for the economic impact model. We assume that the loans would not be made in the absence of CITC. The CITC projects could take multiple years to complete. However, in our modeling, we did not address this possibility. The activities for CITC projects include new construction and rehabilitation of rental and ownership units and the acquisition of buildings for rehabilitation. New construction and rehabilitation spending are distributed into the appropriate sectors of the economy in the model.

Tennessee's Housing Trust Fund

THDA's Housing Trust Fund grants require matching funds from the grantees, which can come from different sources. We assume that without THDA involvement, those funds would not be available to complete those projects. Therefore, for any grant that requires matching funds to complete the project, the total cost of the project is used as the input for IMPLAN instead of the amount of grant received from the Housing Trust Fund. The Emergency Repair Program, the Home Modifications and Ramps Program, and Habitat for Humanity of Tennessee grants are spent in the same year they are awarded, while the Challenge Grant, Competitive Grant and Rebuild and Recovery Program recipients have multiple years to spend the awarded grants. For multi-year grants, we use the amount of money allocated in the year for these grants as input for the economic impact model.

National Housing Trust Fund (NHTF)

The investment amount for each project is used as input for the economic impact model.

The Emergency Solutions Grant (ESG) Program

[9] City of Norfolk Economic Impacts of the NRHA Housing Choice Voucher Program. (2011), Retrieved from: https://mason.wm.edu/news/2013/swan_pearson.php

The HUD funds given to THDA for this program are distributed into the appropriate sectors in the economic impact model.

Homebuyer Education Initiative

The money paid to area agencies by THDA on behalf of homebuyers who received homebuyer education and then a THDA loan is distributed into the appropriate sectors in the economic impact model.

The Weatherization Assistance Program (WAP)

The WAP provides grants for repairs, renovations and retrofits based on a home's energy consumption, technical assistance, and information tools to states for their energy programs. The total allocated amount is included in the model as rectification spending in the construction sector. The subsequent energy savings that produce additional funds for a household's spending on other necessities is not included in the calculation. The LIHEAP Weatherization Program provides weatherization and energy-related minor home repairs.

The Low Income Home Energy Assistance Program (LIHEAP)

The LIHEAP provides assistance to the families by paying their energy bill. The calculations are based on the assumption that the energy assistance helps recipients heat and cool their homes while freeing their energy budget to spend on other necessities. Therefore, we distribute the assistance amount provided into the sectors related to those consumption goods and services.

APPENDIX II

ECONOMIC IMPACT RESULTS

2021

	Business Revenue[10]						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Anderson	$3,436,998	$944,841	$771,437	$5,153,276	21	1.50	39
Bedford	$2,742,345	$689,489	$740,345	$4,172,180	24	1.52	31
Benton	$157,191	$46,453	$24,166	$227,810	82	1.45	50
Bledsoe	$61,324	$12,299	$4,769	$78,392	93	1.28	91
Blount	$11,307,334	$3,694,395	$3,096,661	$18,098,391	11	1.60	16
Bradley	$6,001,536	$1,737,650	$1,882,240	$9,621,427	14	1.60	15
Campbell	$6,174,536	$1,665,045	$1,326,931	$9,166,512	15	1.48	43
Cannon	$120,684	$34,890	$14,297	$169,871	87	1.41	61
Carroll	$201,202	$36,235	$36,313	$273,749	78	1.36	76
Carter	$919,466	$254,161	$142,306	$1,315,934	43	1.43	56
Cheatham	$210,003	$83,278	$26,096	$319,377	72	1.52	32
Chester	$131,747	$25,816	$19,132	$176,695	86	1.34	79
Claiborne	$641,736	$197,655	$113,344	$952,736	51	1.48	42
Clay	$465,746	$108,293	$42,776	$616,815	61	1.32	82
Cocke	$785,034	$203,599	$144,611	$1,133,243	45	1.44	52
Coffee	$723,660	$239,671	$162,764	$1,126,095	47	1.56	23
Crockett	$175,332	$37,754	$25,617	$238,703	81	1.36	75
Cumberland	$2,235,526	$843,627	$577,465	$3,656,618	26	1.64	12
Davidson	$291,757,177	$78,993,686	$121,921,662	$492,672,525	1	1.69	8
Decatur	$107,914	$20,710	$12,965	$141,588	89	1.31	85
DeKalb	$802,701	$173,270	$151,399	$1,127,370	46	1.40	64
Dickson	$635,162	$279,433	$145,800	$1,060,394	50	1.67	9
Dyer	$431,744	$115,084	$91,153	$637,981	60	1.48	44
Fayette	$219,395	$61,540	$28,435	$309,370	75	1.41	60

[10] THDA spending in the programs administered in each county during the year that led to these impacts can be found at THDA Investments and Impacts: 2021 and Investments and Impacts: Interactive Map.

	Business Revenue[10]						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Fentress	$1,266,159	$366,801	$217,943	$1,850,903	36	1.46	48
Franklin	$358,929	$113,431	$77,885	$550,245	63	1.53	28
Gibson	$2,121,824	$672,359	$411,821	$3,206,003	30	1.51	34
Giles	$334,332	$99,399	$67,488	$501,219	66	1.50	40
Grainger	$346,349	$66,699	$41,555	$454,602	69	1.31	84
Greene	$1,002,189	$342,375	$214,287	$1,558,851	38	1.56	24
Grundy	$2,612,155	$618,973	$333,724	$3,564,853	27	1.36	74
Hamblen	$4,251,424	$1,127,683	$1,285,148	$6,664,255	17	1.57	22
Hamilton	$17,240,961	$5,288,277	$7,251,197	$29,780,435	9	1.73	4
Hancock	$365,718	$101,931	$36,228	$503,877	65	1.38	70
Hardeman	$208,664	$42,751	$26,099	$277,514	77	1.33	81
Hardin	$2,571,626	$897,107	$451,279	$3,920,012	25	1.52	30
Hawkins	$6,964,890	$1,662,786	$1,010,712	$9,638,388	13	1.38	68
Haywood	$497,305	$126,746	$30,334	$654,385	57	1.32	83
Henderson	$256,869	$91,563	$43,705	$392,136	71	1.53	29
Henry	$1,091,648	$313,296	$247,030	$1,651,974	37	1.51	33
Hickman	$226,409	$56,629	$31,709	$314,747	73	1.39	67
Houston	$79,173	$20,459	$9,228	$108,860	91	1.37	71
Humphreys	$105,013	$35,765	$12,699	$153,477	88	1.46	49
Jackson	$571,776	$115,381	$51,865	$739,022	54	1.29	87
Jefferson	$3,911,292	$807,011	$1,053,058	$5,771,360	19	1.48	46
Johnson	$566,028	$111,938	$47,939	$725,905	55	1.28	90
Knox	$109,164,284	$35,249,001	$59,635,751	$204,049,036	3	1.87	1
Lake	$469,131	$91,201	$50,328	$610,660	62	1.30	86
Lauderdale	$295,788	$82,735	$46,878	$425,400	70	1.44	55
Lawrence	$990,377	$298,421	$195,891	$1,484,689	39	1.50	41

	Business Revenue[10]						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Lewis	$206,345	$71,304	$33,261	$310,910	74	1.51	36
Lincoln	$810,920	$215,987	$108,054	$1,134,960	44	1.40	66
Loudon	$554,471	$289,799	$101,572	$945,842	52	1.71	6
Macon	$870,803	$325,073	$140,875	$1,336,751	41	1.54	27
Madison	$4,811,893	$1,663,210	$1,125,368	$7,600,470	16	1.58	19
Marion	$139,337	$41,742	$19,690	$200,768	85	1.44	54
Marshall	$1,366,971	$445,359	$207,610	$2,019,940	35	1.48	45
Maury	$23,762,231	$3,933,693	$8,828,148	$36,524,072	8	1.54	26
McMinn	$321,487	$125,357	$67,594	$514,438	64	1.60	17
McNairy	$1,875,918	$227,093	$447,410	$2,550,421	33	1.36	77
Meigs	$1,698,466	$238,438	$157,203	$2,094,108	34	1.23	93
Monroe	$885,105	$269,723	$173,296	$1,328,125	42	1.50	38
Montgomery	$44,523,534	$10,073,126	$17,798,977	$72,395,637	5	1.63	13
Moore	$27,270	$3,162	$2,255	$32,687	95	1.20	94
Morgan	$145,729	$44,263	$10,910	$200,902	84	1.38	69
Obion	$334,181	$88,878	$46,530	$469,589	68	1.41	63
Overton	$187,908	$49,634	$34,311	$271,853	79	1.45	51
Perry	$801,128	$165,139	$101,741	$1,068,008	49	1.33	80
Pickett	$4,672,681	$962,203	$772,115	$6,407,000	18	1.37	72
Polk	$3,692,831	$700,567	$368,473	$4,761,871	22	1.29	88
Putnam	$1,936,100	$595,054	$508,785	$3,039,939	31	1.57	21
Rhea	$207,878	$63,075	$28,575	$299,528	76	1.44	53
Roane	$919,999	$334,591	$135,265	$1,389,855	40	1.51	35
Robertson	$9,661,104	$1,623,518	$2,843,092	$14,127,714	12	1.46	47
Rutherford	$30,244,400	$5,694,814	$14,432,279	$50,371,493	7	1.67	10
Scott	$1,998,753	$325,597	$486,228	$2,810,578	32	1.41	62

	Business Revenue[10]						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Sequatchie	$134,278	$48,129	$19,818	$202,224	83	1.51	37
Sevier	$54,441,810	$11,749,550	$19,795,304	$85,986,663	4	1.58	20
Shelby	$150,605,371	$56,929,975	$66,507,687	$274,043,033	2	1.82	2
Smith	$175,654	$50,739	$24,434	$250,827	80	1.43	59
Stewart	$70,478	$19,399	$5,278	$95,156	92	1.35	78
Sullivan	$1,872,723	$753,884	$597,288	$3,223,895	29	1.72	5
Sumner	$3,149,202	$1,507,257	$1,060,190	$5,716,648	20	1.82	3
Tipton	$484,082	$126,374	$68,788	$679,244	56	1.40	65
Trousdale	$82,603	$38,082	$10,991	$131,676	90	1.59	18
Unicoi	$510,696	$81,249	$60,124	$652,069	58	1.28	92
Union	$668,370	$138,358	$54,799	$861,526	53	1.29	89
Van Buren	$62,279	$9,016	$3,154	$74,449	94	1.20	95
Warren	$2,153,979	$736,134	$435,832	$3,325,945	28	1.54	25
Washington	$2,496,892	$842,377	$883,339	$4,222,609	23	1.69	7
Wayne	$475,734	$123,219	$51,178	$650,132	59	1.37	73
Weakley	$331,150	$88,374	$54,177	$473,701	67	1.43	58
White	$783,478	$206,953	$130,451	$1,120,882	48	1.43	57
Williamson	$13,814,287	$3,609,233	$5,338,731	$22,762,251	10	1.65	11
Wilson	$37,484,412	$8,621,990	$14,206,964	$60,313,366	6	1.61	14
State	$947,594,705	$343,634,003	$564,316,692	$1,855,545,400		1.96	
Congressional District 1	$86,457,588	$25,031,350	$36,912,460	$148,401,399	6	1.72	4
Congressional District 2	$132,457,821	$46,640,046	$72,491,041	$251,588,908	4	1.90	1
Congressional District 3	$43,729,379	$14,486,538	$15,988,827	$74,204,744	9	1.70	6
Congressional District 4	$71,948,221	$15,525,245	$27,438,374	$114,911,840	7	1.60	9

	Business Revenue[10]						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Congressional District 5	$291,307,330	$79,260,083	$127,872,046	$498,439,459	1	1.71	5
Congressional District 6	$67,505,892	$17,611,768	$25,611,891	$110,729,551	8	1.64	8
Congressional District 7	$93,258,080	$22,781,540	$38,438,366	$154,477,986	5	1.66	7
Congressional District 8	$163,633,259	$61,785,366	$73,287,835	$298,706,459	2	1.83	2
Congressional District 9	$150,605,371	$56,929,975	$66,507,687	$274,043,033	3	1.82	3
Chattanooga, MSA	$17,376,076	$5,364,065	$7,344,282	$30,084,424	5	1.73	4
Clarksville, MSA	$44,523,534	$10,073,126	$17,798,977	$72,395,637	4	1.63	7
Cleveland, MSA	$10,362,148	$2,938,884	$3,209,624	$16,510,656	7	1.59	9
Jackson, MSA	$7,792,842	$2,581,830	$2,176,889	$12,551,561	9	1.61	8
Johnson City, MSA	$4,445,481	$1,348,941	$1,501,090	$7,295,512	10	1.64	6
Kingsport-Bristol, MSA	$13,953,424	$4,567,173	$4,407,017	$22,927,614	6	1.64	5
Knoxville, MSA	$133,481,238	$48,659,616	$72,189,521	$254,330,375	3	1.91	2
Memphis, MSA	$151,456,076	$56,872,211	$70,859,039	$279,187,326	2	1.84	3
Morristown, MSA	$8,928,717	$1,866,460	$2,919,584	$13,714,761	8	1.54	10
Nashville, MSA	$420,369,215	$133,635,700	$268,855,058	$822,859,973	1	1.96	1

	Personal Income						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Anderson	$1,494,154	$333,720	$251,757	$2,079,630	20	1.39	42
Bedford	$1,393,675	$204,243	$217,827	$1,815,745	22	1.30	74
Benton	$47,011	$10,390	$5,969	$63,370	82	1.35	58
Bledsoe	$16,243	$3,182	$824	$20,248	93	1.25	87
Blount	$4,334,584	$1,271,219	$997,701	$6,603,505	12	1.52	13
Bradley	$2,642,151	$552,946	$624,632	$3,819,730	13	1.45	31
Campbell	$2,373,520	$457,801	$363,764	$3,195,085	14	1.35	59
Cannon	$34,316	$9,049	$3,058	$46,422	86	1.35	57
Carroll	$64,730	$9,748	$10,467	$84,944	75	1.31	70
Carter	$254,252	$76,809	$41,337	$372,398	44	1.46	25
Cheatham	$54,448	$21,185	$6,201	$81,835	77	1.50	17
Chester	$41,534	$7,263	$4,918	$53,715	84	1.29	79
Claiborne	$202,288	$50,275	$33,293	$285,857	50	1.41	36
Clay	$78,955	$30,023	$9,515	$118,493	70	1.50	18
Cocke	$273,942	$52,781	$38,903	$365,627	45	1.33	62
Coffee	$251,809	$75,361	$52,578	$379,747	43	1.51	16
Crockett	$58,118	$9,703	$7,635	$75,455	79	1.30	76
Cumberland	$740,779	$235,732	$163,728	$1,140,239	27	1.54	11
Davidson	$198,352,433	$31,588,045	$48,324,767	$278,265,246	1	1.40	38
Decatur	$31,597	$5,929	$3,397	$40,922	89	1.30	77
DeKalb	$322,620	$60,480	$43,886	$426,985	40	1.32	67
Dickson	$191,830	$78,498	$47,437	$317,766	49	1.66	3
Dyer	$148,672	$33,980	$28,714	$211,366	54	1.42	35
Fayette	$67,656	$17,828	$7,139	$92,624	73	1.37	54
Fentress	$354,035	$109,235	$65,286	$528,556	37	1.49	20

	Personal Income						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Franklin	$115,310	$29,882	$24,411	$169,603	59	1.47	24
Gibson	$671,828	$189,463	$112,960	$974,251	32	1.45	29
Giles	$112,875	$24,834	$19,018	$156,727	62	1.39	46
Grainger	$120,372	$21,929	$8,628	$150,930	65	1.25	85
Greene	$319,773	$89,022	$63,556	$472,351	38	1.48	22
Grundy	$792,263	$153,355	$69,452	$1,015,069	31	1.28	80
Hamblen	$2,050,992	$334,487	$428,610	$2,814,089	16	1.37	52
Hamilton	$9,404,339	$1,992,246	$2,572,218	$13,968,803	9	1.49	21
Hancock	$113,655	$15,469	$7,383	$136,506	68	1.20	90
Hardeman	$57,171	$10,438	$6,369	$73,978	80	1.29	78
Hardin	$677,375	$245,431	$120,505	$1,043,311	30	1.54	10
Hawkins	$2,173,430	$490,427	$260,600	$2,924,457	15	1.35	60
Haywood	$147,500	$33,025	$6,850	$187,375	57	1.27	81
Henderson	$75,804	$23,555	$11,610	$110,968	71	1.46	26
Henry	$423,128	$107,234	$72,071	$602,432	36	1.42	33
Hickman	$75,192	$16,160	$7,564	$98,916	72	1.32	69
Houston	$23,167	$5,352	$2,161	$30,680	91	1.32	66
Humphreys	$28,965	$9,029	$3,255	$41,249	88	1.42	32
Jackson	$144,305	$27,433	$10,223	$181,962	58	1.26	83
Jefferson	$2,011,548	$240,407	$295,324	$2,547,278	18	1.27	82
Johnson	$115,376	$27,777	$10,002	$153,155	63	1.33	65
Knox	$60,630,209	$12,893,823	$20,678,152	$94,202,184	3	1.55	8
Lake	$124,769	$28,318	$11,560	$164,648	60	1.32	68
Lauderdale	$89,075	$21,586	$12,167	$122,828	69	1.38	51
Lawrence	$287,713	$86,392	$56,712	$430,817	39	1.50	19
Lewis	$61,949	$15,437	$8,702	$86,089	74	1.39	43

	Personal Income						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Lincoln	$234,271	$63,609	$27,659	$325,539	48	1.39	44
Loudon	$148,234	$67,791	$28,228	$244,253	52	1.65	4
Macon	$234,108	$94,477	$36,281	$364,866	46	1.56	6
Madison	$1,884,327	$508,875	$353,922	$2,747,124	17	1.46	28
Marion	$38,211	$10,286	$4,868	$53,365	85	1.40	39
Marshall	$451,366	$121,198	$51,658	$624,222	35	1.38	50
Maury	$15,022,260	$1,286,527	$2,616,738	$18,925,524	8	1.26	84
McMinn	$97,783	$34,706	$19,553	$152,043	64	1.55	7
McNairy	$1,035,036	$57,871	$104,040	$1,196,947	26	1.16	94
Meigs	$543,455	$59,649	$33,775	$636,879	34	1.17	92
Monroe	$271,144	$76,398	$47,950	$395,492	42	1.46	27
Montgomery	$27,573,094	$3,081,444	$5,298,664	$35,953,202	5	1.30	72
Moore	$8,687	$919	$478	$10,084	95	1.16	93
Morgan	$30,496	$9,668	$2,176	$42,340	87	1.39	47
Obion	$102,789	$24,957	$13,184	$140,930	66	1.37	53
Overton	$55,660	$11,824	$10,033	$77,517	78	1.39	41
Perry	$194,797	$40,993	$27,919	$263,709	51	1.35	56
Pickett	$1,621,576	$311,022	$240,591	$2,173,188	19	1.34	61
Polk	$1,017,223	$172,629	$79,584	$1,269,436	24	1.25	86
Putnam	$737,172	$187,429	$160,321	$1,084,923	28	1.47	23
Rhea	$59,408	$16,061	$7,063	$82,533	76	1.39	45
Roane	$263,607	$98,850	$39,001	$401,458	41	1.52	14
Robertson	$5,966,449	$505,672	$730,309	$7,202,430	11	1.21	89
Rutherford	$19,888,954	$1,988,022	$4,551,757	$26,428,733	7	1.33	63
Scott	$1,006,395	$78,218	$120,382	$1,204,994	25	1.20	91
Sequatchie	$41,357	$11,058	$4,789	$57,204	83	1.38	49

	Personal Income						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Sevier	$32,123,867	$3,765,889	$5,963,371	$41,853,126	4	1.30	73
Shelby	$77,892,326	$19,856,015	$23,114,862	$120,863,203	2	1.55	9
Smith	$50,163	$13,830	$6,021	$70,015	81	1.40	40
Stewart	$16,678	$3,957	$1,046	$21,681	92	1.30	75
Sullivan	$648,636	$234,907	$198,399	$1,081,942	29	1.67	2
Sumner	$1,144,884	$473,073	$341,802	$1,959,759	21	1.71	1
Tipton	$145,210	$33,872	$17,664	$196,746	55	1.35	55
Trousdale	$21,598	$8,583	$3,006	$33,187	90	1.54	12
Unicoi	$181,428	$23,264	$14,776	$219,468	53	1.21	88
Union	$143,530	$35,720	$11,419	$190,669	56	1.33	64
Van Buren	$14,235	$1,396	$435	$16,067	94	1.13	95
Warren	$638,585	$200,768	$126,318	$965,672	33	1.51	15
Washington	$925,402	$271,552	$292,761	$1,489,715	23	1.61	5
Wayne	$115,483	$35,802	$12,976	$164,261	61	1.42	34
Weakley	$98,741	$23,330	$14,519	$136,590	67	1.38	48
White	$240,844	$60,246	$37,158	$338,247	47	1.40	37
Williamson	$8,321,313	$1,448,794	$2,288,892	$12,058,999	10	1.45	30
Wilson	$23,721,358	$2,913,979	$4,364,872	$31,000,210	6	1.31	71
State	$545,571,945	$120,294,059	$198,556,888	$864,422,892		1.58	
Congressional District 1	$45,140,802	$8,043,788	$11,856,478	$65,041,067	6	1.44	5
Congressional District 2	$69,732,874	$16,291,495	$24,549,078	$110,573,447	4	1.59	1
Congressional District 3	$20,701,882	$5,144,975	$5,345,245	$31,192,102	9	1.51	4
Congressional District 4	$41,749,230	$5,064,362	$8,265,040	$55,078,632	7	1.32	9
Congressional District 5	$196,827,635	$31,418,145	$50,315,460	$278,561,240	1	1.42	6

	Personal Income						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Congressional District 6	$37,133,541	$5,805,303	$7,754,701	$50,693,545	8	1.37	8
Congressional District 7	$57,443,248	$8,262,346	$14,121,804	$79,827,397	5	1.39	7
Congressional District 8	$82,092,268	$20,886,595	$24,629,786	$127,608,649	2	1.55	2
Congressional District 9	$77,892,326	$19,856,015	$23,114,862	$120,863,203	3	1.55	3
Chattanooga, MSA	$9,367,151	$1,988,446	$2,570,087	$13,925,685	5	1.49	6
Clarksville, MSA	$27,573,094	$3,081,444	$5,298,664	$35,953,202	4	1.30	10
Cleveland, MSA	$4,572,997	$953,323	$1,052,168	$6,578,487	7	1.44	8
Jackson, MSA	$3,073,465	$790,142	$682,725	$4,546,332	9	1.48	7
Johnson City, MSA	$1,666,622	$442,864	$490,129	$2,599,614	10	1.56	3
Kingsport-Bristol, MSA	$5,487,611	$1,525,921	$1,433,866	$8,447,398	6	1.54	5
Knoxville, MSA	$69,830,759	$17,146,033	$24,438,422	$111,415,213	3	1.60	1
Memphis, MSA	$78,105,935	$19,778,894	$24,485,081	$122,369,910	2	1.57	2
Morristown, MSA	$4,661,746	$584,395	$899,511	$6,145,652	8	1.32	9
Nashville, MSA	$279,601,651	$50,278,922	$102,453,888	$432,334,462	1	1.55	4

	Employment						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Anderson	32	6	5	43	20	1.37	62
Bedford	25	5	6	36	23	1.44	44
Benton	2	0	0	2	79	1.38	60
Bledsoe	0	0	0	1	94	1.25	87
Blount	112	29	22	163	10	1.46	36
Bradley	54	15	14	83	14	1.54	14
Campbell	48	14	10	72	15	1.50	28
Cannon	1	0	0	1	87	1.50	26
Carroll	2	0	0	2	77	1.28	83
Carter	7	2	1	10	41	1.45	40
Cheatham	2	1	0	3	73	1.53	18
Chester	1	0	0	2	83	1.33	73
Claiborne	5	1	1	7	51	1.43	46
Clay	3	1	0	5	61	1.39	56
Cocke	7	2	1	9	43	1.39	56
Coffee	6	2	1	9	44	1.48	30
Crockett	1	0	0	2	83	1.33	73
Cumberland	18	6	4	28	28	1.61	4
Davidson	2,426	434	662	3,521	1	1.45	39
Decatur	1	0	0	1	89	1.22	90
DeKalb	6	1	1	8	47	1.36	65
Dickson	5	2	1	8	48	1.62	3
Dyer	4	1	1	6	56	1.41	49
Fayette	2	1	0	3	73	1.37	63
Fentress	9	3	2	14	36	1.50	25

	Employment						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Franklin	3	1	1	4	63	1.52	22
Gibson	15	5	3	23	33	1.54	15
Giles	3	1	1	4	66	1.40	53
Grainger	4	1	0	4	64	1.23	88
Greene	9	3	2	13	37	1.46	35
Grundy	27	6	3	35	24	1.31	81
Hamblen	44	9	10	62	16	1.41	48
Hamilton	159	33	48	240	9	1.51	24
Hancock	3	1	0	4	64	1.34	69
Hardeman	2	0	0	2	77	1.28	83
Hardin	24	6	3	33	26	1.41	50
Hawkins	64	15	8	86	13	1.35	66
Haywood	4	1	0	5	58	1.32	79
Henderson	2	1	0	3	70	1.43	45
Henry	9	2	2	13	38	1.47	32
Hickman	2	0	0	3	76	1.32	80
Houston	1	0	0	1	90	1.29	82
Humphreys	1	0	0	1	87	1.33	76
Jackson	4	1	0	5	58	1.40	53
Jefferson	36	7	8	51	18	1.40	52
Johnson	4	1	0	5	57	1.27	85
Knox	1,066	223	387	1,675	3	1.57	10
Lake	5	1	0	6	54	1.21	93
Lauderdale	2	1	0	3	70	1.38	60
Lawrence	7	2	2	10	39	1.53	18

	Employment						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Lewis	2	1	0	3	73	1.44	41
Lincoln	5	2	1	8	50	1.48	31
Loudon	4	2	1	7	52	1.64	2
Macon	6	2	1	9	45	1.57	11
Madison	37	11	9	57	17	1.53	17
Marion	1	0	0	2	83	1.33	73
Marshall	10	4	2	15	35	1.54	16
Maury	240	31	66	337	8	1.40	51
McMinn	3	1	1	4	67	1.52	21
McNairy	23	2	3	28	29	1.21	92
Meigs	15	2	1	18	34	1.23	89
Monroe	7	2	1	10	40	1.46	34
Montgomery	461	71	131	663	5	1.44	43
Moore	0	0	0	0	95	1.50	26
Morgan	1	0	0	1	86	1.40	55
Obion	3	1	0	4	69	1.34	68
Overton	1	0	0	2	80	1.43	47
Perry	5	2	1	8	49	1.46	33
Pickett	24	7	5	36	22	1.51	23
Polk	40	6	2	48	19	1.21	91
Putnam	15	4	4	23	32	1.54	13
Rhea	2	1	0	3	72	1.35	66
Roane	7	2	1	10	42	1.48	29
Robertson	96	13	20	129	12	1.34	70
Rutherford	269	41	100	410	7	1.52	20

	Employment						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Scott	25	3	4	31	27	1.25	86
Sequatchie	1	0	0	2	82	1.38	58
Sevier	674	82	144	900	4	1.33	72
Shelby	1,454	359	438	2,250	2	1.55	12
Smith	2	0	0	2	80	1.33	76
Stewart	1	0	0	1	92	1.17	95
Sullivan	15	5	4	25	30	1.61	5
Sumner	23	10	7	40	21	1.75	1
Tipton	4	1	1	6	55	1.37	64
Trousdale	1	0	0	1	91	1.60	6
Unicoi	4	1	1	5	60	1.33	76
Union	5	1	0	6	53	1.34	71
Van Buren	1	0	0	1	93	1.20	94
Warren	16	6	3	25	30	1.58	9
Washington	22	6	7	34	25	1.58	8
Wayne	3	1	0	5	62	1.45	38
Weakley	3	1	0	4	68	1.38	59
White	6	2	1	9	46	1.44	42
Williamson	85	21	28	134	11	1.58	7
Wilson	362	62	103	526	6	1.45	37
State	9,027	2,059	3,523	14,609		1.62	
Congressional District 1	1,002	177	274	1,453	5	1.45	9
Congressional District 2	1,288	298	475	2,060	4	1.60	1

	Employment						
County/District/MSA	**Direct**	**Indirect**	**Induced**	**Total Impact**	**Rank**	**Multiplier**	**Rank**
Congressional District 3	385	94	108	587	9	1.52	4
Congressional District 4	686	118	195	999	7	1.46	8
Congressional District 5	2,437	442	704	3,583	1	1.47	6
Congressional District 6	638	127	184	949	8	1.49	5
Congressional District 7	800	141	231	1,172	6	1.46	7
Congressional District 8	1,560	395	492	2,447	2	1.57	2
Congressional District 9	1,454	359	438	2,250	3	1.55	3
Chattanooga, MSA	161	34	49	244	5	1.51	8
Clarksville, MSA	461	71	131	663	4	1.44	9
Cleveland, MSA	95	25	24	145	7	1.52	7
Jackson, MSA	62	18	17	97	9	1.56	4
Johnson City, MSA	39	10	11	60	10	1.53	5
Kingsport-Bristol, MSA	124	34	32	190	6	1.53	6
Knoxville, MSA	1,308	302	469	2,078	3	1.59	2
Memphis, MSA	1,467	360	467	2,294	2	1.56	3
Morristown, MSA	93	15	22	130	8	1.39	10
Nashville, MSA	3,512	756	1,527	5,794	1	1.65	1

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