

Economic Impact of Urban Forests in Texas

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Urban forests are an important component of Texas’s natural resources, providing tree products, aesthetic, recreational, health, environmental, and other benefits. However, they also provide other significant economic benefits which haven’t been well studied, such as creating jobs for arborists, nursery operators, and urban foresters. Therefore, it is essential to estimate the economic contribution of the urban forest industry to the Texas economy.

The objective of this report is to quantify the economic contribution/impact of urban forests in Texas. To that end, we collected primary (survey) and secondary data from the following perspectives: 1) commercial tree production (sales by nurseries of ornamental trees); 2) contractual sales by business of arboricultural services; 3) annual expenses of households in doing tree-care activities either by themselves or through hiring professionals; 4) number of volunteers in Texas that contribute to urban forestry-related activities and number of volunteer hours; 5) counties’ expenses on tree-care activities; 6) cities’ expenses on tree-care activities; and 7) major campus’s expenses on tree-care activities. To collect the counties’ expenses on tree-care activities, we surveyed a randomly selected sample of counties from strata which were classified by County population, and asked their annual expenses on tree-care activities in the Fiscal or Calendar Year 2017. Tree care activities mainly include Pruning, Planting, Watering, Mulching, Pest Care, Fertilization, Removal, Disposal of Materials, Invasive Species Control, Fuels Mitigation, Right-of-way Management (including utilities), Storm Water Management Planting, etc. Specific sales of services and products associated with Texas urban forestry are presented in Table 1.

Table 1. Sales of services and products associated with Texas urban forests

Service or Product	Sales (\$)
Tree care services	1,657,467,096 ¹
Tree production for urban forestry	158,866,102 ¹
Tree sales Texas	111,272,000 ²
Households of Texas	334,245,100 ³
Tree cities	165,054,072
Tree campus	21,099,063
Tree volunteers	629,150
Tree counties	28,285,287

¹ Economic Impacts of Urban Forestry. <https://agrifecdn.tamu.edu/hbin/files/2013/08/Chapter7.pdf> (accessed on April 15, 2019).

² Census of Horticultural Specialties 2014.

https://www.nass.usda.gov/Publications/AgCensus/2012/Online_Resources/Census_of_Horticulture_Specialties/HORTIC.pdf (accessed on April 15, 2019)

³ National Gardening Survey, 2018.

Industrial sales estimates are based on tree production by the nursery and greenhouse sector, and tree care by the landscaping services sector. By analyzing the 2017 IMPLAN data, it was determined that urban forests directly contributed \$2.5 billion in industry output and employed over 43,430 people with a payroll of \$1.3 billion in Texas (Table 2). The state received about \$1.6 billion directly from urban forests through payroll, other employee compensation, and property taxes. Including direct, indirect, and induced impacts, urban forests had a total economic impact of \$4.8 billion in industry output and supported more than 57,532 jobs with a payroll of \$2.0 billion. Every job created in the sector resulted in another 0.32 jobs in the state. Every dollar generated contributed an additional 92 cents to the rest of the state economy.

Table 2. Economic Impact of Urban Forests in Texas

Impact Type	Employment	Labor Income (million \$)	Total Value Added (million \$)	Output (million \$)
Direct Effect	43,430	1,271.79	1,573.29	2,510.34
Indirect Effect	4,503	293.32	486.39	882.71
Induced Effect	9,598	468.27	808.88	1,423.90
Total Effect	57,532	2,033.39	2,868.56	4,816.96
SAM Multiplier	1.32	1.60	1.82	1.92

Note: The results are based on analysis of 2017 IMPLAN data and reported in 2019 dollars.