# Growth Trends Report

Through December 31, 2022

2208 W. Chesterfield Blvd, Suite 101

Springfield, Missouri 65807



# OZARKS TRANSPORTATION ORGANIZATION

A METROPOLITAN PLANNING ORGANIZATION

## Disclaimer

The information compiled in this report was retrieved from a variety of sources. Permit data and employment information were derived from federal and local administrative records and should be considered fairly reliable.

It is important to note that demographic information from the American Community Survey is derived from sampling methods used by the U.S. Census Bureau and is reported with a margin of error. For the sake of presentation, margins of error are not included in the tables and charts.

To account for margins of error, five-year comparisons of ACS data and tests for statistical differences are addressed in the narrative sections where appropriate.

#### **Table of Contents**

Introduction	
Residential Units	
Single-Family Units Permitted - OTO Area	3
Multi-Family Units Permitted – OTO Area	
Total Residential Units Permitted – OTO Area	5
Growth Trend Maps	
2020 Housing Unit Density Map	
2010 – 2022 Housing Unit Density Map	
Greene County Migration Data	
Christian County Migration Data	12
Demographics & Employment	15
Springfield MSA Population 2012 — 2021	16
Population Percent Change Springfield MSA 2012 — 2021	17
Population Increase Springfield MSA Counites 1990 - 2020	18
OTO Area Cities Population 1990 – 2020	19
OTO Area Cities Population Percent Change by Decade 1990 – 2020	20
Components of Population Change	21
Median Household Income - Springfield MSA Counties 2021, 2016, 2011	22
Median Household Income – OTO Area Cities 2021, 2016, 2011	23
Persons Living in Poverty - Springfield MSA Counties 2021, 2016, 2011	24
Children Living in Poverty - Springfield MSA Counties 2021, 2016, 2011	25
Workforce Educational Attainment by MSA County	
Place of Residence vs. Place of Employment – Primary Jobs 2020	27
Mean Travel Time to Work in Minutes – MSA Counties	
Mean Travel Time to Work – OTO Cities	29
Workforce by Industry Springfield MSA, Missouri, USUS	30
Workforce by Industry Springfield MSA 2021, 2016, 2011	_
Springfield MSA Workforce Change by Industry 2011 – 2021	_
Number of Jobs by MSA County 2011 — 2021	
Data Sources	
Appendix A: OTO Area Permit Activity 2001 — 2022	
Appendix B: Year-over-Year Population Percent Change 2000 – 2021	
Appendix C: Year-over-Year Total Jobs Percent Change 2000 — 2021	

## Introduction

Each year, the Ozarks
Transportation Organization
(OTO) analyzes residential
construction activity and
demographic information for the
MPO study area and member
jurisdictions.

This report is comprised of three sections that include tables, charts, and maps along with narrative descriptions of noteworthy trends within the OTO.

This year's report includes information from the U.S. Census Local Employment and Household Dynamics (LEHD) data for the Springfield, MO MSA at the county level.

## Residential Units

Single-family and multi-family residential construction and demolition activity for each jurisdiction within the OTO study area is tabulated and discussed here.

## Growth Trend Maps

Maps displaying the distribution of permitted residential construction within the OTO Study area and county-level migration trends are presented in this section. In addition, In- and out-migration maps are included depicting information from the IRS and other data from the American Community Survey.

## Demographics & Employment

Historical and current population, income, poverty, education, commuting, employment, and workforce statistics are presented in charts and graphs to identify trends.

## Residential Units

#### **Building Permit Activity**

Building permit data for new single-family, duplex, and multi-family structures were collected for each county and municipality in the OTO area during 2022. For the purpose of this report, single-family structures represent one residential unit and any structures divided into more than one residence are counted as multi-family units including duplexes.

In addition, permits for demolitions of existing residential units were included and subtracted from the total of newly constructed residential structures or existing structures converted to residential use to produce a net total of housing units added in each city or county within the OTO area. Only permit activity within the OTO boundary is included for unincorporated portions of counties in this report.

The new housing units added in 2022 for each permitting jurisdiction are compared to the previous ten years of building permit activity by jurisdiction for single-family, multi-family, and total residential units in this section of the report. A table of permit activity in the OTO area from 2001 – 2021 is included as an appendix.



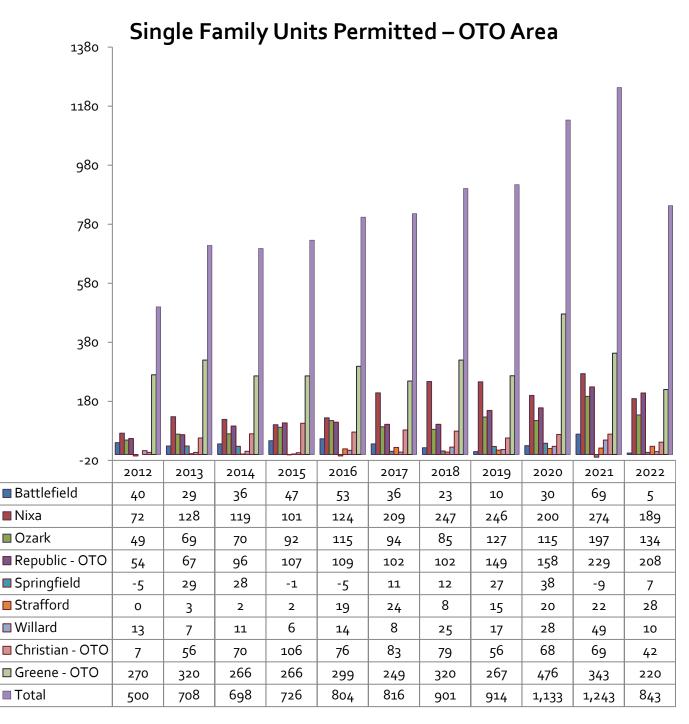
# Residential Units

## Single-Family

The information on this page depicts permitted construction of single-family housing in the OTO area from 2012 – 2022.

In 2022, single-family housing permitting dropped to its lowest level (833) since 2017 (816). The decrease comes on the heels of previous years of increasing construction.

The permit total for new single-family structures in the OTO Area was offset by the demolition 132 houses. Most demolitions occurred in Springfield (103) and Greene County (17).



#### **Multi-Family Units Permitted - OTO Area**

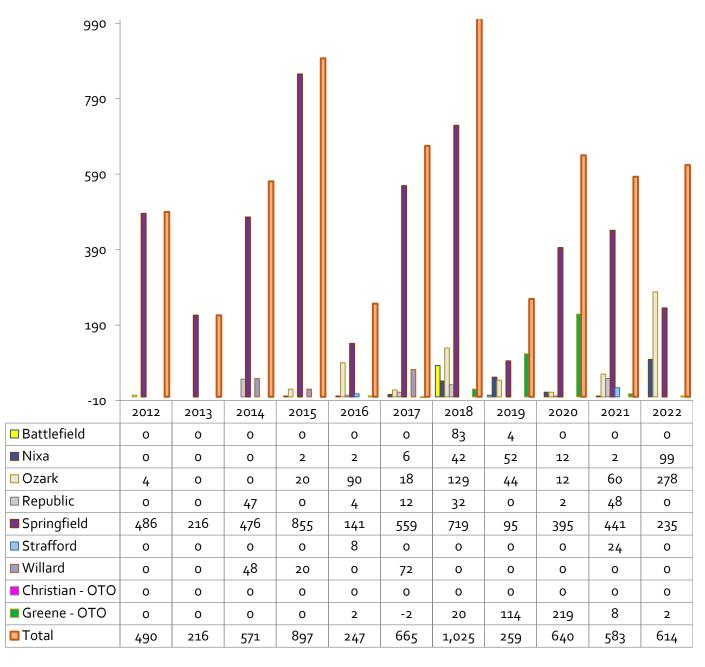
# Residential Units

## Multi-Family

From 2012 to 2021, most multi-family housing construction permits were issued in the city of Springfield.

In 2022, the total number of multi-family units permitted was slightly higher than the average for the period from 2012 - 2022. The largest number of the 614 multi-family units added in the OTO area were in the city of Ozark followed by Springfield, and Nixa.

The largest multi-family developments permitted were for a 100-unit complexes near US 65 in Ozark and Main & Tracker in Nixa.



## Residential Units

#### Totals

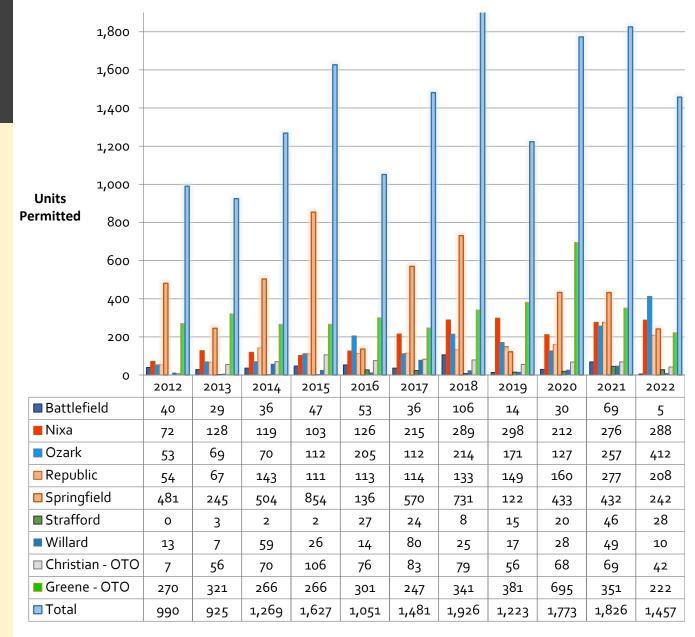
The information on this page depicts the net total of housing units permitted for the entire OTO area and each jurisdiction within it for 2022 and the prior ten years.

While residential unit construction peaked in the mid-2000s, it had dropped considerably by 2011 during the "great recession" (see Appendix A).

Growth in residential structure permits recovered somewhat in the last few years driven by single-family developments in Nixa, Republic, Greene County & 55+ developments.

In 2022, however, the number of single-family residential structures permitted dropped well below previous years.

#### **OTO Area Total Residential Units Permitted**



# **Growth Trend Maps**

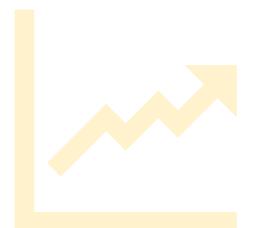
#### Changes in Housing Units

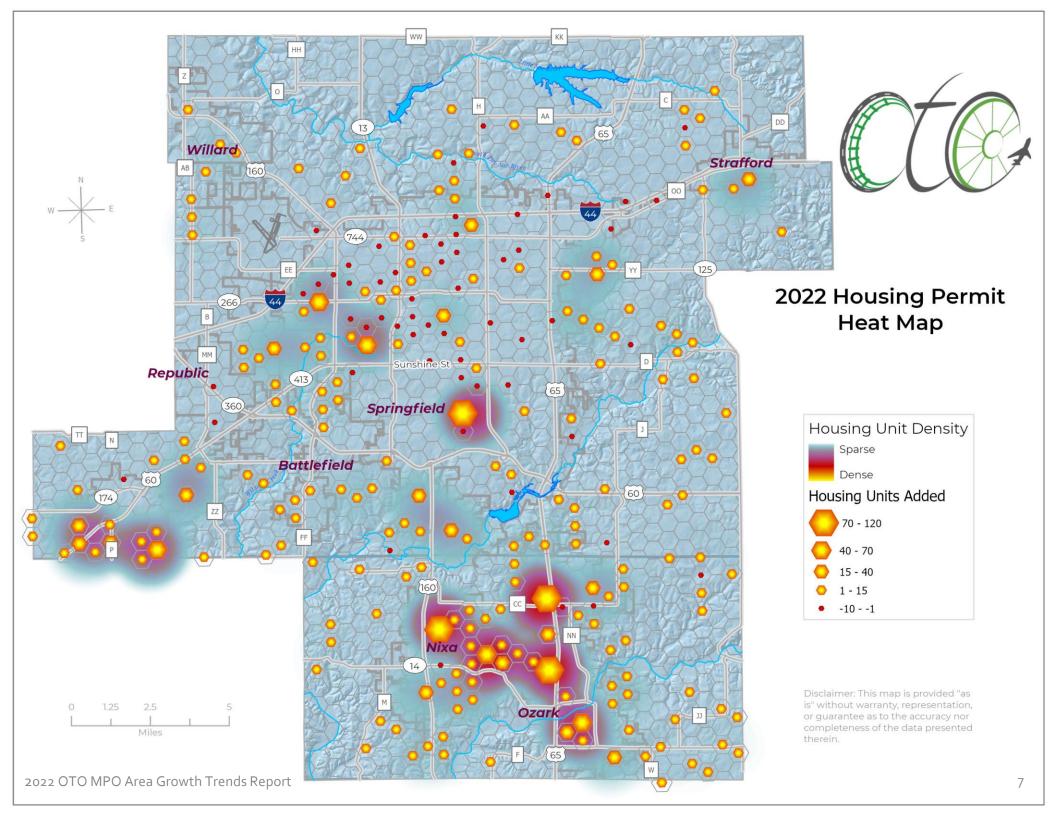
The maps on the following pages illustrate the locations of housing units added in 2022 as well as the period from 2010 to 2022.

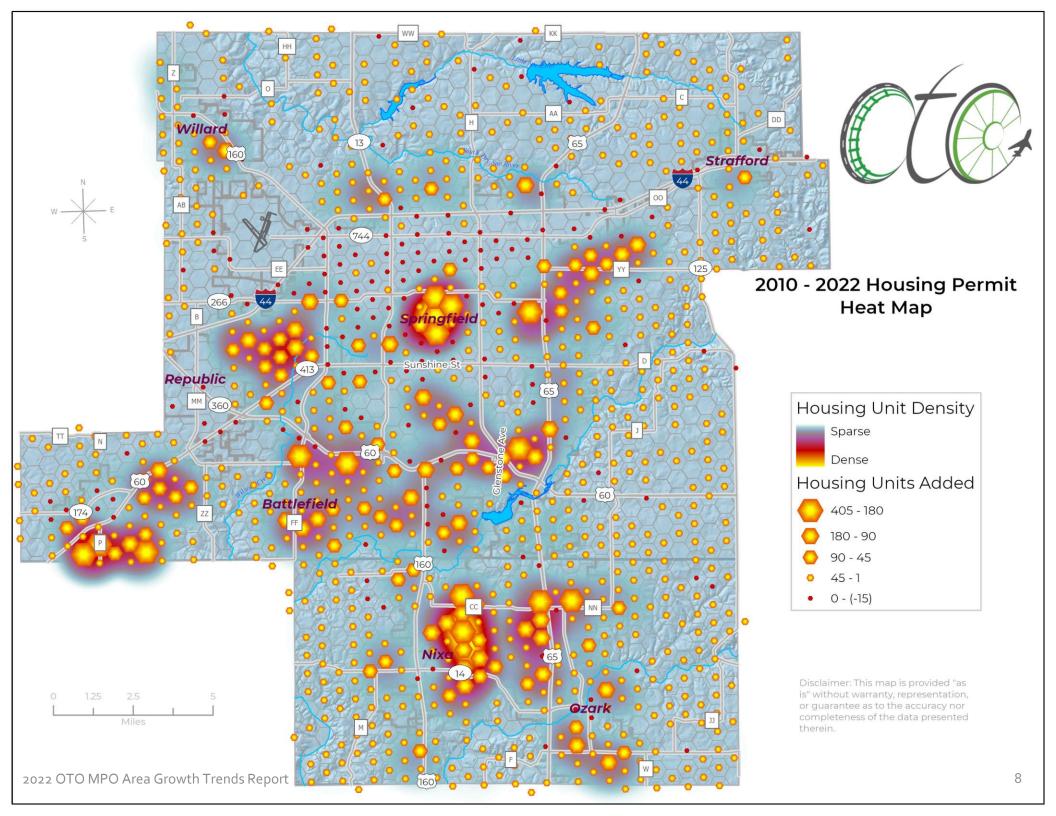
Additionally, heat map symbology has been added to demonstrate densities of new residential structure development. A layer of geocoded permit address points aggregated into a grid of hexagons was added as an overlay to provide more information about the location and magnitude of residential development in 2022 as well as 2010 - 2022.

#### Migration Flows

County-to-County flow maps for in- and out-migration to and from Greene and Christian counties prepared with IRS tax statistics from 2019 – 2020 are included. In addition, migration flows based on the American Community Survey 5-yr estimates for 2011 – 2015 & 2016 -2020 aggregated at the state-level are included to identify trends in migration over the last decade of available data .





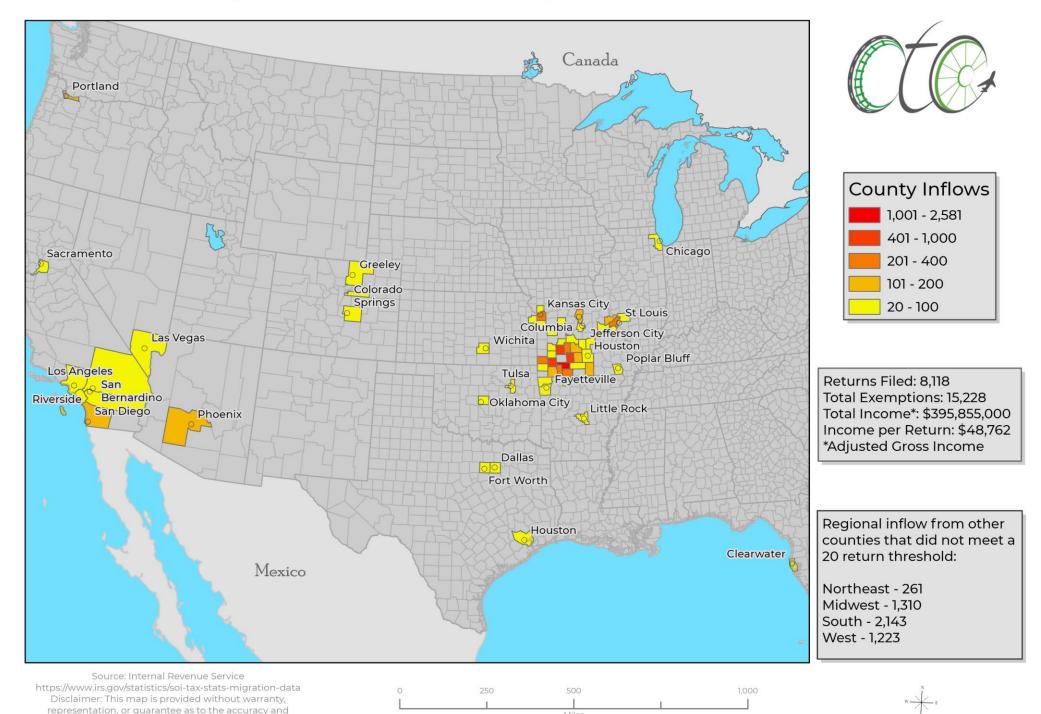


# Greene County Migration Flow by State

2015 ACS 5-yr Estimates					
IN-Migrants		OUT-Mig	OUT-Migrants		
Missouri	16,305	Missouri	10,851		
Texas	725	Arkansas	820		
Illinois	676	Kansas	737		
Kansas	642	California	617		
Oklahoma	560	Oklahoma	514		
California	533	Florida	455		
Arkansas	457	Illinois	451		
Colorado	429	Texas	430		
Ohio	405	Michigan	300		
Virginia	271	Colorado	282		
North Carolina	258	Arizona	214		

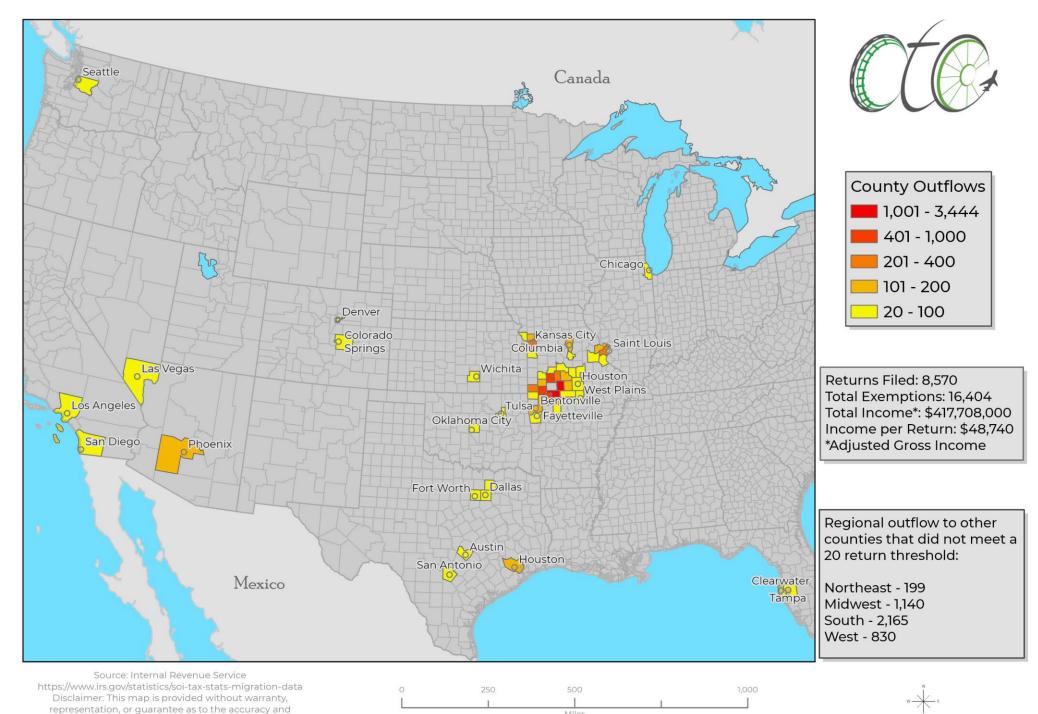
2020 ACS 5-yr Estimates					
IN-Migrants		OUT-Migrants			
Missouri	13,671	Missouri	10,626		
Arkansas	726	Texas	1,117		
Illinois	717	California	697		
Texas	691	Kansas	626		
California	548	Arkansas	521		
Kansas	473	Florida	451		
Florida	427	Illinois	435		
Oklahoma	330	Wisconsin	409		
Alaska	323	Oklahoma	394		
lowa	294	Colorado	278		
Ohio	176	New York	210		

## IRS Migration Statistics County-to-County Inflow Greene County 2019-2020



completeness of the data presented therein.

#### IRS Migration Statistics County-to-County Outflow Greene County 2019-2020



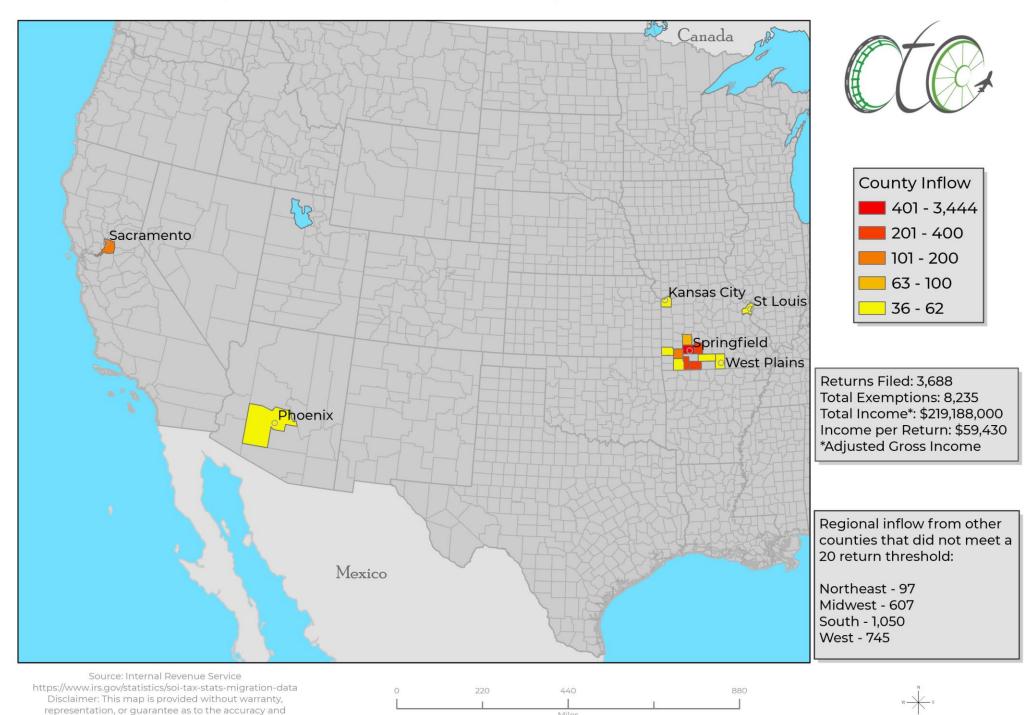
completeness of the data presented therein.

# Christian County Migration Flow by State

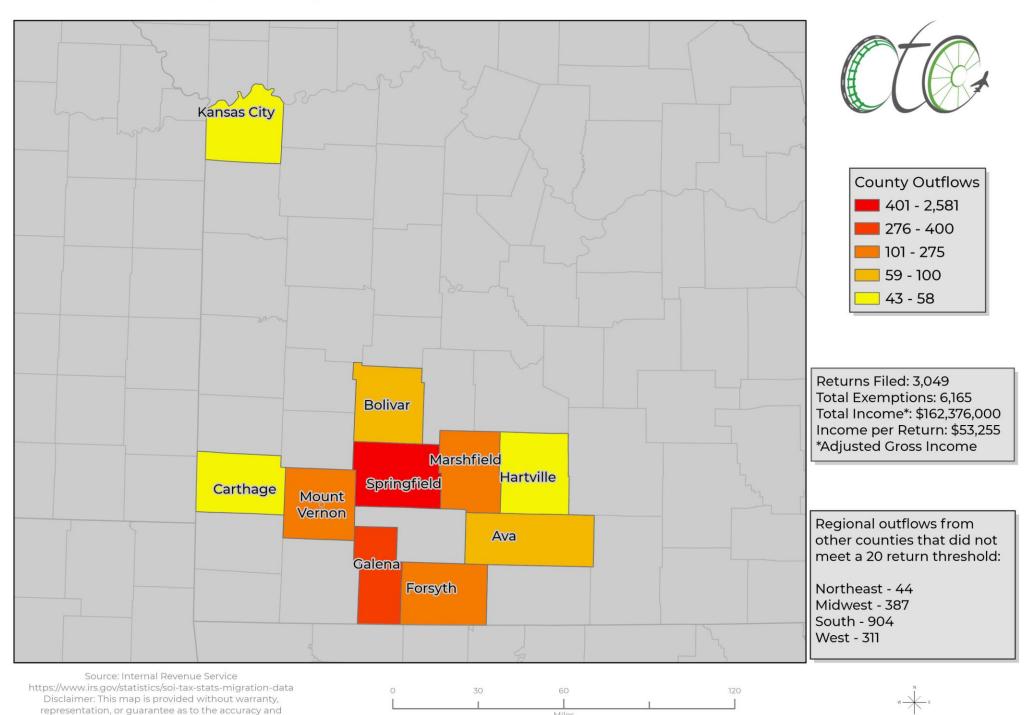
2015 ACS 5-yr Estimates					
IN-Migrants		OUT-Mig	OUT-Migrants		
Missouri	4,685	Missouri	4,627		
Kansas	213	Arkansas	158		
Florida	180	Colorado	155		
Illinois	173	Florida	122		
Oklahoma	124	Texas	119		
Arkansas	113	Washington	103		
California	110	Kansas	101		
Georgia	106	Virginia	95		
Oregon	99	California	88		
New Hampshire	89	Wisconsin	74		
Colorado	83	Ohio	68		

2020 ACS 5-yr Estimates					
IN-Migrants		OUT-Migrants			
Missouri	4,223	Missouri	3,828		
Texas	327	Texas	195		
California	291	Oklahoma	193		
Wisconsin	254	Hawaii	134		
Illinois	166	Arkansas	116		
Georgia	150	Tennessee	70		
Oklahoma	93	Wisconsin	57		
Arkansas	87	North Carolina	53		
Tennessee	64	Arizona	50		
Oregon	61	Florida	45		
Utah	59	Virginia	38		

## IRS Migration Statistics County-to-County Inflow Christian County 2019-2020



## IRS Migration Statistics County-to-County Outflow Christian County 2019-2020



## Demographics & Employment

#### Population Change

This section contains information about the population of the Springfield, Missouri Metropolitan Statistical Area (MSA). The Springfield MSA is made up Christian, Dallas, Greene, Polk, and Webster counties in southwest Missouri. Metropolitan Statistical Areas are designated by the U.S. Census Bureau based on the economic ties to a large population center. The number of commuters from the five counties in the MSA that are employed in the OTO area have a tremendous impact on the transportation system and local economies.

The OTO prepares the Growth Trends report annually to keep stakeholders and the public informed of changes and trends in population and employment aimed at facilitating cooperative decision making in support of an excellent regional transportation system.

Other transportation related demographics for municipalities and counties in the OTO area as well as the MSA, such as population growth, income, poverty, mean travel time, workforce by industry, and job growth by jurisdiction are presented in this section.



## Springfield MSA

The Springfield, Missouri Metropolitan Statistical Area (MSA) includes Greene, Christian, Webster, Polk, and Dallas Counties.

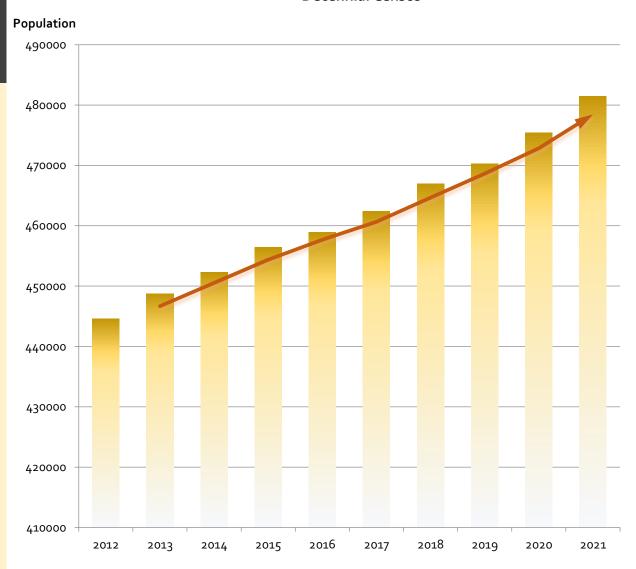
The chart on this page shows the steady increase of the combined MSA county populations.

From 2012 to 2021, the MSA population has increased from 444,617 to 481,483. Increasing 8.2%, equaling a 0.82% annual rate of growth.

Using the rule of 70, at an annual growth percent of 0.82, it will take the Springfield MSA over 85 years to double in population to 962,966.

# Springfield MSA Population (Greene, Christian, Webster, Polk and Dallas Counties)

Source: U.S. Census Bureau Population Estimates Program & 2020 Decennial Census



## Springfield MSA

## Continued

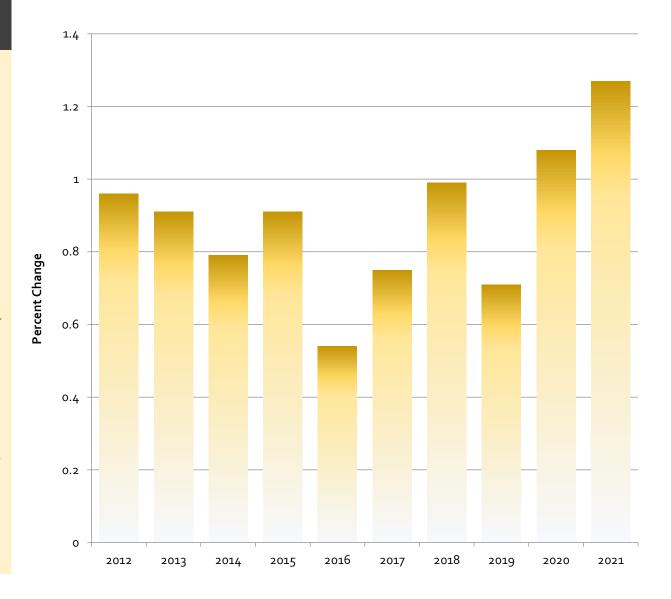
Information for the year-overyear population percent change for the five-county Springfield MSA is presented here.

Although population growth within the MSA has been consistently positive, the percent of change varies from year-to-year. The highest year-over-year percent change during the 10-year period from 2012 to 2021 was from 2020 to 2021.

The lowest year-over-year percent change was from 2015 to 2016 at 0.52%. The percent change in population from 2019 to 2020 is the first time it had been over 1% since 2009 to 2010.

#### Year-over-Year Population Percent Change Springfield MSA

Source: US Census Bureau Population Estimates Program & 2020 Decennial Census



# Individual Counties

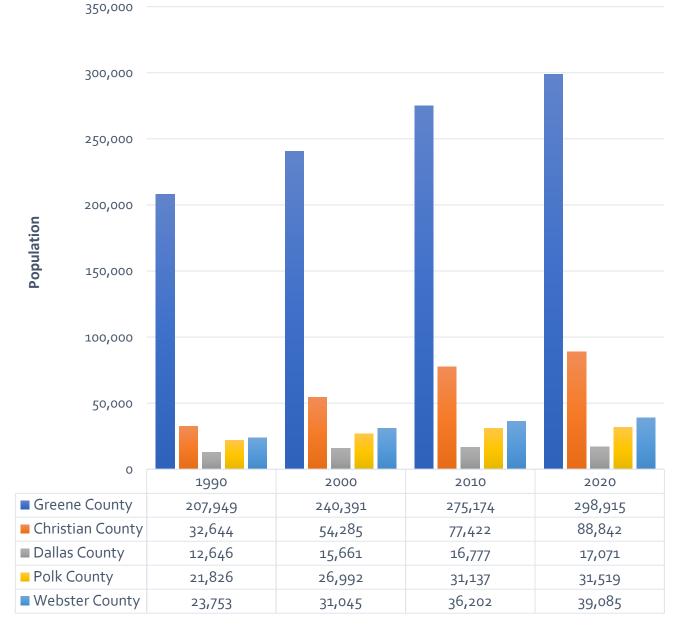
The chart on this page shows population growth for individual counties in the Springfield MSA for each decennial census from 1990 to 2020.

Christian county was the fastest growing county in the MSA in terms of percent change during the 30-year period adding 56,198 people. Greene county grew the most in terms of raw numbers adding 90,966 people.

Since 2010, the proportion of the total MSA population has decreased for Greene, Dallas, and Polk, counties while increasing for Christian and remaining constant in Webster counties.

## Population Increase Springfield MSA Counties 1990-2020

Source: Missouri Census Data Center & 2020 Decennial Census



# Cities in the OTO Area

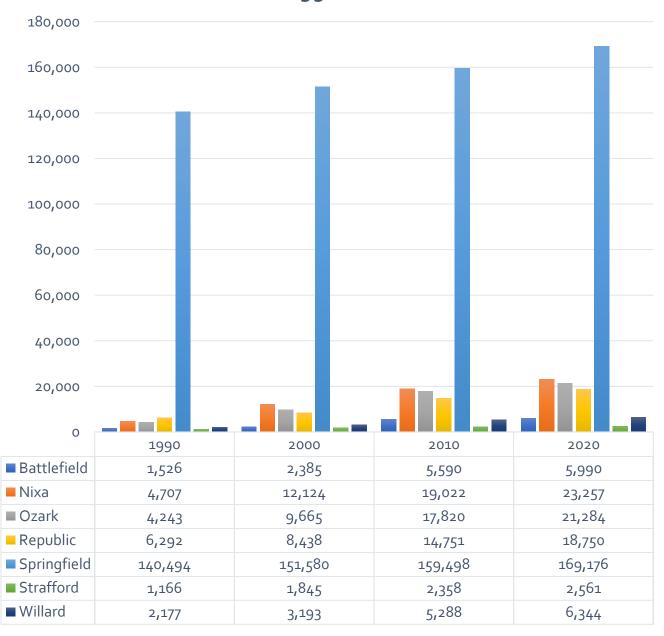
The information on this page shows population growth for cities within the OTO area from 1990 to 2020.

The City of Springfield has experienced steady growth since 2010 adding the most people (9,678) over the past decade to its population and remains the employment and activity hub for the OTO area.

Over three times as many people were added in cities other than Springfield from 2000 to 2010, 27,179 to 7,918.

During the period from 2010 to 2020, all cities other than Springfield added 13,357 people combined.

#### Population Growth for Cities in the OTO Area From 1990 to 2020



# Cities in the OTO Area

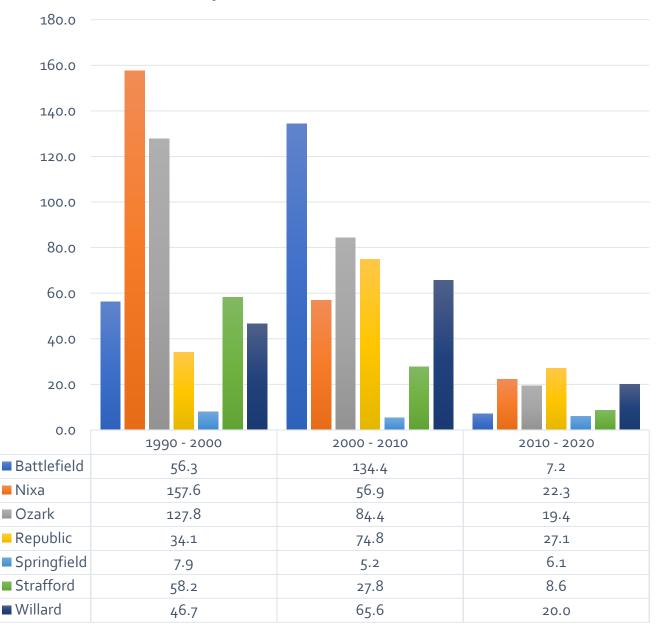
The information on this page shows population percent change for cities within the OTO for each decade from 1990 to 2020.

Although the City of Springfield has the most people to its population than any other city in each decade, its rate of growth has been the smallest.

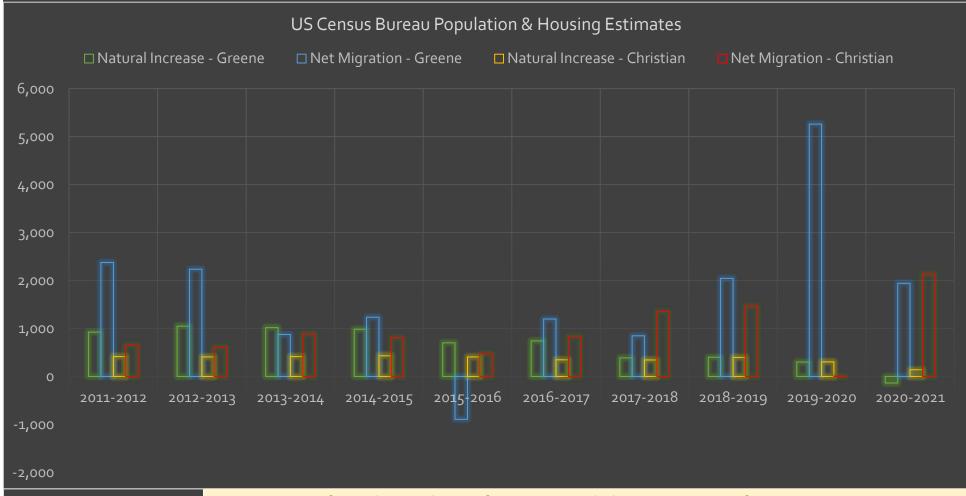
This chart demonstrates the rapid growth in cities outside of Springfield in the 1990s and 2000s. These decades mark a period of urban sprawl in the metro area.

From 2010 – 2020, all cities experienced a significant decline in the rate of growth from prior decades apart from Springfield where the growth rate increased from the previous decade.

# Population Percent Change for Cities in the OTO Area by Decade from 1990 to 2020



## Components of Population Change



Natural Increase & Net Migration Components of population change for Greene and Christian counties from 2011 to 2021 are presented on this page. Natural Increase, births minus deaths, in Greene County has been on the decline over the past decade although births still outnumbered deaths until 2021 which was the first time deaths outnumbered births. Natural increase was the lowest in Christian County in the same year. This is most likely a response to the Covid-19 pandemic. Net migration has been steadily climbing since reaching a low point in 2016 for both counties apart from 2019 to 2020. The extreme outliers for both counties during this period is due to the Covid-19 pandemic.

## Median Household Income

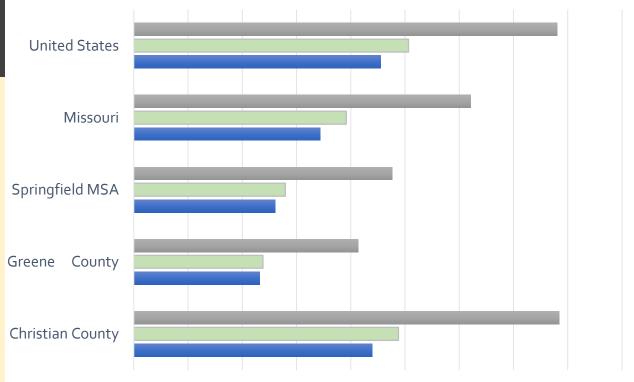
Median household income for Greene and Christian Counties, the Springfield MSA, Missouri, and the United States for each year from 2011, 2016, & 2021 American Community Survey 5-year estimates are presented here.

The ACS estimates are based on sampling and are reported within a margin of error. The ACS estimates should only be compared at 5-year intervals to ensure the population sampled is not included in any other survey.

A comparison of survey estimates between survey years indicates that the rise in median household incomes is statistically different in 2021. Based on the sample margins of error, the median income of households in all geographies is significantly higher than 2011 & 2016 estimates and even outpace the rate of inflation.

## Median Household Income Springfield MSA Counties

Source: American Community Survey 5-Year Estimates



\$30,000 \$35,000 \$40,000 \$45,000 \$50,000 \$55,000 \$60,000 \$65,000 \$70,000 \$75,000

	Christian County	Greene County	Springfield MSA	Missouri	United States
2021	\$69,212	\$50,682	\$53 <b>,</b> 827	\$61,043	\$69,021
<b>2016</b>	\$54,392	\$41,908	\$43,973	\$49,593	\$55,322
2011	\$51,961	\$41,622	\$43,042	\$47,202	\$52,762

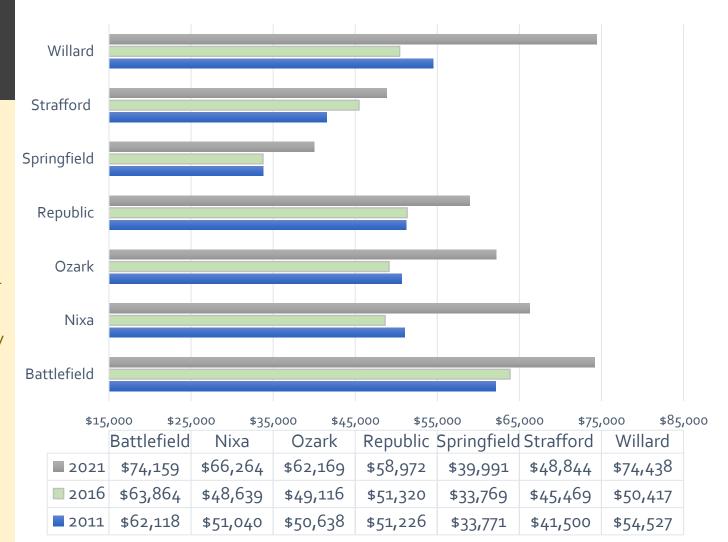
## Median Household Income

The chart to the right shows median household income for each city within the OTO planning area.

The ACS estimate for 2021 is higher for all cities. However, there is no statistical difference in any of the estimates for Republic or Strafford. In the cases of Springfield, Battlefield, Ozark, Nixa, & Willard there is no significant difference between 2011 & 2016, but the 2021 estimate is statistically different from the earlier five-year samples.

#### Median Household Income OTO Area Cities

Source: American Community Survey 5-Year Estimates



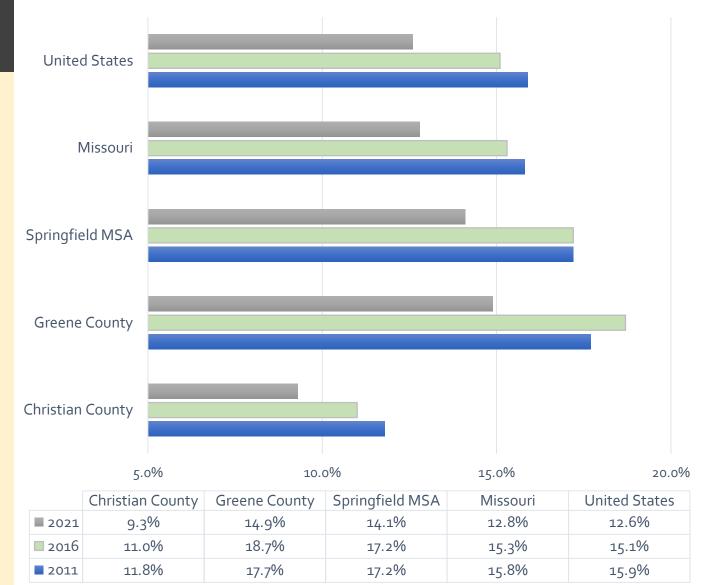
## Individuals Living Below Poverty

In 2021, the percentage of people living at or below the poverty level had dropped below 2011 & 2016 levels for the US & Missouri. This represents a near complete recovery from the surge of people living at or below poverty resulting from the great recession.

Survey estimates for 2021 are statistically different from 2011 & 2016 estimates for all geographies. This indicates that percentages of people living below poverty level were reduced over the past decade but also impacted by financial stimulus during the pandemic.

# Persons Living Below Poverty Level Springfield, MO MSA and Counties

American Community Survey 5-Year Estimates



# Children Living in Poverty

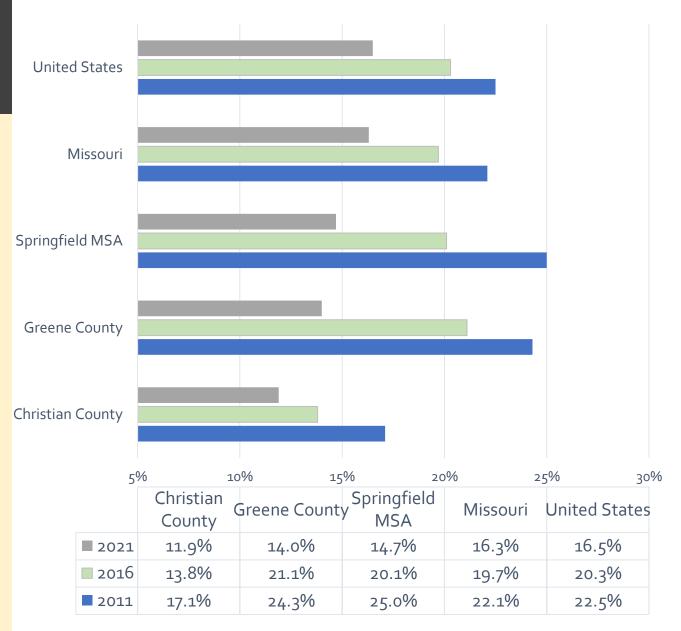
Estimates for the number of Children ages 17 and younger living at or below the poverty level for the Springfield MSA, Greene, and Christian Counties are compared with Missouri and the United States in the chart.

The estimates for the percentage of children living at or below the poverty level in 2011 & 2016 samples are not statistically different across all geographies. The five-year estimates for 2016 are significantly different from the 2021 sample in all geographies.

This indicates that children living at or below poverty level has returned to pre-recession levels or better across the board.

### **Children Living in Poverty**

Source: American Community Survey 5-Year Estimates



## Workforce Education Levels

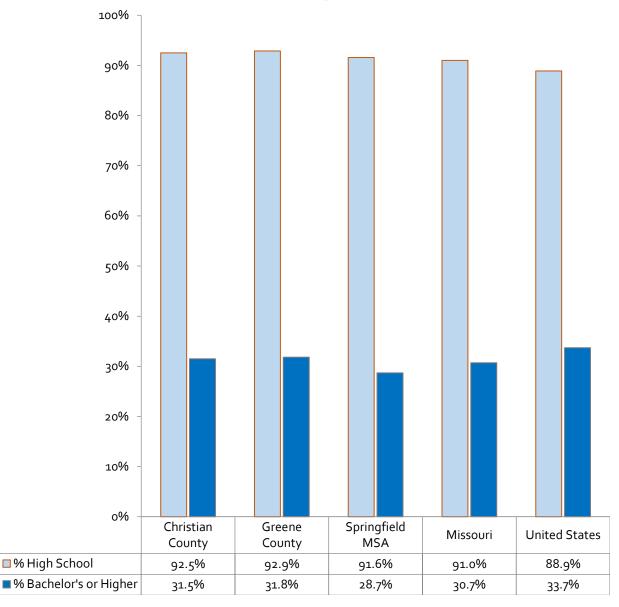
Workforce education levels affect employment and earning levels within communities.

Christian and Greene Counties have higher percentages of residents 25 years of age or older with a high school diploma than the MSA, State, or the U.S. Greene County has the higher percentage of residents 25 years of age or older with a four-year college degree at 31.5 percent compared to all other geographies except for the U.S.

The Springfield MSA as a whole, has the lowest percentage of people over 25 with a bachelor's degree or higher while all areas have a higher percentage of high school graduates than the U.S.

# Workforce Education Levels Percent with High School Diploma and College Degrees in Springfield MSA Counties

Source: 2021 ACS 5-Year Estimates



# Commuting Patterns

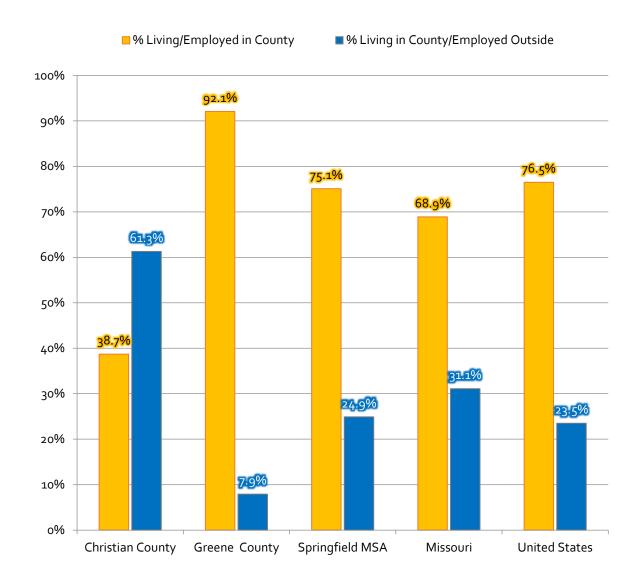
The chart to the right shows the percentage of workers who work in their county of residence compared to the percentage who work in a different county.

Of the people who work in Greene County, 92.1 percent also live in Greene County. Conversely, the majority (61.3%) of Christian County residents commute to another county for work.

The MSA percentage of workers living in the same county as they are employed is comparable to that of the United States but greater than Missouri as a whole.

#### County of Residence vs. County of Employment

Source: 2021 ACS 5-Year Estimates

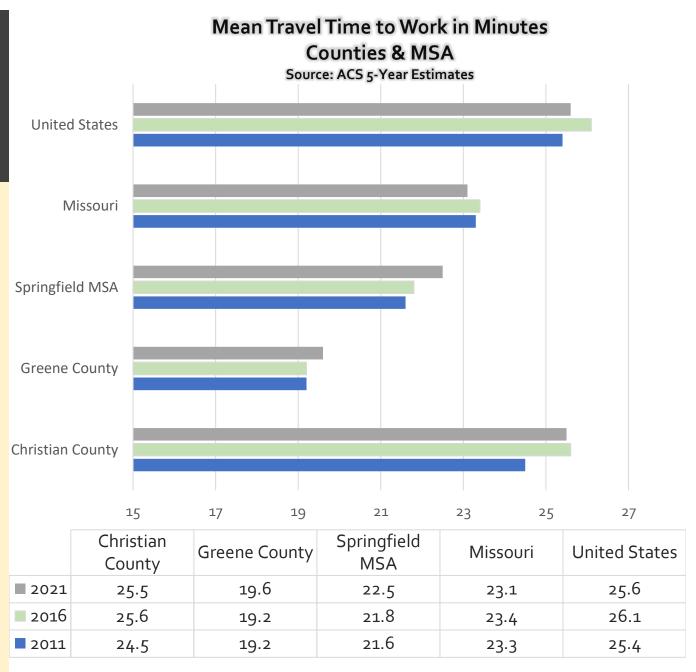


# Mean Travel Time to Work

The chart to the right shows the average commute time for individuals living in Greene and Christian Counties, Missouri, the United States, and the Springfield, MO MSA.

Residents of Greene County have the shortest commutes to work at 19.6 minutes. Workers living in Christian County have the longest commutes with an estimated mean of 25 minutes. This is comparable to the United States as a whole.

The travel time estimates for the United States are statistically different and have increased across all five-year samples. The Missouri estimate for 2021 is significantly more than previous estimates. Greene and Christian Counties are not statistically different across all samples.



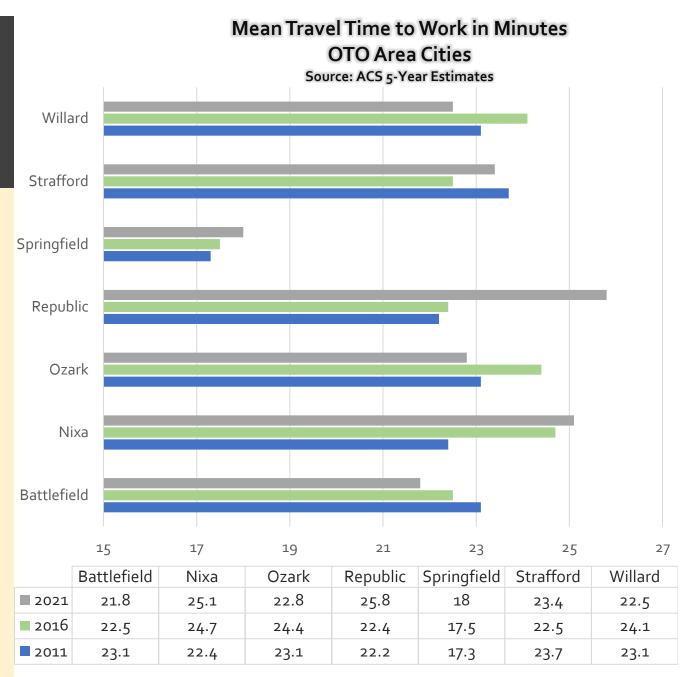
# Mean Travel Time to Work

The chart to the right shows the average commute time for residents living in the seven cities within the OTO area.

The 2021 estimates for Springfield & Republic are statistically different from 2016 showing an increase but the 2016 estimate is not statistically different from 2011.

The 2021 estimate is significantly higher than 2011 but no different than 2016 for Nixa. The estimates for Ozark indicate an increase in travel time from 2011 to 2016 and then back down to 2011 levels in 2021.

There is no statistical difference between any of the estimates for Battlefield, Strafford, or Willard.



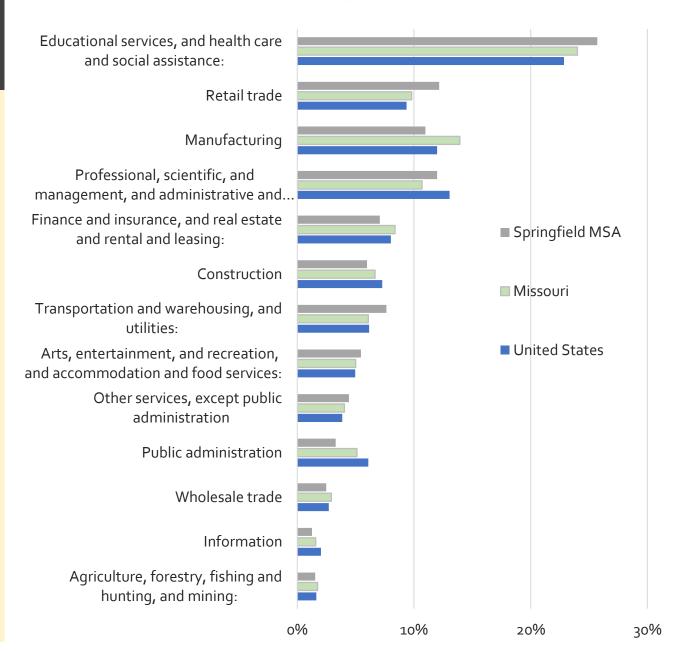
# Workforce By Industry

The chart to the right compares industry employment percentages for the workforce for the Springfield, MO MSA, Missouri, & the United States.

The precent of industry employment in the Springfield MSA is greater than MO & the U.S. in Educational service, health care, and social assistance, Retail trade, Other services except public administration, & Wholesale trade.

The MSA percentages lag MO & the U.S., Manufacturing, Public Administration, and Information industries. The MSA percentage of Professional & Scientific workers is greater than MO but still falls short of the U.S.

#### Springfield MSA Percentage of Workers by Industry Source: ACS 2021 5-Year Estimates



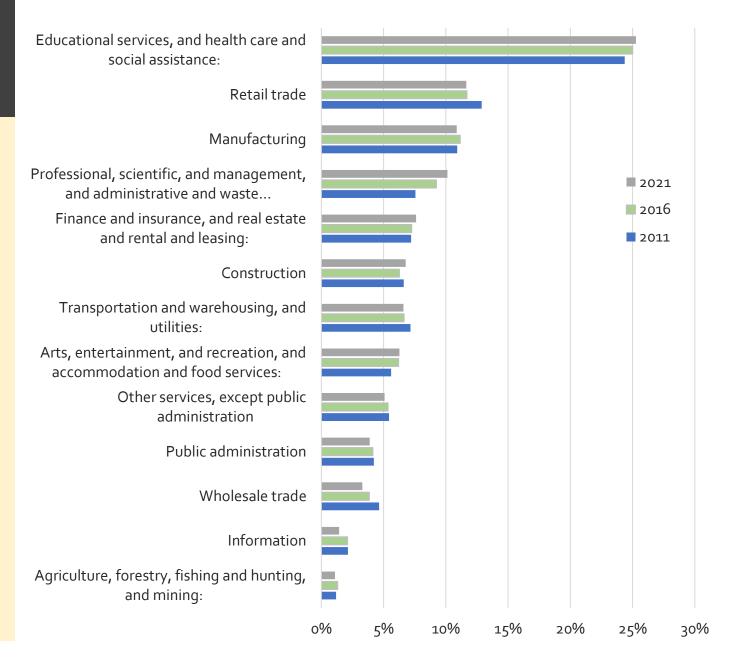
# Workforce By Industry Springfield MSA

The chart to the right shows the 5-year estimates for the percentage of workers by industry in the Springfield MSA for 2021, 2016, & 2011.

There is no statistical difference for most industries amongst the surveys. However, the estimates are significantly different for Education & Healthcare and Construction Industries from prior 5-year samples, 2011 & 2016, respectively.

Employment percentages in the Wholesale Trade, Public Administration, & Information sectors declined from 2016 to 2021 while employment in the Professional, Scientific, etc. sector increased.

#### Springfield MSA Percentage of Workers by Industry Source: ACS 5-Year Estimates



#### Springfield MSA Workforce Change by Industry 2011 – 2021, American Community Survey 5-yr Estimates

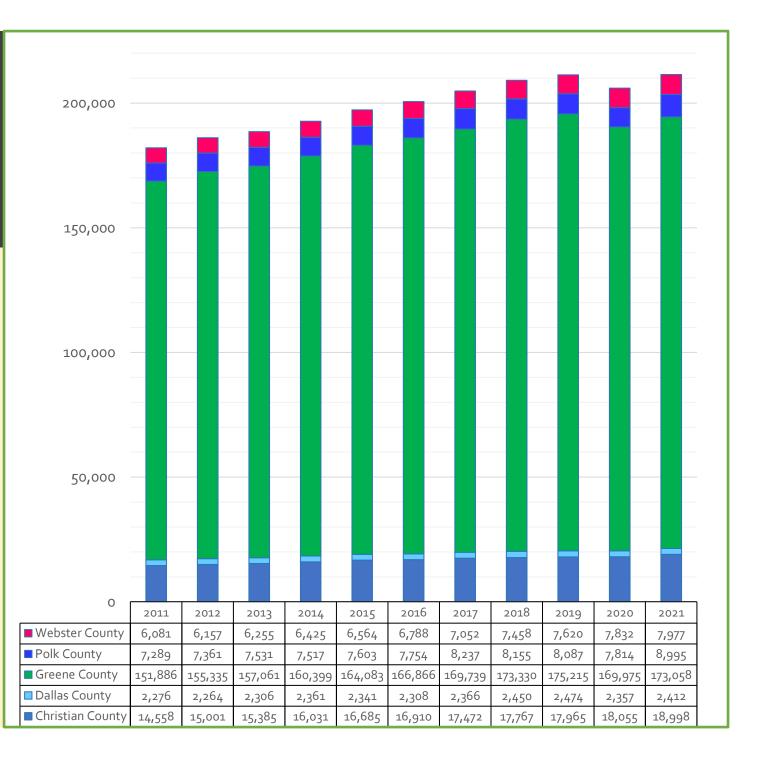
	2011	2021	Difference	% Change
Full-time, year-round civilian employed population 16 years and over	135,123	159,086	23,963	17.7
Agriculture, forestry, fishing and hunting, and mining:	1,602	1,738	136	8.5
Agriculture, forestry, fishing and hunting	1,450	1,544	94	6.5
Mining, quarrying, and oil and gas extraction	152	194	42	27.6
Construction	8,949	10,784	1,835	20.5
Manufacturing	14,755	17,299	2,544	17.2
Wholesale trade	6,267	5,236	-1,031	-16.5
Retail trade	17,490	18,607	1,117	6.4
Transportation and warehousing, and utilities:	9,680	10,493	813	8.4
Transportation and warehousing	7,858	8,842	984	12.5
Utilities	1,822	1,651	-171	-9.4
Information	2,887	2,266	-621	-21.5
Finance and insurance, and real estate and rental and leasing:	9,739	12,102	2,363	24.3
Finance and insurance	7,383	9,486	2,103	28.5
Real estate and rental and leasing	2,356	2,616	260	11.0
Professional, scientific, and management, and administrative and waste management services:	10,215	16,125	5,910	57.9
Professional, scientific, and technical services	5,741	9,727	3,986	69.4
Management of companies and enterprises	269	292	23	8.6
Administrative and support and waste management services	4,205	6,106	1,901	45.2
Educational services, and health care and social assistance:	32,925	40,192	7,267	22.1
Educational services	10,786	14,008	3,222	29.9
Health care and social assistance	22,139	26,184	4,045	18.3
Arts, entertainment, and recreation, and accommodation and food services:	7,570	9,975	2,405	31.8
Arts, entertainment, and recreation	1,102	1,900	798	72.4
Accommodation and food services	6,468	8,075	1,607	24.8
Other services, except public administration	7,345	8,082	737	10.0
Public administration	5,699	6,187	488	8.6

## Number of Jobs by MSA County

The data contained in the chart on this page was retrieved from the U.S. Census Bureau The Local Employment and Household Dynamics (LEHD) Quarterly Workforce Indicators.

The data show job losses from 2019 to 2020. Beginning in 2011, jobs numbers start to climb every year through 2019. The overwhelming number of jobs in the MSA are in Greene County.

Although jobs numbers have risen in every county in the MSA, the proportion of MSA jobs within Greene County from 2010 to 2020 has remained relatively constant.



## **Data Sources**

The figures provided in this report are for informational purposes only. The Ozarks Transportation Organization (OTO) offers no warranty, either expressed or implied, that the population and housing unit numbers published here are accurate and assumes no liability for any use to which the data may be put.

Building permit data were provided by the Springfield Department of Building Development Services, the Greene County Department of Building Regulations, the Christian County Planning and Development Department, and the cities of Battlefield, Republic, Nixa, Ozark, Strafford, and Willard.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns.

#### Other data sources include:

U.S. Census Bureau, 2020 Decennial Census. P.L. 94\_171 Redistricting Data

U.S. Census Bureau, 2020. Quarterly Workforce Indicators. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on 3/29/2022 <a href="https://lehd.ces.census.gov/data/#gwi">https://lehd.ces.census.gov/data/#gwi</a>.

U.S. Census Bureau. 2022. LEHD Origin-Destination Employment Statistics (2002-2021) LEHD Origin-Destination Employment Statistics (2002-2021) at <a href="https://onthemap.ces.census.gov">https://onthemap.ces.census.gov</a>. LODES 7.4 [version]

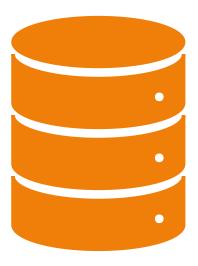
Missouri Census Data Center, (2020). http://mcdc.missouri.edu/decennial-census/1980-1990.shtml

Missouri Census Data Center, (2020). <a href="http://mcdc.missouri.edu/decennial-census/2000.shtml">http://mcdc.missouri.edu/decennial-census/2000.shtml</a>

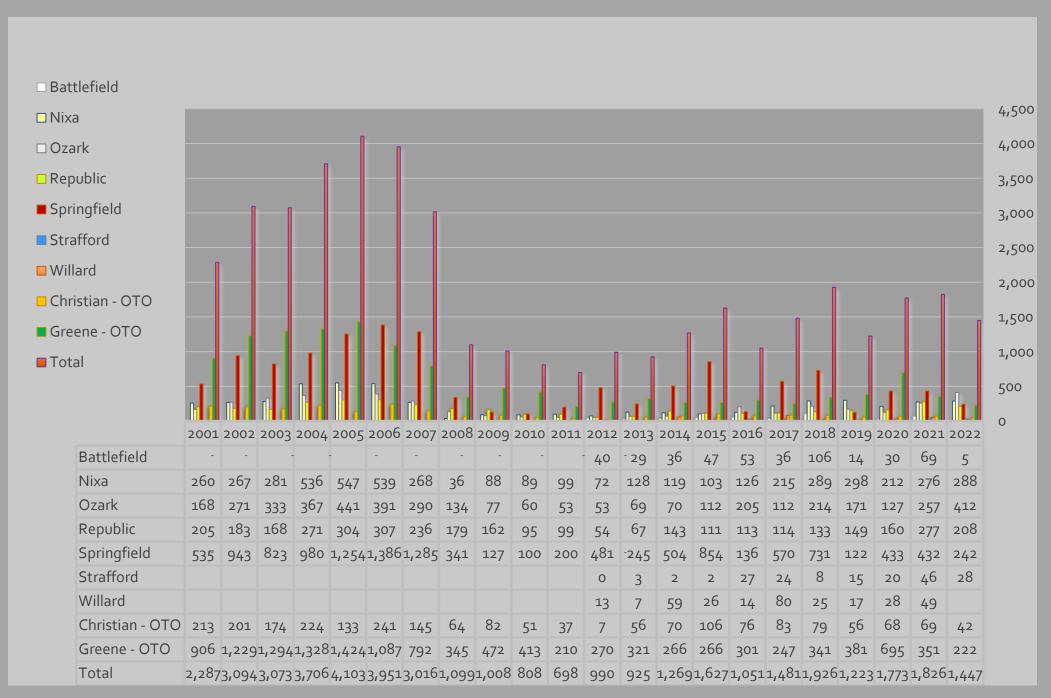
Missouri Census Data Center. (2022). *State/County Annual Population Change* [dataset application]. Available from https://mcdc.missouri.edu/applications/population/change/.

U.S. Census Bureau, 2020, 2019, 2015, 2014, 2010 American Community Survey 5-Year Estimates. <a href="https://data.census.gov/cedsci/">https://data.census.gov/cedsci/</a>

<u>Internal Revenue Service, SOI Tax Stats – Migration Data,</u> 2022.

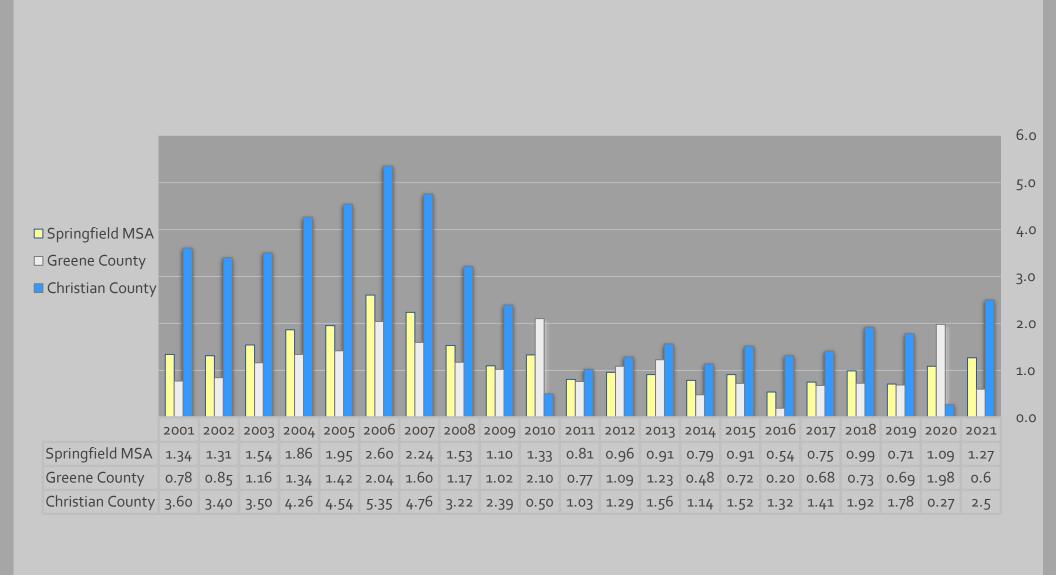


## Appendix A: OTO Area Permit Activity 2001 - 2022



2022 OTO MPO Area Growth Trends Report

# Appendix B: Year-over-Year Population Percent Change 2000 - 2021



# Appendix C: Year-over-Year Total Jobs Percent Change 2000 – 2021 & Daily Vehicle Miles Travelled

