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The information used to prepare 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 compiled 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.
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 area.

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 the various jurisdictions 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 are presented in this section.

• **Demographics & Employment**

  Past and most recent population, income, poverty, education, commuting, employment, and workforce statistics are presented and compared.
Residential Units

Building Permit Activity

Building permit data for new single-family, duplex, and multi-family structures was collected for each county and municipality in the OTO area for 2018. 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 2018 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 – 2018 is included as an appendix.

Combo Charts – The charts in this section include lines and bars. Values for lines are plotted on the left axis and values for bars are plotted on the right axis. This was done to help visualize development trends in all jurisdictions. If all values were plotted on the same axis the trends in smaller communities may be more difficult to discern.
The information on this page depicts permitted construction of single family housing in the OTO area from 2008 – 2018.

In 2018, single-family housing permits reached the highest level since the mid-2000s. The increase is mostly attributable to development in Green County, Nixa, and Republic.

The permit total for new single-family structures in the OTO Area was offset by the demolition 183 houses. The majority of demolitions occurred in Springfield (111) and Greene County (55).
From 2008 to 2018, the majority of multi-family housing construction permits were issued in Springfield.

In 2018, the number of multi-family units permitted in Springfield rose to the second highest total since 2008. This number was offset by the demolition of 120 multi-family units mostly around the Missouri State University Campus.

Ozark and Battlefield contributed significantly to the total number of multi-family structures permitted other than a duplex in the OTO area.
Residential Units
Totals

The information on this page depicts the net total number of housing units permitted for the entire OTO area and each jurisdiction within it for 2018 compared to the previous ten years.

While residential unit construction peaked in the mid-2000s, it had dropped considerably by 2008 after the collapse of the housing bubble leading to the “great recession.”

The data indicates a trough in permitting in the years subsequent to 2008 bottoming out in 2011. Growth in residential structure permits has recovered somewhat in recent years driven mostly by multi-family development in Springfield. In 2018, the highest number residential structures were permitted in the OTO area since 2007 (see Appendix A.)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>29</td>
<td>36</td>
<td>47</td>
<td>53</td>
<td>36</td>
<td>106</td>
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<tr>
<td>Nixa</td>
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<td>88</td>
<td>89</td>
<td>99</td>
<td>72</td>
<td>128</td>
<td>119</td>
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<td>69</td>
<td>70</td>
<td>112</td>
<td>205</td>
<td>112</td>
<td>214</td>
<td></td>
</tr>
<tr>
<td>Republic</td>
<td>179</td>
<td>162</td>
<td>95</td>
<td>99</td>
<td>54</td>
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<td>143</td>
<td>111</td>
<td>113</td>
<td>114</td>
<td>133</td>
</tr>
<tr>
<td>Strafford</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>27</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Willard</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>13</td>
<td>7</td>
<td>59</td>
<td>26</td>
<td>14</td>
<td>80</td>
<td>25</td>
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<tr>
<td>Christian - OTO</td>
<td>64</td>
<td>82</td>
<td>51</td>
<td>37</td>
<td>7</td>
<td>56</td>
<td>70</td>
<td>106</td>
<td>76</td>
<td>83</td>
<td>79</td>
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<tr>
<td>Greene - OTO</td>
<td>345</td>
<td>472</td>
<td>413</td>
<td>210</td>
<td>270</td>
<td>321</td>
<td>266</td>
<td>266</td>
<td>301</td>
<td>247</td>
<td>341</td>
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<tr>
<td>Springfield</td>
<td>341</td>
<td>127</td>
<td>100</td>
<td>200</td>
<td>481</td>
<td>245</td>
<td>504</td>
<td>854</td>
<td>136</td>
<td>570</td>
<td>731</td>
</tr>
<tr>
<td>Total</td>
<td>1,099</td>
<td>1,008</td>
<td>808</td>
<td>990</td>
<td>925</td>
<td>1,269</td>
<td>1,627</td>
<td>1,051</td>
<td>1,477</td>
<td>1,884</td>
<td></td>
</tr>
</tbody>
</table>
Changes in Housing Units

The maps on the following pages illustrate the net change in housing units by Census Tract for 2018 as well as the period from 2000 to 2018.

Additionally, a permit heat map has been created to demonstrate densities of new residential structure development. An overlay of geocoded permit address points aggregated into a grid of three square mile hexagons was added to provide more information about the location and magnitude of residential development in 2018 as well as 2012 - 2018.
2018 Housing Unit Permit Density Map

Number of Housing Units
- 172 - 101
- 100 - 41
- 40 - 21
- 20 - 11
- 10 - 6
- 5 - 1

Housing Unit Density
- Sparse
- Dense

Disclaimer: This map is provided "as is" without warranty, representation, or guarantee as to the accuracy nor completeness of the data presented therein.
2012 - 2018 Housing Unit Permit Density Map

Number of Units
- 326 - 176
- 175 - 101
- 100 - 51
- 50 - 26
- 25 - 11
- 10 - 1

Housing Unit Density
Sparse
Dense

Disclaimer: This map is provided “as is” without warranty, representation, or guarantee as to the accuracy nor completeness of the data presented therein.
Demographics & Employment

Population Change

This section contains population census data for 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 workers 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.
As of the 2010 Census, the Springfield 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 2007 to 2017, the MSA population has increased from 419,607 to 462,369. This is an overall increase of 10.2%, equaling a 0.93% rate of annual growth.

Using the rule of 70, at an annual growth percent of 0.93, it will take the Springfield MSA over 75 years to double in population to 924,738.
Information for the year-over-year 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 11-year period from 2007 to 2017 was from 2006 to 2007.

The lowest year-over-year percent change was from 2015 to 2016 at 0.52%. The change in percent has not been over 1% since 2010.

 Year-over-Year Population Percent Change
Springfield MSA
Source: US Census Bureau, Annual Population Estimates
The graph on this page shows population growth for individual counties in the Springfield MSA for each decennial census from 1990 to 2010 and the current year estimate.

Christian county was the fastest growing county in the MSA in terms of percent change during the 27-year period adding 52,788 people. Greene county grew the most in terms of raw numbers adding 81,856 people.

Since 2010, the proportion of the total MSA population has decreased for Greene, Dallas, and Polk counties and increased for Christian and Webster counties.
Cities in the OTO Area

The information on this page shows population growth for cities within the OTO area from 1990 to 2017.

The City of Springfield has experienced steady growth since 2010 and remains the employment and activity hub for the OTO area.

Although more people were added to the region in surrounding cities than Springfield from 2000 to 2010, 27,179 and 7,918 respectively, the opposite is true from 2010 to 2017. During this time Springfield added 7,876 people compared to 6,654 in all other surrounding cities combined.

<table>
<thead>
<tr>
<th>City</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battlefield</td>
<td>1,526</td>
<td>2,385</td>
<td>5,590</td>
<td>6,138</td>
</tr>
<tr>
<td>Nixa</td>
<td>4,707</td>
<td>12,124</td>
<td>19,022</td>
<td>21,321</td>
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<tr>
<td>Ozark</td>
<td>4,243</td>
<td>9,665</td>
<td>17,820</td>
<td>19,905</td>
</tr>
<tr>
<td>Republic</td>
<td>6,292</td>
<td>8,438</td>
<td>14,751</td>
<td>16,294</td>
</tr>
<tr>
<td>Strafford</td>
<td>1,166</td>
<td>1,845</td>
<td>2,358</td>
<td>2,399</td>
</tr>
<tr>
<td>Willard</td>
<td>2,177</td>
<td>3,193</td>
<td>5,288</td>
<td>5,426</td>
</tr>
<tr>
<td>Springfield</td>
<td>140,494</td>
<td>151,580</td>
<td>159,498</td>
<td>167,374</td>
</tr>
</tbody>
</table>
Net Migration 2007 – 2017, Christian County
Source: Missouri Census Data Center
- Population Change
- Net-Migration

Net Migration 2007 – 2017, Greene County
Source: Missouri Census Data Center
- Population Change
- Net Migration

Population Change
Net Migration
The age characteristics for individuals migrating into Greene and Christian counties in 2017 are presented on this page.

The overwhelming majority of individuals migrating into Greene county were 18 to 24 years old coming from other counties in Missouri. The median age for all in-migrants from other counties in Missouri into Greene County was an estimated to be 21.9.

The largest age group migrating into Christian county were individuals 25 to 34 years old from different counties within Missouri. The median ages for in-migrants into Christian County were 28.9 and 27.4 for those from other counties in Missouri and from other states, respectively.
The income characteristics for individuals migrating into Greene and Christian counties in 2017 are presented on this page.

The largest income group of individuals migrating into Greene county coming from other counties in Missouri made less than $10,000 a year. This corresponds with the 18 – 24 year old group and indicates a large incoming student population. The median income for this group was $11,646. Of the over 20,000 in migrants, nearly three of four lived in renter occupied housing.

The largest income group migrating into Christian county from different counties within Missouri were individuals making $15,000 to $24,999 a year. This corresponds with the 25 to 34 year old people as the largest age group for in-migrants into Christian County. The median income for individuals from other counties in Missouri and from other states, was $20,857 and $28,056 respectively.
Median household income for the five counties that comprise the Springfield MSA counties, Missouri, and the United States for each year from 2012 to 2017 is presented here.

The American Community Survey data is based on sampling methods and represents a 90% confidence that these figures are within a specified margin of error. The 5-year estimates should only be compared at five-year intervals.

A comparison of statistical difference of 2012 and 2017 income levels indicates that median household income has risen in all geographies except Dallas and Christian counties. Based on the sample margins of error, the median income for households in these counties in 2017 is not statistically different than median household income in 2012 in these areas.
The chart to the right shows per capita income for the United States, Missouri, and the five counties that comprise the Springfield Metropolitan Statistical Area (MSA).

All five counties within the MSA are below both the national ($31,177) and state ($28,282) per capita income levels for 2018.

As with the ACS data for median household income, comparing 2012 and 2017 per capita income for statistical difference between samples indicates that apart from Missouri and the U.S.; Christian, Greene, and Polk counties have seen an increase in per capita income. The per capita income levels for Dallas and Webster counties are not statistically different.
Per Capita Income

The chart to the right shows per capita income for the cities within the OTO planning area.

Although there are some noticeable differences in the per capita income for several cities in 2017 compared to 2012, per capita income estimates for Nixa, Springfield, and Willard are statistically different and have increased during this period.

Estimates for Battlefield, Ozark, Republic, and Strafford in 2017 are not statistically different from 2012 estimates of per capita income.
In 2017, Greene and Webster counties had the highest percentage of people living at or below the poverty level with 18.5% and 18.4% of the population. From 2012 to 2017 both Missouri and the United States saw a decrease in the percentage of persons living at or below the poverty level. Although the estimate in some counties in the MSA has decreased between the 2012 and 2017 surveys, only the Polk County estimate is statistically different. There is a 90% confidence that the percentage of people living in poverty has increased between 2012 and 2017 in Greene County.
Children Living in Poverty

Estimates for the number of Children ages 17 and younger living at or below the poverty level for the five Springfield MSA counties are compared to Missouri and the United States in the chart.

The estimates for Missouri and the United States show a decrease in the percentage of children living at or below the poverty level from 2012 to 2017. The estimates for Missouri and the United States are statistically different for 2012 and 2017 and should be considered indicative of a trend for children living in poverty.

Although Dallas and Greene counties show a similar trend during this time, the Polk county estimate is statistically different from 2012 to 2017 and represents a significant decrease.
Workforce education levels affect employment and earning levels within communities.

Christian and Greene Counties have the highest percentages of residents 25 years of age or older with a high school diploma. Greene County has the highest percentage of residents 25 years of age or older with a four-year college degree at 30.5 percent.

Within the Springfield MSA, Dallas County has the lowest percentage of high school graduates at 81.2 percent in addition to the lowest percentage of college graduates at 13.2 percent.
Commuting Patterns

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

Almost 92 percent of the people who work in Greene County also live in Greene County, as would be expected of the county where the region’s primary employment center, Springfield, is located. Conversely, nearly 68% of Christian County residents commute to another county for work, as do over 60.7% of workers in Webster County and 66.2% of workers in Dallas County.

Polk County is the only MSA county that is comparable to Missouri or The United States in county of residence vs. county of employment percentages.
Mean Travel Time to Work

The chart to the right shows the average commute time for individuals living in Springfield and the five-counties in the Springfield MSA, the State of Missouri, and the United States.

Residents of Springfield and Greene County have the shortest commutes to work at 17.7 minutes and 19.3 minutes, respectively. Workers living in Dallas and Webster Counties have the longest commutes with estimates of 33.1 minutes and 28.9 minutes, respectively.

The travel time estimates between 2012 and 2017 are statistically different and have increased for Springfield, Dallas County, Missouri, and the US. Additionally, the decrease in Webster County is also statistically different.
The chart to the right shows the various industries in which the residents of Christian, Dallas, Greene, Polk, and Webster counties are employed.

Educational service, health care, and social assistance continues to employ the largest percentage of the workforce.

The Springfield MSA is home to Missouri State University, has a number of regional hospitals, and not-for-profit public assistance agencies.
The data contained in the chart on this page was retrieved from the U.S. Census Bureau Local Employment and Household Dynamics (LEHD) Quarterly Workforce Indicators. The jobs data is derived from the Bureau of Labor Statistics Quarterly Census of Employment and Wages. The data was collected at the county level and summarized for the Springfield MSA.

The data show job losses from 2007 to 2010. Beginning in 2011, jobs numbers start to rebound and climb every year through 2017. The overwhelming number of jobs in the MSA are located in Greene County. Although jobs numbers have risen in every county in the MSA, the proportion of MSA jobs within Greene County from 2007 to 2017 has remained relatively constant.
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, 2013-2017 American Community Survey 5-Year Estimates
- U.S. Census Bureau, 2007 American Community Survey 3-Year Estimates

2018 OTO MPO Area Growth Trends Report
Appendix: OTO Area Permit Activity 2001 - 2018

Total Residential Units Permitted – OTO Area

Battlefield  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A
Nixa  260  267  281  536  547  539  268  36  88  89  99  72  128  119  103  126  211  247
Ozark  168  271  333  367  441  391  290  134  77  60  53  53  69  70  112  205  112  214
Republic  205  183  168  271  304  307  236  179  162  95  99  54  67  143  111  113  114  133
Strafford  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  0  3  2  2  27  24  8
Willard  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  N/A  13  7  59  26  14  80  25
Christian - OTO  213  201  174  224  133  241  145  64  82  51  37  7  56  70  106  76  83  79
Greene - OTO  906  1,229  1,294  1,328  1,424  1,087  792  345  472  413  210  270  321  266  266  301  247  341
Springfield  535  943  823  980  1,254  1,386  1,285  341  127  100  200  481  245  504  854  136  570  731
Total  2,287  3,094  3,073  3,706  4,103  3,951  3,016  1,099  1,008  808  698  990  925  1,269  1,627  1,051  1,477  1,884

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