State of the Northwest Arkansas Region & Quarterly Business Analysis

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Center for Business and Economic Research
October 8, 2020

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## NORTHWEST ARKANSAS ECONOMIC INDICATORS

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>MOST RECENT ANNUAL DATA</th>
<th>PREVIOUS YEAR</th>
<th>% CHANGE FROM PREVIOUS YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>POPULATION ESTIMATE, JULY 2019</td>
<td>534,904</td>
<td>525,239</td>
<td>1.8%</td>
</tr>
<tr>
<td>REAL GDP (MILLIONS OF CHAINED 2012 DOLLARS), 2018</td>
<td>$23,482</td>
<td>$22,927</td>
<td>2.4%</td>
</tr>
<tr>
<td>AVERAGE ANNUAL UNEMPLOYMENT RATE, 2019</td>
<td>2.6%</td>
<td>2.8%</td>
<td>-0.2%</td>
</tr>
<tr>
<td>TOTAL NONFARM EMPLOYMENT, 2019</td>
<td>263,500</td>
<td>258,300</td>
<td>2.0%</td>
</tr>
<tr>
<td>MEDIAN HOUSEHOLD INCOME, 2019</td>
<td>$61,674</td>
<td>$57,911</td>
<td>6.5%</td>
</tr>
<tr>
<td>AVERAGE ANNUAL WAGES, 2019</td>
<td>$47,600</td>
<td>$46,470</td>
<td>2.4%</td>
</tr>
<tr>
<td>BUSINESS ESTABLISHMENTS, 2019</td>
<td>13,736</td>
<td>13,412</td>
<td>2.4%</td>
</tr>
<tr>
<td>% OF ADULT POPULATION AGE 25 AND OLDER WITH A BACHELOR’S DEGREE OR HIGHER, 2019</td>
<td>33.0%</td>
<td>31.6%</td>
<td>1.4%</td>
</tr>
<tr>
<td>POVERTY RATE, 2019</td>
<td>12.6%</td>
<td>12.5%</td>
<td>0.1%</td>
</tr>
<tr>
<td>R&amp;D EXPENDITURES (IN THOUSANDS), 2018</td>
<td>$175,498</td>
<td>$157,791</td>
<td>11.2%</td>
</tr>
<tr>
<td>AVERAGE DOMESTIC AIRFARE, 2019</td>
<td>$485</td>
<td>$536</td>
<td>-9.6%</td>
</tr>
<tr>
<td>Area</td>
<td>2013-2018 Avg.</td>
<td>2017-2018</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Fayetteville-Springdale-Rogers MSA</td>
<td>3.7%</td>
<td>2.4%</td>
<td></td>
</tr>
<tr>
<td>Austin-Round Rock MSA</td>
<td>5.6%</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>Des Moines-West Des Moines MSA</td>
<td>4.5%</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>Madison MSA</td>
<td>3.3%</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>Durham-Chapel Hill MSA</td>
<td>3.4%</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>Raleigh MSA</td>
<td>5.9%</td>
<td>4.9%</td>
<td></td>
</tr>
<tr>
<td>Provo-Orem MSA</td>
<td>6.4%</td>
<td>7.1%</td>
<td></td>
</tr>
<tr>
<td>Peer Average</td>
<td>4.4%</td>
<td>4.6%</td>
<td></td>
</tr>
<tr>
<td>Arkansas</td>
<td>1.7%</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>2.9%</td>
<td>2.5%</td>
<td></td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Economic Analysis

2013-2018 Average Annual Growth

2017-2018
Real U.S. Gross Domestic Product Growth Rate

Source: U.S. Commerce Department, Bureau of Economic Analysis
Quarterly Change in Business Investment
Non-annualized, seasonally and inflation adjusted. Shaded areas denote recessions.

Source: Bureau of Economic Analysis
Quarterly Change in Nondurable Goods
Non-annualized, seasonally and inflation adjusted. Shaded areas denote recessions.

Source: Bureau of Economic Analysis
Quarterly Change in Durable Goods
Non-annualized, seasonally and inflation adjusted. Shaded areas denote recessions.

Source: Bureau of Economic Analysis
Quarterly Change in Services
Non-annualized, seasonally and inflation adjusted. Shaded areas denote recessions.

Source: Bureau of Economic Analysis
Percent Change in All Consumer Spending

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
Percent Change in All Consumer Spending

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
**Finding One:** While aggregate spending of the employed was down by 10 percent during the initial months of the pandemic, the spending of unemployment benefit recipients increased 10 percent, a pattern which is likely explained by the $600 federal weekly benefit supplement.

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**Spending Falls at Start of Unemployment and Rises when Benefit Payments Begin**

Note: This figure shows the change in spending year-over-year around the start of unemployment benefits. The x-axis shows the number of weeks since the first benefit payment. The treatment group, shown in orange, receives benefits beginning in April. The control group, shown in blue, is employed workers. See “Data and analytical approach” section for details on how the control group is constructed. The y-axis is normalized to one at six weeks prior to the first benefit payment.

Source: JPMorgan Chase Institute
Percent Change in All Consumer Spending

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
Under what conditions will you resume attending arts and cultural events?

Filters: Age (4 cohorts)

- Don't know
- None in the foreseeable future
- After I've been vaccinated or developed immunity
- Testing and treatment broadly available
- Rate of new infections drops to near zero
- As soon as legally allowed

Show unstable data (n = 30)

- 03+
- 55 to 64
- 35 to 44
- 35 to 54
- Under 35

Walton Arts Center (May 20)
Walton Arts Center (June 17)
Walton Arts Center (July 15)
Walton Arts Center (Aug 19)
How comfortable would you feel attending the following types of indoor cultural facilities today, assuming they were open and following social distancing guidelines and other health safety procedures?

(Protocol v1 did not explicitly specify that these were indoor facilities. Outdoor Festival or Concert was dropped for protocol v2 however several organizations from different cohorts used protocol v1 for Aug. 5 deployment.) ***Please pay attention to N values (sample sizes).
Business Establishment Growth
Source: U.S. Bureau of Labor Statistics


- Fayetteville-Springdale-Rogers MSA: 2.8%, 4.7%
- Austin-Round Rock MSA: 2.4%, 4.5%
- Des Moines-West Des Moines MSA: 2.5%, 2.8%
- Madison MSA: 2.8%, 3.2%
- Durham-Chapel Hill MSA: 2.1%, 1.7%
- Raleigh MSA: 3.4%, 3.1%
- Provo-Orem MSA: 5.8%, 5.2%
- Peer Average: 3.8%, 3.7%
- Arkansas: 1.1%, 1.6%
- US: 1.8%, 2.3%
Percent Change in Number of Small Businesses Open

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
Percent Change in Number of Small Businesses Open

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
Percent Change in Number of Small Businesses Open

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
Percent Change in Number of Small Businesses Revenue

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
Percent Change in Number of Small Businesses Revenue

-7.4% Low Income
-13.2% Middle Income
-27.6% High Income

Jan 15
Jan 20
First U.S. COVID-19 Case

Apr 1
Mar 17
AR Public Schools Close

Jun 1
May 04
Select Bus. Reopen (AR)

Aug 1
Apr 15
Stimulus Payments Start

Aug 09, 2020

Chetty, Friedman, Hendren, Stepner, and the OI Team (2020)
R&D Expenditures 2017-2018
Source: National Science Foundation

Thousands

<table>
<thead>
<tr>
<th>University of Arkansas, Rank 126</th>
<th>University of Texas, Rank 36</th>
<th>Iowa State University, Rank 70</th>
<th>University of Wisconsin, Rank 8</th>
<th>University of North Carolina, Rank 12</th>
<th>Duke University, Rank 10</th>
<th>University of Utah, Rank 45</th>
</tr>
</thead>
<tbody>
<tr>
<td>$157,791</td>
<td>$652,187</td>
<td>$679,781</td>
<td>$1,193,413</td>
<td>$1,205,518</td>
<td>$1,126,924</td>
<td>$380,295</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$1,102,063</td>
<td>$1,136,158</td>
<td></td>
<td>$552,306</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$1,117,611</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: National Science Foundation
Employment Growth Rate
Source: U.S. Bureau of Labor Statistics

<table>
<thead>
<tr>
<th>Area</th>
<th>2014-2019 Average Annual Growth</th>
<th>2018-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fayetteville-Springdale-Rogers MSA</td>
<td>3.3%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Austin-Round Rock MSA</td>
<td>3.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>Des Moines-West Des Moines MSA</td>
<td>1.7%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Madison MSA</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Durham-Chapel Hill MSA</td>
<td>2.1%</td>
<td>1.9%</td>
</tr>
<tr>
<td>Raleigh MSA</td>
<td>2.5%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Provo-Orem MSA</td>
<td>3.5%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Peer Average</td>
<td>2.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>1.6%</td>
<td>0.8%</td>
</tr>
<tr>
<td>US</td>
<td>1.4%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>
Change in Northwest Arkansas MSA Employment by Sector, August 2019 - August 2020

Source: Bureau of Labor Statistics, CBER Calculations
Unemployment Rate, Annual Average

Source: U.S. Bureau of Labor Statistics

- Fayetteville-Springdale-Rogers MSA
  - 2015: 3.7%
  - 2017: 3.4%
  - 2019: 2.8%

- Austin-Round Rock MSA
  - 2015: 3.5%
  - 2017: 3.1%
  - 2019: 2.6%

- Des Moines-West Des Moines, MSA
  - 2015: 2.9%
  - 2017: 3.6%
  - 2019: 2.7%

- Madison MSA
  - 2015: 2.5%
  - 2017: 3.4%
  - 2019: 2.5%

- Durham-Chapel Hill MSA
  - 2015: 4.4%
  - 2017: 4.0%
  - 2019: 4.8%

- Raleigh MSA
  - 2015: 3.9%
  - 2017: 3.4%
  - 2019: 3.3%

- Provo-Orem MSA
  - 2015: 3.4%
  - 2017: 2.9%
  - 2019: 3.1%

- Peer Average
  - 2015: 3.9%
  - 2017: 3.2%
  - 2019: 3.9%

- Arkansas
  - 2015: 2.9%
  - 2017: 3.7%
  - 2019: 5.0%

- US
  - 2015: 3.7%
  - 2017: 4.4%
  - 2019: 5.3%
Unemployment Rates, Not Seasonally Adjusted

Source: Bureau of Labor Statistics
Labor Force, Year Over Year Percent Change

Source: Bureau of Labor Statistics
Median Cost of Homeownership as Percent of Income

Source: U.S. Census Bureau

2015
2017
2019

Fayetteville-Springdale-Rogers MSA
Austin-Round Rock MSA
Des Moines-West Des Moines MSA
Madison MSA
Durham-Chapel Hill MSA
Raleigh MSA
Provo-Orem MSA
Peer Average
Arkansas
US

0.0% 5.0% 10.0% 15.0% 20.0% 25.0%
Average Price of New Houses Sold

- Bentonville
- Rogers
- Fayetteville
- Springdale
Bentonville, Fayetteville, Rogers, Springdale
Average Square Feet of New Houses Sold

- Bentonville
- Rogers
- Fayetteville
- Springdale

Graph showing the average square feet of new houses sold in Bentonville, Fayetteville, Rogers, and Springdale from 2H 2009 to 1H 2020.
### Peer Region Overview

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Fayetteville/Sprngdale/Rogers MSA</th>
<th>Austin/Round Rock/Georgetown/Town MSA**</th>
<th>Des Moines/West Des Moines MSA</th>
<th>Durham/Chapel Hill MSA</th>
<th>Madison MSA</th>
<th>Provo/Orem MSA</th>
<th>Raleigh/Durham MSA**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population Growth, 2015-2019</td>
<td>1.8%</td>
<td>2.8%</td>
<td>1.2%</td>
<td>1.1%</td>
<td>0.7%</td>
<td>2.4%</td>
<td>2.1%</td>
</tr>
<tr>
<td>Real GDP Growth, 2017-2018</td>
<td>2.4%</td>
<td>5.0%</td>
<td>1.8%</td>
<td>3.4%</td>
<td>2.3%</td>
<td>7.1%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Annual Unemployment Rate, 2019</td>
<td>2.0%</td>
<td>2.7%</td>
<td>2.7%</td>
<td>3.4%</td>
<td>2.5%</td>
<td>2.9%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Nonfarm Employment Growth, 2019</td>
<td>2.0%</td>
<td>3.7%</td>
<td>0.8%</td>
<td>1.9%</td>
<td>1.2%</td>
<td>3.5%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Median Household Income, 2019</td>
<td>$61,674</td>
<td>$80,954</td>
<td>$71,164</td>
<td>$65,303</td>
<td>$75,145</td>
<td>$79,152</td>
<td>$80,096</td>
</tr>
<tr>
<td>Average Annual Wages, 2019</td>
<td>$47,800</td>
<td>$55,190</td>
<td>$52,850</td>
<td>$61,220</td>
<td>$54,500</td>
<td>$48,970</td>
<td>$54,850</td>
</tr>
<tr>
<td>Business Establishment Growth, 2019</td>
<td>2.4%</td>
<td>4.5%</td>
<td>2.8%</td>
<td>1.7%</td>
<td>2.8%</td>
<td>5.8%</td>
<td>3.1%</td>
</tr>
<tr>
<td>% of Adults with a Bachelor's Degree or Higher, 2019</td>
<td>33.0%</td>
<td>46.2%</td>
<td>38.0%</td>
<td>46.3%</td>
<td>48.5%</td>
<td>40.6%</td>
<td>48.0%</td>
</tr>
<tr>
<td>Poverty Rate, 2019</td>
<td>12.5%</td>
<td>10.9%</td>
<td>8.7%</td>
<td>14.0%</td>
<td>8.9%</td>
<td>10.0%</td>
<td>8.9%</td>
</tr>
<tr>
<td>R&amp;D Expenditures (Millions), 2018</td>
<td>$175.5</td>
<td>$679.8</td>
<td>$361.2</td>
<td>$1,156.2</td>
<td>$1,205.5</td>
<td>$552.3</td>
<td>$1,167.6</td>
</tr>
<tr>
<td>Monthly Homeownership Costs as a % of Household Income, 2019</td>
<td>15.2%</td>
<td>18.5%</td>
<td>17.5%</td>
<td>16.4%</td>
<td>17.9%</td>
<td>17.0%</td>
<td>19.0%</td>
</tr>
<tr>
<td>% of Workers Traveling Fewer Than 30 Minutes, 2018</td>
<td>74.0%</td>
<td>57.8%</td>
<td>71.5%</td>
<td>95.1%</td>
<td>72.1%</td>
<td>72.0%</td>
<td>58.8%</td>
</tr>
<tr>
<td>Average Domestic Airfare, 2019</td>
<td>$485</td>
<td>$340</td>
<td>$382</td>
<td>$330</td>
<td>$442</td>
<td>$376</td>
<td>$330</td>
</tr>
</tbody>
</table>
Questions and Comments?


Business Forecast 2020 is January 29, 2021

Contact at mjebaraj@walton.uark.edu or on Twitter: @MervinJebaraj