

# **LOCAL RADIO AND TV:**

Helping Drive the United States Economy





# Local Radio and TV: Helping Drive the United States Economy



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### Local Radio and TV: Helping Drive the United States Economy

#### **Executive Summary**

The commercial local broadcast industry, terrestrial radio and television stations, is critically important to the United States economy as a whole and to local economies in particular. Local radio and television's key role in the dissemination of entertainment and local programming is well established. Its important value to the national economy is often overlooked, and in many ways taken for granted. This analysis quantifies some of the core ways commercial local radio and television stations enhance economic productivity, efficiency, and growth. Only local commercial broadcast radio and television is included in this analysis.

Results of this study show:

\$1.17 trillion of Gross Domestic Product originating in the commercial local radio and television industry annually

2.47 million jobs attributable to the local radio and television industry on an annual basis

The commercial local radio and television broadcast industry is important not only because of its direct employment, estimated at more than 303 thousand jobs nationwide, but because of the industries and economic activity it supports. Through advertising, the industry provides consumers with critical economic data on the price and features of products and services. To businesses, the industry provides a forum for getting messages about innovations and efficiencies directly to consumers. An unintended benefit of business to consumer advertising is that other businesses receive the same information and are prodded to adopt technologies and efficiencies to remain competitive; this free competitive intelligence is very valuable to consumers and to the economy as a whole.

The following analysis identifies, explains, and quantifies all of these effects. Table 1 on the following page displays the economic impact for the United States as a whole. The impact on individual states follows the national analysis.

Local radio and television broadcasting directly, and through their stimulative effect on the economy, support 2.47 million jobs nationwide.

### Table 1. The 2018 Impact in GDP and Jobs

#### Total Impact of Local Television and Radio Broadcasting

#### \$1.17 trillion in GDP annually

\$695.80 billion from television \$478.00 billion from radio

#### 2.47 million jobs on an annual basis

1.46 million in television 1.01 million in radio

#### **Direct Impact of Local Television and Radio**

#### \$53.02 billion in GDP annually

\$31.34 billion from television \$21.68 billion from radio

#### 318.50 thousand jobs on an annual basis

188.27 thousand in television 130.24 thousand in radio

#### Effect of Local Television and Radio on Other Industries

#### \$132.55 billion in GDP annually

\$80.32 billion from television \$52.23 billion from radio

#### 794.67 thousand jobs on an annual basis

469.73 thousand in television 324.94 thousand in radio

#### Stimulative Effect of Local Television and Radio on the Economy

#### \$988.24 billion in GDP annually

\$584.14 billion from television \$404.09 billion from radio

#### 1.36 million jobs on an annual basis

805.95 thousand in television 554.02 thousand in radio

#### Overview

The economic impact of the commercial local broadcast industry, terrestrial television and radio stations, has three major components.

First, the direct impact of the industry is the result of its significant size: 1,346 commercial television stations and 10,941 commercial radio stations sustaining more than 318 thousand jobs and \$53 billion in output.

Second, as with any industry in a developed economy, workers in the commercial local broadcast television and radio industry consume goods and services in all other sectors of the economy supporting more jobs and creating more income and output. This ripple effect is estimated to result in more than 794 thousand jobs and \$132 billion in output.

Third, the output of commercial local broadcast television and radio industry stimulates economic activity by providing a forum for advertising that is free to consumers. The stimulative effect of advertising on local commercial broadcasts is very significant. An estimated \$988 billion in United States output and 1.36 million jobs are attributable to the stimulative effects of advertising on local television and radio.

It is important to note that only commercial local broadcast television and radio is included in this analysis. If noncommercial local broadcast television and radio were included the impact on the United States economy would be greater.

#### The Direct Impact

The direct impact of local television and radio broadcasting on the United States economy is estimated at more than 318 thousand jobs and \$53 billion in economic output. Local television broadcast stations generate 188 thousand jobs and \$31 billion in economic output, while local radio broadcast stations generate another 130 thousand jobs and more than \$21 billion in economic output.

The core direct impact of local television and radio broadcasting includes the number of jobs directly in local television and radio as well as the number of jobs in advertising and programming. It is estimated that local television and radio broadcasting and advertising and programming alone account for 217 thousand jobs. In addition however, other industries are impacted by local television and radio broadcasting because they provide goods and services used in creating local television and radio broadcasting and advertising.

Local television and radio commercial broadcasting directly accounts for more 318 thousand jobs and \$53 billion in U.S. economic output.

The direct impact includes industries supplying goods and services directly to local broadcasters.

Industries as varied as telecommunications, public utilities,manufacturing, transportation and retail trade provide inputs into the production of local television and radio broadcasting. When measured with a technical input-output analysis an additional 101 thousand jobs are supported in other industries because of the goods and services requirements of local television and radio broadcast stations.

#### The Economic Impact on Other Industries

The income earned by workers in jobs directly related to local television and radio broadcasting, either in the industry itself or in the many suppliers that support the industry directly, helps create additional economic activity. Each worker directly employed in local television and radio broadcasting maintains a household and consumes all of the goods and services American workers consume. A worker in local broadcast television advertising consumes manufacturing output when he or she purchases an automobile. A worker in local radio broadcasting consumes construction sector output when he or she purchases a new home.

economic impact of local commercial broadcasting on other industries is also called the "multiplier effect."

The ripple effect of the

The income from local television and radio broadcast jobs flows through the economy creating additional jobs and income in various economic sectors. A job in local television and radio broadcast stations multiplies itself by helping create jobs in construction, farming, mining, state and local government and all other economic sectors. The workers in the industries supplying goods and services to local television and radio broadcast workers in turn consume goods and services. It is estimated that the cascading effect of jobs and income emanating in local television and radio broadcasting results in more than \$132 billion in additional GDP and 794 thousand jobs nationwide.

#### The Stimulative Effect on the Economy

The commercial local broadcast industry, terrestrial television and radio stations, stimulates additional economic activity by providing a forum for advertising goods and services. The advertising provided by commercial local television and radio is unique in its comprehensive coverage and very low cost to consumers. Local television and radio advertising serves an important role for both consumers and businesses in providing economic information on product prices and features. This information increases market efficiencies and results in greater demand for well made and well priced goods and services. The additional demand contributes to aggregate economic growth. With the product and service feature and price information obtained from local broadcast television and radio advertising consumers allocate their purchases more efficiently and businesses design goods and services to keep pace with their competitors.

The stimulative effect is the result of the economically beneficial role advertising plays in the economy.

The stimulative effect of local broadcast television and radio advertising can be very great because almost all households in the United States receive the information creating significant demand and economies of scale for producers and consumers alike.

The primary role of broadcast television and radio is reducing the cost of product information through advertising. In this way, broadcast television and radio stations have their most significant impact on economic growth, although the entertainment value of local broadcast television and radio is often emphasized in discussions on their impact on society. Reaching all United States households, local broadcast television and radio stations

provide consumers with highly valued marketplace information and businesses with immediate economic and competitive intelligence.

Paid advertising on television and radio provides consumers with product information and price comparisons that enable efficient consumer expenditures. An unintended consequence of paid advertising by business is that competitors can learn of product features, innovations and price structures. This competitive intelligence encourages businesses to adapt and to offer better products at lower prices benefiting consumers and creating real economic growth and increases in wealth.

The economic impact of advertising on both consumers and competitors is significant. Advertising on local broadcast television and radio stations is estimated to stimulate \$988 billion in economic activity and support 1.36 million jobs.

#### Scope of this Analysis

Local commercial broadcast radio and television stations including locally owned and operated commercial stations, affiliate stations and independent stations are included in this study. The operations of overthe-air broadcast networks are not part of this analysis, except for their owned-and-operated local television stations. By definition, cable, satellite and other video provider networks and stations are not included because this study covers only commercial broadcast television and radio stations. Noncommercial radio and television stations are also not included.

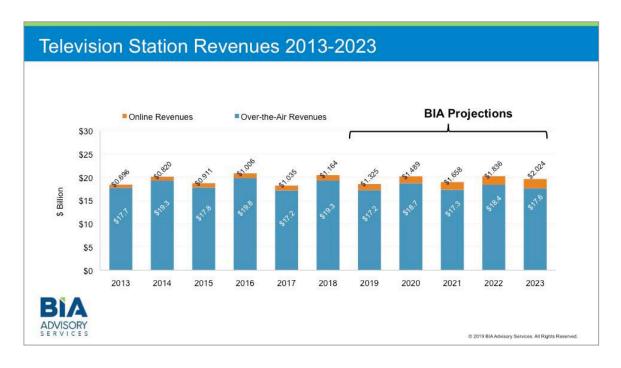
Advertising benefits consumers because businesses learn of competitors innovations and adopt them.

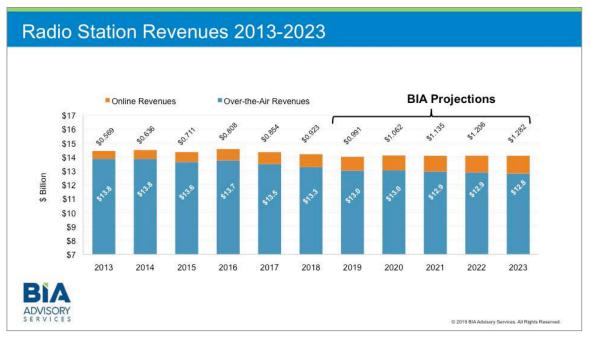
This analysis covers local commercial broadcast radio and television stations.

#### The Outlook

The outlook for growth in the commercial local broadcast industry, terrestrial television and radio stations, is positive. Research suggests that both television and radio local broadcast revenues will grow through the year 2023 (see Charts below). The unique forum and low cost of providing entertainment and product information to consumers ensure that revenues will increase in coming years. The economic impact previously described in this study will show parallel growth.

The outlook for local broadcasting revenue growth is positive.





# **United States - Local Television and Radio**

Total U.S. Economic Impact

\$1.17 trillion

Television \$695.80 billion Radio \$478.00 billion

2.47 million jobs

Television 1.46 million jobs Radio 1.01 million jobs

Direct Economic Impact in U.S. \$53.02 billion

318.50 thousand jobs

Economic Impact on Other Industries in U.S. \$132.55 billion 794.67 thousand jobs

Stimulative Effect on Economy in U.S. \$988.24 billion

1.36 million jobs





Television: 1,346 Radio: 10,941

### **United States Economy**

|  | 2018        | 2025        |
|--|-------------|-------------|
| Population (thousands)                 | 328,094.15  | 344,322.47  |
| Households (thousands)                 | 127,609.93  | 136,296.72  |
| Employment (thousands of jobs)         | 199,425.62  | 217,624.63  |
| Retail Sales (billions 2018 \$)        | \$5,905.26  | \$6,506.58  |
| Gross State Product (billions 2018 \$) | \$20,182.09 | \$22,978.67 |
| Income per Capita (2018 \$)            | \$53,517    | \$59,457    |

# Alabama - Local Television and Radio

Total Economic Impact in State \$15.10 billion

Television \$8.85 billion Radio \$6.26 billion

33.98 thousand jobs

Television 19.89 thousand jobs Radio 14.09 thousand jobs



Direct Economic Impact in State \$0.68 billion 4.38 thousand jobs

Economic Impact on Other Industries in State \$1.70 billion 10.92 thousand jobs

Stimulative Effect on Economy in State \$12.72 billion 18.69 thousand jobs



### Alabama Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 4,899.78 | 5,063.60 |
| Households (thousands)                 | 2,017.30 | 2,121.61 |
| Employment (thousands of jobs)         | 2,692.42 | 2,887.18 |
| Retail Sales (billions 2018 \$)        | \$79.03  | \$85.73  |
| Gross State Product (billions 2018 \$) | \$219.55 | \$245.06 |
| Income per Capita (2018 \$)            | \$42,309 | \$47,036 |

# Alaska - Local Television and Radio

**Total Economic Impact in State** \$3.05 billion

> Television \$1.66 billion Radio \$1.39 billion

6.15 thousand jobs

Television 3.32 thousand jobs

Radio 2.83 thousand jobs

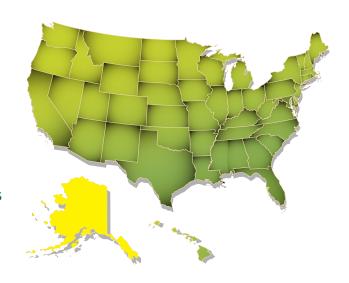
Direct Economic Impact in State \$0.14 billion 0.79 thousand jobs

Economic Impact on Other Industries in State \$0.34 billion

1.98 thousand jobs

Stimulative Effect on Economy in State \$2.57 billion

3.38 thousand jobs





### Alaska Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 745.99   | 788.40   |
| Households (thousands)                 | 290.59   | 315.75   |
| Employment (thousands of jobs)         | 460.33   | 495.39   |
| Retail Sales (billions 2018 \$)        | \$14.45  | \$16.03  |
| Gross State Product (billions 2018 \$) | \$53.34  | \$60.20  |
| Income per Capita (2018 \$)            | \$59,067 | \$64,745 |

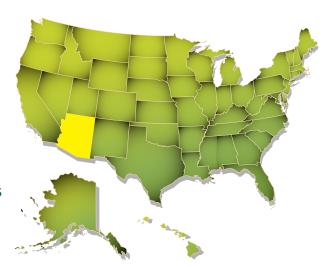
# **Arizona - Local Television and Radio**

Total Economic Impact in State \$26.02 billion

Television \$15.45 billion Radio \$10.57 billion

56.60 thousand jobs

Television 33.56 thousand jobs Radio 23.04 thousand jobs

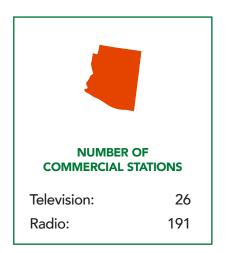


Direct Economic Impact in State \$1.18 billion

7.29 thousand jobs

Economic Impact on Other Industries in State \$2.94 billion 18.19 thousand jobs

Stimulative Effect on Economy in State \$21.91 billion 31.13 thousand jobs



### **Arizona Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 7,109.06 | 7,771.92 |
| Households (thousands)                 | 2,743.22 | 3,051.32 |
| Employment (thousands of jobs)         | 3,807.41 | 4,300.92 |
| Retail Sales (billions 2018 \$)        | \$122.39 | \$140.45 |
| Gross State Product (billions 2018 \$) | \$341.63 | \$409.46 |
| Income per Capita (2018 \$)            | \$43,838 | \$49,116 |

# **Arkansas - Local Television and Radio**

Total Economic Impact in State

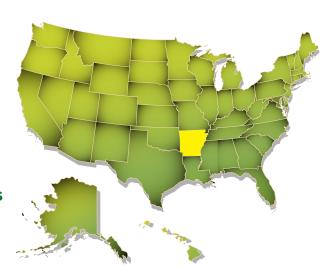
\$9.10 billion

Television \$5.15 billion Radio \$3.95 billion

20.85 thousand jobs

Television 11.82 thousand jobs

Radio 9.03 thousand jobs



Direct Economic Impact in State

\$0.41 billion

2.69 thousand jobs

Economic Impact on Other Industries in State

\$1.03 billion

6.70 thousand jobs

Stimulative Effect on Economy in State

\$7.66 billion

11.46 thousand jobs



Television: 21 Radio: 242

### **Arkansas Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 3,023.61 | 3,154.98 |
| Households (thousands)                 | 1,250.98 | 1,328.38 |
| Employment (thousands of jobs)         | 1,668.20 | 1,811.56 |
| Retail Sales (billions 2018 \$)        | \$49.54  | \$54.26  |
| Gross State Product (billions 2018 \$) | \$128.25 | \$146.73 |
| Income per Capita (2018 \$)            | \$42,657 | \$48,091 |

# California - Local Television and Radio

Total Economic Impact in State \$152.57 billion Television \$93.67 billion

Television \$93.67 billion Radio \$58.90 billion

301.52 thousand jobs

Television 185.29 thousand jobs

Radio 116.23 thousand jobs



Direct Economic Impact in State \$6.89 billion 38.83 thousand jobs

Economic Impact on Other Industries in State \$17.25 billion 96.88 thousand jobs

Stimulative Effect on Economy in State \$128.43 billion 165.81 thousand jobs



### California Economy

|  | 2018       | 2025       |
|--|------------|------------|
| Population (thousands)                 | 39,841.71  | 41,914.99  |
| Households (thousands)                 | 13,794.87  | 14,724.54  |
| Employment (thousands of jobs)         | 23,992.00  | 26,359.92  |
| Retail Sales (billions 2018 \$)        | \$684.96   | \$756.42   |
| Gross State Product (billions 2018 \$) | \$2,908.97 | \$3,317.74 |
| Income per Capita (2018 \$)            | \$61,811   | \$68,101   |

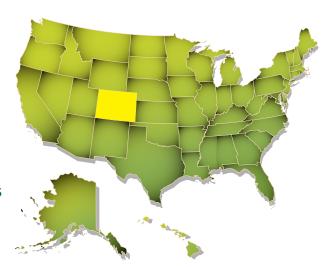
# Colorado - Local Television and Radio

Total Economic Impact in State \$22.69 billion

Television \$13.70 billion Radio \$8.99 billion

48.85 thousand jobs

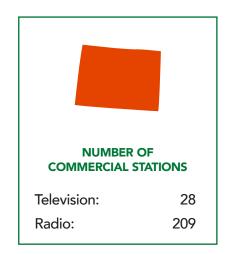
Television 29.44 thousand jobs Radio 19.41 thousand jobs



Direct Economic Impact in State \$1.03 billion 6.29 thousand jobs

Economic Impact on Other Industries in State \$2.56 billion 15.70 thousand jobs

Stimulative Effect on Economy in State \$19.10 billion 26.86 thousand jobs



### Colorado Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 5,669.63 | 6,108.05 |
| Households (thousands)                 | 2,247.06 | 2,474.15 |
| Employment (thousands of jobs)         | 3,814.89 | 4,241.79 |
| Retail Sales (billions 2018 \$)        | \$101.00 | \$114.22 |
| Gross State Product (billions 2018 \$) | \$361.80 | \$422.00 |
| Income per Capita (2018 \$)            | \$56,712 | \$63,286 |

# **Connecticut – Local Television and Radio**

Total Economic Impact in State \$13.23 billion

Television \$8.09 billion Radio \$5.14 billion

26.35 thousand jobs

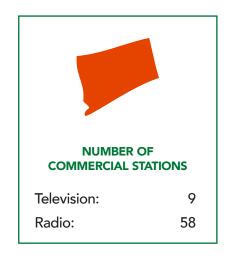
Television 16.12 thousand jobs Radio 10.23 thousand jobs



Direct Economic Impact in State \$0.60 billion 3.39 thousand jobs

Economic Impact on Other Industries in State \$1.50 billion 8.47 thousand jobs

Stimulative Effect on Economy in State \$11.14 billion 14.49 thousand jobs



### **Connecticut Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 3,600.38 | 3,674.87 |
| Households (thousands)                 | 1,444.39 | 1,497.82 |
| Employment (thousands of jobs)         | 2,347.01 | 2,511.77 |
| Retail Sales (billions 2018 \$)        | \$69.14  | \$74.08  |
| Gross State Product (billions 2018 \$) | \$277.43 | \$312.33 |
| Income per Capita (2018 \$)            | \$74,710 | \$82,981 |

# **Delaware - Local Television and Radio**

Total Economic Impact in State \$3.70 billion

Television \$2.19 billion Radio \$1.51 billion

7.17 thousand jobs

Television 4.23 thousand jobs Radio 2.93 thousand jobs



Direct Economic Impact in State \$0.17 billion

0.92 thousand jobs

Economic Impact on Other Industries in State \$0.42 billion

2.30 thousand jobs

Stimulative Effect on Economy in State

\$3.11 billion

3.94 thousand jobs



### **Delaware Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 970.50   | 1,028.77 |
| Households (thousands)                 | 376.87   | 405.62   |
| Employment (thousands of jobs)         | 593.57   | 645.65   |
| Retail Sales (billions 2018 \$)        | \$20.37  | \$22.67  |
| Gross State Product (billions 2018 \$) | \$74.34  | \$84.66  |
| Income per Capita (2018 \$)            | \$50,975 | \$56,240 |

# District of Columbia - Local Television and Radio

**Total Economic Impact in State** \$4.34 billion

> Television \$2.48 billion Radio \$1.86 billion

7.14 thousand jobs

Television 4.03 thousand jobs

Radio 3.11 thousand jobs



Direct Economic Impact in State \$0.20 billion 0.92 thousand jobs

Economic Impact on Other Industries in State \$0.49 billion

2.29 thousand jobs

\$3.65 billion

Stimulative Effect on Economy in State 3.93 thousand jobs



### **District of Columbia Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 698.65   | 728.75   |
| Households (thousands)                 | 290.14   | 309.25   |
| Employment (thousands of jobs)         | 909.62   | 979.01   |
| Retail Sales (billions 2018 \$)        | \$9.85   | \$10.79  |
| Gross State Product (billions 2018 \$) | \$140.84 | \$157.83 |
| Income per Capita (2018 \$)            | \$81,010 | \$88,451 |

# Florida - Local Television and Radio

Total Economic Impact in State \$77.82 billion

Television \$51.01 billion Radio \$26.81 billion

172.46 thousand jobs

Television 112.38 thousand jobs Radio 60.08 thousand jobs



Direct Economic Impact in State \$3.51 billion 22.21 thousand jobs

Economic Impact on Other Industries in State \$8.82 billion 55.40 thousand jobs

Stimulative Effect on Economy in State \$65.49 billion 94.85 thousand jobs



### Florida Economy

|  | 2018       | 2025       |
|--|------------|------------|
| Population (thousands)                 | 21,244.02  | 23,083.53  |
| Households (thousands)                 | 8,409.46   | 9,278.90   |
| Employment (thousands of jobs)         | 12,156.49  | 13,652.34  |
| Retail Sales (billions 2018 \$)        | \$402.24   | \$458.79   |
| Gross State Product (billions 2018 \$) | \$1,026.26 | \$1,203.85 |
| Income per Capita (2018 \$)            | \$49,621   | \$55,699   |

# Georgia - Local Television and Radio

Total Economic Impact in State \$35.84 billion

Television \$20.59 billion Radio \$15.26 billion

77.11 thousand jobs

Television 44.26 thousand jobs Radio 32.86 thousand jobs



Direct Economic Impact in State \$1.62 billion

9.93 thousand jobs

Economic Impact on Other Industries in State \$4.04 billion 24.78 thousand jobs

Stimulative Effect on Economy in State \$30.18 billion 42.40 thousand jobs



### Georgia Economy

|  | 2018      | 2025      |
|--|-----------|-----------|
| Population (thousands)                 | 10,544.09 | 11,351.71 |
| Households (thousands)                 | 4,036.32  | 4,423.61  |
| Employment (thousands of jobs)         | 6,201.20  | 6,884.15  |
| Retail Sales (billions 2018 \$)        | \$171.76  | \$194.11  |
| Gross State Product (billions 2018 \$) | \$587.77  | \$679.38  |
| Income per Capita (2018 \$)            | \$45,836  | \$50,989  |

# Hawaii - Local Television and Radio

Total Economic Impact in State \$4.84 billion

Television \$2.47 billion Radio \$2.37 billion

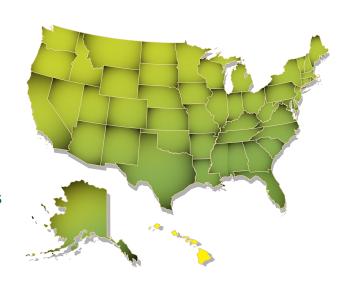
10.32 thousand jobs

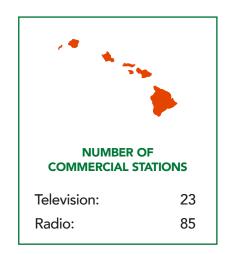
Television 5.26 thousand jobs Radio 5.06 thousand jobs

Direct Economic Impact in State \$0.22 billion 1.33 thousand jobs

Economic Impact on Other Industries in State \$0.54 billion 3.32 thousand jobs

Stimulative Effect on Economy in State \$4.08 billion 5.67 thousand jobs





### Hawaii Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,438.54 | 1,513.27 |
| Households (thousands)                 | 505.16   | 540.26   |
| Employment (thousands of jobs)         | 936.36   | 1,021.17 |
| Retail Sales (billions 2018 \$)        | \$27.99  | \$30.90  |
| Gross State Product (billions 2018 \$) | \$91.65  | \$104.68 |
| Income per Capita (2018 \$)            | \$54,485 | \$60,114 |

# Idaho - Local Television and Radio

Total Economic Impact in State

\$4.91 billion

Television \$2.56 billion Radio \$2.35 billion

11.48 thousand jobs

Television 6.06 thousand jobs Radio 5.43 thousand jobs



Direct Economic Impact in State \$0.22 billion 1.48 thousand jobs

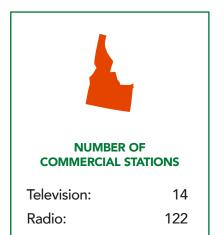
Economic Impact on Other Industries in State \$0.55 billion

3.69 thousand jobs

Stimulative Effect on Economy in State

\$4.14 billion

6.31 thousand jobs



### **Idaho Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,735.80 | 1,868.77 |
| Households (thousands)                 | 652.27   | 716.70   |
| Employment (thousands of jobs)         | 1,020.95 | 1,125.41 |
| Retail Sales (billions 2018 \$)        | \$28.96  | \$32.72  |
| Gross State Product (billions 2018 \$) | \$75.62  | \$86.34  |
| Income per Capita (2018 \$)            | \$43,498 | \$47,944 |

# Illinois - Local Television and Radio

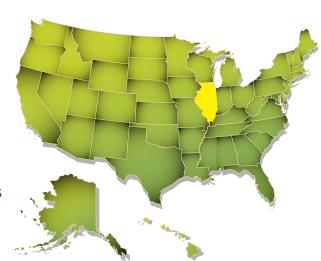
Total Economic Impact in State \$50.11 billion

Television \$29.78 billion Radio \$20.33 billion

103.63 thousand jobs

Television 61.50 thousand jobs

Radio 42.13 thousand jobs



Direct Economic Impact in State \$2.26 billion

13.35 thousand jobs

Economic Impact on Other Industries in State

\$5.66 billion

33.30 thousand jobs

Stimulative Effect on Economy in State

\$42.19 billion

56.99 thousand jobs



Television: 36 Radio: 342

### **Idaho Economy**

|  | 2018      | 2025      |
|--|-----------|-----------|
| Population (thousands)                 | 12,841.68 | 13,082.59 |
| Households (thousands)                 | 5,122.06  | 5,331.36  |
| Employment (thousands of jobs)         | 7,969.03  | 8,476.36  |
| Retail Sales (billions 2018 \$)        | \$224.47  | \$240.04  |
| Gross State Product (billions 2018 \$) | \$853.41  | \$946.78  |
| Income per Capita (2018 \$)            | \$56,143  | \$62,169  |

# Indiana - Local Television and Radio

Total Economic Impact in State \$22.86 billion

Television \$12.64 billion Radio \$10.21 billion

49.53 thousand jobs

Television 27.42 thousand jobs Radio 22.12 thousand jobs

Radio 22.12 tilousand jok

Direct Economic Impact in State \$1.03 billion

6.38 thousand jobs

Economic Impact on Other Industries in State \$2.58 billion

15.92 thousand jobs

Stimulative Effect on Economy in State

\$19.25 billion

27.23 thousand jobs





Television: 31 Radio: 240

### **Indiana Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 6,696.85 | 6,890.59 |
| Households (thousands)                 | 2,664.81 | 2,787.65 |
| Employment (thousands of jobs)         | 3,949.97 | 4,204.79 |
| Retail Sales (billions 2018 \$)        | \$116.90 | \$126.26 |
| Gross State Product (billions 2018 \$) | \$365.81 | \$404.81 |
| Income per Capita (2018 \$)            | \$46,656 | \$51,759 |

# Iowa - Local Television and Radio

**Total Economic Impact in State** 

\$11.77 billion

Television \$6.48 billion Radio \$5.29 billion

25.68 thousand jobs

Television 14.15 thousand jobs

Radio 11.53 thousand jobs



Direct Economic Impact in State \$0.53 billion

3.31 thousand jobs

Economic Impact on Other Industries in State

\$1.33 billion

8.25 thousand jobs

Stimulative Effect on Economy in State

\$9.91 billion

14.12 thousand jobs



### **lowa Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 3,157.32 | 3,230.70 |
| Households (thousands)                 | 1,289.97 | 1,348.09 |
| Employment (thousands of jobs)         | 2,101.44 | 2,239.89 |
| Retail Sales (billions 2018 \$)        | \$59.74  | \$64.17  |
| Gross State Product (billions 2018 \$) | \$191.71 | \$211.54 |
| Income per Capita (2018 \$)            | \$48,749 | \$54,122 |

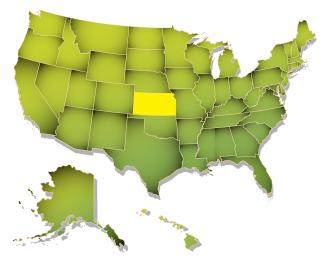
# Kansas - Local Television and Radio

Total Economic Impact in State \$10.03 billion

Television \$5.49 billion Radio \$4.54 billion

22.44 thousand jobs

Television 12.33 thousand jobs Radio 10.11 thousand jobs



Direct Economic Impact in State \$0.45 billion 2.89 thousand jobs

Economic Impact on Other Industries in State \$1.13 billion 7.21 thousand jobs

Stimulative Effect on Economy in State \$8.44 billion 12.34 thousand jobs



### Kansas Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 2,927.44 | 3,020.84 |
| Households (thousands)                 | 1,194.04 | 1,254.78 |
| Employment (thousands of jobs)         | 1,950.50 | 2,079.87 |
| Retail Sales (billions 2018 \$)        | \$51.26  | \$55.53  |
| Gross State Product (billions 2018 \$) | \$165.79 | \$184.63 |
| Income per Capita (2018 \$)            | \$50,336 | \$55,741 |

# Kentucky – Local Television and Radio

Total Economic Impact in State

\$15.10 billion

Television \$8.62 billion Radio \$6.48 billion

33.82 thousand jobs

Television 19.32 thousand jobs

Radio 14.49 thousand jobs



Direct Economic Impact in State \$0.68 billion 4.36 thousand jobs

Economic Impact on Other Industries in State \$1.70 billion 10.87 thousand jobs

Stimulative Effect on Economy in State

\$12.72 billion

18.59 thousand jobs



### **Kentucky Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 4,476.59 | 4,623.29 |
| Households (thousands)                 | 1,849.99 | 1,943.85 |
| Employment (thousands of jobs)         | 2,557.85 | 2,733.04 |
| Retail Sales (billions 2018 \$)        | \$74.70  | \$80.99  |
| Gross State Product (billions 2018 \$) | \$209.81 | \$228.94 |
| Income per Capita (2018 \$)            | \$42,087 | \$46,910 |

# Louisiana - Local Television and Radio

Total Economic Impact in State
\$15.38 billion
Television \$9.20 billion
Radio \$6.18 billion
33.70 thousand jobs
Television 20.12 thousand jobs
Radio 13.58 thousand jobs



Direct Economic Impact in State \$0.69 billion 4.34 thousand jobs

Economic Impact on Other Industries in State \$1.74 billion 10.83 thousand jobs

Stimulative Effect on Economy in State \$12.95 billion 18.53 thousand jobs



### Louisiana Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 4,706.27 | 4,848.03 |
| Households (thousands)                 | 1,880.71 | 1,986.41 |
| Employment (thousands of jobs)         | 2,738.39 | 2,949.00 |
| Retail Sales (billions 2018 \$)        | \$84.25  | \$91.11  |
| Gross State Product (billions 2018 \$) | \$245.00 | \$273.85 |
| Income per Capita (2018 \$)            | \$45,235 | \$50,337 |

# Maine - Local Television and Radio

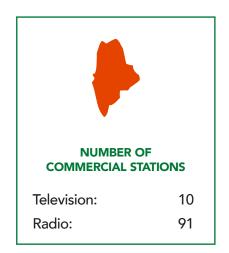
Total Economic Impact in State
\$4.59 billion
Television \$2.61 billion
Radio \$1.98 billion
10.56 thousand jobs
Television 6.02 thousand jobs
Radio 4.54 thousand jobs



Direct Economic Impact in State \$0.21 billion 1.36 thousand jobs

Economic Impact on Other Industries in State \$0.52 billion 3.39 thousand jobs

Stimulative Effect on Economy in State \$3.87 billion 5.81 thousand jobs



### Maine Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,340.38 | 1,367.93 |
| Households (thousands)                 | 596.56   | 624.54   |
| Employment (thousands of jobs)         | 847.54   | 905.12   |
| Retail Sales (billions 2018 \$)        | \$28.30  | \$30.32  |
| Gross State Product (billions 2018 \$) | \$64.15  | \$72.12  |
| Income per Capita (2018 \$)            | \$48,168 | \$53,795 |

# Maryland - Local Television and Radio

**Total Economic Impact in State** 

\$21.73 billion

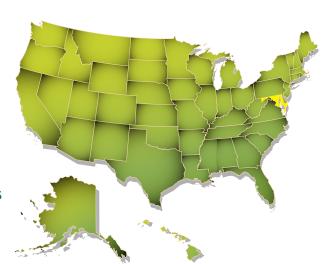
Television \$12.41 billion

Radio \$9.32 billion

44.33 thousand jobs

Television 25.25 thousand jobs

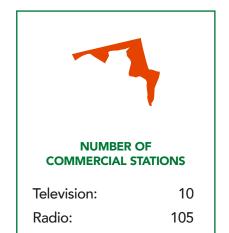
Radio 19.08 thousand jobs



Direct Economic Impact in State \$0.98 billion 5.71 thousand jobs

Economic Impact on Other Industries in State \$2.45 billion 14.25 thousand jobs

Stimulative Effect on Economy in State \$18.30 billion 24.38 thousand jobs



### **Maryland Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 6,092.17 | 6,355.27 |
| Households (thousands)                 | 2,358.98 | 2,498.28 |
| Employment (thousands of jobs)         | 3,753.75 | 4,071.13 |
| Retail Sales (billions 2018 \$)        | \$106.79 | \$116.93 |
| Gross State Product (billions 2018 \$) | \$412.74 | \$468.17 |
| Income per Capita (2018 \$)            | \$62,662 | \$69,263 |

# Massachusetts - Local Television and Radio

Total Economic Impact in State \$27.97 billion

Television \$16.16 billion Radio \$11.82 billion

55.92 thousand jobs

Television 32.20 thousand jobs

Radio 23.71 thousand jobs



Direct Economic Impact in State \$1.26 billion

7.20 thousand jobs

Economic Impact on Other Industries in State

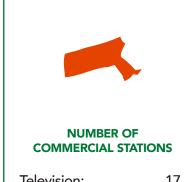
\$3.16 billion

17.97 thousand jobs

Stimulative Effect on Economy in State

\$23.55 billion

30.75 thousand jobs



Television: 17 Radio: 120

### **Massachusetts Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 6,889.40 | 7,074.88 |
| Households (thousands)                 | 2,707.05 | 2,834.13 |
| Employment (thousands of jobs)         | 4,854.91 | 5,291.14 |
| Retail Sales (billions 2018 \$)        | \$132.01 | \$142.30 |
| Gross State Product (billions 2018 \$) | \$565.56 | \$647.41 |
| Income per Capita (2018 \$)            | \$70,121 | \$78,516 |

# Michigan - Local Television and Radio

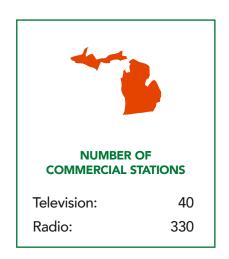
Total Economic Impact in State
\$33.95 billion
Television \$20.14 billion
Radio \$13.81 billion
73.60 thousand jobs
Television 43.59 thousand jobs
Radio 30.01 thousand jobs



Direct Economic Impact in State \$1.53 billion 9.48 thousand jobs

Economic Impact on Other Industries in State \$3.83 billion 23.65 thousand jobs

Stimulative Effect on Economy in State \$28.58 billion 40.47 thousand jobs



### Michigan Economy

|  | 2018     | 2025      |
|--|----------|-----------|
| Population (thousands)                 | 9,976.91 | 10,049.60 |
| Households (thousands)                 | 4,040.52 | 4,171.45  |
| Employment (thousands of jobs)         | 5,714.29 | 6,002.83  |
| Retail Sales (billions 2018 \$)        | \$159.97 | \$169.14  |
| Gross State Product (billions 2018 \$) | \$528.39 | \$573.79  |
| Income per Capita (2018 \$)            | \$48,049 | \$53,266  |

# Minnesota - Local Television and Radio

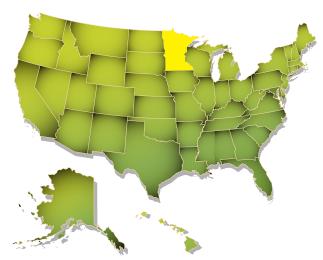
Total Economic Impact in State
\$20.20 billion
Television \$11.25 billion
Radio \$8.95 billion
43.44 thousand jobs

Television 24.19 thousand jobs Radio 19.25 thousand jobs

Direct Economic Impact in State \$0.91 billion 5.60 thousand jobs

Economic Impact on Other Industries in State \$2.28 billion 13.96 thousand jobs

Stimulative Effect on Economy in State \$17.01 billion 23.88 thousand jobs





### Minnesota Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 5,615.58 | 5,878.24 |
| Households (thousands)                 | 2,291.75 | 2,454.05 |
| Employment (thousands of jobs)         | 3,813.68 | 4,138.80 |
| Retail Sales (billions 2018 \$)        | \$108.86 | \$119.62 |
| Gross State Product (billions 2018 \$) | \$365.44 | \$412.03 |
| Income per Capita (2018 \$)            | \$56,277 | \$62,196 |

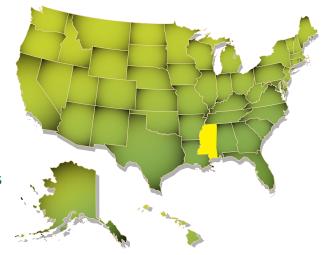
# Mississippi – Local Television and Radio

Total Economic Impact in State \$8.60 billion

Television \$5.25 billion Radio \$3.35 billion

20.15 thousand jobs

Television 12.25 thousand jobs Radio 7.90 thousand jobs



Direct Economic Impact in State \$0.39 billion 2.60 thousand jobs

Economic Impact on Other Industries in State \$0.97 billion 6.47 thousand jobs

Stimulative Effect on Economy in State \$7.24 billion 11.08 thousand jobs



### Mississippi Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 2,997.87 | 3,087.72 |
| Households (thousands)                 | 1,198.77 | 1,262.16 |
| Employment (thousands of jobs)         | 1,614.52 | 1,732.07 |
| Retail Sales (billions 2018 \$)        | \$48.88  | \$52.84  |
| Gross State Product (billions 2018 \$) | \$113.61 | \$125.19 |
| Income per Capita (2018 \$)            | \$37,932 | \$42,289 |

# Missouri - Local Television and Radio

**Total Economic Impact in State** 

\$21.72 billion

Television \$12.57 billion

Radio \$9.15 billion

48.55 thousand jobs

Television 28.10 thousand jobs

Radio 20.45 thousand jobs



Direct Economic Impact in State \$0.98 billion 6.25 thousand jobs

Economic Impact on Other Industries in State \$2.45 billion 15.60 thousand jobs

Stimulative Effect on Economy in State \$18.29 billion 26.70 thousand jobs



### Missouri Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 6,142.81 | 6,332.58 |
| Households (thousands)                 | 2,537.34 | 2,666.48 |
| Employment (thousands of jobs)         | 3,789.80 | 4,039.59 |
| Retail Sales (billions 2018 \$)        | \$121.30 | \$131.26 |
| Gross State Product (billions 2018 \$) | \$315.61 | \$347.26 |
| Income per Capita (2018 \$)            | \$46,676 | \$51,669 |

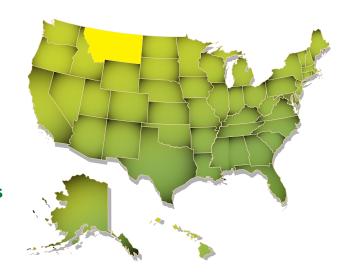
# Montana - Local Television and Radio

Total Economic Impact in State \$4.07 billion

Television \$2.37 billion Radio \$1.70 billion

9.42 thousand jobs

Television 5.48 thousand jobs Radio 3.94 thousand jobs



Direct Economic Impact in State \$0.18 billion 1.21 thousand jobs

Economic Impact on Other Industries in State \$0.46 billion 3.03 thousand jobs

Stimulative Effect on Economy in State \$3.43 billion 5.18 thousand jobs



#### **Montana Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,057.87 | 1,107.89 |
| Households (thousands)                 | 452.23   | 488.18   |
| Employment (thousands of jobs)         | 687.16   | 748.96   |
| Retail Sales (billions 2018 \$)        | \$21.83  | \$24.00  |
| Gross State Product (billions 2018 \$) | \$49.06  | \$55.95  |
| Income per Capita (2018 \$)            | \$46,957 | \$52,150 |

# Nebraska - Local Television and Radio

**Total Economic Impact in State** 

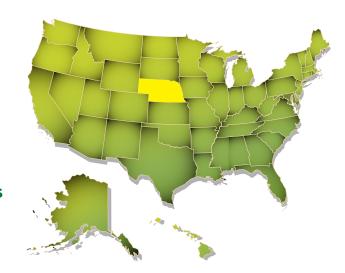
\$7.32 billion

Television \$3.77 billion Radio \$3.55 billion

15.88 thousand jobs

Television 8.19 thousand jobs

Radio 7.68 thousand jobs



Direct Economic Impact in State \$0.33 billion

2.05 thousand jobs

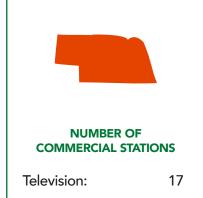
Economic Impact on Other Industries in State \$0.82 billion

5.10 thousand jobs

Stimulative Effect on Economy in State

\$6.16 billion

8.73 thousand jobs



Radio: 130

### Nebraska Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,930.05 | 1,995.33 |
| Households (thousands)                 | 778.32   | 820.17   |
| Employment (thousands of jobs)         | 1,339.18 | 1,436.22 |
| Retail Sales (billions 2018 \$)        | \$41.28  | \$44.79  |
| Gross State Product (billions 2018 \$) | \$123.94 | \$139.23 |
| Income per Capita (2018 \$)            | \$52,157 | \$57,495 |

# Nevada - Local Television and Radio

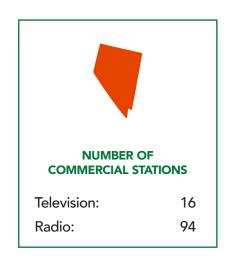
Total Economic Impact in State
\$12.96 billion
Television \$9.08 billion
Radio \$3.87 billion
28.01 thousand jobs
Television 19.54 thousand jobs
Radio 8.48 thousand jobs



Direct Economic Impact in State \$0.59 billion 3.61 thousand jobs

Economic Impact on Other Industries in State \$1.47 billion 9.00 thousand jobs

Stimulative Effect on Economy in State \$10.90 billion 15.41 thousand jobs



#### **Nevada Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 3,046.56 | 3,396.96 |
| Households (thousands)                 | 1,151.09 | 1,300.45 |
| Employment (thousands of jobs)         | 1,814.44 | 2,058.07 |
| Retail Sales (billions 2018 \$)        | \$59.02  | \$69.08  |
| Gross State Product (billions 2018 \$) | \$165.13 | \$196.62 |
| Income per Capita (2018 \$)            | \$47,929 | \$53,128 |

# New Hampshire - Local Television and Radio

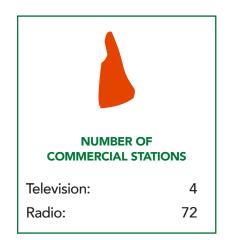
Total Economic Impact in State
\$5.04 billion
Television \$2.86 billion
Radio \$2.17 billion
10.84 thousand jobs
Television 6.15 thousand jobs
Radio 4.69 thousand jobs



Direct Economic Impact in State \$0.23 billion 1.40 thousand jobs

Economic Impact on Other Industries in State \$0.57 billion 3.48 thousand jobs

Stimulative Effect on Economy in State \$4.24 billion 5.96 thousand jobs



### **New Hampshire Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,348.57 | 1,386.97 |
| Households (thousands)                 | 559.94   | 586.95   |
| Employment (thousands of jobs)         | 897.53   | 968.88   |
| Retail Sales (billions 2018 \$)        | \$34.44  | \$37.18  |
| Gross State Product (billions 2018 \$) | \$84.76  | \$94.98  |
| Income per Capita (2018 \$)            | \$61,892 | \$69,051 |

# New Jersey – Local Television and Radio

Total Economic Impact in State \$32.24 billion

Television \$19.60 billion Radio \$12.64 billion

65.30 thousand jobs

Television 39.67 thousand jobs Radio 25.63 thousand jobs



Direct Economic Impact in State

\$1.46 billion

8.41 thousand jobs

Economic Impact on Other Industries in State

\$3.64 billion

20.98 thousand jobs

Stimulative Effect on Economy in State

\$27.14 billion

35.91 thousand jobs



### **New Jersey Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 9,038.30 | 9,245.23 |
| Households (thousands)                 | 3,392.28 | 3,531.41 |
| Employment (thousands of jobs)         | 5,550.48 | 5,989.43 |
| Retail Sales (billions 2018 \$)        | \$179.38 | \$192.60 |
| Gross State Product (billions 2018 \$) | \$629.74 | \$709.85 |
| Income per Capita (2018 \$)            | \$67,303 | \$75,032 |

# New Mexico - Local Television and Radio

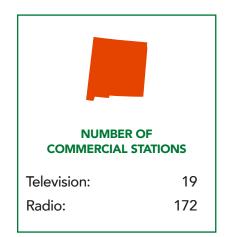
Total Economic Impact in State
\$6.91 billion
Television \$3.98 billion
Radio \$2.93 billion
15.16 thousand jobs
Television 8.73 thousand jobs
Radio 6.43 thousand jobs



Direct Economic Impact in State \$0.31 billion 1.95 thousand jobs

Economic Impact on Other Industries in State \$0.78 billion 4.87 thousand jobs

Stimulative Effect on Economy in State \$5.81 billion 8.33 thousand jobs



#### **New Mexico Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 2,103.73 | 2,210.78 |
| Households (thousands)                 | 892.50   | 958.90   |
| Employment (thousands of jobs)         | 1,114.25 | 1,205.18 |
| Retail Sales (billions 2018 \$)        | \$33.89  | \$37.39  |
| Gross State Product (billions 2018 \$) | \$97.97  | \$110.73 |
| Income per Capita (2018 \$)            | \$41,257 | \$45,699 |

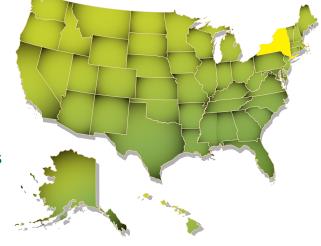
# **New York – Local Television and Radio**

Total Economic Impact in State \$75.70 billion

Television \$45.15 billion Radio \$30.55 billion

143.40 thousand jobs

Television 85.47 thousand jobs Radio 57.93 thousand jobs

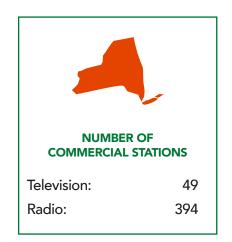


Direct Economic Impact in State \$3.42 billion

18.47 thousand jobs

Economic Impact on Other Industries in State \$8.55 billion 46.08 thousand jobs

Stimulative Effect on Economy in State \$63.73 billion 78.86 thousand jobs



#### **New York Economy**

|  | 2018       | 2025       |
|--|------------|------------|
| Population (thousands)                 | 19,909.76  | 20,272.17  |
| Households (thousands)                 | 7,690.08   | 7,980.38   |
| Employment (thousands of jobs)         | 12,613.85  | 13,596.24  |
| Retail Sales (billions 2018 \$)        | \$348.48   | \$372.46   |
| Gross State Product (billions 2018 \$) | \$1,662.83 | \$1,891.68 |
| Income per Capita (2018 \$)            | \$66,675   | \$74,750   |

# North Carolina - Local Television and Radio

**Total Economic Impact in State** 

\$31.70 billion

Television \$18.58 billion Radio \$13.11 billion

68.66 thousand jobs

Television 40.21 thousand jobs

Radio 28.45 thousand jobs



Direct Economic Impact in State

\$1.43 billion

8.84 thousand jobs

Economic Impact on Other Industries in State

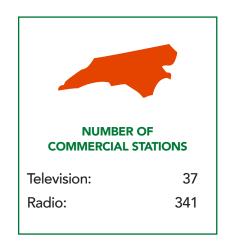
\$3.58 billion

22.06 thousand jobs

Stimulative Effect on Economy in State

\$26.69 billion

37.76 thousand jobs



### **North Carolina Economy**

|  | 2018      | 2025      |
|--|-----------|-----------|
| Population (thousands)                 | 10,381.41 | 11,137.23 |
| Households (thousands)                 | 4,225.78  | 4,614.95  |
| Employment (thousands of jobs)         | 6,034.24  | 6,685.97  |
| Retail Sales (billions 2018 \$)        | \$172.48  | \$194.23  |
| Gross State Product (billions 2018 \$) | \$566.34  | \$662.35  |
| Income per Capita (2018 \$)            | \$45,976  | \$51,361  |

# North Dakota - Local Television and Radio

Total Economic Impact in State \$3.83 billion

Television \$1.93 billion Radio \$1.89 billion

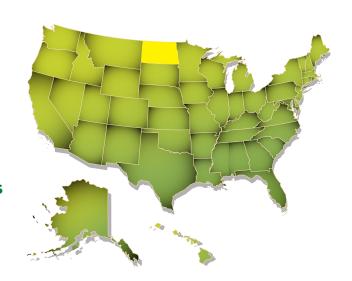
8.26 thousand jobs

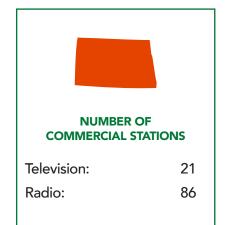
Television 4.18 thousand jobs Radio 4.08 thousand jobs

Direct Economic Impact in State \$0.17 billion 1.06 thousand jobs

Economic Impact on Other Industries in State \$0.43 billion 2.66 thousand jobs

Stimulative Effect on Economy in State \$3.22 billion 4.54 thousand jobs





### North Dakota Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 761.43   | 802.93   |
| Households (thousands)                 | 313.84   | 339.21   |
|  |          |          |
| Employment (thousands of jobs)         | 589.63   | 654.23   |
| Retail Sales (billions 2018 \$)        | \$21.65  | \$23.97  |
| Gross State Product (billions 2018 \$) | \$54.80  | \$63.19  |
| Income per Capita (2018 \$)            | \$54,479 | \$60,838 |
|  |          |          |

# Ohio - Local Television and Radio

Total Economic Impact in State \$40.70 billion

Television \$23.71 billion Radio \$17.00 billion

87.68 thousand jobs

Television 51.02 thousand jobs Radio 36.67 thousand jobs



Direct Economic Impact in State

\$1.84 billion

11.29 thousand jobs

Economic Impact on Other Industries in State

\$4.59 billion

28.18 thousand jobs

Stimulative Effect on Economy in State

\$34.27 billion

48.22 thousand jobs



### **Ohio Economy**

|  | 2018      | 2025      |
|--|-----------|-----------|
| Population (thousands)                 | 11,689.32 | 11,872.10 |
| Households (thousands)                 | 4,822.20  | 4,999.95  |
| Employment (thousands of jobs)         | 7,091.06  | 7,541.63  |
| Retail Sales (billions 2018 \$)        | \$207.46  | \$221.18  |
| Gross State Product (billions 2018 \$) | \$673.41  | \$750.46  |
| Income per Capita (2018 \$)            | \$48,588  | \$54,292  |

# Oklahoma - Local Television and Radio

Total Economic Impact in State \$13.37 billion

Television \$7.89 billion Radio \$5.48 billion

29.81 thousand jobs

Television 17.57 thousand jobs Radio 12.24 thousand jobs



Direct Economic Impact in State \$0.60 billion 3.84 thousand jobs

Economic Impact on Other Industries in State \$1.51 billion

9.58 thousand jobs

Stimulative Effect on Economy in State \$11.25 billion 16.39 thousand jobs



### Oklahoma Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 3,956.73 | 4,130.36 |
| Households (thousands)                 | 1,578.98 | 1,672.68 |
| Employment (thousands of jobs)         | 2,338.57 | 2,532.48 |
| Retail Sales (billions 2018 \$)        | \$69.05  | \$75.66  |
| Gross State Product (billions 2018 \$) | \$196.93 | \$222.28 |
| Income per Capita (2018 \$)            | \$45,840 | \$50,798 |

# Oregon - Local Television and Radio

Total Economic Impact in State \$12.99 billion Television \$7.08 billion Radio \$5.91 billion

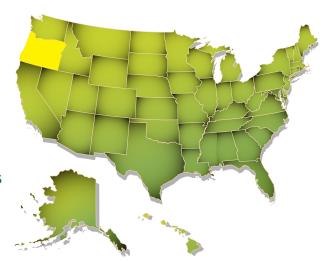
28.22 thousand jobs

Television 15.40 thousand jobs Radio 12.81 thousand jobs

Direct Economic Impact in State \$0.59 billion 3.63 thousand jobs

Economic Impact on Other Industries in State \$1.46 billion 9.07 thousand jobs

Stimulative Effect on Economy in State \$10.94 billion 15.51 thousand jobs



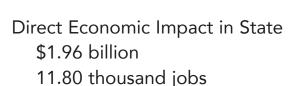


#### **Oregon Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 4,178.53 | 4,424.21 |
| Households (thousands)                 | 1,685.61 | 1,821.82 |
| Employment (thousands of jobs)         | 2,542.24 | 2,762.14 |
| Retail Sales (billions 2018 \$)        | \$71.55  | \$79.52  |
| Gross State Product (billions 2018 \$) | \$236.56 | \$269.36 |
| Income per Capita (2018 \$)            | \$49,784 | \$54,903 |

# Pennsylvania - Local Television and Radio

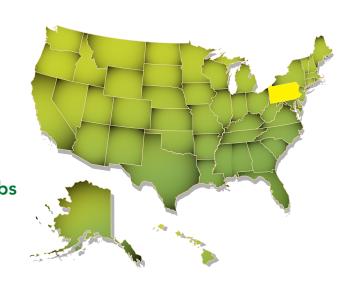
Total Economic Impact in State
\$43.44 billion
Television \$25.83 billion
Radio \$17.61 billion
91.65 thousand jobs
Television 54.42 thousand jobs

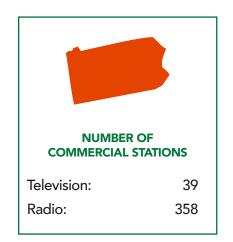


Economic Impact on Other Industries in State \$4.91 billion 29.45 thousand jobs

Radio 37.23 thousand jobs

Stimulative Effect on Economy in State \$36.57 billion 50.40 thousand jobs





### Pennsylvania Economy

|  | 2018      | 2025      |
|--|-----------|-----------|
| Population (thousands)                 | 12,842.53 | 13,067.52 |
| Households (thousands)                 | 5,263.37  | 5,462.92  |
| Employment (thousands of jobs)         | 7,790.60  | 8,311.50  |
| Retail Sales (billions 2018 \$)        | \$236.98  | \$253.11  |
| Gross State Product (billions 2018 \$) | \$789.79  | \$884.58  |
| Income per Capita (2018 \$)            | \$55,305  | \$61,821  |

# Rhode Island - Local Television and Radio

Total Economic Impact in State \$3.20 billion

Television \$2.04 billion Radio \$1.16 billion

6.91 thousand jobs

Television 4.39 thousand jobs Radio 2.52 thousand jobs

Direct Economic Impact in State \$0.14 billion

0.89 thousand jobs

Economic Impact on Other Industries in State \$0.36 billion

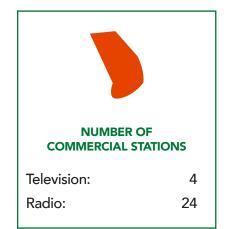
2.22 thousand jobs

Stimulative Effect on Economy in State

\$2.70 billion

3.80 thousand jobs



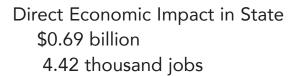


#### **Rhode Island Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,061.25 | 1,070.23 |
| Households (thousands)                 | 432.81   | 444.22   |
| Employment (thousands of jobs)         | 647.90   | 692.79   |
| Retail Sales (billions 2018 \$)        | \$16.98  | \$17.98  |
| Gross State Product (billions 2018 \$) | \$61.57  | \$68.99  |
| Income per Capita (2018 \$)            | \$54,835 | \$61,782 |

# South Carolina - Local Television and Radio

Total Economic Impact in State
\$15.28 billion
Television \$9.07 billion
Radio \$6.21 billion
34.32 thousand jobs
Television 20.33 thousand jobs
Radio 13.98 thousand jobs



Economic Impact on Other Industries in State \$1.73 billion 11.03 thousand jobs

Stimulative Effect on Economy in State \$12.86 billion 18.87 thousand jobs





#### **South Carolina Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 5,073.19 | 5,412.77 |
| Households (thousands)                 | 2,012.78 | 2,192.84 |
| Employment (thousands of jobs)         | 2,800.30 | 3,085.08 |
| Retail Sales (billions 2018 \$)        | \$84.06  | \$94.15  |
| Gross State Product (billions 2018 \$) | \$231.06 | \$265.13 |
| Income per Capita (2018 \$)            | \$43,143 | \$48,079 |

# South Dakota - Local Television and Radio

Total Economic Impact in State \$3.40 billion

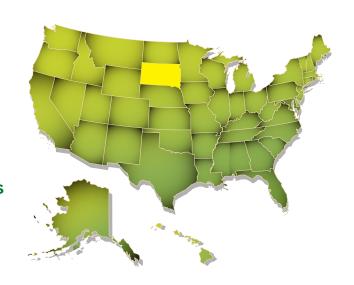
Television \$1.59 billion Radio \$1.80 billion

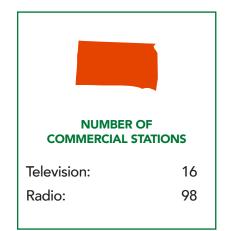
7.57 thousand jobs
Television 3.60 thousand jobs
Radio 3.98 thousand jobs

Direct Economic Impact in State \$0.15 billion 0.98 thousand jobs

Economic Impact on Other Industries in State \$0.38 billion 2.43 thousand jobs

Stimulative Effect on Economy in State \$2.86 billion 4.16 thousand jobs





#### South Dakota Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 875.38   | 913.88   |
| Households (thousands)                 | 353.95   | 377.62   |
| Employment (thousands of jobs)         | 613.08   | 664.54   |
| Retail Sales (billions 2018 \$)        | \$18.83  | \$20.64  |
| Gross State Product (billions 2018 \$) | \$52.13  | \$59.43  |
| Income per Capita (2018 \$)            | \$50,659 | \$56,360 |

# Tennessee - Local Television and Radio

**Total Economic Impact in State** 

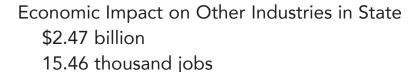
\$21.90 billion

Television \$12.46 billion Radio \$9.44 billion

48.10 thousand jobs

Television 27.38 thousand jobs Radio 20.72 thousand jobs

Direct Economic Impact in State \$0.99 billion 6.20 thousand jobs



Stimulative Effect on Economy in State \$18.44 billion 26.45 thousand jobs





### **Tennessee Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 6,771.31 | 7,149.62 |
| Households (thousands)                 | 2,746.74 | 2,944.45 |
| Employment (thousands of jobs)         | 4,073.41 | 4,447.58 |
| Retail Sales (billions 2018 \$)        | \$127.23 | \$141.01 |
| Gross State Product (billions 2018 \$) | \$363.72 | \$405.29 |
| Income per Capita (2018 \$)            | \$47,270 | \$52,962 |

# **Texas – Local Television and Radio**

**Total Economic Impact in State** \$106.81 billion Television \$65.12 billion Radio \$41.69 billion

226.32 thousand jobs

29.14 thousand jobs

Television 137.76 thousand jobs

Radio 88.55 thousand jobs



Economic Impact on Other Industries in State \$12.07 billion 72.72 thousand jobs

Stimulative Effect on Economy in State \$89.91 billion 124.46 thousand jobs



## **Texas Economy**

|  | 2018       | 2025       |
|--|------------|------------|
| Population (thousands)                 | 28,665.03  | 31,231.25  |
| Households (thousands)                 | 10,311.50  | 11,413.02  |
| Employment (thousands of jobs)         | 17,335.19  | 19,572.78  |
| Retail Sales (billions 2018 \$)        | \$525.56   | \$601.06   |
| Gross State Product (billions 2018 \$) | \$1,722.77 | \$2,031.66 |
| Income per Capita (2018 \$)            | \$49,160   | \$55,116   |

# **Utah – Local Television and Radio**

Total Economic Impact in State \$8.94 billion

Television \$4.57 billion Radio \$4.38 billion

20.19 thousand jobs

Television 10.40 thousand jobs Radio 9.79 thousand jobs

Direct Economic Impact in State \$0.40 billion 2.60 thousand jobs

Economic Impact on Other Industries in State \$1.01 billion 6.49 thousand jobs

Stimulative Effect on Economy in State \$7.53 billion 11.10 thousand jobs





#### **Utah Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 3,144.71 | 3,452.56 |
| Households (thousands)                 | 1,014.50 | 1,135.35 |
| Employment (thousands of jobs)         | 2,034.96 | 2,323.38 |
| Retail Sales (billions 2018 \$)        | \$54.65  | \$62.99  |
| Gross State Product (billions 2018 \$) | \$173.32 | \$206.55 |
| Income per Capita (2018 \$)            | \$45,093 | \$50,511 |

# **Vermont – Local Television and Radio**

#### **Total Economic Impact in State**

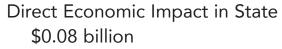
\$1.77 billion

Television \$0.95 billion Radio \$0.82 billion

4.17 thousand jobs

Television 2.26 thousand jobs

Radio 1.92 thousand jobs



0.54 thousand jobs

Economic Impact on Other Industries in State \$0.20 billion

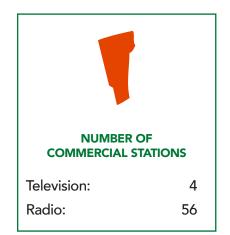
1.34 thousand jobs

Stimulative Effect on Economy in State

\$1.49 billion

2.29 thousand jobs





#### **Vermont Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 625.20   | 634.94   |
| Households (thousands)                 | 276.11   | 286.60   |
| Employment (thousands of jobs)         | 443.02   | 473.41   |
| Retail Sales (billions 2018 \$)        | \$12.91  | \$13.76  |
| Gross State Product (billions 2018 \$) | \$33.84  | \$38.09  |
| Income per Capita (2018 \$)            | \$54,157 | \$60,663 |

# Virginia – Local Television and Radio

Total Economic Impact in State \$29.02 billion

Television \$16.26 billion Radio \$12.76 billion

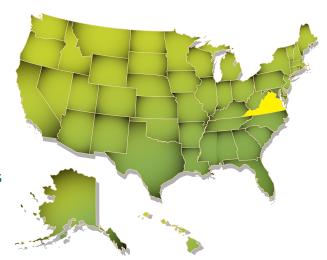
61.28 thousand jobs

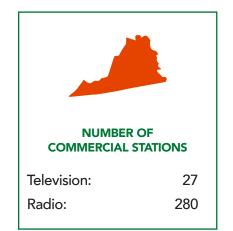
Television 34.30 thousand jobs Radio 26.98 thousand jobs

Direct Economic Impact in State \$1.31 billion 7.89 thousand jobs

Economic Impact on Other Industries in State \$3.27 billion 19.69 thousand jobs

Stimulative Effect on Economy in State \$24.44 billion 33.69 thousand jobs





#### Virginia Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 8,542.57 | 9,046.80 |
| Households (thousands)                 | 3,402.45 | 3,657.84 |
| Employment (thousands of jobs)         | 5,286.95 | 5,786.46 |
| Retail Sales (billions 2018 \$)        | \$153.96 | \$171.15 |
| Gross State Product (billions 2018 \$) | \$531.60 | \$600.60 |
| Income per Capita (2018 \$)            | \$57,368 | \$63,638 |

# Washington - Local Television and Radio

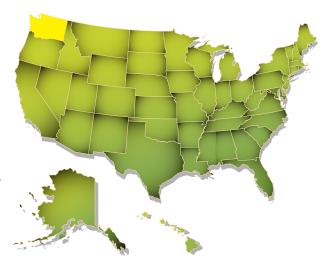
Total Economic Impact in State
\$26.02 billion
Television \$14.38 billion
Radio \$11.64 billion
51.02 thousand jobs

Television 28.00 thousand jobs Radio 23.02 thousand jobs

Direct Economic Impact in State \$1.18 billion 6.57 thousand jobs

Economic Impact on Other Industries in State \$2.93 billion 16.40 thousand jobs

Stimulative Effect on Economy in State \$21.91 billion 28.05 thousand jobs





### **Washington Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 7,482.73 | 8,020.15 |
| Households (thousands)                 | 2,955.43 | 3,228.73 |
| Employment (thousands of jobs)         | 4,480.58 | 4,921.98 |
| Retail Sales (billions 2018 \$)        | \$168.16 | \$189.19 |
| Gross State Product (billions 2018 \$) | \$546.11 | \$627.58 |
| Income per Capita (2018 \$)            | \$59,851 | \$65,444 |

# West Virginia – Local Television and Radio

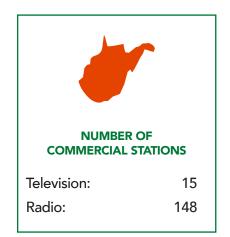
Total Economic Impact in State
\$5.93 billion
Television \$3.52 billion
Radio \$2.41 billion
13.07 thousand jobs
Television 7.75 thousand jobs
Radio 5.32 thousand jobs



Direct Economic Impact in State \$0.27 billion 1.68 thousand jobs

Economic Impact on Other Industries in State \$0.67 billion 4.20 thousand jobs

Stimulative Effect on Economy in State \$4.99 billion 7.19 thousand jobs



### West Virginia Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 1,819.90 | 1,845.37 |
| Households (thousands)                 | 797.18   | 823.07   |
| Employment (thousands of jobs)         | 899.68   | 950.36   |
| Retail Sales (billions 2018 \$)        | \$29.30  | \$31.18  |
| Gross State Product (billions 2018 \$) | \$76.56  | \$82.07  |
| Income per Capita (2018 \$)            | \$39,648 | \$44,415 |

# Wisconsin - Local Television and Radio

**Total Economic Impact in State** 

\$21.97 billion

Television \$12.40 billion Radio \$9.57 billion

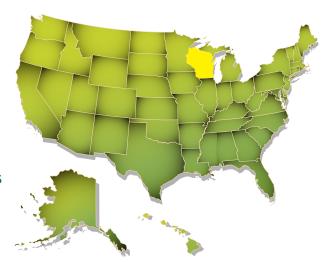
48.13 thousand jobs

Television 27.18 thousand jobs Radio 20.95 thousand jobs

Direct Economic Impact in State \$0.99 billion 6.20 thousand jobs

Economic Impact on Other Industries in State \$2.48 billion 15.47 thousand jobs

Stimulative Effect on Economy in State \$18.50 billion 26.46 thousand jobs





### Wisconsin Economy

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 5,821.13 | 5,985.96 |
| Households (thousands)                 | 2,457.33 | 2,592.08 |
| Employment (thousands of jobs)         | 3,746.79 | 3,997.48 |
| Retail Sales (billions 2018 \$)        | \$104.50 | \$112.80 |
| Gross State Product (billions 2018 \$) | \$333.95 | \$371.05 |
| Income per Capita (2018 \$)            | \$50,670 | \$56,127 |

# **Wyoming – Local Television and Radio**

Total Economic Impact in State \$2.08 billion

Television \$1.15 billion Radio \$0.93 billion

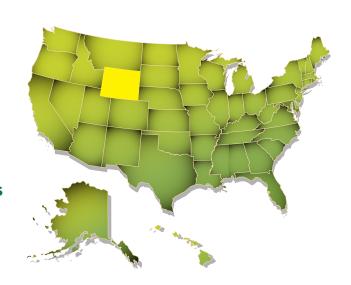
4.45 thousand jobs

Television 2.46 thousand jobs Radio 1.99 thousand jobs

Direct Economic Impact in State \$0.09 billion 0.57 thousand jobs

Economic Impact on Other Industries in State \$0.23 billion 1.43 thousand jobs

Stimulative Effect on Economy in State \$1.76 billion 2.45 thousand jobs





#### **Wyoming Economy**

|  | 2018     | 2025     |
|--|----------|----------|
| Population (thousands)                 | 583.89   | 615.37   |
| Households (thousands)                 | 251.75   | 271.80   |
| Employment (thousands of jobs)         | 404.37   | 437.98   |
| Retail Sales (billions 2018 \$)        | \$12.51  | \$13.84  |
| Gross State Product (billions 2018 \$) | \$39.74  | \$44.19  |
| Income per Capita (2018 \$)            | \$59,433 | \$65,142 |

# Summary Technical Description of the Woods & Poole Economics, Inc. 2019 Regional Projections and Database

#### Introduction

The Woods & Poole Economics, Inc. database contains more than 900 economic and demographic variables for every county in the United States for every year from 1970 to 2050. This comprehensive database includes detailed population data by age, sex, and race; employment and earnings by major industry; personal income by source of income; retail sales by kind of business; and data on the number of households, their size, and their income. All of these variables are projected for each year through 2050. In total, there are over 200 million statistics in the regional database. The regional model that produces the projection component of this database was developed by Woods & Poole. The regional projection methods are revised somewhat year to year to reflect new computational techniques and new sources of regional economic and demographic information. Each year, a new projection is produced based on an updated historical database and revised assumptions.

This document is a summary.

Please contact Woods & Poole
Economics, Inc. for a more detailed
Technical Description of the 2019
Regional Projections and Database.

The fact that the proprietary Woods & Poole economic and demographic projections rely on a very detailed database, makes them one of the most comprehensive county-level projections available. A description of some characteristics of the database and projection methods is contained in this chapter.

#### Overview of the Projection Methods

The strength of Woods & Poole's economic and demographic projections stems from the comprehensive historical county database and the integrated nature of the projection methods. The projection for each county in the United States is done simultaneously so that changes in one county will affect growth or decline in other counties. For example, growth in employment and population in Houston will affect growth in other metropolitan areas, such as Cleveland. This reflects the flow of economic activity around the country as new industries emerge or relocate in growing areas and as people migrate, in part because of job opportunities. The county projections are developed within the framework of the United States projection made by Woods & Poole. The U.S. projection is the control total for the 2019 regional projections and is described in the "Overview of the 2019 Projections" chapter included in Woods & Poole publications.

The regional projection method used by Woods & Poole — projecting the counties together to capture regional flows and constraining the results to a previously determined United States total — avoids a common pitfall in regional projections.

Woods & Poole Economics, Inc. is a small, independent corporation that specializes in long-term county economic and demographic projections. Woods & Poole's database for every county in the U.S. contains projections through 2050 for more than 900 variables.

Regional projections are sometimes made for a city or county without regard for potential growth in surrounding areas or other areas in the country. Such projections may be simple extrapolations of recent historical trends and, as a result, may be too optimistic or pessimistic. If these county projections were added together, the total might differ considerably from any conceivable national forecast scenario; this is the result of each regional projection being generated independently without interactive procedures and without being integrated into a consistent national projection.

The methods used by Woods & Poole to generate the county projections proceed in four stages. First, forecasts to 2050 of total United States personal income, earnings by industry, employment by industry, population, inflation, and other variables are made. Second, the country is divided into 179 Economic Areas (EAs) as defined by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). The EAs are aggregates of contiguous counties that attempt to measure cohesive economic regions in the United States (a list of all EAs and their component counties can be found in Appendix 6 following this chapter); in the 2019 Woods & Poole model, EA definitions released by the BEA in May 2007 are used. For each EA, a projection is made for employment, using an "export-base" approach; in some cases the "export-base" approach is modified using historical change in employment by sector to forecast employment; employment projections are sometimes adjusted to reflect the results of individual EA models or exogenous information and assumptions about the EA economy. The employment projection for each EA is then used to estimate earnings in each EA. Employment, and historical change, are the principal explanatory variables used to estimate population and number of households in each EA.

The third stage is to project population by age, sex, and race for each EA on the basis of projected net migration rates. For stages two and three, the U.S. projection is the control total for the EA projections. The fourth stage replicates stages two and three except that it is performed at the county level, using the EAs as the control total for the county projections.

#### **Historical Data**

Much of the historical economic data in the Woods & Poole regional databases are obtained from the Bureau of Economic Analysis (BEA) of the Department of Commerce. The historical data from the BEA include county-level data for each year 1969 through 2017 for employment and earnings by one-digit Standard Industrial Classification (SIC) code (1969 to 2000) and by one-digit North American Industry Classification System (NAICS) code (2001 to 2017), and personal income by source of income.

**U.S. PROJECTIONS** 



ECONOMIC AREA BASIC SECTOR PROJECTIONS



ECONOMIC AREA NON-BASIC SECTOR PROJECTIONS



COUNTY BASIC SECTOR PROJECTIONS



COUNTY NON-BASIC SECTOR PROJECTIONS

Historical data in the Woods & Poole database are revised each year.

Other sources of data include the 1970, 1980, 1990, 2000, and 2010 Censuses and post-Censal reports for population and household data, and the quinquennial Census of Retail Trade for retail sales data. Woods & Poole generally accepts the government data as given unless indicated otherwise in this chapter. The discussion which follows, of the historical data used by Woods & Poole, is not intended to be a complete explanation of the historical data; the user should consult the government sources of the historical data for a complete explanation. Some of the sources of government data used by Woods & Poole have technical explanations of how the historical data are collected, how the data can be used, and limitations to the data; the documentation may contain important information on the applicability of the data for particular applications and should be reviewed by users of the historical data; the documentation can be obtained from the U.S. Dept. of Commerce, the Government Printing Office or many public libraries. All data for the years 2018-2050 are projected by Woods & Poole.

Historical data are subject to revision from time to time. Historical employment and income data from the Bureau of Economic Analysis are revised on a regular basis. For example, historical data released by the Bureau of Economic Analysis in 1984 showed total employment for the United States in 1980 to be 106.4 million jobs; the current estimate of 1980 U.S. total employment is 114.0 million jobs. When using the historical data, it is important to use the current revision and not combine this data with previous versions since there may be definitional changes in the data.

Historical data used by Woods & Poole are subject to significant revisions.

#### **Gross Domestic Product by State**

Gross Domestic Product by State, formerly Gross State Product (GSP), is called Gross Regional Product (GRP) in the Woods & Poole database. GRP data are historical for the United States total, regions, and states for the years 1969-2017 from the Bureau of Economic Analysis Gross Domestic Product by State series. All county, and metropolitan area, historical GRP data, 1969-2017, are estimated by Woods & Poole by allocating state GRP in a particular year to counties within the state based on the proportion of total state earnings of employees originating in a particular county. County GRP estimates are constrained to state totals for the years 1969-2017. All GRP data are establishment based.

Gross Domestic Product by State (formerly Gross State Product or GSP) is called Gross Regional Product (GRP) in the Woods & Poole database.

#### Local Television and Radio Employment and Output

All of the estimates provided in this report are for 2018. The estimates of local radio and television employment were obtained from the U.S. Department of Commerce, Bureau of the Census. Employment estimates by detailed industry for broadcasting and advertising (NAICS 5151) were used to create U.S. and state employment estimates for television and radio.

The input-output factors to estimate employment from suppliers were estimated from the detailed historical input-output tables of the Bureau of Economic Analysis. The multiplier factors were assumed to always be less than 2.5 jobs. The stimulative factor was always assumed to be less than \$19 of economic output per \$1 of advertising output and less than 40 jobs per \$1 million of advertising output. The output data were obtained from local television and radio broadcasting sources.

#### **Employment**

The employment data in the Woods & Poole database are a complete measure of the number of full- and part-time jobs by place of work. Historical data, 1969-2017, are from the U.S. Department of Commerce, Bureau of Economic Analysis, released in November 2018. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers. Wage and salary employment data are based on an establishment survey in which employers are asked the number of full- and part-time workers at a given establishment. Because part-time workers are included, a person holding two part-time jobs would be counted twice. Also, since the wage and salary employment data are based on an establishment survey, jobs are counted by place of work and not place of residence of the worker; thus, a job in the New York Metropolitan Area is counted in the New York Metropolitan Area regardless of where the worker lives.

Data on proprietors include farm and non-farm proprietors by sector. Proprietors include not only those people who devote the majority of their time to their proprietorship, but people who devote any time at all to a proprietorship. Thus, a person who has a full-time wage and salary job and on nights and weekends runs a small business legally defined as a proprietorship would be counted twice. The employment data therefore include full- and part-time proprietors.

Private household employment data include persons employed by a household on the premises, such as full-time baby-sitters, housekeepers, gardeners, and butlers. Miscellaneous employment data include judges and all elected officials, persons working only on commission in sectors such as real estate and insurance, students employed by the colleges or universities in which they are enrolled, and unincorporated subcontractors in sectors such as construction.

The employment data used by Woods & Poole comprise the most complete definition of the number of jobs by county. Woods & Poole data may be higher than that from other sources because they measure more kinds of employment.

Employment data are historical for the years 1969-2017 and projected for the years 2018-2050. Private non-farm employment data by NAICS industries are estimated for the years 1969-2000. There are three other commonly used government sources for employment data: the Bureau of Labor Statistics (BLS), the Bureau of the Census, and the National Income and Product Accounts (NIPA). These sources of employment data differ from the data used by Woods & Poole. The BLS establishment data are generally much lower than the Woods & Poole data because agricultural workers, the military, proprietors, households, and miscellaneous employment are not included; the exclusion of proprietors from the BLS data are the most significant difference. Data from the Census (and some survey data from the BLS) are based on employment by place of residence and differ fundamentally in concept from the Woods & Poole employment data by place of work; Census employment data are generally lower than Woods & Poole data, but not always. Since Census data are based on a household survey, persons holding two jobs would be counted only once, and, therefore, the data would be lower than Woods & Poole. However, Census survey data for counties that have a large number of commuters and relatively few jobs within the county could yield employment data higher than Woods & Poole. Employment data in the National Income and Product Accounts are close to Woods & Poole data, except that part-time proprietors and certain miscellaneous employees are excluded; therefore, these data are usually lower.

Employment data in the Woods & Poole database are usually much higher than BLS employment data because Woods & Poole includes proprietors and military employment.

#### Personal Income

The historical data (1969-2017) for total personal income are from the U.S. Department of Commerce, Bureau of Economic Analysis. Total personal income is the income received by persons from all sources, that is, from participation in production, from both government and business transfer payments, and from government interest, which is treated like a transfer payment. Persons consist of individuals, nonprofit institutions serving individuals, private uninsured welfare funds, and private trust funds. Personal income is the sum of wages and salaries, other labor income, proprietors' income, rental income of persons, dividend income, personal interest income, and transfer payments less personal contributions for social insurance.

As with employment, the definition of total personal income used by Woods & Poole is the most comprehensive one available. Another commonly used measure of income is money income of persons. Money income is the concept used by the Bureau of the Census and is widely used in other sources. When Woods & Poole's income data are higher than data from another source, once inflation adjustments are taken into account, it is probably because the other source uses money income base data.

Personal income data are historical for the years 1969-2017 and projected for the years 2018-2050.

Total personal income includes all of money income plus the exclusions to money income. Money income excludes payments-in-kind such as food stamps, agricultural payments-in-kind, and the value of in-kind medical payments; the imputed rental value of owner-occupied housing; the imputed value of certain interest payments such as the value to consumers of free non-interest bearing checking accounts; all other labor income; capital consumption adjustments for proprietors; inventory valuation adjustments, although sometimes this is negative; and lump-sum payments such as liability judgments and consumer defaults on debts to businesses. For the U.S. as a whole, money income is about 25% less than total personal income; at the regional level, the difference varies depending on the specific composition of total personal income.

Personal income (and income per capita) data used by Woods & Poole are usually much higher than money income data used by the Census because money income excludes some forms of income.

Another commonly used measure of income is disposable income, which is defined as total personal income less personal tax and non-tax payments. Disposable income is the income available to persons for spending or saving. Tax payments are payments, net of refunds, made by persons to the government; it includes taxes such as income, estate and gift, and personal property taxes, but it excludes personal contributions to social insurance. Non-tax payments include tuition and fees paid to schools and hospitals operated mainly by the government, donations to such institutions, passport fees, and fines and penalties.

#### **Retail Sales and Food Services Sales**

Data for retail sales by kind of business are from the 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, 2012 Census of Retail Trade (U.S. Department of Commerce, Bureau of the Census). Retail sales data for 1972, 1977, 1982, 1987, 1992, and 1997 have been changed by Woods & Poole from SIC classifications to estimated NAICS kind of business classifications to be consistent with 2002 Census of Retail Trade data. The intervening historical data for the years 1969-71, 1973-76, 1978-81, 1983-86, 1988-91, 1993-96, 1998-2001, 2003-06, and 2008-11 are also estimated by Woods & Poole. These estimates are made by interpolating retail sales by kind of business per capita for the intervening years (e.g., 1973-76). These proportions are then multiplied by population for the intervening years to estimate retail sales by kind of business. The estimates are then constrained to U.S. retail sales by kind of business for the intervening years. U.S. retail sales data for 1969-2012 are from the Bureau of Economic Analysis but are revised by Woods & Poole to be consistent with the sum of the county retail sales data for the Census years. Therefore, retail sales data for the U.S. are the sum of county retail sales as published in the Census of Retail Trade and differ from the U.S. data published monthly by the Department of Commerce.

Retail sales data are historical for the years 1972, 1977, 1982, 1987, 1992, 1997, 2002, 2007, and 2012; estimated for all other years 1969-2011; and projected for the years 2013-2050.

Retail sales by kind of business are based on NAICS classifications. Total retail sales includes food services and drinking places. Some county data from the Census of Retail Trade are withheld because of Federal information disclosure policies. All withheld data have been estimated by Woods & Poole; the techniques used to make these estimates are described below in the section titled "Estimation of Missing Historical Data."

In the 2019 Woods & Poole database total retail sales are modified to include food services and drinking places sales (NAICS 722). The inclusion of food services and drinking places sales makes total retail sales more consistent with the SIC definition.

Retail sales are counted, as are employment and earnings, on an establishment basis. Mail-order sales are counted at the point from which the merchandise is sent and not at the point at which it is received. Retail sales are classified by kind of business according to the principal lines of commodities sold (e.g., groceries or hardware) or the usual trade designation (e.g., drug store or cigar store). In some cases, an establishment sells goods in several different business groups, such as a convenience store with gasoline pumps. In these cases, all the establishment's sales are classified in the business group that is the primary activity of the establishment; therefore, the retail sales data by kind of business does not reflect retail sales by merchandise line.

#### **Population**

The historical population data for the years 1969 to 2017 are from the U.S. Department of Commerce, Bureau of the Census. The historical population data in the 2019 Woods & Poole database includes 2010 Census results. The historical county total population and population by single year of age by race and by sex data for the years 1991-1999, 2001-2009, and 2011-2017 are estimated by the National Institutes of Health based on Bureau of the Census intercensal and Vintage 2017 postcensal estimates. The historical county population data by single year of age by race and sex for the years 1971-1979 and 1981-1989 are estimated by using single year of age data from the 1970, 1980, and 1990 Census of Population for counties, and U.S. annual population by single year of age by race and sex.

Population is defined as July 1 residential population and includes: civilian population; military population except personnel stationed overseas; college residents; institutional populations, such as prison inmates and residents of mental institutions, nursing homes, and hospitals; and estimates of undocumented aliens. Excluded are persons residing in Puerto Rico, U.S. territories and possessions, and U.S. citizens living abroad.

Total population data are historical for the years 1969-2017, and projected for the years 2018-2050. Population data are July-1 based in each year, 1969-2050.

The population data in the Woods & Poole database are generally consistent with data from other sources, including the Census Bureau. The most significant difference between the Census Bureau data used by Woods & Poole and the actual 1970, 1980, 1990, 2000, and 2010 Census results is that Woods & Poole data are July 1-based and the decennial census data are April 1-based. Decennial census data were adjusted forward from April 1 to July 1 to make them consistent with population data for other years as well as with the employment and income data, which are also July 1-based.

#### Households

The data for households are from Census Bureau counts in 1970, 1980, 1990, 2000, and 2010 and Census Bureau estimates for 1985. As with population, the household data from the decennial censuses were adjusted from April 1 to July 1. The 1985 Census Bureau estimate was already July 1-based. All other years of county household data (i.e., 1969, 1971-1979, 1981-1984, 1986-1989, and 1991-1999) are estimates. Household data for the U.S., 1969-2010, are based on Census Bureau data.

Household data for total number of households, group quarters population, and average size of households from the 1990, 2000, and 2010 Census, adjusted to a July-1 base, are included in the Woods & Poole database.

Households are defined as occupied housing units. A housing unit is a house, an apartment, a group of rooms, or a single room occupied as separate living quarters. The occupants of a housing unit may be a single family, one person living alone, two or more families living together, or any group of related or unrelated persons who share living quarters.

All people are part of a household except those who reside in group quarters. Group quarters include living arrangements such as prisons, homes for the aged, rooming houses, college dormitories, and military barracks. The average size of households is defined as total population less group quarters population divided by the number of households. Mean household income is defined as total personal income less estimated income of group quarters population divided by the number of households.

Household data are historical for the years 1970, 1980, 1985 1990, 2000, and 2010; estimated for all other years 1969-1999; and projected for the years 2011-2050.

