



**CHMURA**  
Economics & Analytics

# The Economic Impact of Interior Design in the Nation and States

Prepared for International Interior Design Association  
September 23, 2016

# Table of Contents

|  |           |
|--|-----------|
| <b>1. EXECUTIVE SUMMARY .....</b>                    | <b>3</b>  |
| <b>2. BACKGROUND.....</b>                            | <b>4</b>  |
| <b>3. METHODOLOGY .....</b>                          | <b>5</b>  |
| <b>4. ECONOMIC IMPACT IN THE NATION .....</b>        | <b>7</b>  |
| 4.1. SECTOR EMPLOYMENT AND WAGES.....                | 7         |
| 4.2. ECONOMIC IMPACT .....                           | 8         |
| 4.3. FEDERAL FISCAL IMPACT .....                     | 9         |
| <b>5. ECONOMIC IMPACT SUMMARY IN THE STATES.....</b> | <b>11</b> |
| <b>6. SUMMARY AND CONCLUSION .....</b>               | <b>14</b> |
| <b>APPENDIX 1: SUMMARY IMPACT FOR STATES.....</b>    | <b>15</b> |
| <b>APPENDIX 2: IMPACT ANALYSIS GLOSSARY .....</b>    | <b>17</b> |

# 1. Executive Summary

The interior design sector generates significant economic impact in both the nation's and states' economies, which is evaluated in this report. In this study, the **interior design sector** is defined in broad terms. It includes not only all firms in interior design industries, but also interior design occupations in other industries such as retail and construction.

**Nearly 200,000 people nationwide were employed in the interior design sector in the first quarter of 2016.**

- Among the total, 110,141 workers were employed in interior design industries, and the rest were interior design workers in other industries.
- The annual average wage of the interior design sector is \$59,969—higher than the national average for all industries at \$51,614 during this time period.
- Of the interior design occupations, interior, industrial, graphic, and other specialized design industries employ over one-third of interior design occupations (34%). Other common industries for interior design occupations include architectural, engineering, and related services; furniture stores; and management of companies and enterprises.

**The total annual economic impact (direct, indirect, and induced) of the interior design sector in the United States is estimated to be \$96.3 billion in 2016, which can support 522,400 jobs annually.**

- Total revenue for the interior design sector is estimated to be \$49.0 billion, generating 199,264 jobs.
- The interior design sector generates an additional \$47.3 billion in ripple effects each year, supporting 323,136 more jobs in the country in 2016.

**In 2016, the interior design sector will generate an estimated \$4.5 billion in U.S. federal tax revenues.**

- At \$2.2 billion, individual income tax accounts for nearly half of federal tax revenue for the interior design sector.
- Payroll tax totals \$1.8 billion, and corporate income tax adds another \$399 million in federal tax revenue in 2016.

**The interior design sector generates significant economic impact in state economies, and contributes sizable tax revenue to the state governments as well.**

- Based on 2016 data, California, New York, and Texas comprise 33% of the nation's interior design employment and generate 38% of the sector's nationwide total industry revenue (sales).
- The top 10 states constitute 62% of national interior design employment and 66% of interior design total revenue.
- In terms of total economic impact (direct, indirect and induced), the top states are California, New York, Texas, Florida and Michigan.
- For state tax revenue generated by the interior design sector, the top three states in 2016 are California, New York, and Michigan.
- The top three states generating federal tax revenue are California, New York, and Texas. With \$1.7 billion in tax revenue, they account for 37% of federal tax revenue generated by the interior design sector in 2016.

## 2. Background

The International Interior Design Association (IIDA) was founded in 1994 as the result of a merger of the Institute of Business Designers (IBD); the International Society of Interior Designers (ISID); and the Council of Federal Interior Designers (CFID). The goal of the merger was to create an international association with a united mission that would represent interior designers worldwide. Since that date, IIDA has worked to convene communities of interior designers across regions and specialties, representing their interests for the entire collective community.<sup>1</sup>

IIDA supports design professionals, industry affiliates, educators, students, firms, and their clients through their network of more than 15,000 members across 58 countries. IIDA promotes advancements in education, design excellence, legislation, leadership, accreditation, and community outreach to increase the value and understanding of interior design as a profession that enhances business value and positively impacts the health and well-being of people's lives every day.

IIDA wants to demonstrate the importance of interior design industries and occupations (collectively referred to as the interior design sector) in the national and state economies. More specifically, IIDA wants to understand the economic and fiscal impact of the interior design sector in the United States and in each individual state. Chmura Economics & Analytics (Chmura) was contracted to perform this study.

---

<sup>1</sup> Source: IIDA website, available at: <http://www.iida.org/content.cfm/story>

### 3. Methodology

In this study, the interior design sector is defined in broad terms. It includes not only all firms that are in interior design and industrial design industries, but also interior designers that work in other industries such as architectural services, retail, and construction industries. More specifically, the **interior design sector** is defined as follows:

**Interior Design Industries:** this includes the following three 6-digit North American Industrial Classification System (NAICS) industries (all employment in these three industries are included in the study even if some of the workers are not in the interior design occupations):

- Interior Design Services (NAICS 541410)
- Industrial Design Services (NAICS 541420)
- Other Specialized Design Services (NAICS 541490)

**Interior Design Occupations:** this includes the following three 6-digit Standard Occupation Classification (SOC) occupations (this study includes the impact of these three occupations working in the interior design industries defined above as well as working in industries other than the interior design industries defined above):

- Interior Designers (SOC 27-1025)
- Commercial and Industrial Designers (SOC 27-1021)
- Designers, all other (SOC 27-1029)

For interior design industries, businesses in interior design services are primarily engaged in planning and designing **interior spaces** to meet the physical and aesthetic needs of the people using them. On the other hand, businesses in industrial design services are involved in creating and developing designs that optimize the use, value, and appearance of **industrial products**. Common examples are automobile and furniture design.<sup>2</sup>

The employment and total revenue associated with interior design industries and interior design occupations constitute the direct economic impact of the interior design sector in the nation and states. The total economic impact of the interior design sector also includes economic ripple effects from the direct impact. Ripple effects, categorized as indirect and induced impacts<sup>3</sup> (see Appendix 2 for definitions), measure secondary benefits generated by the interior design sector. For example, when an interior design firm purchases computer equipment and office supplies, this generates indirect impact in the economy. An example of induced impact is the benefit for national and state businesses where employees of an interior design firm spend their income—termed induced impact or household spending impact.

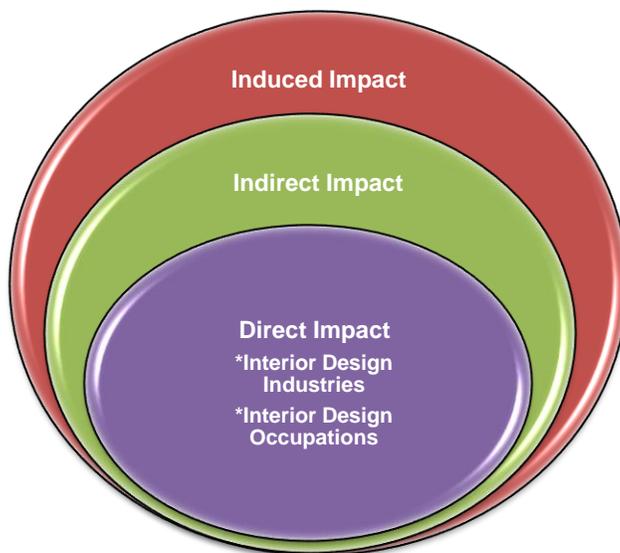
---

<sup>2</sup> Source: U.S. Census, available at: <https://www.census.gov/eos/www/naics/>.

<sup>3</sup> Induced impact is also called household spending impact—these are interchangeable.

The direct impact is estimated by Chmura based on the latest employment and wage data from Chmura's JobsEQ® technology platform.<sup>4</sup> The indirect and induced effects were estimated with the economic multipliers from JobsEQ after the direct impact was determined. Different interior design industries and occupations were inputs into the JobsEQ economic impact model to estimate the indirect and induced impact for each interior design industry and occupation. Those impacts were eventually aggregated to reach an estimate of the overall economic impact of the interior design sector in the nation and states. Figure 3.1 illustrates the economic impact framework.

**Figure 3.1: Economic Impact Analysis Framework**



This study also estimates fiscal benefits of the interior design sector to federal and state governments. For the federal government, Chmura estimated the individual income tax, payroll tax (which includes social security, Medicare, and unemployment tax), and corporate income tax contributions from the sector. For state governments, Chmura estimated individual, payroll (unemployment), and corporate income tax contributions as well.

---

<sup>4</sup> The latest data is for the first quarter of 2016. Chmura estimated the annual economic impact based on the first quarter employment and wage data.

## 4. Economic Impact in the Nation

### 4.1. Sector Employment and Wages

The latest data show that in the first quarter of 2016, the three 6-digit NAICS industries that comprise the interior design industries employed a total of 110,141 workers, with an average wage of \$61,347 (Table 4.1). The 6-digit industry with the most employed individuals was interior design services (69,126 workers), followed by industrial design services (20,678 workers) and other specialized design services (20,337 workers).

From an occupational perspective, in the first quarter of 2016, there were 61,096 interior designers, 39,607 commercial and industrial designers, and 9,347 other designers in the nation. Some of those interior designers work in interior design industries, while many of them work in other industries, such as architecture and engineering services or retail—which will be analyzed later.

Combining total employment in the interior design industries with interior design occupations outside the interior design industries, total employment in the interior design sector reached 199,264 in the first quarter of 2016. The average annual wage for those employees was \$59,969—higher than the average wage of all industries, which was \$51,614.<sup>5</sup> Compared with selected industries, the average wage of the interior design sector is higher than the broad health care sector, at \$47,804, and lower than other professional services such as accounting, at \$66,375 per year.<sup>6</sup>

**Table 4.1: Employment and Wages of the Interior Design Sector (2016)**

|                                     |   | Employment     | Average Annual Wage |
|-------------------------------------|---|----------------|---------------------|
| Interior Design Industries          | Interior Design Services (541410)             | 69,126         | \$54,099            |
|                                     | Industrial Design Services (541420)           | 20,678         | \$83,222            |
|                                     | Other Specialized Design Services (541490)    | 20,337         | \$63,740            |
| Interior Design Occupations         | Interior Designers (27-1025)                  | 61,096         | \$53,558            |
|                                     | Commercial and Industrial Designers (27-1021) | 39,607         | \$65,363            |
|                                     | Designers, all other (27-1029)                | 9,347          | \$54,046            |
| <b>Total Interior Design Sector</b> |   | <b>199,264</b> | <b>\$59,969</b>     |

Note: There is overlap among interior design industries and interior design occupations.<sup>7</sup>

Source: JobsEQ and Chmura

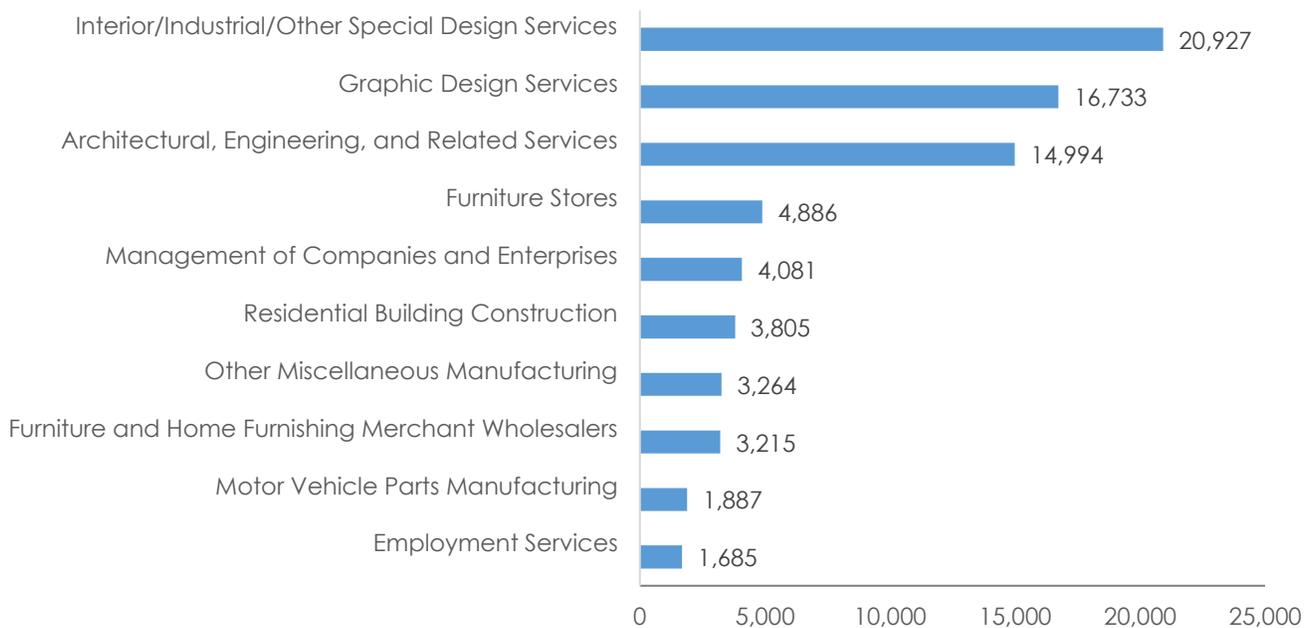
<sup>5</sup> Source: JobsEQ, Industry Snapshot, 2016Q1.

<sup>6</sup> Source: JobsEQ, Industry Snapshot, 2016Q1. Health care sector is represented by NAICS 62, and accounting services are represented by NAICS 5412.

<sup>7</sup> For example, the employment in the interior designer occupations (61,096) is included in the employment of interior design services (69,126).

Outside of the three interior design industries—interior/industrial/other special design services—many other industries also employ interior designers. As Figure 4.1 shows, of all interior design occupations, 20,927 of them work in the interior design industries as defined in this study. A large number (16,733) work in graphic design services. There are overlaps between skills required for interior designers and graphic designers, and those two professions are not mutually exclusive. Many interior designers are also trained as graphic designers. As a result, it is not surprising that graphic design service industries employ a larger number of interior design workers. In addition, 14,994 work in architectural, engineering, and related services. Those three major industries employ close to half (48%) of all interior design occupations. After those top industries, other major industries employing interior design workers include furniture stores, management of companies and enterprises, residential building construction, and other miscellaneous manufacturing.

**Figure 4.1: Top Industries in U.S. Employing Interior Design Occupations, 2016**



## 4.2. Economic Impact

The interior design sector generates significant economic impact in the national economy. The direct impact includes both total revenue (sales) of the sector and the number of workers employed by the sector. The direct impact is \$49.0 billion, which is the estimated total annual revenue (sales) of the interior design sector in 2016 (Table 4.2). To arrive at this estimate, Chmura assumes the total employment of the sector is 199,264 with annual average salary of \$59,969 and annual revenue per worker of \$246,144.<sup>8</sup> As a result, the total annual revenue of the sector is estimated to be \$49.0 billion in 2016.

<sup>8</sup> For interior design occupations in other industries, Chmura chose to use the multipliers for NAICS industry 541430 (Graphic Design Services) as an approximation, since graphic design services has the largest number of interior design occupations outside the three interior design industries.

**Table 4.2: Annual Economic Impact of the Interior Design Sector in 2016, United States**

|   |                              | <b>Direct</b>     | <b>Indirect</b>   | <b>Induced</b>    | <b>Total</b>      |
|---|------------------------------|-------------------|-------------------|-------------------|-------------------|
| Interior Design Industry                        | Spending (\$ Million)        | \$27,110.5        | \$14,201.8        | \$11,926.5        | \$53,238.9        |
|   | Employment                   | 110,141           | 75,138            | 105,154           | 290,433           |
| Interior Design Occupations in Other Industries | Spending (\$ Million)        | \$21,937.1        | \$11,491.8        | \$9,650.4         | \$43,079.2        |
|   | Employment                   | 89,123            | 59,828            | 83,015            | 231,967           |
| <b>Total Interior Design Sector</b>             | <b>Spending (\$ Million)</b> | <b>\$49,047.6</b> | <b>\$25,693.6</b> | <b>\$21,576.9</b> | <b>\$96,318.1</b> |
|   | <b>Employment</b>            | <b>199,264</b>    | <b>134,967</b>    | <b>188,169</b>    | <b>522,400</b>    |

Source: Chmura and JobsEQ

The indirect impact benefits other national businesses supporting industrial design firms and occupations. The total indirect impact is estimated to be \$25.7 billion that could support 134,967 jobs in the U.S. in 2016. Some examples of industries receiving benefits include engineering services, temporary help services, and commercial printing services. The induced impact (or household spending impact) is estimated to be \$21.6 billion that can support 188,169 jobs in the U.S. Since the source of the induced impact is wages and salaries, the main beneficiaries of the induced impact are consumer services businesses such as retail shops, restaurants, and healthcare services.

In summary, the total annual economic impact (direct, indirect, and induced) of the interior design sector in the United States is estimated to be \$96.3 billion in 2016, which can support 522,400 jobs in the country.

### 4.3. Federal Fiscal Impact

In addition to injecting billions of spending dollars into the national economy and creating hundreds of thousands of jobs, the interior design sector also generates significant revenue for the federal government.<sup>9</sup> To be conservative, only tax from the direct economic impact was estimated.<sup>10</sup>

Federal tax revenue resulting from the interior design sector comes from three main tax categories: individual income, payroll, and corporate income tax. For all workers in interior design industries and occupations, their wages and salaries are subject to federal individual income tax. The estimated federal individual income tax rate is 18.5% for workers making about \$60,000 per year.<sup>11</sup> As a result, Chmura estimated the federal individual income tax from the interior design sector in 2016 at \$2.2 billion.

<sup>9</sup> The tax revenue for state governments is included in the state impact summary for each state.

<sup>10</sup> This approach is recommended by Burchell and Listokin in *The Fiscal Impact Handbook*.

<sup>11</sup> The average wage of the sector is assumed to be \$59,969 in 2016.

**Table 4.3: Estimated Federal Tax Revenue, 2016 (\$ Million)**

|                          |                  |
|--------------------------|------------------|
| Individual Income        | \$2,215.2        |
| Payroll                  | \$1,836.7        |
| Corporate Income         | \$399.1          |
| <b>Total Federal Tax</b> | <b>\$4,450.9</b> |

Source: Chmura

Payroll tax includes social security, Medicare, and unemployment tax. The social security tax rate is 12.4% of wages and salaries, and Medicare tax is 2.9% of wages and salaries.<sup>12</sup> The federal unemployment tax is 6.0% of the first \$7,000 of wages and salaries, but employers can take a 5.4% credit if they pay state unemployment tax. As a result, the typical federal unemployment tax rate is 0.6% of the first \$7,000 of an employee's pay.<sup>13</sup> Based on total wages and salaries of the interior design sector, Chmura estimates that the federal government can receive \$1.8 billion in total payroll tax in 2016.

Corporate income tax is estimated based on the profit margin of the interior design sector and the federal corporate income tax rate. Data from the Bureau of Economic Analysis indicates that the corporate profit margin is 4.6% of gross sales for interior design industries.<sup>14</sup> Corporate income tax rates depend on the amount of profit each firm earns, and Chmura estimates that the average corporate income tax rate is 17.5%.<sup>15</sup> As a result, the federal corporate income tax in 2016 is estimated at \$399.1 million.

In summary, total federal tax from the national interior design sector is estimated to be \$4.5 billion in 2016. Federal taxes are used to provide national defense, social security, unemployment insurance, health care, and economic development, benefiting society at large.

---

<sup>12</sup> Source: Internal Revenue Service (IRS). <https://www.irs.gov/publications/p15/ar01.html>. These two taxes are split evenly between employers and employees.

<sup>13</sup> Source: Center for Budget & Policy Priorities. <http://www.cbpp.org/research/federal-tax/policy-basics-federal-payroll-taxes>.

<sup>14</sup> Source: Bureau of Economic Analysis, <http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&903=243>.

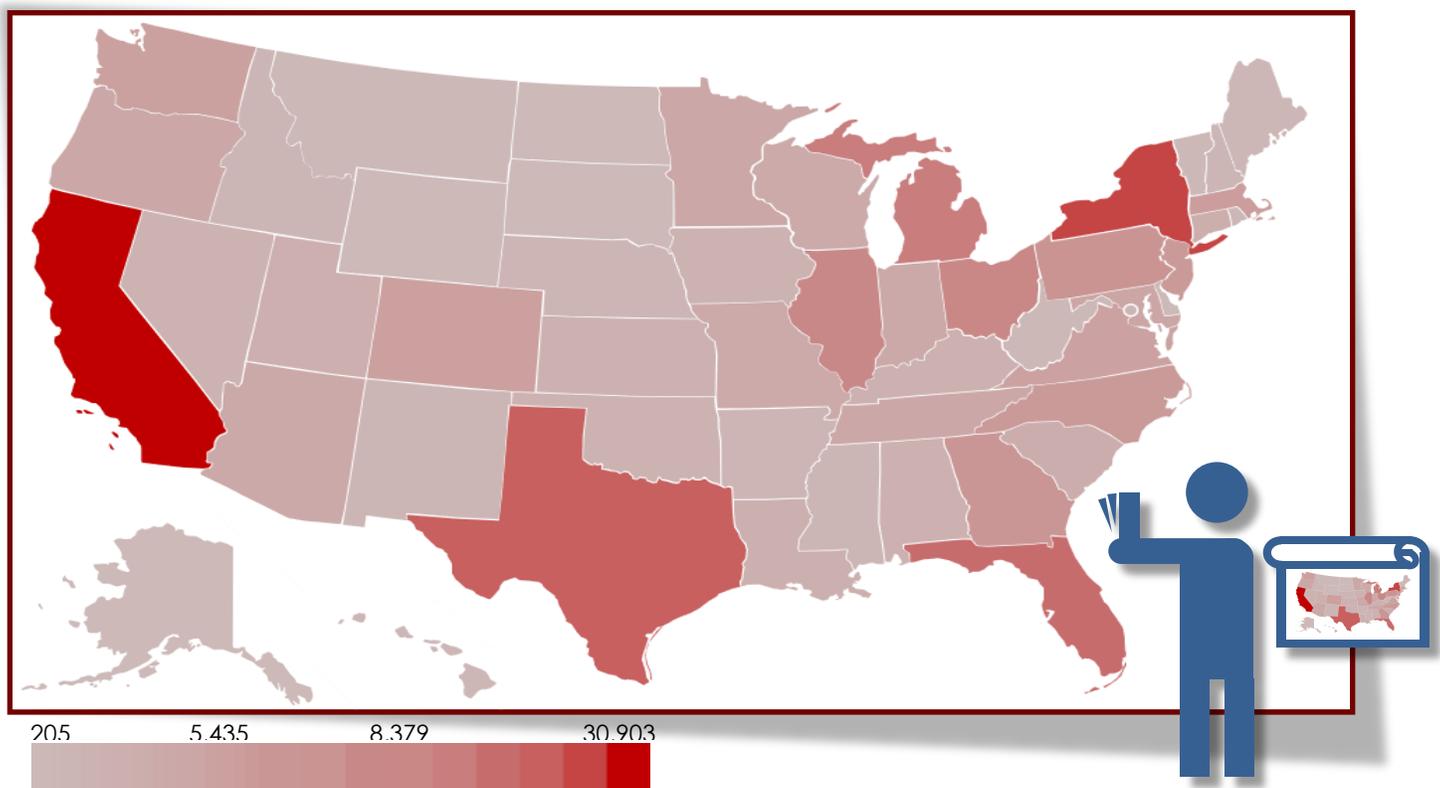
<sup>15</sup> This is estimated based on the average size of profit of interior design firms. In addition, for self-employed interior designers, their business income is taxed at the individual tax rate. This rate blends business income from firms with self-employed interior designers.

## 5. Economic Impact Summary in the States

Chmura utilized the same methodology to estimate economic impact of the interior design sector in the 50 states and the District of Columbia. This section compares state-wide economic impact in a summary format, while Appendix 1 includes tables where economic and fiscal impacts for each state are detailed.<sup>16</sup>

In terms of the direct employment of the interior design sector in each state, data from JobsEQ show that California has the largest interior design workforce in the nation, reaching 30,903 as of the first quarter of 2016. Despite not having the second-largest employment base in the nation in terms of total employment,<sup>17</sup> New York comes in second in terms of interior design workforce—amounting to 19,702. Texas (15,125), Florida (13,011), and Michigan (10,214) round out the top five states. These top five states account for 45% of total interior design workforce of the nation, while the top three states account for 33%. On the other end of the spectrum, Wyoming, Alaska, North Dakota, and South Dakota have the smallest interior design workforces in the nation.

**Figure 5.1: Interior Design Employment**

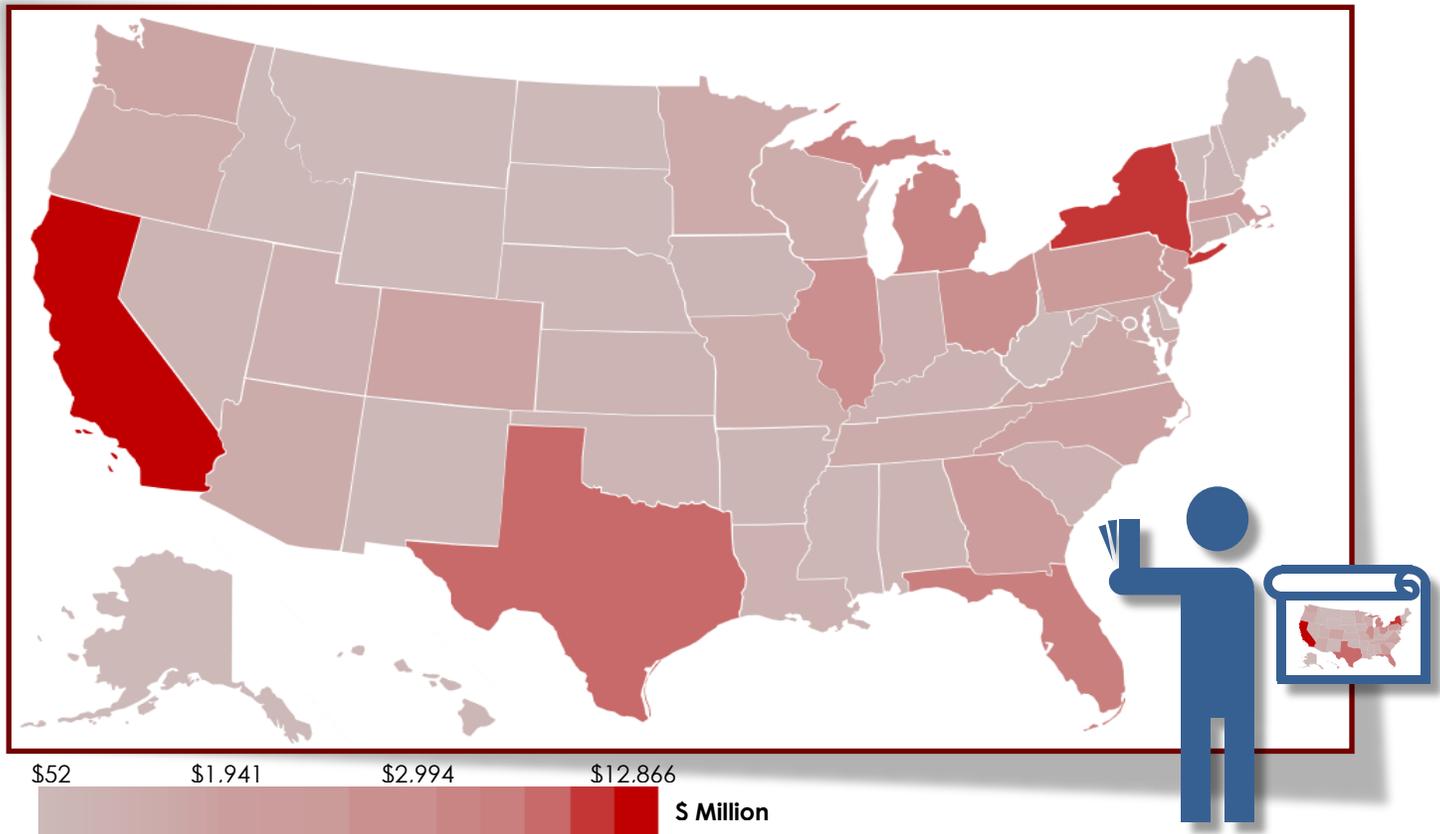


<sup>16</sup> Chmura also prepared separate documents for each state, including a graphic presentation of the state economic and fiscal impact of the interior design sector.

<sup>17</sup> In terms of total population and total employment, Texas, not New York, is the second largest state.

In terms of total economic impact (direct, indirect, and induced), the top five states also were the top contributors in terms of direct employment. In California, total economic impact of the interior design sector is estimated to be \$12.9 billion in 2016, supporting 57,811 jobs in the state. In New York, total economic impact of the interior design sector is estimated to be \$9.2 billion in 2016, supporting 39,205 jobs in the state. On the other hand, Alaska has the lowest total economic impact, even though its employment is slightly higher than that of Wyoming. The reason is that the economic multiplier in Alaska is smaller than that of Wyoming, resulting in less total economic impact.

**Figure 5.2: Total Economic Impact of Interior Design (Direct + Indirect + Induced)**



Finally, not only does tax revenue for each state depend on employment size and average wages, but it also depends on state tax rates on personal income and corporate profits. In California, the state interior design sector is estimated to contribute \$782.7 million in federal tax and \$161.4 million in state tax in 2016 (Figure 5.3 and 5.4). In the state of New York, annual tax revenue from the interior design sector is estimated to be \$546.1 million in federal tax and \$116.5 million in state tax in 2016. On the other hand, interior design sectors in Wyoming, Alaska, North Dakota, and South Dakota are expected to generate the lowest federal and state tax revenue due to smaller workforces and relatively lower wages.

Figure 5.3: Federal Tax Revenue from Interior Design

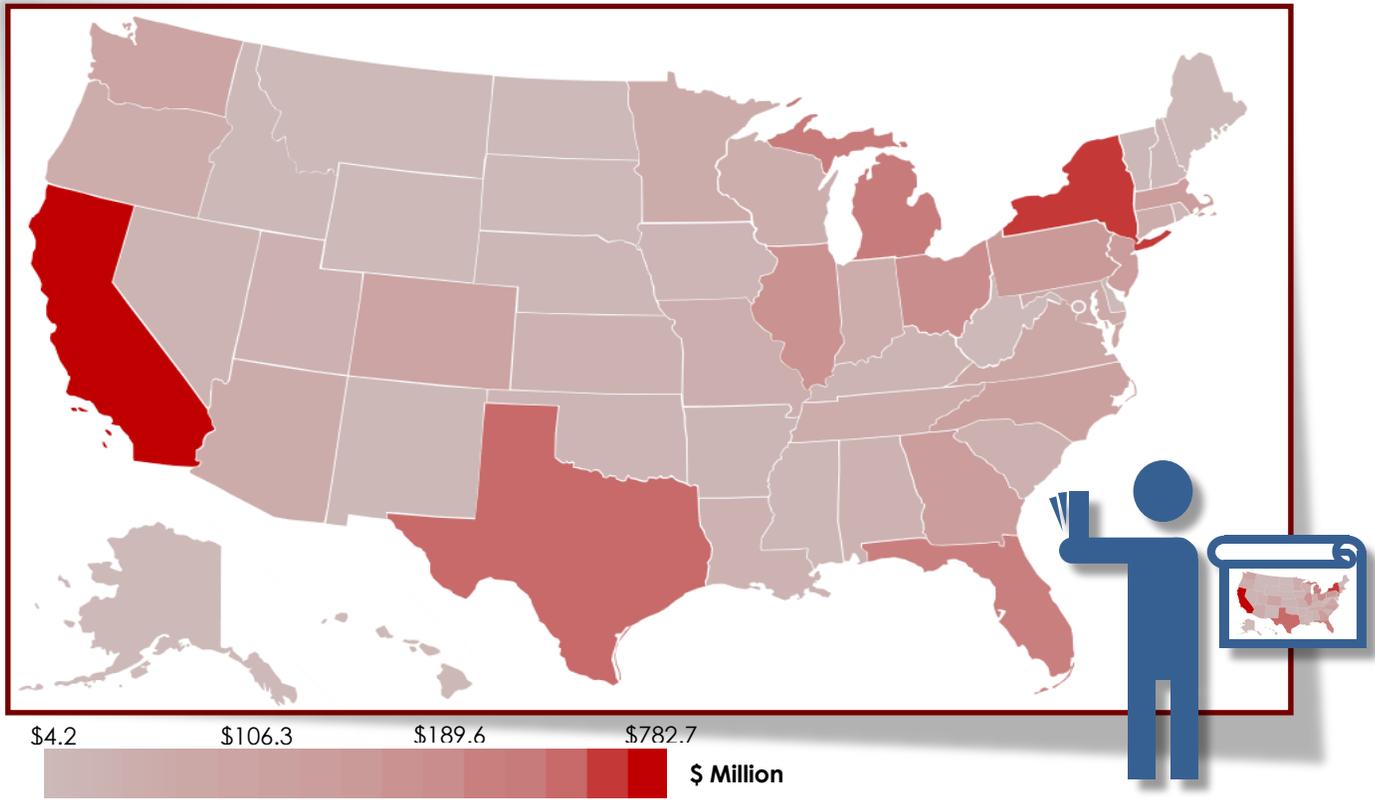
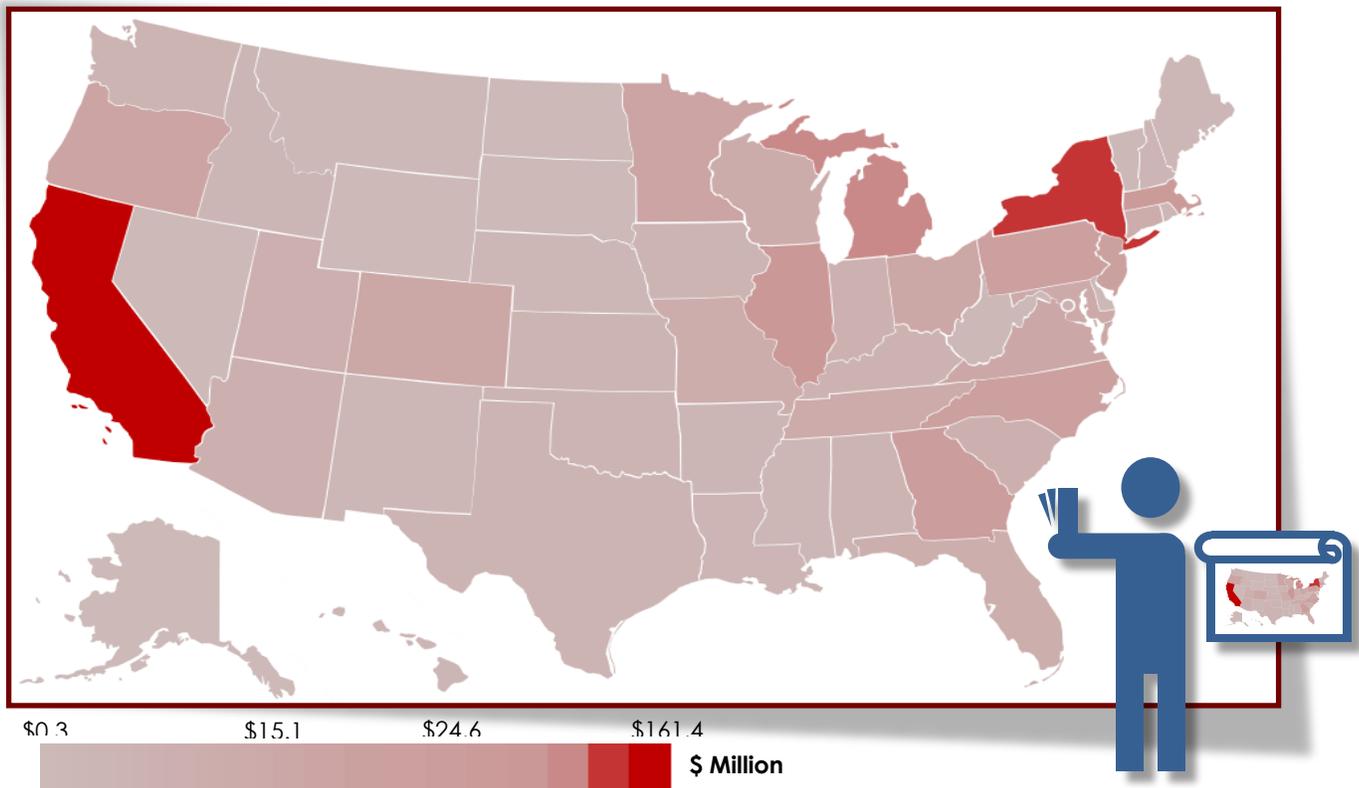


Figure 5.4: State Tax Revenue from Interior Design



## 6. Summary and Conclusion

In conclusion, the interior design sector contributes significant economic impact to the national economy. In 2016, the total annual economic impact (direct, indirect, and induced) of the interior design sector in the United States is estimated to be \$96.3 billion, with the total revenue of the sector estimated at \$49.0 billion.

The interior design sector creates jobs across the country and these jobs are largely skilled jobs paying higher-than-average wages. At the time of this study, the sector employs 199,264 workers who work in a wide range of industries such as architectural and engineering services, retail, and manufacturing. Adding economic ripple impact, the interior design sector supports 522,400 jobs annually in the nation.

In addition, interior design generates an estimated \$4.5 billion in U.S. federal tax in 2016. Individual income tax is estimated to be \$2.2 billion. Payroll tax totals \$1.8 billion, and corporate income tax adds another \$399 million in federal tax revenue in 2016.

The interior design sector makes important contributions to state economies as well—generating job opportunities in a wide range of industries and tax revenue for state governments. In terms of total economic impact (direct, indirect and induced), the top five states are California, New York, Texas, Florida and Michigan.

# Appendix 1: Summary Impact for States

## State Summary of Economic and Fiscal Impact, 2016

| State                | Output (\$ Million) |            | Employment |        | Taxes (\$ Million) |         |
|----------------------|---------------------|------------|------------|--------|--------------------|---------|
|                      | Direct              | Total      | Direct     | Total  | State              | Federal |
| Alabama              | \$291.0             | \$425.1    | 1,659      | 2,969  | \$5.3              | \$29.7  |
| Alaska               | \$36.5              | \$51.9     | 233        | 406    | \$0.3              | \$4.4   |
| Arizona              | \$664.6             | \$961.7    | 2,992      | 5,394  | \$8.6              | \$63.0  |
| Arkansas             | \$200.3             | \$292.6    | 1,001      | 1,892  | \$3.1              | \$18.2  |
| California           | \$8,747.1           | \$12,865.7 | 30,903     | 57,811 | \$161.4            | \$782.7 |
| Colorado             | \$1,058.4           | \$1,536.8  | 4,401      | 7,995  | \$16.5             | \$94.6  |
| Connecticut          | \$660.4             | \$957.6    | 2,180      | 3,955  | \$11.3             | \$55.2  |
| District of Columbia | \$346.2             | \$502.0    | 940        | 1,790  | \$7.6              | \$30.3  |
| Delaware             | \$80.2              | \$117.2    | 348        | 652    | \$1.4              | \$7.5   |
| Florida              | \$2,809.9           | \$4,117.6  | 13,011     | 24,967 | \$10.5             | \$249.8 |
| Georgia              | \$1,425.5           | \$2,083.3  | 6,202      | 12,052 | \$24.6             | \$126.1 |
| Hawaii               | \$139.4             | \$191.9    | 628        | 1,047  | \$3.6              | \$12.6  |
| Idaho                | \$125.1             | \$180.3    | 705        | 1,301  | \$3.6              | \$12.2  |
| Illinois             | \$2,036.8           | \$2,993.6  | 8,379      | 16,135 | \$29.7             | \$172.5 |
| Indiana              | \$537.9             | \$792.6    | 2,998      | 5,801  | \$7.8              | \$55.9  |
| Iowa                 | \$222.7             | \$325.1    | 1,250      | 2,275  | \$5.4              | \$22.1  |
| Kansas               | \$319.5             | \$466.8    | 1,621      | 3,018  | \$4.6              | \$31.4  |
| Kentucky             | \$327.2             | \$481.1    | 1,602      | 3,159  | \$5.7              | \$29.0  |
| Louisiana            | \$356.3             | \$519.0    | 1,773      | 3,317  | \$4.3              | \$33.5  |
| Maine                | \$107.3             | \$153.7    | 626        | 1,045  | \$2.5              | \$11.4  |
| Maryland             | \$822.7             | \$1,209.4  | 3,429      | 6,626  | \$13.6             | \$70.9  |
| Massachusetts        | \$1,338.0           | \$1,941.2  | 4,908      | 9,295  | \$26.8             | \$124.9 |
| Michigan             | \$2,544.7           | \$3,730.5  | 10,214     | 20,437 | \$42.9             | \$266.1 |
| Minnesota            | \$728.0             | \$1,066.0  | 3,194      | 5,896  | \$18.8             | \$61.3  |
| Mississippi          | \$137.9             | \$201.3    | 830        | 1,491  | \$2.5              | \$14.8  |
| Missouri             | \$595.0             | \$874.9    | 2,806      | 5,259  | \$11.0             | \$50.7  |
| Montana              | \$84.6              | \$121.1    | 468        | 836    | \$1.9              | \$7.6   |
| Nebraska             | \$152.3             | \$220.9    | 887        | 1,547  | \$2.6              | \$14.8  |
| Nevada               | \$300.0             | \$429.6    | 1,307      | 2,342  | \$1.0              | \$28.0  |
| New Hampshire        | \$214.7             | \$310.1    | 813        | 1,508  | \$3.8              | \$18.1  |
| New Jersey           | \$1,444.6           | \$2,124.8  | 5,488      | 10,738 | \$21.7             | \$125.0 |
| New Mexico           | \$106.3             | \$152.6    | 718        | 1,175  | \$2.1              | \$12.0  |
| New York             | \$6,296.3           | \$9,235.4  | 19,702     | 39,205 | \$116.5            | \$546.1 |

### State Summary of Economic and Fiscal Impact, 2016

| State                 | Output (\$ Million) |           | Employment |        | Taxes (\$ Million) |         |
|-----------------------|---------------------|-----------|------------|--------|--------------------|---------|
|                       | Direct              | Total     | Direct     | Total  | State              | Federal |
| <b>North Carolina</b> | \$1,156.1           | \$1,701.2 | 5,381      | 10,528 | \$22.5             | \$106.3 |
| <b>North Dakota</b>   | \$53.7              | \$76.8    | 271        | 485    | \$0.6              | \$4.4   |
| <b>Ohio</b>           | \$1,991.8           | \$2,930.9 | 8,634      | 17,070 | \$16.6             | \$189.6 |
| <b>Oklahoma</b>       | \$266.6             | \$389.4   | 1,406      | 2,533  | \$5.1              | \$24.7  |
| <b>Oregon</b>         | \$630.2             | \$914.6   | 3,107      | 5,447  | \$19.1             | \$57.1  |
| <b>Pennsylvania</b>   | \$1,475.9           | \$2,184.3 | 6,484      | 13,000 | \$22.1             | \$137.9 |
| <b>Rhode Island</b>   | \$155.8             | \$223.6   | 702        | 1,229  | \$2.8              | \$14.4  |
| <b>South Carolina</b> | \$399.0             | \$585.2   | 2,207      | 4,065  | \$8.7              | \$41.2  |
| <b>South Dakota</b>   | \$48.8              | \$70.0    | 313        | 534    | \$0.2              | \$4.8   |
| <b>Tennessee</b>      | \$683.0             | \$998.3   | 3,100      | 5,896  | \$12.8             | \$58.2  |
| <b>Texas</b>          | \$3,745.2           | \$5,567.9 | 15,125     | 29,581 | \$5.4              | \$339.9 |
| <b>Utah</b>           | \$426.2             | \$612.6   | 2,028      | 3,722  | \$9.1              | \$41.8  |
| <b>Vermont</b>        | \$95.3              | \$134.0   | 447        | 766    | \$1.7              | \$9.0   |
| <b>Virginia</b>       | \$911.4             | \$1,340.8 | 4,073      | 8,003  | \$15.1             | \$80.7  |
| <b>Washington</b>     | \$1,018.8           | \$1,487.7 | 4,337      | 7,732  | \$5.4              | \$93.1  |
| <b>West Virginia</b>  | \$72.8              | \$106.3   | 424        | 805    | \$1.2              | \$7.0   |
| <b>Wisconsin</b>      | \$614.1             | \$900.5   | 2,804      | 5,496  | \$12.5             | \$54.1  |
| <b>Wyoming</b>        | \$45.5              | \$64.6    | 205        | 383    | \$0.3              | \$4.2   |

Source: Chmura Economics & Analytics

## Appendix 2: Impact Analysis Glossary

*Input-Output Analysis*—an examination of business-business and business-consumer economic relationships capturing all monetary transactions in a given period, allowing one to calculate the effects of a change in an economic activity on the entire economy (impact analysis).

*Direct Impact*—economic activity generated by a project or operation. For interior design firms, this represents the total sales and direct employment of the firm.

*Indirect Impact*—secondary economic activity that is generated by a project or operation. An example might be interior design firms generating demand for computer equipment or office supplies.

*Induced (Household) Impact*—economic activity generated by household income resulting from direct and indirect impacts.

*Ripple Effect*—the sum of induced and indirect impacts. In some projects, it is more appropriate to report ripple effects than indirect and induced impacts separately.

*Multiplier*—the cumulative impacts of a unit change in economic activity on the entire economy.