

# Economic Impact of Kentucky Career Centers

*Prepared for the Northern Kentucky Workforce Investment Board*

December, 2014

*Prepared by the Center for Economic Analysis & Development,  
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# Introduction

## About the Center

The Center for Economic Analysis & Development (CEAD) serves as a vital link between Northern Kentucky University (NKU) and the regional community by collecting, analyzing, and disseminating business, economic and demographic information. Specific activities include, but are not limited to, the following:

- **applied business and economic research;**
- **regional economic and industry forecasts;**
- **industrial surveys (employment/technology needs);**
- **site location and selection analysis;**
- **population projections;**
- **cost-benefit studies;**
- **data collection;**
- **demographic research; and**
- **economic newsletters and updates.**

As such, CEAD is an essential component of the region's economic development process by conducting high-quality, high-profile, objective research on issues related to the community's current and future economic well-being.

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### **CEAD Website**

<http://nkybythenumbers.nku.edu>

# Summary of Findings

## How to interpret economic impacts

The Northern Kentucky Workforce Investment Board seeks to fill existing jobs. The data presented in this report show the impacts once the NKYWIB successfully places a person into a job. **Jobs alone do not create impact.** Placements release payroll dollars, which then support increased spending impacts. Just as important, but less quantifiable, are the intangible impacts that occur as the result of a successful placement. From a long-term perspective, **workers who are successfully placed can** experience incremental career progression (more income, more spending, more skills) and thus, **increase the tax base and lower the demand of public dollars** (as greater financial independence is achieved, the need for social services and public assistance decreases).

## Total impacts of the NKYWIB

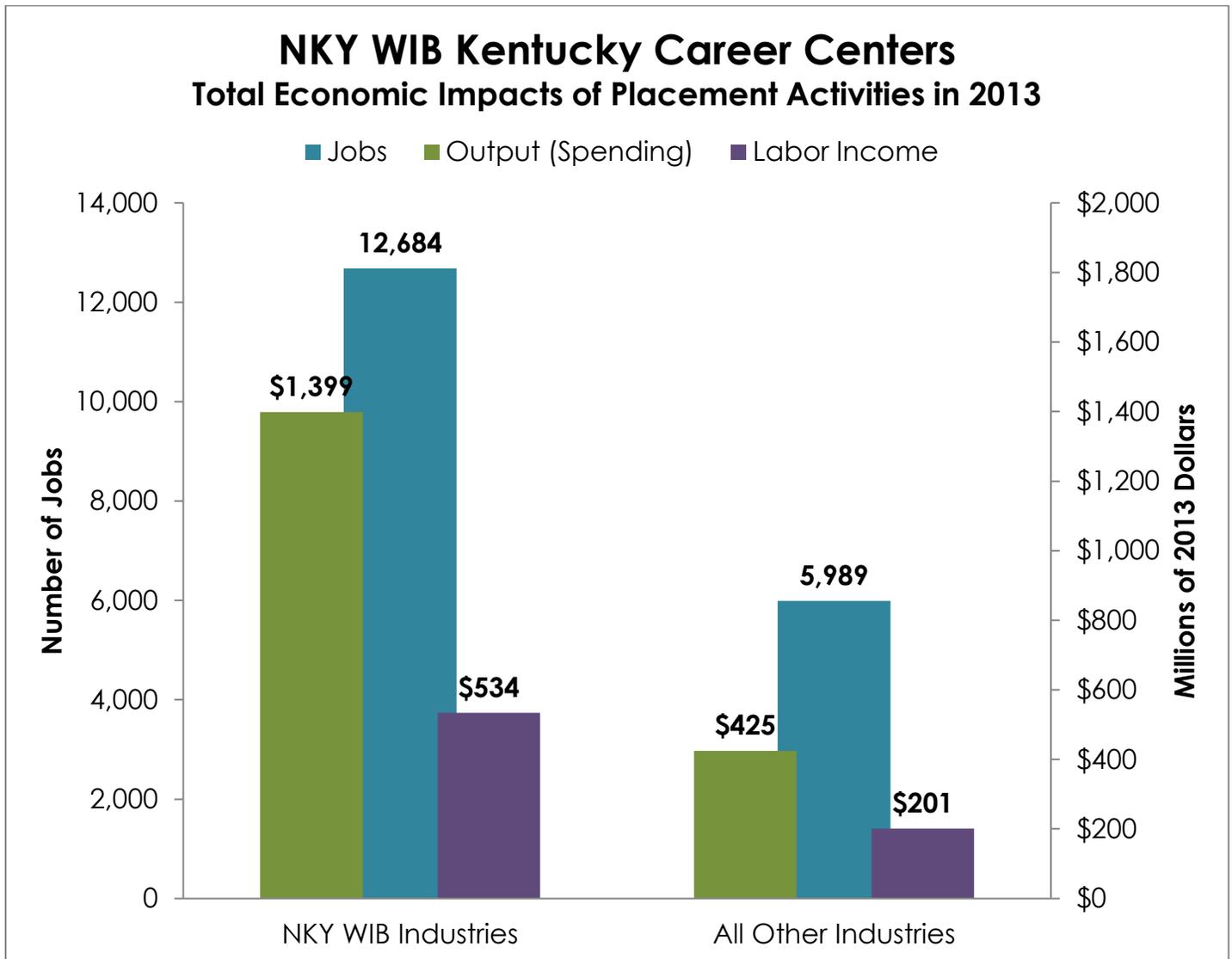
In 2013, the placement activities of the Northern Kentucky Workforce Investment Board's (NKYWIB) One-Stop Employment Centers supported 12,000 direct jobs. These jobs supported an additional 6,673 indirect and induced jobs for a total of **18,673 jobs** in the eight-county NKYWIB region. Total jobs generated an estimated **\$735.5 million in labor income and \$1.82 billion in output**.

Among NKYWIB's target industries, placement activities in these industries supported 7,647 direct jobs and an additional 5,037 indirect and induced jobs for a total of **12,684 jobs** in the eight-county NKYWIB region. Total jobs generated an estimated **\$534 million in labor income and \$1.4 billion in output** in 2013.

In all industries outside of NKYWIB's target industries, placement activities supported 4,353 direct jobs and an additional 1,636 indirect and induced jobs for a total of **5,989 jobs** in the eight-county NKYWIB region. Total jobs generated an estimated **\$201.5 million in labor income and \$425 million in output** in 2013.

[Figure 1](#) on the next page shows the total economic impacts of the NKYWIB's placement activities in 2013.

Figure 1. Total economic impacts of WIB target industries and all other industries, 2013.



Data sources: NKYWIB, Census Bureau County Business Patterns, and Bureau of Economic Analysis' RIMS II multipliers/IMPLAN.

# Executive Summary

The Northern Kentucky Workforce Investment Board (NKYWIB) operates various Kentucky Career Centers designed to match candidates seeking employment with available jobs in an eight county region in Northern Kentucky.

**Currently, the NKYWIB retains the total number of workers successfully placed in jobs. This report provides the economic impacts of 12,000 placements across all industries during 2013.**

The NKYWIB identifies the following target areas as focus areas for job placements and other economic development activities:

- Advanced Manufacturing
- Information Technology
- Healthcare
- Transportation and Logistics
- Energy
- Services:
  - Financial services/accounting
  - Construction
  - Business Management
  - Project Management/Six Sigma
  - Educational services
  - Heating/Air Conditioning
  - Hospitality
  - Marketing
  - Paralegal
  - Social services

***Due to the absence of detailed industry and wage information, this report provides the economic impacts of 12,000 placements assuming those placements matched the Kentucky statewide level distribution of employment.***

For example, if 10 percent of all jobs in Kentucky were in Manufacturing<sup>1</sup>, it is assumed that 10 percent of placements (or 1,200 people) were placed in Manufacturing jobs in the WIB district. Differences in the actual placement activities of the NKYWIB, as well as wage differentials of industries operating in the Northern Kentucky area as opposed to statewide averages, would most likely change the impacts presented in this report.

**This report is designed to provide a scenario of economic impacts with currently available data.**

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<sup>1</sup> Statewide share of employment across industries was derived from the Census Bureau's County Business Patterns data for 2012. These were the latest data available at the time this analysis was conducted.

# Explanation of Definitions, Scope, and Caveats

Several terms are used in this report to describe economic impacts. Definitions are listed below:

## **Direct Impact**

A direct impact is revenues or income of the business or operation under consideration including labor, parts and supplies, property and property improvements and so on. In this analysis, direct employment is equal to the number of placements by the NKYWIB.

## **Indirect Effects**

Indirect effects are additional employment, labor income, or output within the region, which is the result of business spending, such as the purchase of advertising services, cleaning services, vehicle purchases, etc.

## **Induced Effects**

Induced effects are additional employment, labor income, or output within the region which is the result of employee payroll (labor income) spending, on items such as utilities, healthcare, childcare, groceries, etc.

## **Total Impacts**

The Total impact is equal to the sum of the Direct Impact, Indirect Effects, and Induced Effects.

## **Multiplier**

IMPLAN multipliers indicate the ratio of direct impacts to indirect and induced impacts. For example, an employment multiplier of 1.5 measures the total change in local jobs (1.5 jobs) per change in one direct job. For example, in this analysis if the NKYWIB placed 10 people in manufacturing jobs and manufacturing had a multiplier of 1.5 then the direct impact is 10 jobs and the total impact is 15 jobs or  $10 * 1.5 = 15$  jobs.

## **Output**

The additional economic activity and spending in a region.

## **Employment**

The number of full and part-time jobs.

## **Labor Income**

Wages or pay plus benefits earned by individuals

## Geographic Scope

The impacts presented in this report represent impacts solely to the eight county NKYWIB district. This district includes Boone, Campbell, Carroll, Gallatin, Grant, Kenton, Owen, and Pendleton counties in Kentucky.

## Placements by Industry

Currently, the industries in which placements occur are not tracked. This report makes the assumption that NKYWIB placements mirror the employment mix across the state of Kentucky. The Census Bureau's County Business Patterns provides the most local level data robust enough to create a placement scenario in the absence of proprietary placement data.

## WIB Target Industries

Several target industries identified by the WIB could not be called out specifically, due to the nature of industry and occupational definitions and the publicly available data that describes them. For example, while Project Management/Six Sigma is a target area of the WIB, several industries need project managers and candidates with Six Sigma certifications, including Transportation and Logistics; and Information. As a result, Project Managers and employees with Six Sigma certifications are captured in this analysis, but cannot be specifically called out.

## Economic Impact Analysis and Multipliers

IMPLAN is an economic assessment software package used by government agencies, colleges and universities, non-profit organizations, corporations, and community planning organizations across the country. A regional economic model, such as IMPLAN, is a tool used to objectively assess the expected economic impacts of various projects. The idea behind economic impact analysis is that an initial change in economic activity results in new rounds of spending – for example, hiring and paying a salary to an employee will result in that employee spending on everything from eating out at a restaurant, splurging on a new car, or spending more on entertainment to housing, utilities and insurance.

All industry sectors have an indirect and an induced effect on the economy, creating a total impact greater than the direct impact alone. These impacts are estimated using economic multipliers.

The impacts estimated in this report are all based on multipliers calculated by the U.S. Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) and embedded in the IMPLAN software.<sup>2</sup>

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<sup>2</sup> More information about IMPLAN can be found at <http://www.implan.com/> and about the RIMS II multipliers at <http://www.bea.gov/regional/index.htm>.

## Other Considerations

### **Wages**

Wages described herein are Kentucky statewide averages across each industry described. As such, any pay differentials that may exist between the WIB eight-county region and the state would impact the calculations of economic impact. Additionally, averages include all levels of positions within an industry, from custodial services to CEO's. WIB placements may fall above or below these averages and as such, would also affect the economic impact of placement activities.

### **Suppressed Data**

On rare occasions, data are suppressed to avoid disclosing the activities of one business. Suppressed data was included in this analysis, but was categorized in a different but closely related industry. For example, if 5 percent of total manufacturing employment was suppressed across multiple specific industries, the manufacturing multiplier for "All Other Manufacturing" was applied to the 5 percent of redacted employment data.

### **County Business Patterns and IMPLAN multipliers**

IMPLAN software multipliers are calculated using historical business trends in the private sector. However, the County Business Patterns data used to model the placements of the NKYWIB includes public sector employees. Applying multipliers based on private sector trends to public data makes the assumption that a hire or dollar spent in the public sector has the same impact as a hire or dollar spent in the private sector. This may affect economic impacts in several industries, but most likely in industries more influenced by public sector activities, such as Educational Services and Healthcare.

## Data sources

### **Total Number of Placements**

Wagner-Peyser data collected by the Kentucky Department of Workforce Investment

### **Distribution by Industry**

U.S. Census Bureau County Business Patterns, Kentucky, 2012

### **Multipliers**

U.S. Bureau of Economic Analysis; IMPLAN/RIMS II.

# Impact of Placements Across All Industries

While the NKYWIB focuses on targeted industries, it is highly likely that a portion of their placements occur in industries outside of those targeted specifically by the WIB. Applying the statewide distribution of employment in 2012 to the 12,000 NKYWIB placements in 2013 assumes that approximately **7,647** placements have occurred in NKYWIB's targeted industries and **4,353** placements have occurred in all other industries. [Table 1](#) shows the economic impacts of 12,000 placements across all industries.

**Table 1. Impact of 12,000 Placements across All Industries\***

	Employment	Labor Income	Output
Direct	12,000	\$472,521,606	\$1,098,695,536
Indirect	2,575	\$108,494,371	\$288,820,866
Induced	4,098	\$154,493,912	\$436,127,790
<b>Total</b>	<b>18,673</b>	<b>\$735,509,889</b>	<b>\$1,823,644,192</b>

\*Detail may not sum to total due to rounding.

Assuming the NKY WIB's 12,000 placements mirror the industry mix of the state, the largest number of placements would be in Healthcare<sup>3</sup> (15 percent of placements), Retail (14 percent), and Manufacturing (14 percent).

<sup>3</sup> For the purposes of this report the Healthcare industry does not include Social Assistance (such as Rehabilitation and Family Service Centers)

# Impact of Placements Across Targeted Industries

While the NKY WIB matches candidates to employment opportunities regardless of the industry, several industries have been identified as target industries for the Northern Kentucky region. These industries include Healthcare, IT, Manufacturing, Energy, Transportation, and Services<sup>4</sup>. Table 2 shows the economic impacts of the WIB's target industries. Assuming the placements of the NKY WIB mirrored the statewide industry mix, 7,647 placements would occur within the NKY WIB's target industries.

**Table 2. Impact of 12,000 Placements across WIB Target Industries\***

	Employment	Labor Income	Output
Direct	7,647	\$334,688,215	\$849,332,302
Indirect	2,062	\$87,183,785	\$232,639,629
Induced	2,975	\$112,176,705	\$316,668,293
<b>Total</b>	<b>12,684</b>	<b>\$534,048,705</b>	<b>\$1,398,640,224</b>

\*Detail may not sum to total due to rounding.

# Impact of Placements Across Non-Targeted Industries

Outside of the WIB target industries are Administrative & Support & Waste Management & Remediation Services; Agriculture, Farming, Fishing, and Forestry; Arts, Entertainment, and Recreation; Information<sup>5</sup>; Mining, Quarrying, Oil, and Gas Extraction; Other Services; Professional, Scientific, and Technical Services; Real Estate, Rental, and Leasing; Retail Trade; and Wholesale Trade.

**Table 3. Impact of 1,900 Placements across Non-WIB Target Industries\***

	Employment	Labor Income	Output
Direct	4,353	\$137,833,391	\$249,363,234
Indirect	513	\$21,310,586	\$56,181,237
Induced	1,122	\$42,317,207	\$119,459,497
<b>Total</b>	<b>5,989</b>	<b>\$201,461,184</b>	<b>\$425,003,968</b>

\*Detail may not sum to total due to rounding.

<sup>4</sup> The services industry identified by the WIB includes Management of Businesses, Construction, Education services, Finance & Insurance, Hospitality, and Social Assistance.

<sup>5</sup> Impacts for Information include industries in information that are not Technology or data centered, such as newspaper publishing. Data and technology driven industries typically included in Information are captured in "IT" for the purposes of this report.

# Appendix A. Detailed WIB Industry Economic Impacts

**Table 4. Impact of 1,900 Placements in the Energy (Utilities) Sector\***

	Employment	Labor Income	Output
Direct	68	\$5,636,830	\$31,926,716
Indirect	26	\$826,882	\$2,825,696
Induced	46	\$1,717,805	\$4,848,559
<b>Total</b>	<b>139</b>	<b>\$8,181,517</b>	<b>\$39,600,971</b>

\*Detail may not sum to total due to rounding.

**Table 5. Impact of 1,900 Placements in the Healthcare<sup>6</sup> Sector\***

	Employment	Labor Income	Output
Direct	1,747	\$79,917,182	\$207,183,414
Indirect	501	\$18,044,871	\$47,881,286
Induced	690	\$26,034,412	\$73,482,872
<b>Total</b>	<b>2,938</b>	<b>\$123,996,465</b>	<b>\$328,547,572</b>

\*Detail may not sum to total due to rounding.

**Table 6. Impact of 1,900 Placements in the IT Sector\***

	Employment	Labor Income	Output
Direct	215	\$12,841,917	\$54,992,947
Indirect	113	\$4,590,049	\$14,421,014
Induced	123	\$4,642,030	\$13,109,519
<b>Total</b>	<b>451</b>	<b>\$22,073,996</b>	<b>\$82,523,480</b>

\*Detail may not sum to total due to rounding.

**Table 7. Impact of 1,900 Placements in the Transportation<sup>7</sup> Sector\***

	Employment	Labor Income	Output
Direct	680	\$34,119,500	\$111,271,865
Indirect	208	\$9,040,343	\$21,004,341
Induced	305	\$11,479,480	\$32,408,425
<b>Total</b>	<b>1,192</b>	<b>\$54,639,323</b>	<b>\$164,684,631</b>

\*Detail may not sum to total due to rounding.

<sup>6</sup> Healthcare does not include Social Assistance such as Family Services and Rehabilitation Centers.

<sup>7</sup> The County Business Patterns data set does not include rail transportation.

**Table 8. Impact of 1,900 Placements in the Manufacturing Sector\***

	Employment	Labor Income	Output
Direct	1,705	\$82,255,727	\$68,377,971
Indirect	112	\$5,904,932	\$17,248,271
Induced	620	\$23,403,445	\$66,036,133
<b>Total</b>	<b>2,437</b>	<b>\$111,564,103</b>	<b>\$151,662,375</b>

\*Detail may not sum to total due to rounding.

**Table 9. Impact of 1,900 Placements in the Services Sector\***

	Employment	Labor Income	Output
Direct	3,232	\$119,917,059	\$375,579,389
Indirect	1,103	\$48,776,708	\$129,259,022
Induced	1,191	\$44,899,533	\$126,782,785
<b>Total</b>	<b>5,527</b>	<b>\$213,593,301</b>	<b>\$631,621,196</b>

\*Detail may not sum to total due to rounding.

Tables 10-15 show further detail of the NKYWIB defined Services sector (Table 9).

**Table 10. Impact of 1,900 Placements in the Business Management Sector\***

	Employment	Labor Income	Output
Direct	286	\$21,417,868	\$52,127,543
Indirect	118	\$5,167,098	\$13,656,169
Induced	187	\$7,053,065	\$19,898,000
<b>Total</b>	<b>591</b>	<b>\$33,638,031</b>	<b>\$85,681,711</b>

\*Detail may not sum to total due to rounding.

**Table 11. Impact of 1,900 Placements in the Construction Sector\***

	Employment	Labor Income	Output
Direct	493	\$28,675,334	\$65,623,861
Indirect	107	\$5,229,972	\$13,133,907
Induced	240	\$9,049,346	\$25,572,178
<b>Total</b>	<b>840</b>	<b>\$42,954,652</b>	<b>\$104,329,945</b>

\*Detail may not sum to total due to rounding.

**Table 12. Impact of 1,900 Placements in the Education Sector\***

	Employment	Labor Income	Output
Direct	236	\$6,130,413	\$16,821,341
Indirect	48	\$1,664,922	\$5,571,589
Induced	55	\$2,072,904	\$5,851,778
<b>Total</b>	<b>339</b>	<b>\$9,868,238</b>	<b>\$28,244,708</b>

\*Detail may not sum to total due to rounding.

**Table 13. Impact of 1,900 Placements in the Finance & Insurance Sector\***

	Employment	Labor Income	Output
Direct	670	\$38,269,748	\$154,462,233
Indirect	632	\$28,693,439	\$73,672,019
Induced	473	\$17,822,004	\$50,323,282
<b>Total</b>	<b>1,775</b>	<b>\$84,785,191</b>	<b>\$278,457,533</b>

\*Detail may not sum to total due to rounding.

**Table 14. Impact of 1,900 Placements in the Hospitality Sector\***

	Employment	Labor Income	Output
Direct	1,254	\$19,898,288	\$74,548,903
Indirect	169	\$7,028,089	\$20,437,481
Induced	190	\$7,169,763	\$20,247,605
<b>Total</b>	<b>1,614</b>	<b>\$34,096,140</b>	<b>\$115,233,989</b>

\*Detail may not sum to total due to rounding.

**Table 15. Impact of 1,900 Placements in the Social Assistance Sector\***

	Employment	Labor Income	Output
Direct	293	\$5,525,409	\$11,995,510
Indirect	28	\$993,190	\$2,787,857
Induced	46	\$1,732,451	\$4,889,943
<b>Total</b>	<b>367</b>	<b>\$8,251,049</b>	<b>\$19,673,309</b>

\*Detail may not sum to total due to rounding.

# Appendix B. Detailed Non-WIB Industry Economic Impacts

**Table 16. Impact of 1,900 Placements in the Administrative & Support & Waste Management & Remediation Services Sector\***

	Employment	Labor Income	Output
Direct	778	\$20,314,363	\$7,301,677
Indirect	17	\$648,568	\$1,649,255
Induced	148	\$5,566,526	\$15,708,107
<b>Total</b>	<b>943</b>	<b>\$26,529,457</b>	<b>\$24,659,039</b>

\*Detail may not sum to total due to rounding.

**Table 17. Impact of 1,900 Placements in the Agriculture, Farming, Fishing, and Forestry Sector\***

	Employment	Labor Income	Output
Direct	13	\$514,907	\$236,982
Indirect	0	\$15,610	\$62,565
Induced	4	\$141,501	\$399,790
<b>Total</b>	<b>17</b>	<b>\$672,019</b>	<b>\$699,337</b>

\*Detail may not sum to total due to rounding.

**Table 18. Impact of 1,900 Placements in the Arts, Entertainment, and Recreation Sector\***

	Employment	Labor Income	Output
Direct	133	\$2,946,421	\$1,063,998
Indirect	4	\$126,211	\$349,812
Induced	22	\$816,039	\$2,302,870
<b>Total</b>	<b>159</b>	<b>\$3,888,671</b>	<b>\$3,716,680</b>

\*Detail may not sum to total due to rounding.

**Table 19. Impact of 1,900 Placements in the Information (Non IT industries) Sector\***

	Employment	Labor Income	Output
Direct	94	\$3,338,777	\$2,487,089
Indirect	9	\$284,612	\$863,409
Induced	26	\$962,911	\$2,717,812
<b>Total</b>	<b>128</b>	<b>\$4,586,300</b>	<b>\$6,068,309</b>

\*Detail may not sum to total due to rounding.

**Table 20. Impact of 1,900 Placements in the Mining, Quarrying, Oil, and Gas Extraction Sector\***

	Employment	Labor Income	Output
Direct	170	\$10,550,051	\$9,603,906
Indirect	16	\$873,522	\$2,306,086
Induced	80	\$3,033,006	\$8,558,432
<b>Total</b>	<b>266</b>	<b>\$14,456,578</b>	<b>\$20,468,423</b>

\*Detail may not sum to total due to rounding.

**Table 21. Impact of 1,900 Placements in the Other Services Sector\***

	Employment	Labor Income	Output
Direct	529	\$3,798,535	\$9,717,416
Indirect	41	\$1,724,823	\$4,576,725
Induced	39	\$1,471,564	\$4,156,396
<b>Total</b>	<b>609</b>	<b>\$6,994,921</b>	<b>\$18,450,538</b>

\*Detail may not sum to total due to rounding.

**Table 22. Impact of 1,900 Placements in the Professional, Scientific, and Technical Services Sector\***

	Employment	Labor Income	Output
Direct	278	\$16,611,392	\$32,718,231
Indirect	61	\$2,294,354	\$6,001,489
Induced	134	\$5,042,413	\$14,246,407
<b>Total</b>	<b>473</b>	<b>\$23,948,159</b>	<b>\$52,966,127</b>

\*Detail may not sum to total due to rounding.

**Table 23. Impact of 1,900 Placements in the Real Estate, Rental, and Leasing Sector\***

	Employment	Labor Income	Output
Direct	156	\$5,561,496	\$4,568,349
Indirect	8	\$347,600	\$921,895
Induced	42	\$1,569,108	\$4,427,842
<b>Total</b>	<b>206</b>	<b>\$7,478,204</b>	<b>\$9,918,086</b>

\*Detail may not sum to total due to rounding.

**Table 24. Impact of 1,900 Placements in the Retail Trade Sector\***

	Employment	Labor Income	Output
Direct	1,642	\$41,722,223	\$102,974,675
Indirect	235	\$9,256,960	\$25,614,223
Induced	360	\$13,562,273	\$38,290,850
<b>Total</b>	<b>2,237</b>	<b>\$64,541,456</b>	<b>\$166,879,747</b>

\*Detail may not sum to total due to rounding.

**Table 25. Impact of 1,900 Placements in the Wholesale Trade Sector\***

	Employment	Labor Income	Output
Direct	560	\$32,475,226	\$78,690,912
Indirect	123	\$5,738,326	\$13,835,777
Induced	269	\$10,151,866	\$28,650,992
<b>Total</b>	<b>952</b>	<b>\$48,365,418</b>	<b>\$121,177,680</b>

\*Detail may not sum to total due to rounding.