

NATIONAL LABORATORY

Economic Summary

RESEARCH AND DEVELOPMENT







FY 2014 Idaho National Laboratory Research and Development Economic Summary

RESEARCH TEAM



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FY 2014 - ECONOMIC IMPACT ANALYSIS

RESULTS SUMMARY

As one of the largest employers in Idaho, the Idaho National Laboratory (INL) provides a significant economic impact on Idaho's economy. Employment for INL during fiscal year (FY) 2014 was over 3,500, making it Idaho's 5th largest private employer and 10th largest employer when compared to all public and private businesses.

INL is one of the U.S. Department of Energy's (DOE's) seventeen national laboratories. The laboratory performs work in each of DOE's strategic goal areas: energy, national security, science and environment. INL is the nation's leading center for nuclear energy research and development. Day-to-day management and operation of the laboratory is the responsibility of Battelle Energy Alliance (BEA).

This study evaluates the research and development economic impact INL operations have on Idaho's economy. The economic impacts identified in this study only include INL operations managed by BEA, and thus are research and development focused. This study does not include the impact of other DOE contractors, the DOE itself, or the Naval Reactors Facility. Previous economic impact studies for INL included the impact of other contractors. For this reason, considerations should be taken when comparing the FY2014 study with those previously performed.

INL research and development economic impacts are separated into the following three categories: the direct impact, comprised by operation expenditures made by INL; indirect impacts, which are the result of interindustry trade between INL and suppliers of goods and services within Idaho; and induced impacts, created by households spending income earned directly or indirectly from INL operations. Total economic impact is the combination of all three impact categories.

Combining INL operations with additional indirect and induced impacts, the company adds more than \$1.4 billion to total output and more than 8,600 to employment in Idaho. Table 1 summarizes the impacts. Other important impacts include the following:

 The total employment impact of INL operations accounts for 1.3% of Idaho employment

- INL directly employed 3,513 workers in Idaho; secondary effects in Idaho accounted for an additional 5,102 jobs for a total of 8,615 jobs
- INL brought money into Idaho and generated additional value added output of nearly \$903 million
- INL accounted for more than 2.3% of statewide economic output
- More than \$581 million of economic output was generated through INL suppliers and employee household spending
- INL increased personal income in the state by more than \$661 million
- INL economic impacts accounted for 1.1% of all personal income in the state
- INL impacts resulted in an estimated \$53.9 million in state and local tax revenues
- Taxes generated by INL operations account for 1.6% of total state and local tax revenue (based on FY2013 state tax revenues)
- Average base salary of an INL employee is \$87,542 annually
- INL subcontracted more than \$125 million to Idaho subcontractors
- BEA corporate office contributed \$682,565 to charitable giving

TABLE 1. Combined INL economic impact on state of Idaho

Impact Type	Employment ^a	Labor Income ^b	Value Added ^c	Output ^d
Direct Effect	3,513	\$438,673,430	\$557,865,626	\$832,332,112
Indirect Effect	1,654	\$78,629,236	\$112,767,637	\$192,739,393
Induced Effect	3,448	\$144,186,355	\$231,867,913	\$389,002,361
Total Effect	8,615	\$661,489,021	\$902,501,176	\$1,414,073,866
Multiplier	2.45	1.51	1.62	1.70

a. Employment — The number of jobs created or sustained

b. Labor Income — The amount of income including employee compensation (wages and benefits) and proprietor income

c. Value Added — The value of a combination of innovation and improvement made as basic resources and intermediate goods are processed into final goods

d. Output — The value of industry output or contributions to state gross domestic output

DIRECT EFFECTS

Direct effects include total operating expenses including the purchase of goods and services, taxes, education reimbursements, and payments to employees. These direct effects for FY2014 account for more than \$832 million (see Table 2). Payments to employees can be broken down into payment of wages and salaries, and employee benefits.

Expense	Fiscal Year 2014			
Goods and Services	\$400,108,378			
Payroll Benefits Medical	\$45,603,107			
Payroll Benefits Retirement	\$37,670,747			
Payroll Salaries and Taxes ^a	\$348,949,880			
Grand Total	\$832,332,112			

TABLE 2. Direct effects

To improve the accuracy of the economic impact model, INL operations and expenditures were analyzed according to the department or directorate where the expenses were incurred. Direct effects were proportioned according to industry and directorate similarities creating a series of industry categories that more closely represent INL operations.

IMPACT ON TOTAL OUTPUT

In FY2014, INL operations added over \$1.4 billion to Idaho's gross economic output. This represents 2.3% of Idaho's total output or gross state product. This comes as a result of the direct effects of INL operations being multiplied through the economy. During FY2014, INL contracted to purchase \$125.5 million worth of goods and services with Idaho businesses. According to the economic impact model and the presence of potential supporting businesses, the actual indirect impact of INL operations could reach \$192 million.

INL employees' spending creates an additional induced effect of \$389 million on Idaho's economy. For every \$100 in direct economic activity at INL, an additional \$70 of activity is created or sustained throughout the state's economy. This results in an output multiplier of 1.70. See Figure 1 for an illustration of INL's impact on total output.

a. Total Payroll Salaries and Taxes include base salary, special pay, overtime, and taxes.

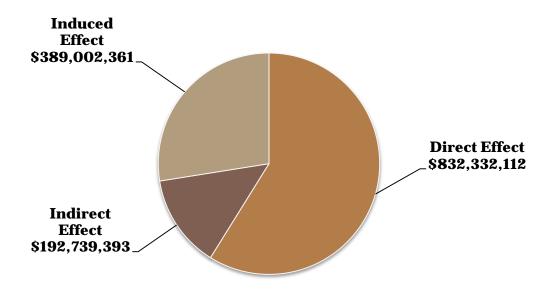


FIGURE 1. IMPACT ON TOTAL OUTPUT: \$1,414,073,866

IMPACT ON EMPLOYMENT

INL's average employment for FY2014 was 3,513. An additional 1,654 jobs are created or sustained by industries that support INL operations. INL employee spending creates or sustains an additional 3,448 jobs throughout Idaho. The combined employment impact accounts for 8,615 jobs. For every 100 INL jobs created, an additional 145 jobs are created or sustained throughout Idaho. See Figure 2 for an illustration on INL's impact on employment.

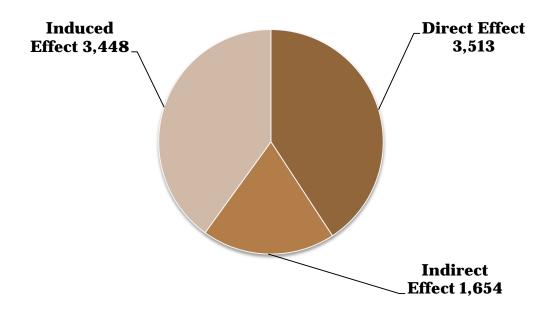


FIGURE 2. IMPACT ON EMPLOYMENT: 8,615

IMPACT ON LABOR INCOME

The INL's impact on Idaho's total labor income for FY2014 was nearly \$661 million — or 1.1% of Idaho's total personal income. Total labor income includes wages and salaries, employee benefits, and payroll taxes. The total income for employees of industries that support INL operations were \$78 million — or \$47,000 in compensation per indirect job created or sustained through INL operations — as compared to Idaho' average covered wage in 2013 at \$36,817. INL employee's household spending patterns generated \$144 million in employee compensation for individuals employed by Idaho businesses. The average base salary of an INL employee is \$87,542. See Figure 3 for an illustration of INL's impact on labor income.

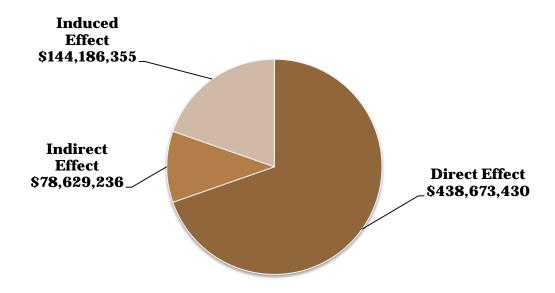


FIGURE 3. IMPACT ON LABOR INCOME: \$661,489,021

VALUE ADDED IMPACT

Value added impacts are created by a combination of innovation and improvement made as basic resources and intermediate goods are processed into final goods. Service-related production also added significant value to the economy. INL directly added nearly \$558 million of value to Idaho. Industries that supported INL indirectly added nearly \$113 million of value to Idaho. Induced value added impacts resulted in nearly \$232 million in economic activity. The total value added impact was nearly \$903 million. See Figure 4 for an illustration on INL's value added impact.

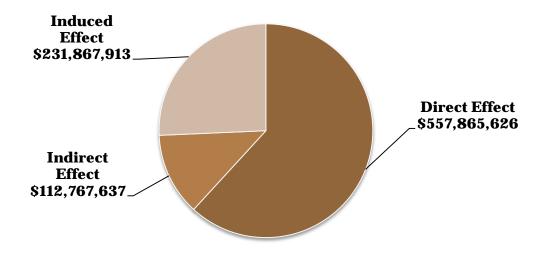


FIGURE 4. IMPACT ON VALUE ADDED: \$902,501,176

MULTIPLIERS

- **Output Multiplier** INL's output multiplier was **1.70**, which means that for every \$100 of direct impact added by INL operations, an additional \$70 dollars will be generated throughout the Idaho economy.
- **Employment Multiplier** INL's employment multiplier is **2.45**, which means that an addition of 100 employees to INL's payroll will result in an additional 145 created throughout the Idaho economy.
- **Labor Income Multiplier** INL's labor income multiplier is **1.51**, which means that if employee compensation by INL to its employees were to increase by \$100, then an additional \$51 in employee compensation would be added to the Idaho economy.
- Value Added Multiplier INL's value added multiplier is 1.62, which means that if value added by INL to the production of final goods and services were to increase by \$100 then an additional \$62 in value would be added to the Idaho economy.



