



# The Economic Impact of Research at UND: Fiscal Year 2011

## Jobs, Tax Revenues, and Economic Activity

The University of North Dakota had approximately \$116.95 million in total sponsored research program expenditures in fiscal year 2011. Input-output analysis indicates that the economic impact of these awards on Grand Forks County, the State of North Dakota, and the North Central Census Region was a staggering \$239 million in economic output, 2,021 jobs, and nearly \$23.7 million in local, state, and federal tax revenue.

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### **Report Commissioned by**

Phyllis E. Johnson, Ph.D.  
Vice President for Research and  
Economic Development

### **Report Prepared by**

David T. Flynn, Ph.D.  
Associate Professor of Economics and  
Department Chair  
Director, Bureau of Business and  
Economic Research

This report provides estimates of the economic impact of the approximately \$116.95 million in sponsored program expenditures occurring at the University of North Dakota (UND) during fiscal year 2011 (FY11). Estimates are given for Grand Forks County, the State of North Dakota, and the North Central Census Region (North Dakota, South Dakota, Minnesota, Montana, and Wyoming), measured by the value of economic output, employment, and tax revenues.

With the exception of tax revenues, measures of economic impact are frequently categorized as direct, indirect and induced impacts.

The direct impact of the sponsored program expenditures on a region is the result of spending the available dollars on the purchase of goods and services such as laboratory supplies or the hiring of students or technicians. The purchase of goods and services from the sponsored program creates economic activity in supporting industries that is referred to as the indirect impact. The induced impact results from purchases made by those individuals whose income has been generated by employment related to either the direct or the indirect impact of the sponsored program.

## The North Central Region



# Output and Employment

Figure 1 shows the relative effects of the direct, indirect and induced impacts of UND-sponsored programs on the economic output of Grand Forks County, North Dakota, and the North Central Region, respectively. For each dollar spent for sponsored programs at UND, there was \$1.50 in economic activity in Grand Forks County, \$1.65 in North Dakota, and \$2.05 in the North Central Region. Not surprisingly, the economic impact was greater as the size of the study area increased. These results clearly indicate the importance of the sponsored programs conducted at UND on the local, state, and regional economies.

**Figure 1:  
Output per UND Research Dollar**

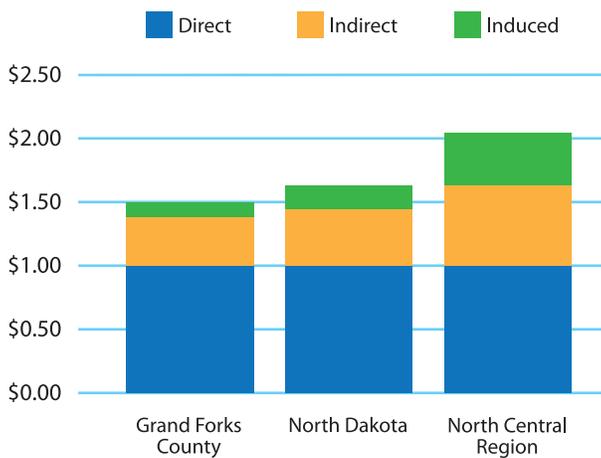
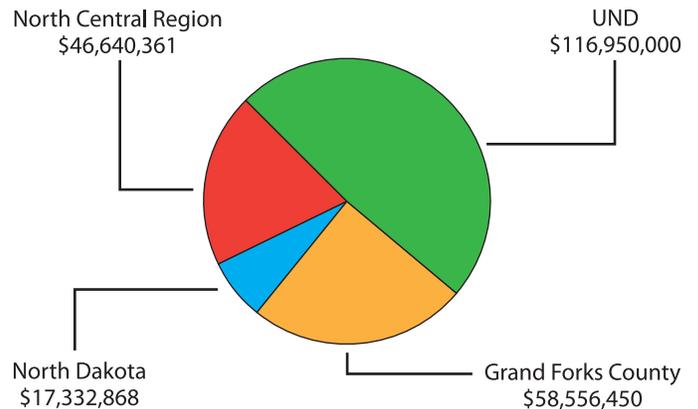


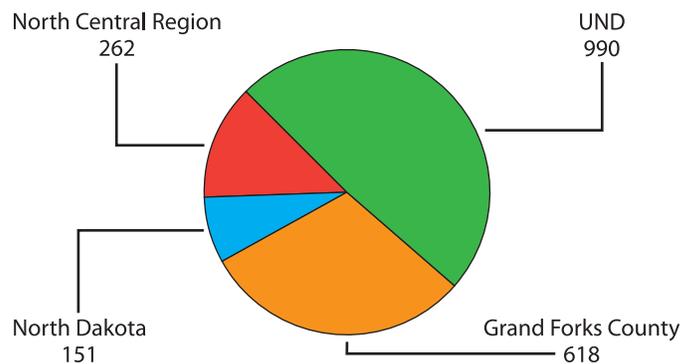
Figure 2 shows \$239.5 million of cumulative economic output impact of FY11 UND-sponsored programs across the region, beginning with the direct impact on UND. The impacts added by indirect and induced impacts on Grand Forks County, the remainder of North Dakota, and the North Central Region are shown in the accompanying pie chart. The cumulative impact of UND sponsored programs within the State of North Dakota is \$192.8 million. See Table 1 for additional details.

**Figure 2:  
Cumulative Output**



The estimated FY11 employment impact of UND sponsored programs was approximately 2,021 jobs, 990 of which were at UND, 618 additional jobs in Grand Forks County, 151 jobs elsewhere in North Dakota, and 262 additional jobs outside of North Dakota within the North Central Region. These cumulative employment impacts are shown in Figure 3. The cumulative number of jobs within the state of North Dakota created by UND sponsored programs is 1,759. See Table 1 for additional details.

**Figure 3:  
Cumulative Employment**

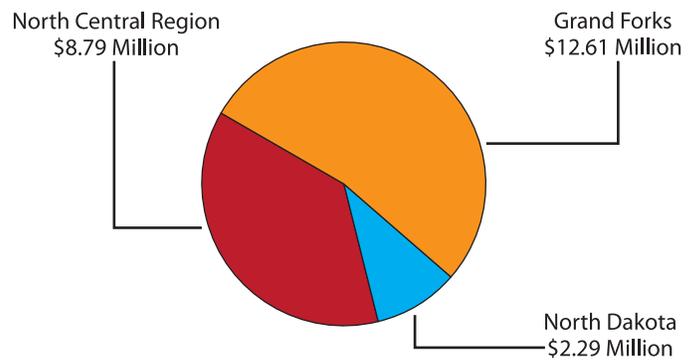


# Local, State and Federal Taxes

Table 1 on the next page shows that the indirect and induced impacts of FY11 UND sponsored program expenditures generated \$7.5 million in state and local taxes and \$16.2 million in federal taxes. Of these, \$3.3 million in state and local tax revenues and \$9.3 million in federal tax revenues were from Grand Forks County. An additional \$682,830 in state and local taxes and \$1.6 million in federal taxes were generated outside of Grand Forks County within North Dakota. Interestingly, \$3.6 million in state and local taxes and \$5.2 million in federal taxes were estimated to have been generated outside of North Dakota within the North Central Region. The total state and federal taxes generated by UND's sponsored program expenditures was \$23.69 million. Figure 4 shows

cumulative total tax revenues for Grand Forks County, North Dakota, and the North Central Region.

**Figure 4:  
Cumulative Tax Revenues**



## Summary

The \$116.95 million in sponsored program expenditures by UND in FY11 is estimated to have had an additional impact of \$58.56 million in Grand Forks County, \$17.33 million in other counties within North Dakota and \$46.64 million in the North Central Region, for a total economic impact of \$239,479,679. This sponsored research is also estimated to have led to the creation of 990 jobs within UND, 618 additional jobs in Grand Forks County, 151 additional jobs in other counties of North Dakota and 262 jobs outside of North Dakota but within the North Central Region, for a total of 2,021 jobs. The state, local and federal tax impact of UND-sponsored research program spending was estimated at \$12.61 million from Grand Forks County, plus another \$2.29 million from North Dakota and another \$8.79 million from the North Central Region, for a total of

\$23.69 million in state, local, and federal tax revenue attributable to FY11 UND-sponsored programs.



**Table 1: Economic Impact Summary for Fiscal Year 2011**

<b>Impact Area</b>	<b>Output</b>	<b>Number of Jobs</b>
UND	\$116,950,000	990
Grand Forks County	\$58,556,450	618
North Dakota	\$17,332,868	151
North Central Region	\$46,640,361	262
<b>Total</b>	<b>\$239,479,679</b>	<b>2,021</b>
	<b>State &amp; Local Taxes</b>	<b>Federal Taxes</b>
Grand Forks County	\$3,262,664	\$9,342,379
North Dakota	\$682,830	\$1,611,453
North Central Region	\$3,561,093	\$5,228,495
<b>Total</b>	<b>\$7,506,587</b>	<b>\$16,182,327</b>

## Administration

Phyllis E. Johnson, Ph.D., has been serving as Vice President for Research and Economic Development (ED) at the University of North Dakota since August of 2009. The mission of the Office of the Vice President for Research and Economic Development is to serve the broad research community of the University of North Dakota, a community that is instrumental in meeting the strategic aims of the University. Research administration is centered in five offices: namely the Office of the Vice President for Research and ED, Grants and Contracts Administration, Research Development and Compliance, IP Commercialization and Economic Development, and ND EPSCoR. In fiscal year 2011, a total of \$115.51 million in awards was received for sponsored research activities, and research expenditures totaled \$116.95 million.



Division of Research and Economic Development  
 264 Centennial Drive Stop 8367  
 Grand Forks, ND 58202-8367  
 Telephone: 701-777-6736  
 Fax: 701-777-2193  
[www.research.und.edu](http://www.research.und.edu)

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