



The Economic Impact of Research at UND: Fiscal Year 2015

Jobs, Tax Revenues, and Economic Activity

The University of North Dakota had approximately \$97.4 million in total sponsored research program expenditures in fiscal year 2015. 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 \$197.2 million in economic output, 1,154 jobs, and nearly \$21.7 million in local, state, and federal tax revenue.

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This report provides estimates of the economic impact of the approximately \$97.4 million in sponsored program expenditures occurring at the University of North Dakota (UND) during fiscal year 2015 (FY15). 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 \$1.69 in economic activity in Grand Forks County, \$1.77 in North Dakota, and \$2.02 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**

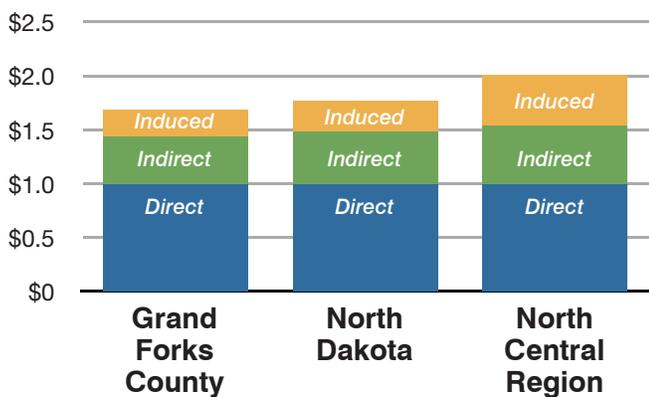
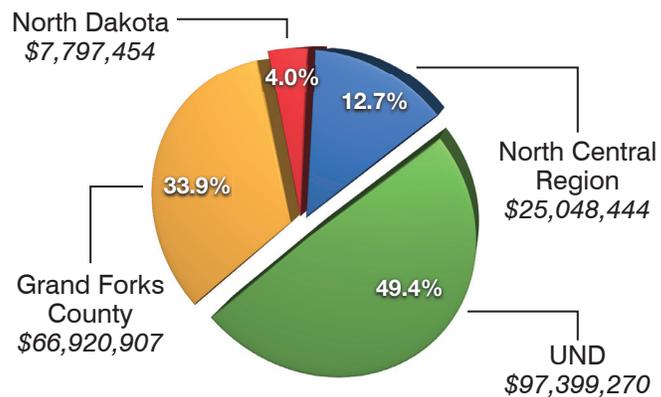


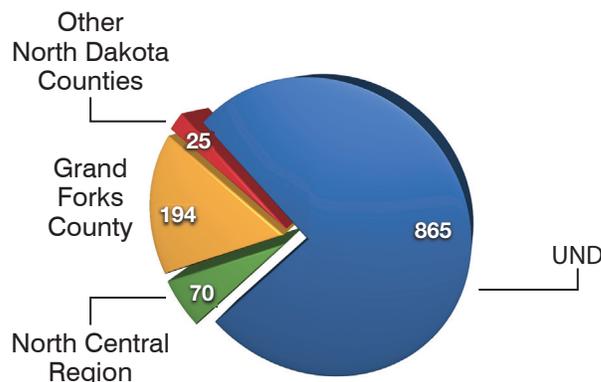
Figure 2 shows \$197.2 million of cumulative economic output impact of FY15 UND-sponsored programs across the region, beginning with the direct impact on UND. The impacts added by indirect and induced impacts on Grand Forks County, the remainder of North Dakota, and the North Central Region are shown in the accompanying pie chart. The cumulative impact of UND-sponsored programs within the State of North Dakota is \$172.1 million. See Table 1 for additional details.

**Figure 2:
Cumulative Output**



The estimated FY15 employment impact of UND-sponsored programs was approximately 1,154 jobs, 865 of which were at UND, 194 additional jobs in Grand Forks County, 25 jobs elsewhere in North Dakota, and 70 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 1,084. See Table 1 for additional details.

**Figure 3:
Cumulative Employment**

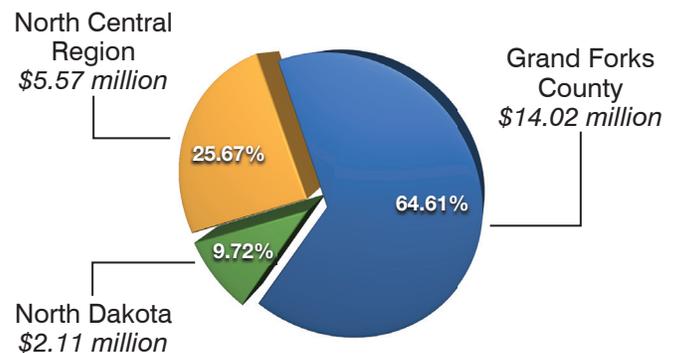


Local, State and Federal Taxes

Table 1 on the next page shows that the indirect and induced impacts of FY15 UND-sponsored program expenditures generated \$5.9 million in state and local taxes and \$15.8 million in federal taxes. Of these, \$2.4 million in state and local tax revenues and \$11.7 million in federal tax revenues were from Grand Forks County. An additional \$1.02 million in state and local taxes and \$1.1 million in federal taxes were generated outside of Grand Forks County within North Dakota. Interestingly, \$2.5 million in state and local taxes and \$3.02 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 \$21.7 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 \$97.4 million in sponsored program expenditures by UND in FY15 is estimated to have had an additional impact of \$66.9 million in Grand Forks County, \$7.8 million in other counties within North Dakota and \$25 million in the North Central Region, for a total economic impact of \$197,166,075. This sponsored research is also estimated to have led to the creation of 865 jobs within UND, 194 additional jobs in Grand Forks County, 25 jobs in other North Dakota counties, and 70 jobs outside of North Dakota but within the North Central Region, for a total of 1,154 jobs. The state, local and federal tax impact of UND-sponsored research program spending was estimated at \$14 million from Grand Forks County, plus another \$2.1 million from North Dakota and another \$5.6 million from the North Central Region, for a total of \$21.7 million in state, local, and federal tax revenue attributable to FY15 UND-sponsored programs.



Table 1: Economic Impact Summary for Fiscal Year 2015

Impact Area	Output	Number of Jobs
UND	\$97,399,270	865
Grand Forks County	\$66,920,907	194
North Dakota	\$7,797,454	25
North Central Region	\$25,048,444	70
Total	\$197,166,075	1,154
	State & Local Taxes	Federal Taxes
Grand Forks County	\$2,364,454	\$11,654,330
North Dakota	\$1,024,486	\$1,082,603
North Central Region	\$2,548,411	\$3,017,846
Total	\$5,937,351	\$15,754,779

Administration

Grant McGimpsey, Ph.D., has been serving as the Vice President for Research and Economic Development at the University of North Dakota since September of 2015. The mission of the Office of the Vice President for Research & 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 & Economic Development, Grants & Contracts Administration, Research Development & Compliance, IP Commercialization & Economic Development, and ND EPSCoR. In fiscal year 2015, a total of \$105.4 million in awards was received for sponsored research activities, and research expenditures totaled \$97.4 million.



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