



THE UNIVERSITY OF NORTH DAKOTA

The Economic Impact of Research at the University of North Dakota: Fiscal Year 2006

The University of North Dakota had approximately \$81.10 million in total sponsored expenditures in fiscal year 2006. 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 \$163.73 million in economic output, 1,593 jobs, and over \$32.1 million in local, state, and federal taxes.

This report provides estimates of the economic impacts of the approximately \$81.10 million in sponsored research expenditures occurring at the University of North Dakota (UND) during fiscal year 2006 (FY06). 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.

The *direct* impact of the research on a region is the result of spending the available research 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 research creates economic activity in supporting industries which 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 research.

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



North Central Region



The Economic Impact of UND Research on Output and Employment

Figure 1 shows the relative effects of the direct, indirect and induced impacts of UND sponsored research on the economic output of Grand Forks County, North Dakota, and the North Central Region, respectively. For each dollar spent for research at UND there was \$1.46 in economic activity in Grand Forks County, \$1.57 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 research conducted at UND on the local, state, and regional economies.

Figure 1: Output per UND Research Dollar

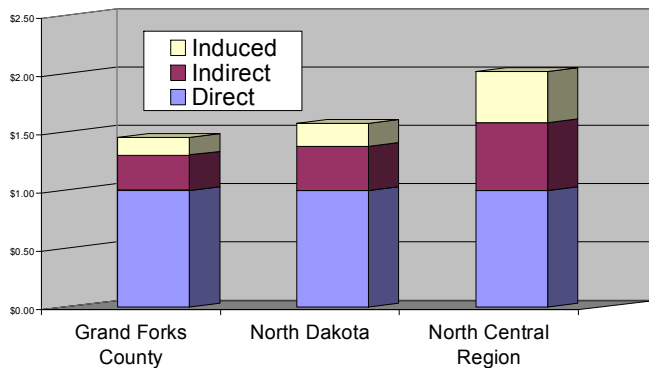
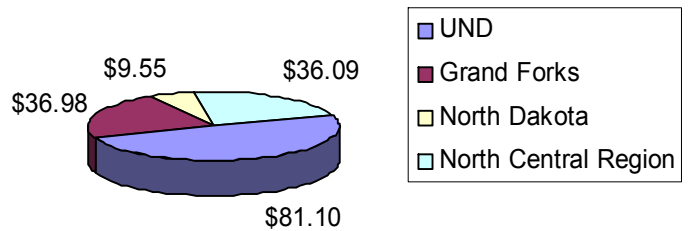


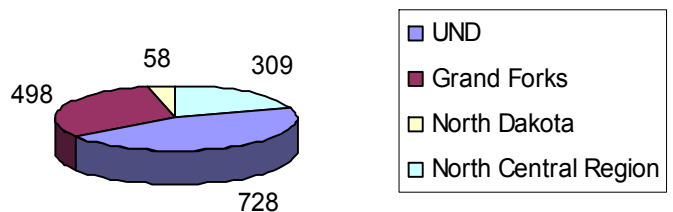
Figure 2 shows \$163.7 million of cumulative economic output impact of FY06 UND sponsored research across the region, beginning with the direct impact on UND. The impacts added by indirect and induced impacts on Grand Forks County, the remainder of North Dakota, and the North Central Region are shown in the accompanying pie chart. The cumulative impact of UND research within the State of North Dakota is \$127.6 million. See Table 1 for additional details.

Figure 2: Cumulative Output in Millions



The estimated FY06 employment impact of UND research was approximately 1,593 jobs, 728 of which were at UND, 498 additional jobs in Grand Forks County, 58 jobs elsewhere in North Dakota and 309 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 research is 1,284. See Table 1 for additional details.

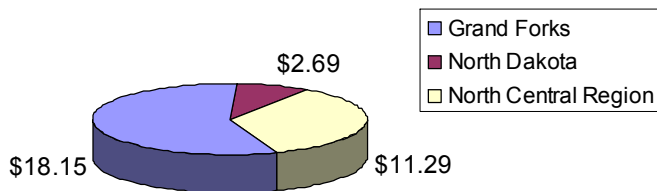
Figure 3: Cumulative Employment



The Economic Impact of UND Research on Local, State and Federal Taxes

Table 1 shows that the indirect and induced impacts of FY06 UND sponsored research generated almost \$6 million in state and local taxes and \$26.2 million in Federal taxes. Of these, \$2.5 million in state and local tax revenues and \$15.62 million in federal tax revenues were from Grand Forks County. An additional \$324 thousand in state and local taxes and \$2.37 million in federal taxes were generated outside of Grand Forks County within North Dakota. Interestingly, \$3.12 million in state and local taxes and \$8.2 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 research was \$32.13 million. Figure 4 shows cumulative estimated total tax revenues estimated for Grand Forks County, North Dakota and North Central Region.

Figure 4: Cumulative Tax Revenues in Millions



Summary

The \$81.1 million in sponsored research expenditures by UND in FY06 is estimated to have had an additional impact of \$36.98 million in Grand Forks County, \$9.55 million in other counties within North Dakota and \$36.09 million in the North Central Region for a total economic impact of \$163,727,000. This research is also estimated to have led to the creation of 728 jobs within UND, 498 additional jobs in Grand Forks County, 58 additional jobs in other counties of North Dakota and 309 jobs outside of North Dakota but within the North Central Region for a total of 1,593 jobs. The state, local and federal tax impact of UND research spending was estimated at \$18.15 million from Grand Forks County, plus another \$2.69 million from North Dakota and another \$11.29 million from the North Central Region, for a total of \$32.13 million in state, local, and federal taxes attributable to FY06 UND sponsored research.

Table 1: Economic Impact Summary for Fiscal Year 2006

Impact Area	UND Research Impact	
	Output	Number of Jobs
UND	\$81,100,000	728
Grand Forks County	\$36,979,000	498
North Dakota	\$9,554,000	58
North Central Region	\$36,093,000	309
Total	\$163,727,000	1,593
	S/L Taxes	Federal Taxes
Grand Forks County	\$2,529,000	\$15,620,000
North Dakota	\$324,000	\$2,370,000
North Central Region	\$3,118,000	\$8,170,000
Total	\$5,971,000	\$26,160,000

University of North Dakota's Research Administration



Peter Alfonso, Ph.D., has been Vice President for Research at the University of North Dakota since 2002. The mission of the Office of the Vice President for Research 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, Grants and Contracts Administration, Research Development and Compliance, Technology Transfer and Commercialization, and ND EPSCoR. In fiscal year 2006, a total of \$94.3 million in awards was received for sponsored research activities, and research expenditures totaled \$81.1 million.



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