



THE UNIVERSITY OF NORTH DAKOTA

The Economic Impact of Research at the University of North Dakota: Fiscal Year 2007

The University of North Dakota had approximately \$85.98 million in total sponsored research program expenditures in fiscal year 2007. 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 \$174 million in economic output, 1,649 jobs, and over \$32.9 million in local, state, and federal tax revenue.

Report Commissioned by
Gary E. Johnson, Ph.D.,
Interim Vice President
for Research

Report Prepared by
David T. Flynn, Ph.D.
Associate Professor of Economics
Director, Bureau of Business and
Economic Research



This report provides estimates of the economic impact of the approximately \$85.98 million in sponsored program expenditures occurring at the University of North Dakota (UND) during fiscal year 2007 (FY07). 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 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 program.

North Central Region



• City of Grand Forks
□ Grand Forks County



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 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 \$1.46 in economic activity in Grand Forks County, \$1.58 in North Dakota, and \$2.03 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.

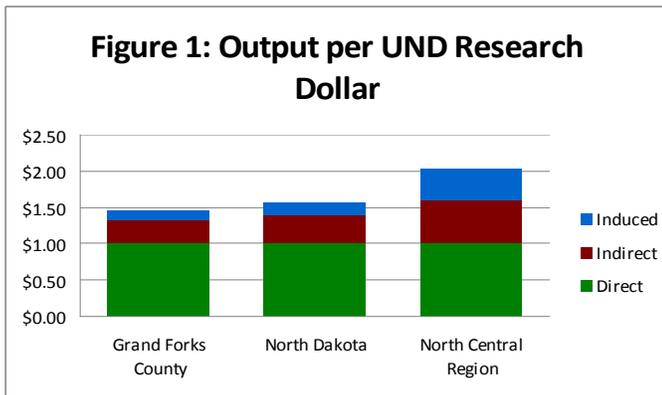
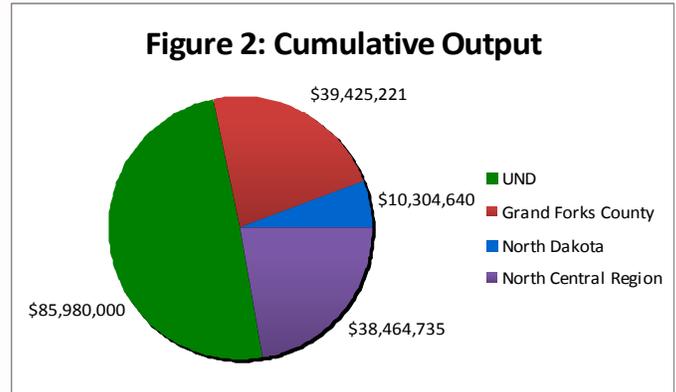
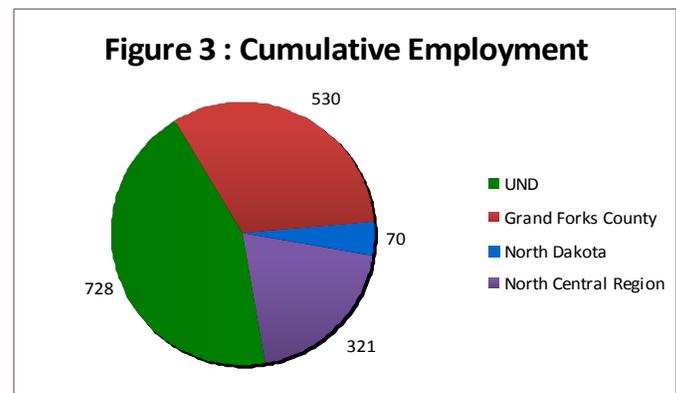


Figure 2 shows \$174.2 million of cumulative economic output impact of FY07 UND sponsored programs across the region, beginning with the direct impact on UND. The impacts added by indirect and induced impacts on Grand Forks County, the remainder of North Dakota, and the North Central Region are shown in the accompanying pie chart. The cumulative impact of UND sponsored programs within the State of North Dakota is \$135.7 million. See Table 1 on page 4 for additional details.



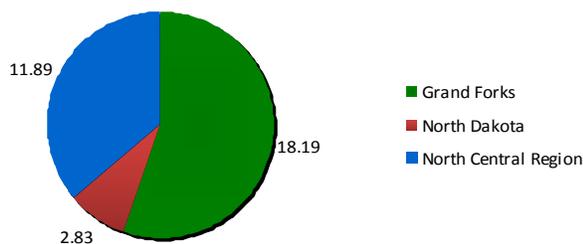
The estimated FY07 employment impact of UND sponsored programs was approximately 1,649 jobs, 728 of which were at UND, 530 additional jobs in Grand Forks County, 70 jobs elsewhere in North Dakota and 321 additional jobs outside of North Dakota within the North Central Region. These cumulative employment impacts are shown in Figure 3. The cumulative number of jobs within the state of North Dakota created by UND sponsored programs is 1,328. See Table 1 (p. 4) for additional details.



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

Table 1 (p. 4) shows that the indirect and induced impacts of FY07 UND sponsored program expenditures generated \$6.3 million in state and local taxes and \$26.7 million in Federal taxes. Of these, \$2.64 million in state and local tax revenues and \$15.55 million in federal tax revenues were from Grand Forks County. An additional \$348 thousand in state and local taxes and \$2.48 million in federal taxes were generated outside of Grand Forks County within North Dakota. Interestingly, \$3.28 million in state and local taxes and \$8.6 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 \$32.91 million. Figure 4 shows cumulative total tax revenues for Grand Forks County, North Dakota and the North Central Region.

Figure 4: Cumulative Tax Revenues in Millions



Summary

The \$85.98 million in sponsored program expenditures by UND in FY07 is estimated to have had an additional impact of \$39.43 million in Grand Forks County, \$10.3 million in other counties within North Dakota and \$38.5 million in the North Central Region for a total economic impact of \$174,174,596. This sponsored research is also estimated to have led to the creation of 728 jobs within UND, 530 additional jobs in Grand Forks County, 70 additional jobs in other counties of North Dakota and 321 jobs outside of North Dakota but within the North Central Region for a total of 1,649 jobs. The state, local and federal tax impact of UND sponsored research program spending was estimated at \$18.19 million from Grand Forks County, plus another \$2.83 million from North Dakota and another \$11.89 million from the North Central Region, for a total of \$32.91 million in state, local, and federal tax revenue attributable to FY07 UND sponsored programs.



Table 1: Economic Impact Summary for Fiscal Year 2007

Impact Area	UND Research Impact	
	Output	# of Jobs
UND	\$85,980,000	728
Grand Forks County	\$39,425,221	530
North Dakota	\$10,304,640	70
North Central Region	\$38,464,735	321
Total	\$174,174,596	1,649
	State & Local Taxes	Federal taxes
Grand Forks County	\$2,638,337	\$15,553,106
North Dakota	\$347,837	\$2,481,513
North Central Region	\$3,277,207	\$8,616,351
Total	\$6,263,381	\$26,650,970

University of North Dakota's Research Administration



Gary E. Johnson, Ph.D., has been serving as Interim Vice President for Research at the University of North Dakota since February 2007. 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 2007, a total of \$100.3 million in awards was received for sponsored research activities, and research expenditures totaled \$85.98 million.



Division of Research
 264 Centennial Drive Stop 8367
 Grand Forks, ND 58202-8367
 Telephone: 701-777-6736
 Fax: 701-777-6708
<http://www.und.edu/research/>