This report provides estimates of the economic impact of the approximately $104.1 million in sponsored program expenditures occurring at the University of North Dakota (UND) during fiscal year 2016 (FY16). 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**

- **Grand Forks County**
- **MINNESOTA**
- **MONTANA**
- **SOUTH DAKOTA**
- **WYOMING**
- **City of Grand Forks**

**Jobs, Tax Revenues, and Economic Activity**

The University of North Dakota had approximately $104.1 million in total sponsored research program expenditures in fiscal year 2016. 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 $210.8 million in economic output, 1,234 jobs, and nearly $23.2 million in local, state, and federal tax revenue.

- **Overview**
- **Output and Employment**
- **Tax Revenues**
- **Summary**
- **Table**
- **Administration**

**Report Commissioned by:**
Grant McGimpsey, Ph.D.
Vice President for Research and Economic Development and Dean of the School of Graduate Studies

**Economic Analysis Provided by:**
David T. Flynn, Ph.D.
Professor of Economics
Chair of the Department of Economics & Finance, Director of the Bureau of Business and Economic Research
The Economic Impact of UND Research FY 2016
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 2: Cumulative Output

The estimated FY16 employment impact of UND-sponsored programs was approximately 1,234 jobs, 925 of which were at UND, 207 additional jobs in Grand Forks County, 27 jobs elsewhere in North Dakota, and 75 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 1,159. See Table 1 for additional details.

Figure 3: Cumulative Employment
The summary on Table 1 shows that the indirect and induced impacts of FY16 UND-sponsored program expenditures generated $6.3 million in state and local taxes and $16.8 million in federal taxes. Of these, $2.5 million in state and local tax revenues and $12.5 million in federal tax revenues were from Grand Forks County. An additional $1.1 million in state and local taxes and $1.2 million in federal taxes were generated outside of Grand Forks County within North Dakota. Interestingly, $2.7 million in state and local taxes and $3.2 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 $23.2 million. Figure 4 shows cumulative total tax revenues for Grand Forks County, North Dakota, and the North Central Region.

Summary

The $104.1 million in sponsored program expenditures by UND in FY16 is estimated to have had an additional impact of $71.5 million in Grand Forks County, $8.3 million in other counties within North Dakota, and $26.8 million in the North Central Region, for a total economic impact of $210,778,136. This sponsored research is also estimated to have led to the creation of 925 jobs within UND, 207 additional jobs in Grand Forks County, 27 jobs in other North Dakota counties, and 75 jobs outside of North Dakota but within the North Central Region, for a total of 1,234 jobs. The state, local, and federal tax impact of UND-sponsored research program spending was estimated at $15 million from Grand Forks County, plus another $2.2 million from North Dakota, and another $6 million from the North Central Region, for a total of $23.2 million in state, local, and federal tax revenue attributable to FY16 UND-sponsored programs.
Economic Impact Summary for Fiscal Year 2016

<table>
<thead>
<tr>
<th>Impact Area</th>
<th>Output</th>
<th>Number of Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>UND</td>
<td>$104,123,575</td>
<td>925</td>
</tr>
<tr>
<td>Grand Forks County</td>
<td>$71,541,030</td>
<td>207</td>
</tr>
<tr>
<td>North Dakota</td>
<td>$8,335,779</td>
<td>27</td>
</tr>
<tr>
<td>North Central Region</td>
<td>$26,777,752</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>$210,778,136</td>
<td>1,234</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>State &amp; Local Taxes</th>
<th>Federal Taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Forks County</td>
<td>$2,527,692</td>
<td>$12,458,928</td>
</tr>
<tr>
<td>North Dakota</td>
<td>$1,095,215</td>
<td>$1,157,344</td>
</tr>
<tr>
<td>North Central Region</td>
<td>$2,724,350</td>
<td>$3,226,194</td>
</tr>
<tr>
<td>Total</td>
<td>$6,347,257</td>
<td>$16,842,466</td>
</tr>
</tbody>
</table>

Administration

Grant McGimpsey, Ph.D., has been serving as the Vice President for Research and Economic Development since September of 2015 and the Dean of the School of Graduate Studies at the University of North Dakota since July of 2016. 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 four offices: namely, the Office of the Vice President for Research & Economic Development, the Office of Sponsored Programs, the Office of Corporate Engagement & Commercialization, and ND EPSCoR. In fiscal year 2016, a total of $121.7 million in awards was received for sponsored research activities, and research expenditures totaled $104.1 million.