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Economic Impact of the North Dakota University System in 2011



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NDSU AGRIBUSINESS AND
APPLIED ECONOMICS

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NDSU is an EO/AA university

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Executive Summary

The North Dakota University System consists of the North Dakota University System Office and 11 college campuses located throughout the state. In addition to the 11 main campuses, numerous other university facilities, centers, and offices are located throughout the state. Institutions of higher education have an economic effect in their respective areas and across the state as those institutions acquire inputs, purchase services, and provide for payroll and employment at both the local and state level. North Dakota University System expenditures include general fund sources (e.g., state appropriated monies) and non-general fund sources (i.e., grants, contracts, donations). North Dakota University System in-state expenditures for fiscal year (FY) 2011 comprise the direct economic impact or ‘first round effects.’ The North Dakota Input-Output Model was used to estimate the secondary economic effects as those direct effects (i.e., expenditures) are circulated and re-spent in the economy. The model estimates the changes in gross business volume (gross receipts) for all sectors of an economy and is used to provide key economic indicators such as retail trade activity, economy-wide personal income, gross business volume, secondary employment, and state-level tax receipts.

Key measures of the economic contribution of the North Dakota University System in FY2011 include:

- Direct economic impacts (expenditures) of \$1.2 billion, of which \$817 million were expenditures from non-general fund sources
- Direct expenditures from general and non-general funds created a gross business volume of \$3.5 billion, which included \$832 million in retail trade activity and \$1.4 billion in economy-wide personal income
- Economic output in the retail trade sector would generate \$38.5 million in sales and use tax collections, and economy-wide personal income of \$1.4 billion would generate about \$20.7 million in individual income tax collections in North Dakota
- Direct employment by the North Dakota University System was 11,438 positions (excluding student jobs).
- Secondary (indirect and induced) employment resulting from the business activity generated by the North Dakota University System was estimated at 11,474 jobs
- Enrollment in the 11 member universities and colleges in the Fall of 2010 (which more closely aligns with FY2011) was equal to 38,899 full-time equivalent students
- Student living expenses were estimated at \$392 million and were in addition to institution spending
- Increased business activity generated by student spending was estimated at \$974 million, which included \$440 million in retail trade activity and \$236 million of economy-wide personal income and would support about 2,000 secondary jobs.

Economic Contribution of the North Dakota University System

Randal C. Coon, Dean A. Bangsund, and Nancy M. Hodur*

The North Dakota University System (NDUS) is comprised of the North Dakota University System Office and 11 college campuses, and their related entities located throughout the state. These institutions contribute to the state and local economies through expenditures for inputs and services and through personal spending by staff and faculty. Previous studies have estimated the economic contribution of the NDUS for fiscal years (FY) 1999 and 2004 (Leistriz and Coon 2005), FY2006 (Leistriz and Coon 2007), FY2008 (Leistriz and Coon 2009), and FY2009 (Bangsund et. al, 2010). This study will provide a similar analysis for FY2011.

The North Dakota University System experienced substantial growth during the 1999-2011 period. The number of students attending schools in the North Dakota University System has increased since 1999. Employment at the 11 universities also has increased since 1999. Expenditures to operate the NDUS have increased steadily over the FY1999 to FY2011 period, largely funded from the federal government and/or other out-of-state sources, primarily for research and economic development activities.

The economic contribution of the NDUS was estimated with consideration given to the source of revenue for the system colleges and universities. General fund revenues are primarily received from state government appropriations. Non-general fund revenues come from sources other than the appropriated state tax revenue. Examples of non-general fund revenues can be federal grants, private grants, private/public research contracts, and donations. The main body of the report focuses on the North Dakota University System and the economic effects of general and non-general fund expenditures by colleges and universities. An abbreviated economic impact analysis for each of the 11 campuses in the state and the North Dakota University System Office are appended to the end of this report.

Methods

The initial task in any impact assessment is estimating the direct effects or first round of spending associated with an activity, project, or program. The North Dakota University System Office provided FY2011 financial data for each of the 11 institutions and the North Dakota University System Office. Also provided were Fall 2010 student enrollment data and university employment numbers for each of the state's 11 public colleges and universities. The expenditure data were provided for the same budget categories as previous studies (i.e., FY1999, FY2004, FY2006, FY2008, and FY2009 analyses) giving a long-term consistent data base (see Appendix A). Data were provided for general and non-general fund expenditures. As part of the budget expense categories, capital improvement (building) and capital equipment expenditures for each of the institutions also were included. However, non-general fund capital equipment purchases at North Dakota State University and University of North Dakota were excluded from this analysis. Although this category contained significant levels of spending at both the schools, those purchases represent scientific, laboratory, and technical equipment which are primarily purchased from out-of-state suppliers.

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Expenditure data came from the ConnectND system. This system provided a data base that was reported for consistent line item categories for a multi-year time period. Expenditures for each individual institution may not correspond exactly with that institution's financial statement, but were the data available from the North Dakota University System computer network. The following colleges and universities, along with their respective centers and stations, were included in the ConnectND data system:

- North Dakota University System Office
- Bismarck State College
- Dickinson State University
- Lake Region State College
- Mayville State University
- Minot State University
- Dakota College Bottineau
- North Dakota State College of Science
- North Dakota State University
 - Agricultural Experiment Station:
 - NDSU Main Research Center
 - Dickinson Research Extension Center
 - Central Grasslands Research Extension Center
 - Hettinger Research Extension Center
 - Langdon Research Extension Center
 - North Central Research Extension Center
 - Williston Research Extension Center
 - Carrington Research Extension Center
 - Agronomy Seed Farm
 - Northern Crops Institute
 - Upper Great Plains Transportation Institute
 - NDSU Cooperative Extension Service
 - North Dakota Forest Service
- University of North Dakota
 - School of Medicine and Health Sciences
- Valley City State University
- Williston State College

Data for organizations such as development foundations and university/private partnerships (e.g., NDSU Research & Technology Park) are not included in the ConnectND data base. Therefore, the financial activity of those entities are not reflected in this analysis. The absence of those expenditure data, in some cases, understates the economic effects of the NDUS. However, despite those omissions, the ConnectND data set provides a consistent, accurate, and annual data base for an economic contribution analysis.

Spending on capital improvements came from both general fund and non-general fund sources. Non-general fund construction would have been funded by external sources such as grants, contracts, and donations. All expenditure data were in current year dollar values (also called nominal dollars), meaning dollar values have not been adjusted for inflation. Some of the growth reported in expenditures would be accounted for with inflation. In other words, some growth in expenditures would be required to keep spending steady on a real basis (i.e., account

for inflationary changes in the purchasing power of the dollar). The Consumer Price Index suggests inflation during the 1999-2011 period was 35 percent (Bureau of Labor Statistics 2011). Therefore, a 35 percent increase in expenditures from 1999 to 2011 would be required to represent a zero change in expenditures if corrected for inflation (i.e., dollars expressed in real terms).

The North Dakota Input-Output Model was used to estimate the secondary economic impacts based on NDUS expenditure data. The North Dakota Input-Output Model consists of interdependence coefficients or multipliers that measure the level of business activity generated in each economic sector from an additional dollar of expenditures in a given sector. (A sector is a group of similar economic units, e.g., the firms engaged in retail trade make up the retail trade sector.) For a complete description of the input-output model, see Coon and Leistriz (1989). The model estimates the changes in total business activity (gross receipts) for all sectors of the area economy resulting from the direct expenditures associated with the North Dakota University System. The increased business volumes are used to estimate secondary employment and tax revenues based on historic relationships. The procedures used in the analysis are parallel to those used in estimating the impact of other facilities and activities in North Dakota (Leistriz 1995; Bangsund and Leistriz 2004). Empirical testing has confirmed the model's accuracy in estimating changes in levels of economic activity in North Dakota; over the period 1958-2010, estimates of statewide personal income derived from the model averaged within 5 percent of comparable values reported by the U.S. Department of Commerce (Leistriz et al. 1990, Coon et al. 2012).

This analysis also includes the economic impact of student spending. Student spending has an economic impact beyond that of the North Dakota University System. Estimated costs of education for the 2010-2011 academic year were obtained from the North Dakota Career Resource Network (2011). Those expenditures provide an indication of the economic contribution of student spending in the state.

North Dakota University System Economic Contribution

The North Dakota University System operating budget increased 119 percent from \$533 million in FY1999 to \$1.2 billion in FY2011, excluding capital equipment purchases at NDSU and UND (Table 1). Wages and salaries represented the largest itemized expense over the time period. Wages and salaries were \$226 million in FY1999 (42 percent of total) and grew to \$483 million in FY2011 (41 percent of total). The percentage of total general and non-general fund expenditures for wages and salaries has remained essentially unchanged over the 12-year period (Table 1).

Table 1. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System, by Budget Category, and Allocation to the Input-Output Model Industrial Sectors, Fiscal Years 1999, 2004, 2006, 2008, 2009 and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							1999-2011	2009-2011
----- \$000s -----							----- % -----	
Operating Expenditures:								
Wages and Salaries	225,512	318,838	352,778	374,053	404,743	483,270	114.3	19.4
Fringe Benefits	55,809	85,718	98,123	111,650	119,436	146,814	163.1	22.9
Travel	14,102	21,194	23,136	26,684	26,731	28,957	105.3	8.3
Data Processing	4,324	7,625	13,297	16,510	14,633	15,712	263.4	7.4
Fees	22,565	38,891	28,657	36,487	33,956	37,685	67.0	11.0
Utilities	12,054	15,780	18,173	22,562	23,606	25,091	108.2	6.3
Communications	11,284	11,050	8,057	8,340	8,494	8,735	-22.6	2.8
Insurance	1,832	3,426	3,464	3,224	4,704	3,342	82.4	-29.0
Rents and Fees	10,416	14,809	9,013	10,642	14,127	13,980	34.2	-1.0
Office	15,372	20,968	10,526	10,884	10,564	9,862	-35.8	-6.6
Supplies	9,626	17,330	19,512	21,731	23,132	21,723	125.7	-6.1
Instructional	5,677	7,155	16,916	20,868	21,567	25,673	352.2	19.0
Noncapital Equipment	1,777	2,981	6,441	7,114	7,345	7,125	301.0	-3.0
Merchandise for Resale	34,696	32,785	37,858	41,861	47,752	45,080	29.9	-5.6
Repairs	24,631	20,064	21,382	25,325	27,999	26,978	9.5	-3.6
Scholarships, etc.	40,160	62,774	69,979	80,165	86,654	122,884	206.0	41.8
General	10,088	24,841	49,004	57,199	64,444	65,754	551.8	2.0
Capital Equipment	6,468	4,793	2,300	19,754	6,396	5,579	-13.7	-12.8
Recovery of Expenses	- -	(11,945)	--	--	--	--	--	--
Capital Improvements	<u>26,529</u>	<u>62,243</u>	<u>39,488</u>	<u>45,246</u>	<u>34,084</u>	<u>71,095</u>	168.0	108.6
Total	532,922	761,320	828,104	940,299	980,365	1,165,339	118.7	18.9
Input-Output Model Sectors:								
Construction	26,529	62,243	39,488	45,246	34,084	71,095	168.0	108.6
Communications & Public Utilities	23,338	26,831	26,230	30,902	32,100	33,826	44.9	5.4
Retail Trade	73,616	74,066	93,553	122,212	116,755	115,042	56.3	-1.5
Finance, Ins., R. Estate	68,057	103,952	110,559	125,517	124,140	164,136	141.2	32.2
Business and Personal Services	75,710	112,615	135,477	162,204	181,890	175,086	131.3	-3.7
Households	<u>265,672</u>	<u>381,613</u>	<u>422,757</u>	<u>454,218</u>	<u>491,396</u>	<u>606,154</u>	128.2	23.4
Total	532,922	761,320	828,104	940,299	980,365	1,165,339	118.7	18.9

Fringe benefits represented the second largest itemized expenditure, increasing from \$56 million in FY1999 (10 percent of total) to \$147 million in FY2011 (13 percent of total). Wages and salaries plus benefits equaled \$281 million in FY1999, \$405 million in FY2004, \$451 million in FY2006, \$486 million in FY2008, \$524 million in FY2009, and \$630 million in FY2011. Salaries and wages, along with benefits, averaged over 50 percent of university expenditures over the past 11-years (Table 1). Wages and salaries and benefits increased 124 percent from FY1999 to FY2011.

Capital improvements were \$26 million in FY1999, \$62 million in FY2004, \$39 million in FY2006, \$45 million in FY2008, \$34 million in FY2009, and \$71 million in FY2011. Expenditures for construction are often based on availability of funds from a variety of sources. General fund monies allocated to capital improvements come from tax revenues and generally reflect the economic welfare of the state during each legislative biennium. Most of the change in capital improvements during the last 11-year period has come from non-general fund sources.

Expenditures made by the North Dakota University System comprise the direct impacts or first-round effects on the state's economy. The economic effects of those first-round expenditures are distributed in numerous locations through out the state. Direct impacts were \$533 million in FY1999, \$761 million in FY2004, \$828 million in FY2006, \$940 million in FY2008, \$980 million in FY2009, and \$1.2 billion in FY2011 (Table 1). These expenditures were allocated to six economic sectors of the North Dakota Input-Output Model.

As the state's higher education institutions have expanded their roles in research, economic development, outreach, and developed community and industrial partnerships, sources of funding for many of the universities' activities also have changed. Non-general fund revenue (grants, contracts, donations) has become an important source of growth in the higher education system in ND. In FY1999, \$333 million of non-general fund expenditures comprised 62 percent of the total expenditures by the University System in ND; these outlays increased to \$535 million in FY2004, 70 percent of the total (Table 2). In FY2006, non-general fund expenditures were \$614 million, which accounted for 74 percent of the University System's expenditures. Non-general fund expenditures increased to \$689 million in FY2008, 73 percent of the total budget. In FY2009, non-general fund expenditures were estimated at \$706 million and represented 72 percent of all expenditures. Non-general fund expenditures for FY2011 (\$817 million) represented 70 percent of the North Dakota University System total for that year. Capital improvement expenditures in FY2011 (\$34 million) were higher than in FY2009 (\$19 million), but lower than the highest amount for the study years, FY2004 (\$52 million).

Non-general fund expenditures have increased \$484 million since FY1999 or by 145 percent over the 12-year period. The majority of non-general fund expenditures were for wages and salaries over the 12-year period. In FY 2011, salaries and wages from non-general fund sources accounted for 66 percent of all expenditures for wages and salaries. Thus, two-thirds of NDUS wages and salaries for staff and faculty come from sources other than state government appropriations. It is likely that in the absence of external funding for wages and salaries, overall employment in the NDUS could be expected to be much lower than current levels. Similar to expenditures from general fund revenues, non-general fund outlays were allocated to six economic sectors of the North Dakota Input-Output Model to estimate secondary economic impacts from just the non-general fund expenditures associated with the NDUS.

Table 2. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System, by Budget Category, and Allocation to the Input-Output Model Industrial Sectors, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							1999-2011	2009-2011
----- \$000s -----							----- % -----	
Operating Expenditures:								
Wages and Salaries	116,454	194,399	236,265	246,481	266,414	320,013	174.8	20.1
Fringe Benefits	28,161	50,243	64,446	72,168	77,229	95,084	237.6	23.1
Travel	10,839	17,170	19,323	22,177	22,202	24,278	124.0	9.4
Data Processing	2,546	5,676	11,096	11,884	11,215	10,674	319.3	-4.8
Fees	17,013	34,267	26,893	33,329	30,741	31,528	85.3	2.6
Utilities	4,195	6,975	9,893	12,580	13,359	14,366	242.5	7.5
Communications	7,683	7,991	6,227	6,326	6,366	5,396	-29.8	-15.2
Insurance	1,063	2,144	2,320	2,326	3,618	2,477	133.0	-31.5
Rents and Fees	7,595	13,062	7,684	9,630	12,944	12,174	60.3	-6.0
Office	9,104	15,269	7,883	8,271	7,848	7,393	-18.8	-5.8
Supplies	8,055	14,805	16,136	18,320	18,936	17,773	120.7	-6.1
Instructional	2,654	4,349	12,645	16,103	16,612	20,244	662.8	21.9
Noncapital Equipment	1,122	2,159	5,401	5,895	6,039	5,699	407.9	-5.6
Merchandise for Resale	31,704	32,784	37,857	41,860	47,750	45,080	42.2	-5.6
Repairs	16660	14861	16999	19124	20381	20,587	23.6	1.0
Scholarships, etc.	38,495	58,787	55,133	61,670	67,613	92,792	141.1	37.2
General	6,904	18,312	42,095	47,763	53,137	53,932	681.2	1.5
Capital Equipment	1,847	1,789	1,238	17,351	4,302	3,550	92.2	-17.5
Recovery of Expenses	--	(11,945)	--	--	--	--	--	--
Capital Improvements	<u>20,807</u>	<u>51,846</u>	<u>34,266</u>	<u>36,201</u>	<u>19,124</u>	<u>33,881</u>	<u>62.8</u>	<u>77.2</u>
Total	332,901	534,943	613,800	689,459	705,830	816,921	145.4	15.7
Input-Output Model Sectors:								
Construction	20,807	51,846	34,266	36,201	19,124	33,881	62.8	77.2
Communications & Public Utilities	11,878	14,966	16,120	18,906	19,725	19,762	66.4	0.2
Retail Trade	54,486	59,211	81,160	107,801	101,487	99,738	83.1	-1.7
Finance, Ins., R. Estate	36,819	65,448	74,450	84,124	80,847	109,736	198.0	35.7
Business and Personal Services	53,962	90,286	116,406	134,276	150,621	140,999	161.3	-6.4
Households	<u>154,949</u>	<u>253,186</u>	<u>291,398</u>	<u>308,151</u>	<u>334,026</u>	<u>412,805</u>	<u>166.4</u>	<u>23.6</u>
Total	332,901	534,943	613,800	689,459	705,830	816,921	145.4	15.7

Secondary economic effects associated with the North Dakota University System were estimated by applying the input-output model coefficients to the level of expenditures by economic sector. The combination of direct and secondary economic effects are sometimes referred to as total business activity. Business volumes were estimated for both total expenditures (general and non-general fund) and for only non-general fund expenditures (Table 3).

Levels of business activity associated with general and non-general fund expenditures in the state were estimated at \$1.6 billion in FY1999, \$2.2 billion in FY2004, \$2.4 billion in FY2006, \$2.8 billion in FY2008, \$2.9 billion in FY2009, and \$3.5 billion in FY2011 (Table 3). The total business activity for the University System has increased by \$1.9 billion or by 122 percent over the 12-year period. Economic sectors of the ND economy that received major contributions include *households* (i.e., economy-wide personal income of state residents), *retail trade*, *construction*, and *finance, insurance and real estate*. Retail trade activity amounted to \$393 million in FY1999 and \$832 million in FY2011. Economic activity in the *retail trade* sector increased by \$439 million or by 112 percent over the period. The University System was estimated to increase economy-wide personal income (i.e., *households* sector) in North Dakota from \$613 million in FY1999 to \$1.4 billion in FY2011. Levels of business activity resulting from the North Dakota University System including student living expenditures would support 12,138 secondary (indirect and induced) full-time equivalent (FTE) jobs in 1999 and 11,474 FTE secondary jobs in 2011 (Table 4). These jobs represent employment in addition to the 8,120 persons employed by the North Dakota University System in 1999 and the 11,438 positions (excluding student jobs) in 2011 (Table 4). Secondary employment attributable to the North Dakota University System levels of business activity has declined slightly in recent years. This has been the result of increased productivity from technological advances, rapid growth in the state economic base, and inflation which have caused productivity ratios (the number of dollars required to create an additional job) to increase. In FY2011, retail trade activity (\$832 million) would generate about \$38.5 million in additional sales and use tax collections in the state. Similarly, economy-wide personal income of \$1.4 billion would generate \$21 million in state income tax collections.

A similar analysis was conducted for non-general fund expenditures (Table 3). Non-general fund outlays in FY1999 generated total business activity of nearly \$1.0 billion, \$1.6 billion in FY2004, \$1.8 billion in FY2006, and about \$2.0 billion in FY2008 and FY2009, and \$2.4 billion in FY2011. Business activity in the state from non-general fund expenditures in the NDUS increased by 151 percent over the 12-year period. Overall activity in the *retail trade* sector was estimated at \$248 million in FY1999 and \$595 million in FY2011; levels sufficient to generate \$11.5 million and \$27.5 million in increased sales and use tax collections for the respective years. Economy-wide personal income of \$950 million in FY2011 would generate \$14.3 million in state individual income tax collections.

The economic effects associated with non-general fund expenditures comprise a substantial share of the total North Dakota University System economic contribution. Both the relative share of University System spending that comes from non-general funds sources and that the share has been increasing over the 12-year period highlight the importance that outside financial support plays in the economic effects on the North Dakota economy.

Table 3. Direct and Secondary Economic Effects, General and Non-General Funds, North Dakota University System, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							1999-2011	2009-2011
----- \$000s -----							----- % -----	
Direct and Secondary Economic Effects, General and Non-General Funds, by Economic Sector:								
Construction	65,070	117,946	100,140	112,887	105,381	157,239	141.7	49.2
Comm & Pub Util	76,560	103,633	110,370	125,617	131,886	152,570	99.3	15.7
Retail Trade	392,833	536,877	597,584	684,069	708,724	831,897	111.8	17.4
Fin, Ins, Real Estate	139,715	207,621	223,761	251,652	257,349	324,787	132.5	26.2
Bus & Pers Services	103,849	153,552	180,280	212,297	234,744	238,689	129.8	1.7
Prof & Soc Services	39,731	57,512	62,822	69,725	73,706	89,432	125.1	21.3
Households	612,835	887,089	968,846	1,073,533	1,135,643	1,380,206	125.2	21.5
Other ¹	<u>126,456</u>	<u>179,794</u>	<u>196,758</u>	<u>221,915</u>	<u>231,738</u>	<u>277,900</u>	119.8	19.9
Total	1,557,049	2,244,024	2,440,561	2,751,695	2,879,171	3,452,720	121.8	19.9
Direct and Secondary Economic Effects, Non-General Fund Only, by Economic Sector:								
Construction	44,163	90,086	78,001	84,342	69,227	93,384	111.5	34.9
Comm & Pub Util	44,380	68,060	77,533	87,144	90,781	102,686	131.4	13.1
Retail Trade	247,754	376,788	444,393	507,419	517,180	594,872	140.1	15.0
Fin, Ins, Real Estate	80,184	136,560	156,023	173,842	174,518	220,859	175.4	26.6
Bus & Pers Services	70,970	118,369	148,781	169,984	187,891	185,149	160.9	-1.5
Prof & Soc Services	23,867	39,196	44,941	49,224	51,492	61,654	158.3	19.7
Households	367,522	603,700	691,608	756,177	791,816	950,252	158.6	20.0
Other ¹	<u>77,625</u>	<u>124,256</u>	<u>143,421</u>	<u>160,301</u>	<u>164,860</u>	<u>194,060</u>	150.0	17.7
Total	956,465	1,557,015	1,784,701	1,988,433	2,047,765	2,402,916	151.2	17.3

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Table 4. Direct Employment in the North Dakota University System, Secondary Employment Attributed to University System Expenditures, and Student Enrollment, 1999, 2004, 2006, 2008, 2009, and 2011

Year	Direct Employment ¹	Secondary Employment ²	Student Enrollment ³
1999	8,120	12,138	30,720
2004	9,608	12,749	36,245
2006	10,260	12,483	35,373
2008	10,651	10,799	36,095
2009	11,079	10,279	37,564
2011	11,438	11,459	38,899
Change 1999-2011:			
Number	3,318	-664	8,179
Percent	40.9	-5.5	26.6
Change 2009-2011:			
Number	359	1,195	1,335
Percent	3.2	11.6	3.6

¹ North Dakota University System employment is an employee head count consisting of faculty, classified, other non-classified and temporary. Student workers were not included in this total.

² Secondary employment is full-time equivalent workers. Estimates are based on business activity from university expenditures and student living expenses. A new methodology for estimating secondary employment was developed in 2011 and has been used for all subsequent analyses. This methodology will eliminate possible overestimation of secondary workers due to economic factors such as technological changes, excess capacity, and constrained economic variables. Secondary employment for each year the analysis has been completed (1999-2011) and was calculated using the new methodology to provide a consistent time-series data base. Reductions in secondary employment are a reflection of the new methodology and not a result of university system expenditures having a smaller role in secondary job creation.

³ Student enrollment is full-time equivalent students.

Student Economic Contribution

Student spending contributes to the economic contribution of the North Dakota University System. Student spending included outlays for personal items, recreation, books, supplies, and room and board. Excluded from student expenditures were outlays for tuition and fees. Estimates of student expenditures were available for each of the 11 institutions in the North Dakota University System (North Dakota Career Resource Network 2011). The North Dakota Career Resource Network estimated student personal and recreational spending to be \$3,000 for the 2009-2010 school year, \$3,000 for the 2010-2011 school year, and \$3,400 for the 2011-2012 school year (North Dakota Career Resource Network 2010, 2011, 2012). Due to inflation, it is unlikely student spending would remain at \$3,000 for the 2009-2010 and 2010-2011 school years, then increase to \$3,400 for the 2011-2012 school year. The \$3,000 2010-2011 student personal and recreation was adjusted for inflation to \$3,230 to bring it in line with the 2009-2010 and 2011-2012 levels of spending. Student living expenditures were estimated to range from \$8,830

per student per academic year at Lake Region State College to \$10,944 per student per academic year at North Dakota State University (Appendix Table A14).

Multiplying the Fall 2010 FTE student enrollment for each school by their respective per-student living expenditures provided an estimate of direct impacts or first-round effects associated with student spending. However, the use of ND Career Resource Network estimates of room and board expenses may overstate the economic effects of student expenditures. Although a large number of students live on-campus or live independently off-campus, some students live at home. Students living at home would likely incur less expense for room and board compared to those living on-campus or independently off-campus. Another factor that complicates the estimation of the effects of student spending is that some of the revenues for room and board for students living in university dormitories could be considered double counting with expenditures by the universities. The revenues received by universities and colleges for on-campus room and board would likely be dispersed by the universities for inputs and services associated with student housing. As such, expenditures for providing student housing are probably partially captured by the analyses of university spending. Therefore, including room and board expenses for all students might result in some double counting of University System expenditures. Data were unavailable to adjust the economic contribution of student spending to account for those students living at home or to adjust for the percentage of room and board expenses already captured by University System expenditures.

Another area of potential double counting could occur in how expenses are handled for books and other educational materials. Books and educational materials purchased by students through campus-sponsored book stores or at on-campus varsity marts also are likely to be fully or partially captured by university expenditures. Since those facilities are part of the university or college, expenses for staff, facilities, and materials/inventory would necessarily be included in the university analysis. Further, it is highly likely that a large percentage of college text books would be acquired from entities outside of North Dakota and would not represent in-state expenditures by universities and colleges. However to the extent that educational materials are purchased by students from off-campus sources, those expenditures would not represent double counting. The degree of overlap between student spending for books and educational supplies and university expenditures associated with book stores and varsity marts is unknown, as is the degree of those supplies purchased by universities from out-of-state entities. Despite these potential problems, the cost of books was included in the student spending analysis for consistency with previous analyses.

In Fall 2010, NDUS indicated that 38,899 FTE students were enrolled in the 11 state universities and colleges. Based on expenditures per FTE student, students were estimated to have spent \$392 million in North Dakota on books, room and board, personal items, and recreation (Table 5). Of course, students also incur expenses for fees, tuition, and other items not covered in this analysis. Those expenditures were not included in this study and would be captured by the analysis of university expenditures.

A large share of the student spending would occur in the communities where the institutions are located, due to the nature of their purchases (i.e., books, supplies, and room and board). Some of the student expenditures for recreation and personal items will occur in cities and trade areas other than those where the university or college is located. However for this analysis, all student spending will be assumed to remain in close proximity to the community where the college or university is located (data presented for each university in Appendix B).

Student spending was estimated at \$392 million for the 2010-2011 academic year, which most closely approximates the FY2011 calendar year (Table 5). The \$392 million in student expenditures would be in addition to expenditures made by the North Dakota University System universities and colleges despite the potential problems identified earlier in this section. In 2010-2011, student direct expenditures were 33.6 percent of the general and non-general fund expenditures made by the North Dakota University System.

Student spending was allocated to the *retail trade* (75 percent) and *finance, insurance, and real estate* (25 percent) sectors of the North Dakota Input-Output Model. The total economic contribution associated with student spending was estimated at \$974 million in FY2011. The sector that received the largest impact was the *retail trade* sector, with \$440 million in retail trade activity. The *household* sector (economy-wide personal income) was estimated at \$236 million in FY2011. Retail trade activity would generate \$20.4 million in sales and use tax collections, while personal income tax collections were estimated to be \$3.5 million as the result of increased economic activity in the *household* sector. The gross business volume resulting from North Dakota University System student spending would support about 2,000 secondary (indirect and induced) jobs in the state in FY2011.

Table 5. Direct and Total Economic Effects, Student Living Expenditures, Students Enrolled in the North Dakota University System, Fiscal Years 2008, 2009, and 2011

Item	FY2008	FY2009	FY2011
	----- \$000 -----		
Direct Impacts:			
Student Expenditures for Living Expenses	304,502	327,360	392,045
Direct Impacts by I-O Model Sector:			
Retail Trade	228,377	245,519	294,034
Finance, Insurance, Real Estate	<u>76,125</u>	<u>81,841</u>	<u>98,011</u>
Total	304,502	327,360	392,045
Direct and Secondary Impacts:			
Construction	13,558	14,575	17,456
Comm and Public Utilities	22,137	23,798	28,502
Retail Trade	342,306	368,001	440,716
Finance, Insurance, Real Estate	100,143	107,662	128,933
Business and Personal Services	10,262	11,032	13,212
Professional and Social Services	12,515	13,454	16,113
Households	183,614	197,398	236,403
Other ¹	<u>72,084</u>	<u>77,391</u>	<u>92,806</u>
	756,619	813,311	974,141

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Conclusions

The North Dakota University System consists of 11 colleges and universities located throughout the state. Those universities receive revenues from state appropriated funds, state grants, federal grants, and from private grants, contracts, and donations. The universities and colleges have positive effects on the state economy and local economies as those revenues are used to purchase inputs and services and pay wages and salaries. Expenditure data for the NDUS came from the ConnectND system.

The North Dakota University System was responsible for \$533 million in direct expenditures within North Dakota in FY1999. By FY2011, direct expenditures within North Dakota had increased by 119 percent to \$1.2 billion. Much of the growth during this 12-year period has come from non-general fund sources, such as grants, contracts, and donations, which increased by 145 percent over the period. Non-general fund expenditures represented nearly 70 percent of the total direct spending by the NDUS in FY2011.

The North Dakota Input-Output Model was used to estimate the amount of business activity generated from expenditures by the NDUS. The total direct effects, \$1.2 billion in NDUS expenditures, were allocated to various sectors of the North Dakota I/O Model. Interdependence coefficients within the model were then used to estimate the secondary economic effects. Combining direct and secondary economic effects provides an estimate of the gross business volume. The gross business volume associated with the NDUS was estimated at \$1.6 billion in FY1999, \$2.2 billion in FY2004, \$2.4 billion in FY2006, \$2.8 billion in FY2008, \$2.9 billion in FY2009, and \$3.5 billion in FY2011. Other key measures of economic impact include retail trade activity and economy-wide personal income. Retail trade sales attributed to the North Dakota University System expenditures were estimated at \$393 million, \$537 million, \$598 million, \$684 million, \$709 million, and \$832 million in fiscal years 1999, 2004, 2006, 2008, 2009, and 2011, respectively. Economy-wide personal income was estimated to be \$613 million in FY1999, \$887 million in FY2004, \$969 million in FY2006, \$1.07 billion in FY2008, \$1.14 billion in FY2009, and \$1.4 billion in FY2011.

Student expenditures create an economic impact that is in addition to that of the North Dakota University System. Student spending, excluding tuition and fees, was estimated at \$392 million in FY2011. The business activity associated with spending from the 38,899 FTE students enrolled in the NDUS during the 2010-2011 academic year was estimated at \$974 million.

Overall, student spending and NDUS expenditures were estimated at \$1.6 billion in FY2011. Including secondary economic impacts raises the total economic impact to \$4.4 billion. State-level effects included \$1.3 billion in additional retail trade activity and \$1.6 billion of economy-wide personal income. Retail trade activity would generate \$58.9 million in sales and use tax collections, and \$24.2 million of personal income tax revenues when the expenditures of the North Dakota University System and student spending are combined.

Institutions of higher education in North Dakota are influential in many perspectives. They help provide the state with an educated workforce ready to meet the challenges of an ever changing work environment. They provide outreach and continuing education programs for the state's residents and businesses. In addition to providing education, the state's universities and colleges

create and support jobs and employment opportunities through research, extension, and teaching activities. All these important services and products provide economic benefits which enhance local and state economies.

Essentially, the state's 11 University System colleges, universities, and supporting centers and facilities act as centers for local and regional economic development. The state's colleges and universities are able to leverage over \$2.30 from external sources for every dollar of state appropriated funds. Much of those non-appropriated funds come from outside sources, and could be considered new money to the state of North Dakota. Those dollars, along with appropriated funds, are dispersed within the state through purchase of services, inputs, and payroll that support university programs, events, and activities. In FY2011, these institutions employed over 11,000 workers, were educating 47,937 headcount students (38,899 full-time equivalents), and their expenditures supported over 11,000 FTE secondary jobs.

The North Dakota University System has a strong economic presence in the state. The universities and colleges in the state continue to serve as example of the importance of higher education and the benefits that a strong University System can have on the quality of life in North Dakota.

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APPENDIX A

Expenditure and Student Enrollment Data,
North Dakota University System Member Institutions,
Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011

Appendix Table A1. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 1999 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	7,624,362	5,633,759	2,692,858	3,933,608	13,780,777	1,764,651	11,405,658	75,085,567	95,234,284	5,327,108	2,242,611	786,569	225,511,812
Fringe Benefits	1,856,496	1,565,445	666,554	1,066,327	3,437,860	495,309	3,072,878	18,312,018	23,233,796	1,350,183	564,791	187,594	55,809,251
Travel	311,741	480,363	156,701	200,885	618,289	113,737	550,371	6,096,115	5,032,178	321,503	152,614	67,862	14,102,359
Data Processing	109,895	67,030	53,900	118,989	114,529	29,096	243,785	1,661,310	1,438,529	427,223	36,587	23,224	4,324,097
Fees	474,420	1,007,687	196,013	567,687	1,122,676	328,649	348,983	7,324,642	10,117,064	780,895	167,540	128,377	22,564,633
Utilities	481,565	491,370	153,525	292,695	753,189	125,291	879,757	4,218,318	4,212,632	335,987	109,544		12,053,873
Communications	255,922	329,546	71,433	165,643	309,983	86,548	782,556	3,949,782	4,810,922	458,170	47,554	16,156	11,284,215
Insurance	25,700	30,186	13,557	28,265	54,362	10,103	101,902	376,748	1,151,895	29,875	8,677	150	1,831,420
Rents & Leases	246,088	8,893	13,864	704,269	225,896	9,161	241,281	3,190,017	5,346,155	363,580	65,985	948	10,416,137
Office	338,831	299,072	104,844	124,504	439,558	89,197	397,234	10,293,392	2,987,251	165,460	66,624	66,404	15,372,371
Supplies	721,042	293,069	79,952	190,024	510,459	111,104	435,808		6,841,298	202,164	225,201	15,330	9,625,451
Instructional	434,916	232,240	125,997	141,806	475,758	63,520	1,023,268		2,641,202	241,489	116,367	180,809	5,677,372
Noncap Equipment			45,028	90,488	316,079	19,110	210,160	889,989		194,601	1,225	9,944	1,776,624
Merch for Resale	906,895	400,876	335,963	292,487		101,176	2,007,713	11,533,334	18,428,685	282,908	406,173		34,696,210
Repairs	308,845	595,803	85,007	194,265	428,991	29,747	942,152	4,650,159	17,067,743	199,955	123,402	4,966	24,631,035
Scholarships etc.	1,938,131	1,965,302	940,073	838,810	2,959,876	707,881	2,572,791	9,964,304	12,793,931	1,299,853	1,096,413	3,082,734	40,160,099
General	435,588	230,959	128,197	125,127	456,290	144,343	1,413,991	2,777,946	2,452,843	208,580	165,224	1,549,000	10,088,088
Capital Equipment	525,987	437,571	161,197	140,197	707,930	105,248	870,754	1,731,519	1,275,680	326,479	185,369		6,467,931
Capital Improvement	916,398	869,272	722,973	209,806	3,375,092	241,840	3,066,092	5,580,589	10,342,136	841,460	363,440		26,529,098
Recovery of Exp													
TOTAL	17,912,822	14,938,443	6,747,636	9,425,882	30,087,594	4,575,711	30,567,134	167,635,749	225,408,224	13,357,473	6,145,341	6,120,067	532,922,076
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	916,398	869,272	722,973	209,806	3,375,092	241,840	3,066,092	5,580,589	10,342,136	841,460	363,440	0	26,529,098
Comm & Pub Util	737,487	820,916	224,958	458,338	1,063,172	211,839	1,662,313	8,168,100	9,023,554	794,157	157,098	16,156	23,338,088
Retail Trade	2,927,671	1,662,828	852,981	979,506	2,449,784	489,355	4,944,937	24,448,234	32,174,116	1,413,101	1,000,959	272,487	73,615,959
FIRE	2,128,284	1,604,524	693,975	1,798,861	3,718,118	514,573	3,416,061	21,878,783	29,731,846	1,743,638	639,453	188,692	68,056,808
Bus & Pers Ser	1,640,489	2,381,842	619,818	1,206,953	2,740,775	645,572	3,499,282	22,510,172	36,108,357	1,938,156	645,367	1,773,429	75,710,212
Households	9,562,493	7,599,061	3,632,931	4,772,418	16,740,653	2,472,532	13,978,449	85,049,871	108,028,215	6,626,961	3,339,024	3,869,303	265,671,911
TOTAL	17,912,822	14,938,443	6,747,636	9,425,882	30,087,594	4,575,711	30,567,134	167,635,749	225,408,224	13,357,473	6,145,341	6,120,067	532,922,076

Appendix Table A2. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2004 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	10,677,953	8,449,508	3,875,177	5,107,680	18,289,339	2,071,683	13,102,386	108,330,752	138,411,786	6,200,614	3,181,196	1,140,167	318,838,241
Fringe Benefits	3,075,352	2,227,221	1,104,810	1,748,436	5,064,750	684,626	4,044,488	28,633,198	35,890,600	1,979,661	969,707	294,735	85,717,584
Travel	528,006	897,347	230,405	343,727	1,066,284	133,337	682,995	8,740,074	7,964,347	299,950	225,241	81,876	21,193,589
Data Processing	175,041	168,212	74,382	139,673	277,341	44,941	205,964	3,573,584	2,476,813	438,545	32,761	18,225	7,625,482
Fees	1,937,574	1,519,806	565,394	17,311	1,894,896	400,357	976,164	14,816,581	15,756,380	73,682	417,180	516,118	38,891,443
Utilities	513,452	704,119	251,062	354,274	865,867	153,410	1,064,866	5,849,285	5,510,969	330,980	181,683		15,779,967
Communications	195,012	265,110	81,955	73,800	400,092	87,587	772,948	4,335,990	4,402,881	340,817	74,100	20,141	11,050,433
Insurance	85,849	77,046	35,117	52,517	105,135	21,761	111,411	762,310	2,085,877	62,215	23,396	2,933	3,425,567
Rents & Leases	522,825	246,343	37,246	56,662	99,326	49,545	221,126	3,466,018	9,449,143	594,423	52,256	13,923	14,808,836
Office	485,438	617,193	112,590	235,539	507,815	129,328	540,853	14,203,920	3,728,638	212,103	119,034	75,807	20,968,258
Supplies	422,027	496,188	86,098	283,568	519,378	139,117	499,540		14,328,562	216,850	328,271	10,289	17,329,888
Instructional	565,110	264,664	132,458	134,743	490,796	64,094	1,304,529		3,468,160	231,908	108,646	389,487	7,154,595
Noncap Equipment	249,205	304,200	24,414	121,542	289,763	63,675	440,677	1,324,452		79,110	78,100	6,323	2,981,461
Merch for Resale	1,556,688	730,626	400,252	416,502		160,204	2,308,280	15,020,855	11,157,239	439,836	594,473		32,784,955
Repairs	394,657	305,344	119,440	206,538	586,510	24,260	940,302	5,679,687	11,422,354	274,585	105,679	4,303	20,063,659
Scholarships etc.	3,469,368	3,480,444	1,099,405	1,292,335	4,416,501	836,697	3,529,367	19,394,720	18,798,594	1,507,728	1,720,918	3,228,405	62,774,482
General	1,680,689	387,487	199,696	1,323,736	2,876,076	124,510	2,698,206	3,030,301	4,529,810	1,166,469	667,931	6,156,061	24,840,972
Capital Equipment	784,843	174,559	117,625	93,314	981,695	44,070	448,812	1,397,785	510,359	149,726	89,794		4,792,582
Capital Improvement	365,648	1,696,081	695,976	3,778,013	670,525	116,870	757,340	20,138,649	25,177,798	2,423,340	1,117,152	5,305,869	62,243,261
Recovery of Exp								(11,945,358)					(11,945,358)
TOTAL	27,684,737	23,011,498	9,243,502	15,779,910	39,402,089	5,350,072	34,650,254	246,752,803	315,070,310	17,022,542	10,087,518	17,264,662	761,319,897
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	365,648	1,696,081	695,976	3,778,013	670,525	116,870	757,340	20,138,649	25,177,798	2,423,340	1,117,152		62,243,261
Comm & Pub Util	708,464	969,229	333,017	428,074	1,265,959	240,997	1,837,814	10,185,275	9,913,850	671,797	255,783	20,141	26,830,400
Retail Trade	4,063,311	2,587,430	873,437	1,285,208	2,789,447	600,488	5,542,691	20,001,654	33,192,958	1,329,533	1,318,318	481,906	74,066,381
FIRE	3,684,026	2,550,610	1,177,173	1,857,615	5,269,211	755,932	4,377,025	32,861,526	47,425,620	2,636,299	1,045,359	5,617,460	103,951,987
Bus & Pers Ser	4,715,967	3,278,196	1,189,317	2,030,985	6,701,107	727,405	5,503,631	35,840,227	42,149,704	2,253,231	1,448,792	6,776,583	112,615,145
Households	14,147,321	11,929,952	4,974,582	6,400,015	22,705,840	2,908,380	16,631,753	127,725,472	157,210,380	7,708,342	4,902,114	4,368,572	381,612,723
TOTAL	27,684,737	23,011,498	9,243,502	15,779,910	39,402,089	5,350,072	34,650,254	246,752,803	315,070,310	17,022,542	10,087,518	17,264,662	761,319,897

Appendix Table A3. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2006 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	12,644,309	9,833,672	4,184,656	5,709,434	19,501,429	2,284,186	14,149,136	121,985,291	151,183,856	6,582,135	3,421,147	1,298,308	352,777,559
Fringe Benefits	3,743,539	2,883,671	1,208,378	1,835,315	5,727,543	745,962	4,298,317	33,549,557	40,474,669	2,149,184	1,166,256	340,176	98,122,567
Travel	531,738	899,550	199,125	420,017	893,465	124,884	918,250	10,026,826	8,370,132	370,745	282,209	98,588	23,135,529
Data Processing	327,367	494,722	184,741	62,302	380,011	60,331	552,598	5,050,506	5,525,722	596,947	58,329	3,674	13,297,250
Fees	881,266	740,900	309,159	44,424	767,935	317,634	145,201	11,431,445	13,465,984	267,219	77,966	208,256	28,657,389
Utilities	577,478	703,023	260,112	676,843	1,101,064	168,465	1,196,565	7,106,409	5,768,536	392,415	221,992		18,172,902
Communications	77,029	177,133	33,518	62,153	122,147	47,688	496,731	2,859,553	3,797,506	306,715	54,763	22,474	8,057,410
Insurance	19,678	171,075	30,494	73,051	107,172	18,336	126,829	872,800	1,961,727	59,458	21,240	1,683	3,463,543
Rents & Leases	510,488	55,521	80,099	232,155	56,140	33,613	197,405	2,066,192	5,378,422	322,737	65,645	14,330	9,012,747
Office	344,519	581,372	114,225	292,574	413,872	74,272	622,542	4,041,610	3,662,105	206,119	101,210	71,630	10,526,050
Supplies	686,885	674,880	167,146	310,594	1,159,118	109,018	497,979	7,908,984	7,604,410	263,338	119,319	10,295	19,511,966
Instructional	697,957	625,737	132,656	165,514	941,486	84,449	1,408,982	5,111,382	7,122,438	295,087	323,733	7,029	16,916,450
Noncap Equipment	176,622	347,664	91,623	158,249	104,865	30,018	517,170	1,996,508	2,782,179	203,460	25,443	6,869	6,440,670
Merch for Resale	1,505,877	622,937	425,528	667,788	1,474,247	226,278	2,666,128	14,787,258	14,291,952	551,023	638,863		37,857,879
Repairs	407,827	638,785	229,680	208,912	809,064	76,724	1,392,399	4,409,358	12,801,122	347,552	58,579	2,362	21,382,364
Scholarships etc.	3,299,547	4,981,850	1,253,694	1,661,422	5,444,005	800,748	3,213,748	22,034,371	20,324,703	1,714,453	1,563,518	3,686,961	69,979,020
General	2,052,786	2,599,468	674,201	880,007	2,510,736	265,469	2,167,311	14,576,239	20,924,196	1,266,311	747,955	339,143	49,003,822
Capital Equipment	297,850	261,965	29,594	102,673	350,453	8,400	314,219	455,388	233,671	183,251	62,633		2,300,097
Capital Improvement	844,104	1,577,255	549,536	175,907	4,422,269	476,567	739,416	14,411,188	15,804,556	295,367	192,463		39,488,628
Recovery of Exp													
TOTAL	29,626,866	28,871,180	10,158,165	13,739,334	46,287,021	5,953,042	35,620,926	284,680,865	341,477,886	16,373,516	9,203,263	6,111,778	828,103,842
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	844,104	1,577,255	549,536	175,907	4,422,269	476,567	739,416	14,411,188	15,804,556	295,367	192,463		39,488,628
Com & Pub Util	654,507	880,156	293,630	738,996	1,223,211	216,153	1,693,296	9,965,962	9,566,042	699,130	276,755	22,474	26,230,312
Retail Trade	3,709,710	3,114,555	960,772	1,697,392	4,444,041	532,435	6,027,020	34,301,130	35,696,755	1,702,278	1,271,201	95,823	93,553,112
FIRE	4,273,705	3,110,267	1,318,971	2,140,521	5,890,855	797,911	4,622,551	36,488,549	47,814,818	2,531,379	1,253,141	356,189	110,598,857
Bus & Pers Ser	4,200,984	5,373,425	1,596,906	1,615,662	5,361,211	845,042	5,175,759	45,494,374	61,087,156	2,848,774	1,225,038	652,023	135,476,354
Households	15,943,856	14,815,522	5,438,350	7,370,856	24,945,434	3,084,934	17,362,884	144,019,662	171,508,559	8,296,588	4,984,665	4,985,269	422,756,579
TOTAL	29,626,866	28,871,180	10,158,165	13,739,334	46,287,021	5,953,042	35,620,926	284,680,865	341,477,886	16,373,516	9,203,263	6,111,778	828,103,842

Appendix Table A4. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2008 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	13,703,590	11,286,146	4,952,288	5,643,638	20,320,073	2,608,923	14,991,907	130,082,496	157,668,622	7,289,965	3,825,886	1,679,156	374,052,690
Fringe Benefits	4,307,608	3,526,620	1,478,733	2,034,101	6,464,563	875,153	4,920,186	38,934,598	44,878,689	2,464,252	1,279,187	486,380	111,650,070
Travel	588,673	1,061,370	251,952	405,847	1,059,127	197,645	979,330	11,965,470	9,324,937	438,929	272,617	138,562	26,684,459
Data Processing	511,701	424,540	292,426	127,432	204,974	83,403	658,173	7,240,407	6,591,131	297,698	62,616	15,056	16,509,557
Fees	1,007,145	1,161,040	462,696	117,499	1,165,169	57,829	138,827	14,465,742	17,338,976	219,525	290,457	61,640	36,486,545
Utilities	630,152	785,124	266,416	807,715	1,213,832	192,883	1,152,232	8,631,293	8,206,289	437,848	238,259	0	22,562,043
Communications	91,423	165,421	40,930	56,044	124,488	56,587	442,230	3,361,364	3,739,743	180,389	61,336	19,712	8,339,667
Insurance	43,013	371,374	20,414	46,850	87,039	20,012	76,267	737,453	1,760,526	52,204	7,473	1,609	3,224,234
Rents & Leases	532,841	37,762	69,407	54,090	79,957	28,991	196,592	4,058,554	5,003,937	454,126	102,274	23,805	10,642,336
Office	395,539	571,106	135,498	259,999	623,326	87,002	684,386	4,177,768	3,558,767	234,466	86,508	69,344	10,883,709
Supplies	951,415	620,178	215,381	326,147	1,383,572	160,456	574,168	7,883,828	9,164,445	308,340	137,546	5,724	21,731,200
Instructional	978,633	503,125	138,790	185,021	931,054	149,831	1,426,165	7,531,445	8,532,985	255,376	188,925	46,573	20,867,923
Noncap Equipment	127,203	249,040	45,003	85,268	84,184	73,425	649,530	2,047,058	3,514,740	168,426	63,181	6,448	7,113,506
Merch for Resale	1,833,354	835,247	539,407	645,252	0	248,369	2,364,568	16,913,148	17,413,103	424,315	644,504		41,861,267
Repairs	614,844	638,539	115,309	244,655	716,989	63,239	3,894,641	5,419,518	12,936,757	570,115	90,722	19,245	25,324,573
Scholarships etc.	3,979,302	5,920,393	1,372,192	1,316,110	6,132,277	996,483	3,217,429	26,613,374	20,700,457	2,084,452	1,489,101	6,343,835	80,165,405
General	2,547,068	2,420,899	755,348	680,917	2,922,151	564,162	2,548,962	20,577,444	21,839,822	1,354,115	525,577	462,048	57,198,513
Capital Equipment	186,223	278,301	143,207	135,070	116,766	0	470,734	10,257,527	6,675,116	133,741	1,357,386		19,754,071
Capital Improvement	4,620,975	268,154	63,663	871,102	1,031,081	199,757	293,844	24,765,090	11,637,564	1,290,730	204,057		45,246,017
Recovery of Exp													
TOTAL	37,650,702	31,124,379	11,359,060	14,042,757	44,660,622	6,664,150	39,680,171	345,663,577	370,486,606	18,659,012	10,927,612	9,379,137	940,297,785
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	4,620,975	268,154	63,663	871,102	1,031,081	199,757	293,844	24,765,090	11,637,564	1,290,730	204,057		45,246,017
Com & Pub Util	721,575	950,545	307,346	863,759	1,338,320	249,470	1,594,462	11,992,657	11,946,032	618,237	299,595	19,712	30,901,710
Retail Trade	4,472,367	3,056,997	1,217,286	1,636,757	3,138,902	719,083	6,169,551	48,810,774	48,859,156	1,524,664	2,478,050	128,089	122,211,676
FIRE	4,883,462	3,935,756	1,568,554	2,135,041	6,631,559	924,156	5,193,045	43,730,605	51,643,152	2,970,582	1,388,934	511,794	125,516,640
Bus & Pers Ser	5,269,431	5,706,388	1,877,731	1,576,350	6,068,410	966,278	8,219,933	59,668,581	68,031,623	2,880,382	1,241,989	696,551	162,203,647
Households	17,682,892	17,206,539	6,324,480	6,959,748	26,452,350	3,605,406	18,209,336	156,695,870	178,369,079	9,374,417	5,314,987	8,022,991	454,218,095
TOTAL	37,650,702	31,124,379	11,359,060	14,042,757	44,660,622	6,664,150	39,680,171	345,663,577	370,486,606	18,659,012	10,927,612	9,379,137	940,297,785

Appendix Table A5. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2009 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	15,054,282	12,014,091	5,320,075	6,004,869	21,197,308	2,882,493	16,419,452	143,001,091	169,301,631	7,733,058	4,046,988	1,767,250	404,742,588
Fringe Benefits	4,627,734	3,711,683	1,574,148	2,191,816	6,728,224	946,358	5,164,347	42,400,778	47,858,893	2,521,319	1,240,477	470,330	119,436,107
Travel	630,382	1,089,229	294,444	410,610	982,348	218,282	979,256	11,701,807	9,548,451	464,610	305,348	116,142	26,730,909
Data Processing	540,507	490,988	193,591	100,902	246,848	68,713	646,458	4,173,874	7,615,922	339,410	189,866	26,126	14,633,205
Fees	1,028,818	1,245,178	440,564	62,852	1,045,135	115,232	231,177	11,777,872	16,927,469	276,785	591,548	212,916	33,955,546
Utilities	822,018	764,462	264,407	783,242	1,172,667	203,974	1,059,928	9,089,812	8,755,933	442,642	247,300	0	23,606,385
Communications	87,495	166,872	43,881	89,694	119,836	51,653	433,938	3,606,243	3,638,872	166,526	68,602	20,445	8,493,958
Insurance	59,661	449,955	26,526	51,846	129,697	19,190	94,112	1,637,687	2,153,612	64,578	15,124	1,640	4,703,628
Rents & Leases	605,012	125,465	68,843	104,922	145,225	33,470	307,338	6,173,732	6,015,217	449,928	67,591	29,946	14,126,689
Office	489,421	597,973	113,711	253,788	588,980	137,214	636,573	4,005,427	3,341,182	204,272	102,960	92,099	10,563,600
Supplies	1,311,163	749,583	197,650	272,909	1,741,264	192,084	524,073	8,245,678	9,339,097	350,330	202,021	5,835	23,131,687
Instructional	921,076	517,302	135,288	182,919	941,451	155,317	1,618,303	7,387,626	9,062,343	250,088	336,377	58,417	21,566,507
Noncap Equipment	355,463	264,224	99,881	101,560	46,890	24,839	730,175	2,529,044	2,846,551	130,422	212,275	3,894	7,345,218
Merch for Resale	1,893,867	844,849	439,836	588,631	0	250,888	2,354,770	19,469,632	20,802,151	577,206	529,939	0	47,751,769
Repairs	1,036,508	659,572	161,488	206,704	748,512	95,055	1,941,570	7,716,730	14,733,524	620,405	76,151	3,106	27,999,325
Scholarships etc.	4,540,498	6,615,567	1,451,071	1,400,626	6,490,942	1,079,432	3,211,836	30,395,558	21,911,322	2,178,374	1,539,686	5,868,692	86,653,604
General	2,853,928	2,698,851	722,156	1,219,758	2,991,503	652,400	2,553,738	22,614,535	25,686,710	1,337,160	745,747	367,660	64,444,146
Capital Equipment	2,179,350	182,484	93,697	59,777	75,514	22,633	1,210,854	1,405,468	402,052	146,794	617,727	0	6,396,350
Capital Improvement	1,178,460	4,340,205	109,139	521,248	3,145,658	248,560	378,189	18,050,934	4,194,388	983,573	933,303	0	34,083,657
Recovery of Exp													
TOTAL	40,205,643	37,528,833	11,750,396	14,608,673	48,508,002	7,397,787	40,495,988	355,383,528	384,135,320	19,237,480	12,069,030	9,044,498	980,364,878
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	1,178,460	4,340,205	109,139	521,248	3,145,658	248,560	378,189	18,050,934	4,194,388	983,573	933,303	0	34,083,657
Com & Pub Util	909,513	931,334	308,288	872,936	1,292,503	255,627	1,493,767	12,696,055	12,394,805	609,168	315,902	20,445	32,100,343
Retail Trade	7,150,340	3,156,415	1,080,063	1,459,584	3,394,099	782,975	7,074,748	43,042,875	45,793,376	1,659,112	2,001,299	160,245	116,755,131
FIRE	4,687,395	4,161,638	1,600,674	2,243,662	6,857,921	965,548	5,258,459	44,038,465	50,012,505	2,585,897	1,255,601	471,970	124,139,735
Bus & Pers Ser	6,685,155	6,309,283	1,881,086	2,105,748	6,159,571	1,183,152	6,659,537	64,158,550	80,527,293	3,488,298	1,976,251	755,896	181,889,820
Households	19,594,780	18,629,658	6,771,146	7,405,495	27,658,250	3,961,925	19,631,288	173,396,649	191,212,953	9,911,432	5,586,674	7,635,942	491,396,192
TOTAL	40,206,643	37,528,533	11,750,396	14,608,673	48,508,002	7,397,787	40,495,988	355,383,528	384,135,320	19,237,480	12,069,030	9,044,498	980,364,878

Appendix Table A6. Direct Economic Impacts from General and Non-general Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2011 (Current Year Dollars)

	BSC	DCB	DSU	LRSC	MaSU	MiSU	NDSCS	NDSU	NDUS	UND	VCSU	WSC	TOTAL
Wages & Salaries	18,214,025	3,336,480	13,579,199	6,707,076	7,552,545	25,015,728	17,522,892	169,094,301	5,393,156	202,471,943	9,288,010	5,094,235	483,269,590
Fringe Benefits	5,935,346	1,190,706	4,566,391	2,164,779	2,936,082	8,301,702	6,003,691	50,855,352	1,631,752	58,127,831	3,270,274	1,830,365	146,814,271
Travel	755,598	232,857	1,204,735	315,831	553,677	1,549,018	1,045,320	11,234,187	333,971	10,736,917	564,279	430,962	28,957,352
Data Processing	914,515	156,032	538,795	247,329	123,819	472,352	836,954	4,745,873	2,622,451	4,193,684	546,620	313,360	15,711,784
Fees	1,852,750	69,659	1,458,132	369,214	437,288	1,637,192	307,176	16,047,282	3,065,861	11,657,272	367,438	415,912	37,685,176
Utilities	849,447	283,560	794,853	244,054	455,096	1,327,829	1,214,066	9,898,152		9,165,289	556,572	302,171	25,091,089
Communications	106,694	74,874	149,293	45,398	76,822	105,689	617,543	3,347,630	1,820,536	2,197,015	129,204	63,807	8,734,505
Insurance	92,892	13,811	330,821	23,763	45,282	47,100	95,164	765,442	493	1,847,416	55,475	24,617	3,342,276
Rents & Leases	715,701	25,140	116,651	97,003	144,895	241,990	193,652	5,513,031	102,706	6,240,502	440,953	147,241	13,979,465
Office	445,629	128,078	523,130	132,290	269,644	600,580	599,121	3,435,166	133,955	3,119,998	313,610	160,999	9,862,200
Supplies	1,073,481	182,918	742,703	284,770	495,648	1,762,964	696,037	7,430,090	89,671	8,143,606	445,152	375,628	21,722,668
Instructional	1,109,938	159,537	541,234	143,906	342,972	1,096,124	1,572,707	7,914,174	267,878	11,881,811	291,751	350,872	25,672,904
Noncap Equipment	92,503	27,993	156,192	208,424	140,061	78,213	1,351,778	2,352,333	84,660	2,182,855	335,831	114,544	7,125,387
Merch for Resale	2,190,117	264,106	770,111	629,503	762,214		732,773	16,633,030		21,926,324	495,792	676,388	45,080,358
Repairs	901,992	156,645	782,277	147,972	182,674	889,984	2,120,777	6,190,031	19,653	14,605,549	932,834	47,172	26,977,560
Scholarships etc.	7,514,652	1,601,310	6,721,319	1,997,290	2,293,677	8,042,461	4,970,727	40,328,355	15,241,632	28,942,181	3,009,089	2,221,258	122,883,951
General	3,625,992	727,232	2,750,687	1,136,052	1,711,605	4,468,465	2,470,786	20,451,397	1,291,923	24,613,363	1,737,232	769,546	65,754,280
Capital Equipment	1,412,210	23,897	435,036	141,209	116,494	335,715	1,088,854	930,080	5,065	320,919	139,059	630,295	5,578,833
Capital Improvement	3,122,202	870,921	1,184,800	107,012	5,875,024	5,618,461	1,168,712	27,153,374		12,859,386	3,370,457	9,764,991	71,095,340
Recovery of Exp													
TOTAL	50,925,684	9,525,756	37,346,359	15,142,875	24,515,519	61,591,567	44,608,730	404,319,280	32,105,363	435,233,861	26,289,632	23,734,363	1,165,338,989
Sector	BSC	DCB	DSU	LRSC	MaSU	MiSU	NDSCS	NDSU	NDUS	UND	VCSU	WSC	TOTAL
4) Construction	3,122,202	870,921	1,184,800	107,012	5,875,024	5,618,461	1,168,712	27,153,374	0	12,859,386	3,370,457	9,764,991	71,095,340
6) Com & Pub Util	956,141	358,434	944,146	289,452	531,918	1,433,518	1,831,609	13,245,782	1,820,536	11,362,304	685,776	365,978	33,825,594
8) Retail	6,323,878	786,529	3,168,406	1,540,102	2,127,033	3,873,596	6,041,270	38,694,873	581,229	55,873,429	2,021,195	2,308,726	115,042,350
9) FIRE	6,743,939	1,229,657	5,013,863	2,285,545	3,126,259	8,590,792	6,292,507	57,133,825	1,734,951	66,215,749	3,766,702	2,002,223	164,136,012
10) Bus & Pers Ser	8,050,847	1,342,425	6,734,626	2,216,398	3,009,063	9,017,011	6,781,013	58,668,770	7,333,859	65,806,785	4,148,403	1,976,952	175,086,152
12) Households	25,728,677	4,937,790	20,300,518	8,704,366	9,846,222	33,058,189	22,493,619	209,422,656	20,634,788	231,414,124	12,297,099	7,315,493	606,153,541
TOTAL	50,925,684	9,525,756	37,346,359	15,142,875	24,515,519	61,591,567	44,608,730	404,319,280	32,105,363	435,233,861	26,289,632	23,734,363	1,165,338,989

Appendix Table A7. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 1999 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	DCB	MiSU	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	3,804,427	2,240,486	1,455,042	1,670,610	335,157	3,082,874	2,548,174	39,410,288	58,883,241	2,142,142	855,470	26,400	116,454,311
Fringe Benefits	919,611	649,940	338,747	443,389	71,772	638,149	653,715	9,240,405	14,498,166	509,919	189,413	7,872	28,161,098
Travel	212,725	302,902	105,080	141,343	67,564	408,832	342,451	4,660,871	4,268,740	218,010	107,916	2,409	10,838,843
Data Processing	55,994	44,687	22,571	44,442	4,419	67,696	34,376	909,052	985,222	355,516	22,204		2,546,179
Fees	349,307	940,758	150,103	522,342	299,441	891,001	337,026	4,816,300	7,863,862	703,911	138,463	219	17,012,733
Utilities	201,911	195,337	42,987	76,765		1,114	2,888	1,778,251	1,768,934	90,037	36,515		4,194,739
Communications	151,457	165,088	25,772	87,476	44,458	125,625	532,309	2,405,184	3,769,119	359,611	17,046	299	7,683,444
Insurance	10,875	16,720	3,854	7,614	1,137	5,690	14,984	210,814	780,386	8,543	2,244		1,062,861
Rents & Leases	141,423	5,861	7,434	677,650	8,877	66,732	188,495	2,034,118	4,082,062	358,187	23,297	900	7,595,036
Office	209,678	129,562	63,507	73,828	35,624	247,765	125,862	5,864,043	2,233,312	95,729	25,292	62	9,104,264
Supplies	563,683	250,685	48,502	130,692	31,572	220,534	255,968		6,273,164	156,129	123,956	433	18,214,025
Instructional	276,205	91,413	75,457	69,524	15,858	32,902	493,696		1,282,403	99,647	36,303	180,809	5,935,346
Noncap Equipment			26,319	62,657	3,503	137,768	34,885	687,278		167,900	1,225		755,598
Merch for Resale	906,895	400,876	335,963	292,487	101,176		2,007,713	8,540,584	18,428,685	282,908	406,173		914,515
Repairs	171,402	417,096	31,312	154,989	8,482	157,438	491,550	2,686,110	12,367,987	124,181	49,688	59	1,852,750
Scholarships etc.	1,938,131	1,965,302	940,073	838,810	707,881	2,959,876	2,572,791	9,854,315	12,622,231	1,299,853	1,096,413	1,699,042	849,447
General	387,887	196,413	120,394	109,135	137,917	370,590	1,369,734	1,916,375	1,968,000	178,721	148,458		106,694
Capital Equipment	439,107	291,677	86,673	77,569	3,064	332,483	295,250	0	0	212,909	107,958		92,892
Capital Improvement	366,346	667,346	598,734	57,894	241,840	2,897,712	3,066,092	3,561,184	8,734,203	252,656	363,440		715,701
Recovery of Exp													445,629
TOTAL	11,107,064	8,972,149	4,478,524	5,539,216	2,119,742	12,644,781	15,367,959	98,575,172	160,809,717	7,616,509	3,751,474	1,918,504	1,073,481
													1,109,938
Sector	BSC	DSU	LRSC	MaSU	DCB	MiSU	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	366,346	667,346	598,734	57,894	241,840	2,897,712	3,066,092	3,561,184	8,734,203	252,656	363,440	0	715,701
Comm & Pub Util	353,368	360,425	68,759	164,241	44,458	126,739	535,197	4,183,435	5,538,053	449,648	53,561	299	11,878,183
Retail Trade	2,395,568	1,164,213	636,421	706,757	190,797	971,452	3,213,374	15,091,905	28,217,564	1,015,222	700,907	181,304	35,462,269
FIRE	1,071,909	672,521	350,035	1,128,653	81,786	710,571	857,194	11,485,337	19,360,614	876,649	214,954	8,772	36,818,995
Bus & Pers Ser	1,177,315	1,901,856	429,460	972,251	517,823	1,895,557	2,575,137	14,988,708	27,453,811	1,580,339	466,729	2,687	32,357,199
Households	5,742,558	4,205,788	2,395,115	2,509,420	1,043,038	6,042,750	5,120,965	49,264,603	71,505,472	3,441,995	1,951,883	1,725,442	117,303,758
TOTAL	11,107,064	8,972,149	4,478,524	5,539,216	2,119,742	12,644,781	15,367,959	98,575,172	160,809,717	7,616,509	3,751,474	1,918,504	332,900,811

Appendix Table A8. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2004 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	6,364,671	4,443,905	2,489,869	1,504,697	5,362,350	446,964	3,487,324	66,507,549	100,687,465	1,257,302	1,677,651	169,305	194,399,052
Fringe Benefits	1,781,001	1,185,765	715,333	527,644	1,153,826	144,781	1,005,277	16,718,436	26,120,233	343,109	497,616	49,524	50,242,545
Travel	408,944	715,461	165,564	219,887	726,920	75,611	452,949	6,971,750	7,098,557	153,376	168,927	12,260	17,170,206
Data Processing	110,505	128,083	41,110	47,969	193,860	17,283	108,302	2,912,197	1,824,798	268,258	23,252		5,675,617
Fees	1,661,053	1,435,510	448,749	12,317	1,559,557	360,238	799,934	13,607,720	13,981,976	35,263	360,392	4,126	34,266,835
Utilities	231,076	348,503	87,872	142	2,166		101,073	2,832,981	3,280,356	1,730	88,701		6,974,600
Communications	121,565	143,359	36,742	23,701	189,902	51,873	487,917	3,273,912	3,401,578	219,770	39,471	1,057	7,990,847
Insurance	46,451	52,269	17,951	6,853	16,434	4,104	8,727	341,653	1,626,037	11,487	11,769	26	2,143,761
Rents & Leases	343,883	174,550	19,851	36,414	(56,785)	13,797	119,457	2,906,747	8,942,143	509,421	49,103	3,406	13,061,987
Office	347,370	346,280	69,802	120,789	340,409	71,840	277,970	10,495,009	3,032,221	105,700	61,173	689	15,269,252
Supplies	298,483	384,941	53,378	162,783	299,197	51,787	370,202		12,831,617	148,814	202,977	848	14,805,027
Instructional	381,616	126,168	82,119	36,575	131,696	12,882	907,725		2,149,986	67,406	63,671	389,487	4,349,331
Noncap Equipment	141,942	219,112	19,400	80,220	194,317	27,569	240,805	1,132,908		54,534	47,259	812	2,158,668
Merch for Resale	1,556,688	730,626	400,252	416,502		160,204	2,308,280	15,020,855	11,157,239	439,195	594,473		32,784,314
Repairs	246,155	200,780	55,902	99,241	174,327	14,197	732,875	4,465,498	8,708,491	99,682	63,550	719	14,861,417
Scholarships etc.	3,469,368	3,478,904	1,099,405	1,089,883	4,416,501	836,697	3,529,367	18,963,063	18,795,125	1,307,606	1,720,918	80,318	58,787,155
General	1,574,955	341,653	190,666	1,053,627	2,675,505	116,119	2,640,802	2,695,014	3,934,770	984,177	648,495	1,456,074	18,311,857
Capital Equipment	488,295	157,063	83,133	62,004	638,819	14,649	197,588	0	0	102,773	45,196		1,789,520
Capital Improvement	207,447	1,579,467	674,616	2,122,789	176,038	35,465	757,340	18,913,032	23,839,538	2,423,340	1,117,152		51,846,224
Recovery of Exp								(11,945,324)					(11,945,324)
TOTAL	19,781,468	16,192,399	6,751,714	7,624,037	18,195,039	2,456,060	18,533,914	175,813,000	251,412,130	8,532,733	7,481,746	2,168,651	534,942,891
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	207,447	1,579,467	674,616	2,122,789	176,038	35,465	757,340	18,913,032	23,839,538	2,423,340	1,117,152	0	51,846,224
Comm & Pub Util	352,641	491,862	124,614	23,843	192,068	51,873	588,990	6,106,893	6,681,934	221,500	128,172	1,057	14,965,447
Retail Trade	3,214,394	1,964,190	708,084	878,873	1,604,438	338,931	4,302,570	14,703,448	29,171,063	918,212	1,014,749	391,836	59,210,788
FIRE	2,171,335	1,412,584	753,135	570,911	1,113,475	162,682	1,133,461	19,966,836	36,688,413	864,017	558,488	52,956	65,448,293
Bus & Pers Ser	4,001,612	2,821,487	901,991	1,433,041	5,330,169	583,448	4,734,862	30,652,179	35,548,592	1,540,756	1,264,616	1,473,179	90,285,932
Households	9,834,039	7,922,809	3,589,274	2,594,580	9,778,851	1,283,661	7,016,691	85,470,612	119,482,590	2,564,908	3,398,569	249,623	253,186,207
TOTAL	19,781,468	16,192,399	6,751,714	7,624,037	18,195,039	2,456,060	18,533,914	175,813,000	251,412,130	8,532,733	7,481,746	2,168,651	534,942,891

Appendix Table A9. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2006 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	7,645,037	6,131,568	2,716,752	3,417,833	11,387,305	979,014	7,418,136	79,124,365	112,293,373	3,337,342	1,741,451	73,062	236,265,238
Fringe Benefits	2,226,793	1,766,796	764,778	1,114,789	3,134,799	310,225	2,204,742	21,189,984	30,044,254	1,056,505	607,253	24,577	64,445,495
Travel	391,070	748,895	142,012	352,012	695,915	87,527	660,032	8,333,516	7,453,659	220,129	229,278	9,261	19,323,306
Data Processing	247,290	419,486	94,446	38,135	327,381	30,588	401,692	4,225,914	4,750,305	509,034	51,878	60	11,096,209
Fees	752,053	653,218	194,233	33,336	696,577	305,358	118,222	10,898,543	12,994,931	187,709	58,081	244	26,892,505
Utilities	259,696	408,887	100,838	266,231	469,525	42,597	408,346	3,982,746	3,699,024	152,147	103,003		9,893,040
Communications	43,150	132,462	16,913	31,108	63,208	38,787	353,936	2,267,388	3,017,224	230,884	30,585	1,189	6,226,834
Insurance	10,014	152,940	16,626	38,180	56,810	7,514	46,537	438,467	1,511,394	31,929	9,814	51	2,320,276
Rents & Leases	282,619	50,611	41,153	194,978	50,434	26,882	90,833	1,289,921	5,320,978	272,747	57,324	5,600	7,684,080
Office	254,624	404,074	61,786	221,224	267,349	36,746	406,975	3,062,557	2,967,639	134,050	64,589	1,641	7,883,254
Supplies	478,043	549,041	121,073	267,537	864,242	50,939	398,817	5,898,165	7,202,235	215,272	83,824	6,550	16,135,738
Instructional	479,449	481,856	80,575	112,869	633,274	49,468	1,153,418	3,738,829	5,447,549	196,434	271,772		12,645,493
Noncap Equipment	109,098	311,292	78,840	139,650	88,603	11,457	323,333	1,676,659	2,463,490	171,919	21,311	4,939	5,400,591
Merch for Resale	1,505,863	622,937	425,505	667,788	1,474,247	226,273	2,666,128	14,786,025	14,291,952	551,023	638,863		37,856,604
Repairs	241,043	521,421	139,019	156,015	501,856	39,722	998,592	3,285,771	10,851,250	229,256	34,557	365	16,998,867
Scholarships etc.	3,215,779	4,200,006	1,193,512	1,388,587	4,886,078	774,416	2,803,078	17,160,537	16,474,162	1,471,134	1,520,276	45,635	55,133,200
General	1,694,847	2,199,493	572,125	709,486	2,179,604	208,349	1,797,496	12,397,623	18,582,122	1,129,871	618,906	5,205	42,095,127
Capital Equipment	219,103	240,476	21,022	70,761	265,991	2,124	227,262			130,969	60,340		1,238,048
Capital Improvement	523,603	1,514,712	307,108	92,351	4,193,220	55,987	159,665	12,297,767	15,058,401		63,558		34,266,372
Recovery of Exp													
TOTAL	20,579,174	21,510,171	7,088,316	9,312,870	32,236,418	3,283,973	22,637,240	206,054,777	274,423,942	10,228,354	6,266,663	178,379	613,800,277
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	523,603	1,514,712	307,108	92,351	4,193,220	55,987	159,665	12,297,767	15,058,401		63,558		34,266,372
Com & Pub Util	302,846	541,349	117,751	297,339	532,733	81,384	762,282	6,250,134	6,716,248	383,031	133,588	1,189	16,119,874
Retail Trade	3,046,180	2,609,676	788,801	1,479,829	3,593,706	377,007	5,175,933	29,162,235	32,372,865	1,399,667	1,140,699	13,130	81,159,728
FIRE	2,519,426	1,970,347	822,557	1,347,947	3,242,043	344,621	2,342,112	22,918,372	36,876,626	1,361,181	674,391	30,228	74,449,851
Bus & Pers Ser	3,326,303	4,542,513	1,141,835	1,288,984	4,401,333	671,544	3,976,034	39,141,367	54,632,267	2,275,999	992,700	15,135	116,406,014
Households	10,860,816	10,331,574	3,910,264	4,806,420	16,273,383	1,753,430	10,221,214	96,284,902	128,767,535	4,808,476	3,261,727	118,697	291,398,438
TOTAL	20,579,174	21,510,171	7,088,316	9,312,870	32,236,418	3,283,973	22,637,240	206,054,777	274,423,942	10,228,354	6,266,663	178,379	613,800,277

Appendix Table A10. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2008 (Current Year Dollars)													
	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	8,526,511	7,172,902	3,152,599	3,133,457	11,770,259	1,210,317	7,739,524	83,684,874	114,548,568	3,578,666	1,886,101	77,350	246,481,128
Fringe Benefits	2,626,113	2,226,703	953,991	1,185,835	3,542,813	400,799	2,476,405	24,629,341	32,364,487	1,133,497	569,739	57,974	72,167,697
Travel	431,118	895,352	197,019	223,710	832,542	143,493	733,358	10,012,236	8,202,122	275,480	220,355	10,695	22,177,480
Data Processing	279,805	347,858	248,645	105,462	158,546	41,502	521,505	5,002,804	4,885,889	236,431	54,131	893	11,883,471
Fees	873,611	892,502	345,897	74,804	1,071,971	48,606	131,624	13,165,500	16,315,139	139,584	266,698	3,096	33,329,032
Utilities	296,669	480,782	142,784	287,010	512,728	66,296	412,017	4,893,050	5,214,651	164,527	109,637		12,580,151
Communications	52,233	120,302	23,972	25,735	68,040	45,886	289,467	2,589,354	2,945,664	127,644	36,645	828	6,325,770
Insurance	21,711	359,602	12,067	19,318	46,366	11,404	28,994	397,113	1,397,654	29,512	2,529	11	2,326,281
Rents & Leases	296,057	30,937	47,033	29,691	68,376	24,291	114,300	3,578,393	4,914,770	413,005	94,668	18,532	9,630,053
Office	273,848	399,606	86,260	197,406	496,051	48,446	500,906	3,197,515	2,851,281	157,611	57,792	4,687	8,271,409
Supplies	809,145	511,509	163,235	279,261	1,071,527	99,123	438,667	5,912,597	8,678,293	249,085	104,699	2,797	18,319,938
Instructional	734,166	369,432	99,856	128,374	630,267	110,999	1,166,974	6,086,292	6,489,998	160,370	126,057	572	16,103,357
Noncap Equipment	104,654	172,580	34,616	52,761	57,371	36,902	511,910	1,700,551	3,037,982	138,996	45,614	599	5,894,536
Merch for Resale	1,833,354	835,247	539,407	645,252	0	248,369	2,364,361	16,912,798	17,412,693	424,292	644,221		41,859,994
Repairs	395,171	475,337	71,015	140,133	489,916	28,475	2,531,371	3,951,845	10,676,390	312,358	50,122	1,398	19,123,531
Scholarships etc.	3,914,872	4,685,699	1,271,048	1,174,376	5,476,979	965,161	2,828,167	20,458,368	17,099,712	1,838,491	1,434,642	522,814	61,670,329
General	1,954,064	2,106,482	545,160	521,800	2,549,634	494,966	2,097,827	17,810,224	18,138,849	1,149,578	381,509	12,857	47,762,950
Capital Equipment	97,357	211,177	140,259	112,810	76,109	0	223,125	8,765,428	6,295,659	85,502	1,344,018		17,351,444
Capital Improvement	4,016,973	207,065	0	171,777	187,964	78,559	59,479	20,205,813	11,199,582		73,690		36,200,902
Recovery of Exp													
TOTAL	27,537,432	22,501,074	8,074,863	8,508,972	29,107,459	4,103,594	25,169,981	252,954,096	292,669,383	10,614,629	7,502,867	715,103	689,459,453
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	4,016,973	207,065	0	171,777	187,964	78,559	59,479	20,205,813	11,199,582		73,690		36,200,902
Com & Pub Util	348,902	601,084	166,756	312,745	580,768	112,182	701,484	7,482,404	8,160,315	292,171	146,282	828	18,905,921
Retail	3,852,524	2,499,551	1,063,633	1,415,864	2,331,325	543,839	5,205,943	42,575,181	44,765,906	1,215,856	2,322,401	8,655	107,800,678
FIRE	2,943,881	2,617,242	1,013,091	1,234,844	3,657,555	436,494	2,619,699	28,604,847	38,676,911	1,576,014	666,936	76,517	84,124,031
Bus & Pers Ser	3,933,769	4,717,531	1,407,736	1,065,909	5,102,609	757,042	6,015,685	49,942,609	58,218,389	2,113,431	972,815	28,939	134,276,464
Households	12,441,383	11,858,601	4,423,647	4,307,833	17,247,238	2,175,478	10,567,691	104,143,242	131,648,280	5,417,157	3,320,743	600,164	308,151,457
TOTAL	27,537,432	22,501,074	8,074,863	8,508,972	29,107,459	4,103,594	25,169,981	252,954,096	292,669,383	10,614,629	7,502,867	715,103	689,459,453

Appendix Table A11. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2009 (Current Year Dollars)

	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Wages & Salaries	8,786,629	7,954,999	3,457,865	3,383,641	12,426,344	1,390,641	8,157,608	90,563,543	124,369,870	3,781,968	2,038,093	102,433	266,413,634
Fringe Benefits	2,710,192	2,432,127	1,040,482	1,300,808	3,751,804	460,401	2,503,835	26,558,171	34,712,933	1,149,400	578,365	30,129	77,228,647
Travel	418,701	928,695	230,987	219,490	790,409	167,879	698,292	9,716,651	8,464,286	304,194	247,985	14,614	22,202,183
Data Processing	345,149	408,809	137,620	71,338	183,625	33,348	418,145	3,394,126	5,766,845	272,550	171,250	12,572	11,215,377
Fees	782,378	950,089	343,365	33,946	954,182	87,707	184,554	10,379,109	16,262,937	189,173	567,551	5,615	30,740,606
Utilities	408,610	485,189	145,283	279,738	502,615	74,261	392,428	5,153,331	5,630,001	163,616	124,370	0	13,359,442
Communications	47,861	114,512	26,251	44,095	69,083	40,380	281,408	2,735,972	2,846,107	114,904	45,154	0	6,365,727
Insurance	30,764	437,371	16,367	22,819	73,908	10,679	32,489	1,231,998	1,724,130	31,200	6,290	17	3,618,032
Rents & Leases	343,598	105,373	45,377	69,422	124,207	27,396	224,142	5,651,141	5,869,018	412,184	55,955	16,583	12,944,396
Office	320,440	432,069	75,825	170,340	470,933	88,681	472,033	2,971,409	2,646,537	136,180	58,377	5,390	7,848,214
Supplies	1,059,778	633,526	155,080	196,294	1,400,098	125,932	408,670	5,742,524	8,790,190	268,818	152,479	2,284	18,935,673
Instructional	718,105	379,719	101,815	94,058	676,331	119,511	1,348,469	5,729,824	7,010,736	155,742	277,342	34	16,611,686
Noncap Equipment	318,990	226,293	79,597	78,619	31,582	15,737	547,996	2,071,558	2,348,430	107,563	210,980	2,028	6,039,373
Merch for Resale	1,893,867	844,849	439,836	588,631	0	250,928	2,354,204	19,469,215	20,801,633	577,206	529,939	0	47,750,308
Repairs	803,125	508,835	124,245	120,298	413,571	41,623	1,117,355	5,127,786	11,734,730	340,082	47,228	1,631	20,380,509
Scholarships etc.	4,453,704	5,192,813	1,351,953	1,255,676	5,781,059	1,048,224	2,988,631	23,103,363	18,489,533	1,931,595	1,493,470	522,577	67,612,598
General	1,850,884	2,407,641	537,092	1,001,962	2,512,784	617,250	2,142,061	19,461,322	20,765,093	1,161,874	630,594	48,887	53,137,444
Capital Equipment	2,147,054	156,431	89,283	48,548	41,166	13,785	1,109,502	na	na	82,812	613,105	0	4,301,686
Capital Improvement	694,833	4,319,956	50,323	64,550	530,624	248,560	0	11,225,692	1,131,522	0	857,815	0	19,123,875
Recovery of Exp													
TOTAL	28,134,662	28,919,296	8,448,646	9,044,273	30,734,325	4,862,923	25,381,822	250,286,735	299,364,531	11,181,061	8,706,342	764,794	705,829,410
Sector	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC	SYSTEM	TOTAL
Construction	694,833	4,319,956	50,323	64,550	530,624	248,560	0	11,225,692	1,131,522	0	857,815	0	19,123,875
Com & Pub Util	456,471	599,701	171,534	323,833	571,698	114,641	673,836	7,889,303	8,476,108	278,520	169,524	0	19,725,169
Retail Trade	6,458,234	2,672,887	941,436	1,176,490	2,620,110	614,574	6,240,874	35,984,530	41,597,526	1,328,321	1,842,222	9,736	101,486,940
FIRE	2,740,956	2,869,498	1,056,849	1,323,627	3,825,712	471,080	2,536,324	27,790,169	36,437,063	1,180,600	584,655	30,146	80,846,679
Bus & Pers Ser	4,543,835	5,309,442	1,418,686	1,516,456	4,978,778	975,203	4,784,549	53,730,135	68,862,909	2,680,057	1,720,563	99,902	150,620,515
Households	13,240,333	13,147,812	4,809,818	4,639,317	18,207,403	2,438,865	11,146,239	113,666,906	142,859,403	5,713,563	3,531,563	625,010	334,026,232
TOTAL	28,134,662	28,919,296	8,448,646	9,044,273	30,734,325	4,862,923	25,381,822	250,286,735	299,364,531	11,181,061	8,706,342	764,794	705,829,410

Appendix Table A12. Direct Economic Impacts from Non-General Fund Expenditures, North Dakota University System and Member Institutions, by Budget Category, and Allocation to the Input-Output Model Sectors, Fiscal Year 2011 (Current Year Dollars)

	BSC	DCB	DSU	LRSC	MaSU	MiSU	NDSCS	NDSU	NDUS	UND	VCSU	WSC	TOTAL
Wages & Salaries	11,312,485	2,265,074	7,380,336	4,300,275	4,406,961	13,873,644	8,364,066	112,073,751	139,699	148,692,491	4,562,873	2,641,067	320,012,722
Fringe Benefits	3,699,386	815,881	2,459,419	1,400,724	1,814,160	4,394,714	2,833,515	32,787,351	52,063	42,325,510	1,521,257	980,357	95,084,337
Travel	546,467	206,454	893,592	252,935	326,326	1,298,405	738,776	9,623,777	26,147	9,671,846	334,088	358,682	24,277,495
Data Processing	530,925	114,142	407,454	190,417	100,815	381,675	565,109	4,130,308	1,785	3,547,442	425,468	278,140	10,673,680
Prof Fees & Services	1,556,876	56,478	1,064,960	243,236	394,005	1,482,579	156,501	14,850,191	24,054	11,072,122	267,640	359,287	31,527,929
Utilities	461,996	180,201	399,587	129,379	164,486	507,829	416,798	5,892,364		5,841,859	235,915	135,061	14,365,475
Communications	64,056	68,330	89,866	27,817	33,251	62,012	463,177	2,739,813	456	1,731,332	75,761	40,525	5,396,396
Insurance	52,965	9,490	315,072	16,028	25,194	36,339	32,398	420,396	15	1,521,838	30,385	17,212	2,477,332
Rents & Leases	436,614	24,085	85,396	72,169	98,574	206,381	131,652	4,552,881	10,698	6,035,871	407,289	112,678	12,174,288
Office	314,774	98,160	309,877	90,209	191,799	474,609	420,565	2,645,726	12,480	2,514,627	204,359	115,697	7,392,882
Supplies	809,062	136,424	561,942	216,009	438,739	1,438,985	558,256	5,215,652	69,975	7,679,503	344,270	304,186	17,773,003
Instructional	894,435	132,071	337,490	117,135	199,792	799,874	1,298,631	6,514,429	49,901	9,385,234	202,748	312,502	20,244,242
Noncap Equipment	83,057	22,748	127,812	197,253	104,906	62,273	798,294	2,025,881	2,516	1,954,027	220,637	99,106	5,698,510
Merch for Resale	2,190,117	264,106	770,111	629,503	762,214		732,773	16,632,507		21,926,324	495,777	676,301	45,079,733
Repairs	566,293	104,650	502,850	94,861	110,333	580,684	1,427,919	4,891,941	959	11,761,971	517,762	27,144	20,587,367
Scholarships etc.	7,428,846	1,568,844	5,132,544	1,912	2,130,605	7,359,400	4,641,054	32,215,843	533,346	24,956,853	2,764,725	2,148,069	92,792,168
General	2,559,179	688,961	2,310,639	887,485	1,334,495	3,968,111	1,731,027	17,703,722	17,894	20,525,478	1,553,942	651,372	53,932,305
Capital Equipment	1,263,667	23,897	392,730	131,340	102,963	289,978	667,354	N/A		N/A	94,431	583,245	3,549,605
Capital Improvement	612,435		256,472	98,662	1,976,100	4,500,579	10,571	6,400,735		10,547,764	2,730,409	6,747,222	33,880,949
Recovery of Exp													
TOTAL	35,383,635	6,779,996	23,798,149	11,007,476	14,715,718	41,718,071	25,988,436	281,317,268	941,988	341,692,092	16,989,736	16,587,853	816,920,418
Sector	BSC	DCB	DSU	LRSC	MaSU	MiSU	NDSCS	NDSU	NDUS	UND	VCSU	WSC	TOTAL
(4) Construction	612,435		256,472	98,662	1,976,100	4,500,579	10,571	6,400,735		10,547,764	2,730,409	6,747,222	33,880,949
(6) Com & Pub Util	526,052	248,531	489,453	157,196	197,737	569,841	879,975	8,632,177	456	7,573,191	311,676	175,586	19,761,871
(8) Retail	5,555,112	677,406	2,499,962	1,381,449	1,800,413	3,065,719	4,475,873	33,034,195	134,872	43,459,715	1,562,222	2,091,037	99,737,975
(9) FIRE	4,188,965	849,456	2,859,887	1,488,921	1,937,928	4,637,434	2,997,565	37,760,628	62,776	49,883,219	1,958,931	1,110,247	109,735,957
(10) Bus & Pers Ser	5,759,740	1,170,685	5,179,495	1,668,934	2,265,974	7,711,454	4,619,332	51,199,939	70,839	56,578,859	3,098,900	1,674,625	140,998,776
(12) Households	18,741,331	3,833,918	12,512,880	6,212,314	6,537,566	21,233,044	13,005,120	144,289,594	673,045	173,649,344	7,327,598	4,789,136	412,804,890
TOTAL	35,383,635	6,779,996	23,798,149	11,007,476	14,715,718	41,718,071	25,988,436	281,317,268	941,988	341,692,092	16,989,736	16,587,853	816,920,418

Appendix Table A13. North Dakota University System Fall Student Enrollment, 1999, 2004, 2006, 2007, 2008, 2009, and 2010

Institution	1999			2004			2006			2007		
	HC ¹	FT ²	FTE ³	HC ¹	FT ²	FTE ³	HC ¹	FT ²	FTE ³	HC ¹	FT ²	FTE ³
Bismarck State College	2,743	1,975	2,326	3,546	2,330	2,800	3,477	2,192	2,651	3,591	2,345	2,792
Dickinson State University	1,867	1,485	1,638	2,479	1,749	2,034	2,572	1,729	2,059	2,670	1,778	2,158
Lake Region State College	805	355	506	1,464	416	738	1,508	391	750	1,520	414	764
Mayville State University	851	592	692	897	665	761	832	554	652	769	478	586
Minot State University	3,155	2,466	2,753	3,851	2,521	3,022	3,712	2,540	2,928	3,424	2,358	2,730
Dakota College Bottineau	508	441	498	608	356	447	605	306	399	637	303	402
ND State College of Science	2,345	2,162	2,503	2,481	1,920	2,271	2,490	1,799	2,171	2,417	1,746	2,097
North Dakota State University	9,638	7,813	8,775	12,026	9,536	10,692	12,258	10,053	10,890	12,527	10,342	11,221
University of North Dakota	10,590	8,544	9,417	13,187	10,601	11,815	12,834	10,460	11,381	12,559	9,976	10,967
Valley City State University	1,077	796	956	1,033	833	956 ⁴	1,037	717	844	982	682	807
Williston State College	714	582	656	937	568	709	912	505	648	731	428	551
TOTAL	34,293	27,211	30,720	42,503	31,495	36,245	42,237	31,246	35,373	41,827	30,850	35,075

¹ Headcount is all students enrolled regardless of number of credit hours.

² Full-time is students enrolled in 12 credit hours or more.

³ In August 2006, the SBHE changed the definition of undergraduate FTE to 15 credit hours from 16. This new definition is compatible with National Integrated Post-Secondary Education Data System (IPEDS) reporting requirements.

⁴ Includes 89 VCSU elementary education students located on the NDSU campus

Appendix Table A13. Continued											
Institution	2008			2009			2010			Percentage Change in FTE Students	
	HC ¹	FT ²	FTE ³	HC ¹	FT ²	FTE ³	HC ¹	FT ²	FTE ³	1999-2010	2009-2010
Bismarck State College	3,788	2,492	2,937	4,020	2,708	3,160	4,177	2,743	3,208	37.9	1.5
Dickinson State University	2,730	1,891	2,294	2,767	1797	2,187	2,485	1,684	2,054	25.4	-6.1
Lake Region State College	1,657	419	784	1,702	490	868	1,913	524	921	82.0	6.1
Mayville State University	789	449	563	887	544	662	982	552	704	1.7	6.3
Minot State University	3,432	2,350	2,720	3,649	2416	2,832	3,866	2,557	3,002	9.0	6.0
Dakota College Bottineau	655	345	440	748	348	490	863	399	540	8.4	10.2
ND State College of Science	2,545	1,595	2,041	2,651	1,590	2,076	2,833	1,703	2,217	11.4	6.8
North Dakota State University	13,229	11,004	11,794	14,189	11,679	12,577	14,407	11,857	12,708	44.8	1.0
University of North Dakota	12,748	10,192	11,137	13,172	10,215	11,306	14,194	10,845	12,018	27.6	6.3
Valley City State University	1,019	682	823	1,083	695	833	1,285	785	957	0.1	14.9
Williston State College	850	399	562	949	419	573	932	391	570	-13.1	-0.5
TOTAL	43,442	31,818	36,096	45,817	32,901	37,564	47,937	34,041	38,899	26.6	3.6

¹ Headcount is all students enrolled regardless of number of credit hours.
² Full-time is students enrolled in 12 credit hours or more.
³ In August 2006, the SBHE changed the definition of undergraduate FTE to 15 credit hours from 16. This new definition is compatible with National Integrated Post-Secondary Education Data System (IPEDS) reporting requirements.
⁴ Includes 89 VCSU elementary education students located on the NDSU campus

Appendix Table A14. Direct Economic Impacts (Expenditures) for Student Living Expenses, Students Attending North Dakota University System Institutions, 2010-2011 Academic Year

Institution	Fall 2010 FTE Enrollment	Living Expenses Per Student ¹	Total Expenditures
		----- \$ -----	
Bismarck State College	3,208	9,630	30,893,040
Dickinson State University	2,054	8,948	18,379,192
Lake Region State College	921	8,830	8,132,430
Mayville State University	704	9,558	6,728,832
Minot State University	3,002	8,998	27,011,996
Dakota College Bottineau	540	8,686	4,690,440
ND State College of Science	2,217	9,858	21,855,186
North Dakota State University	12,708	10,944	139,076,352
University of North Dakota	12,018	10,030	120,540,540
Valley City State University	957	9,247	8,849,379
Williston State College	570	10,330	5,888,100
Total	38,899		392,045,487

Source: North Dakota Career Resource Network (2011).

¹ Annual expenses included room and board, books and supplies, and \$3,230 for personal and recreational spending.

Appendix Table A15. Direct and Total Economic Impacts from Student Expenditures within the North Dakota University System, by Individual Institution, Fiscal Year 2011

Item	BSC	DSU	LRSC	MaSU	MiSU	DCB	NDSCS	NDSU	UND	VCSU	WSC
Direct Impacts: (\$000)											
Student Expenditures	30,893	18,379	8,132	6,729	27,012	4,690	21,855	139,076	120,541	8,849	5,888
Direct Impacts by I-O Sector: (\$000)											
Retail Trade	23,170	13,784	6,099	5,047	20,259	3,517	16,391	104,307	90,406	6,637	4,416
Fin, Ins, Real Estate	7,723	4,595	2,033	1,682	6,753	1,173	5,464	34,769	30,135	2,212	1,472
Total	30,893	18,379	8,132	6,729	27,012	4,690	21,855	139,076	120,541	8,849	5,888
Total Impacts: (\$000)											
Construction	1,376	818	362	300	1,203	209	969	6,192	5,367	394	262
Comm & Pub Util	2,246	1,336	591	489	1,964	341	1,581	10,111	8,763	643	428
Retail Trade	34,729	20,661	9,142	7,565	30,366	5,272	24,528	156,342	135,506	9,948	6,619
FIRE	10,160	6,045	2,674	2,213	8,884	1,543	7,119	45,739	39,643	2,910	1,936
Bus & Per Serv	1,041	619	274	227	910	158	732	4,687	4,062	298	198
Prof & Soc Serv	1,270	755	334	277	1,110	193	893	5,716	4,954	364	242
Households	18,628	11,083	4,904	4,057	16,288	2,828	13,107	83,863	72,686	5,336	3,550
Other ¹	7,312	4,351	1,925	1,592	6,394	1,110	5,155	32,923	28,536	2,094	1,395
Total	76,762	45,668	20,206	16,720	67,119	11,654	54,084	345,573	299,517	21,987	14,630
Tax Revenues: (\$000)											
Sales & Use Tax	1,608	957	423	350	1,406	244	1,136	7,239	6,273	461	306
Pers Income Tax	279	166	74	61	244	42	197	1,258	1,090	80	53
Secondary Employment (jobs)	158	97	41	36	139	23	111	711	619	44	31

¹Includes agriculture, mining, manufacturing, transportation, and government.

APPENDIX B

Economic Contribution to North Dakota,
North Dakota University System Member Universities and Colleges,
Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011

Bismarck State College

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Bismarck State College in the Bismarck area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period 1999-2011 was 35 percent.

Expenditures by Bismarck State College comprise the direct impacts, or "first round effects". Expenditures by Bismarck State College were \$17.9 million in FY1999, \$27.7 million in FY2004, \$29.6 million in FY2006, \$37.7 million in FY2008, \$40.2 million in FY2009, and \$50.9 million in FY 2011 (Appendix Table B1). Expenditures increased over the 12-year period by \$33.0 million or by 184 percent.

Total impacts associated with Bismarck State College were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$52.1 million in FY1999, \$81.2 million in FY2004, \$87.8 million in 2006, \$109.3 million in FY2008, \$116.0 million in FY2009, and \$149.3 million in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$20.9 million in FY1999 to \$59.0 million in FY2011 or by 182 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated at \$13.7 million in FY1999, \$20.8 million in FY2004, \$22.0 million in FY2006, \$26.8 million in FY2008, \$30.8 million in FY2009, and 37.1 million in FY2011. This represents a \$23.4 million (170.4 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$1.7 million in sales and use tax collections for FY2011, compared to \$636,000 in FY1999 and \$1.4 million in FY2009. Personal income tax collections were estimated to be \$314,000 in FY1999, \$483,000 in FY2004, \$531,000 in FY2006, \$634,000 in FY2008, \$680,000 in FY2009, and \$885,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Bismarck State College expenditures would support 398 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 605 positions (excluding student jobs) at Bismarck State College in 2011. In the Fall of 2010, 3,208 full-time equivalent students were enrolled at Bismarck State College.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Bismarck area was \$30.9 million in FY2011. The total economic contribution of student spending was \$76.8 million. Student spending was estimated to generate an additional \$1.6 million in sales and use tax revenue and \$279,000 in personal income tax collections. This level of student spending would create enough business activity to support about 158 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B1. Direct and Total Economic Impacts for Bismarck State College, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	6,256	7,745	8,727	9,509	11,587	13,032	108.3	12.5
Nongeneral Fund	10,741	19,574	20,056	23,521	27,440	34,771	223.7	26.7
Capital Improvements	<u>916</u>	<u>366</u>	<u>844</u>	<u>4,621</u>	<u>1,178</u>	<u>3,122</u>	240.8	165.0
TOTAL	17,913	27,685	29,627	37,651	40,205	50,925	184.3	26.7
Direct Impacts by I-O Sector:								
Construction	916	366	844	4,621	1,178	3,122	240.8	165.0
Communication and Public Util	737	709	654	722	910	956	29.7	5.1
Retail Trade	2,928	4,063	3,710	4,472	7,150	6,324	116.0	-11.6
Finance, Insurance, Real Estate	2,128	3,684	4,274	4,884	4,687	6,744	216.9	43.9
Business and Personal Services	1,641	4,716	4,201	5,269	6,685	8,051	390.6	20.4
Households	<u>9,563</u>	<u>14,147</u>	<u>15,944</u>	<u>17,683</u>	<u>19,595</u>	<u>25,728</u>	169.0	31.3
TOTAL	17,913	27,685	29,627	37,651	40,205	50,925	184.3	26.7
Total Impacts:								
Construction	2,221	2,378	3,042	7,299	4,024	6,820	207.1	69.5
Communications and Public Util	2,493	3,517	3,678	4,403	4,875	6,069	143.4	24.5
Retail Trade	13,726	20,791	22,018	26,757	30,768	37,110	170.4	20.6
Finance, Insurance, Real Estate	4,545	7,443	8,377	9,849	9,987	13,636	200.0	36.5
Business and Personal Services	2,575	6,208	5,826	7,226	8,774	10,779	318.6	22.9
Professional Social Services	1,351	2,088	2,294	2,744	2,931	3,827	183.3	30.6
Households	20,903	32,191	35,426	42,285	45,164	59,022	182.4	30.7
Other ¹	<u>4,306</u>	<u>6,628</u>	<u>7,165</u>	<u>8,764</u>	<u>9,509</u>	<u>12,074</u>	180.4	27.0
TOTAL	52,120	81,244	87,826	109,327	116,032	149,337	186.5	28.7

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Dickinson State University

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Dickinson State University in the Dickinson area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Dickinson State University comprise the direct impacts, or "first round effects". Expenditures by Dickinson State University were \$14.9 million in FY1999, \$23.0 million in FY2004, \$28.9 million in FY2006, \$31.1 million in FY2008, \$37.5 million in FY2009, and \$37.3 million in FY2011 (Appendix Table B2). Expenditures increased over the 12-year period by \$22.4 million or by 150 percent.

Total impacts associated with Dickinson State University were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$43.6 million in FY1999, \$67.2 million in FY2004, \$84.4 million in 2006, \$92.6 million in FY2008, \$109.6 million in FY2009, and \$111.3 million in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$17.3 million in FY1999 to \$45.1 million in FY2011 or by 161 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated at \$10.7 million in FY1999, \$16.5 million in FY2004, \$20.6 million in FY2006, \$22.5 million in FY2008, \$25.7 million in FY2009, and \$26.5 million in FY2011. This represents a \$15.8 million (148.7 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$1.2 million in sales and use tax collections for FY2011, compared to \$493,000 in FY1999 and \$1.2 million in FY2009. Personal income tax collections were estimated to be \$259,000 in FY1999, \$402,000 in FY2004, \$503,000 in FY2006, \$565,000 in FY2008, \$646,000 in FY2009, and \$677,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Dickinson State University expenditures would support 303 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 309 positions (excluding student jobs) at Dickinson State University in 2011. In the Fall of 2010, 2,054 full-time equivalent students were enrolled at Dickinson State University.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Dickinson area was \$18.4 million in FY2011. The total economic contribution of student spending was \$45.7 million. Student spending was estimated to generate an additional \$957,000 million in sales and use tax revenue and \$166,000 in personal income tax collections. This level of student spending would create enough business activity to support 97 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B2. Direct and Total Economic Impacts for Dickinson State University, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	5,764	6,702	7,299	8,562	8,589	12,620	119.0	46.9
Nongeneral Fund	8,305	14,613	19,995	22,294	24,599	23,541	183.5	-4.3
Capital Improvements	<u>869</u>	<u>1,696</u>	<u>1,577</u>	<u>268</u>	<u>4,340</u>	<u>1,185</u>	36.4	-72.7
TOTAL	14,938	23,011	28,871	31,124	37,528	37,346	150.0	-0.5
Direct Impacts by I-O Sector:								
Construction	869	1,696	1,577	268	4,340	1,185	36.4	-72.7
Communication and Public Util	821	969	880	951	931	944	15.0	1.4
Retail Trade	1,663	2,587	3,115	3,057	3,156	3,168	90.5	0.4
Finance, Insurance, Real Estate	1,604	2,551	3,110	3,936	4,162	5,014	212.6	20.5
Business and Personal Services	2,382	3,278	5,373	5,706	6,309	6,735	182.8	6.8
Households	<u>7,599</u>	<u>11,930</u>	<u>14,816</u>	<u>17,206</u>	<u>18,630</u>	<u>20,300</u>	167.1	3.4
TOTAL	14,938	23,011	28,871	31,124	37,528	37,346	150.0	-0.5
Total Impacts:								
Construction	1,958	3,378	3,681	2,604	7,061	3,986	103.6	-43.6
Communications and Public Util	2,321	3,263	3,796	4,190	4,666	4,826	107.9	3.4
Retail Trade	10,650	16,501	20,561	22,471	25,744	26,484	148.7	2.9
Finance, Insurance, Real Estate	3,629	5,676	7,037	8,313	9,221	10,259	62.1	11.3
Business and Personal Services	3,172	4,495	6,917	7,439	8,294	8,818	178.0	6.3
Professional Social Services	1,120	1,733	2,171	2,440	2,793	2,922	160.9	4.6
Households	17,283	26,780	33,502	37,679	43,096	45,112	161.0	4.7
Other ¹	<u>3,504</u>	<u>5,418</u>	<u>6,766</u>	<u>7,473</u>	<u>8,684</u>	<u>8,935</u>	155.0	2.9
TOTAL	43,637	67,244	84,431	92,609	109,559	111,342	155.2	1.6

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Lake Region State College

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Lake Region State College in the Devils Lake area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Lake Region State College comprise the direct impacts, or "first round effects". Expenditures by Lake Region State College were \$6.7 million in FY1999, \$9.2 million in FY2004, \$10.2 million in FY2006, \$11.4 million in FY2008, \$11.8 million in FY2009, and \$15.1 million in FY2011 (Appendix Table B3). Expenditures increased over the 12-year period by \$8.4 million or by 124 percent.

Total impacts associated with Lake Region State College were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$19.6 million in FY1999, \$27.3 million in FY2004, \$30.1 million in 2006, \$33.9 million in FY2008, \$35.2 million in FY2009, and \$45.2 million in FY2011. The sector with the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$7.9 million in FY1999 to \$18.8 million in FY2011 or by 138 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$4.9 million in FY1999, \$6.6 million in FY2004, \$7.2 million in FY2006, \$8.3 million in FY2008, \$8.5 million in FY2009, and \$11.2 million in FY2011. This represents a \$6.2 million (126.2 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$517,000 in sales and use tax collections for FY2011, compared to \$228,000 in FY1999 and 395,000 in FY2009. Personal income tax collections were estimated to be \$118,000 in FY1999, \$165,000 in FY2004, \$182,000 in FY2006, \$207,000 in FY2008, \$218,000 in FY2009, and \$281,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Lake Region State College expenditures would support about 123 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 271 positions (excluding student jobs) at Lake Region State College in 2011. In the Fall of 2010, 921 full-time equivalent students were enrolled at Lake Region State College.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Devils Lake area was \$8.1 million in FY2011. The total economic contribution was \$20.2 million. Student spending was estimated to generate an additional \$423,000 in sales and use tax revenue, and \$74,000 in personal income tax collections. This level of student spending would create enough business activity to support 41 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B3. Direct and Total Economic Impacts for Lake Region State College, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
	----- \$000 -----						----- % -----	
Direct Impacts:								
General Fund	2,145	2,471	2,828	3,220	3,243	4,127	92.4	27.3
Nongeneral Fund	3,880	6,077	6,781	8,075	8,398	10,909	181.2	29.9
Capital Improvements	<u>723</u>	<u>696</u>	<u>549</u>	<u>64</u>	<u>109</u>	<u>107</u>	-85.2	-1.8
TOTAL	6,748	9,244	10,158	11,359	11,750	15,143	124.4	28.9
Direct Impacts by I-O Sector:								
Construction	723	696	549	64	109	107	-85.2	-1.8
Communication and Public Util	225	333	294	307	308	290	28.9	-5.8
Retail Trade	853	874	961	1,217	1,080	1,540	80.5	42.6
Finance, Insurance, Real Estate	694	1,177	1,319	1,569	1,601	2,286	229.4	42.8
Business and Personal Services	620	1,189	1,597	1,878	1,881	2,216	257.4	17.8
Households	<u>3,633</u>	<u>4,975</u>	<u>5,438</u>	<u>6,324</u>	<u>6,771</u>	<u>8,704</u>	139.6	28.6
TOTAL	6,748	9,244	10,158	11,359	11,750	15,143	124.4	28.9
Total Impacts:								
Construction	1,216	1,384	1,304	919	1,004	1,260	3.6	25.5
Communications and Public Util	880	1,266	1,332	1,488	1,536	1,872	112.7	21.9
Retail Trade	4,935	6,581	7,240	8,329	8,529	11,161	126.2	30.9
Finance, Insurance, Real Estate	1,606	2,456	2,729	3,169	3,277	4,445	176.8	35.6
Business and Personal Services	970	1,689	2,153	2,512	2,544	3,074	216.9	20.8
Professional Social Services	509	713	785	895	939	1,213	138.3	29.2
Households	7,881	11,030	12,126	13,822	14,529	18,763	138.1	29.1
Other ¹	<u>1,595</u>	<u>2,203</u>	<u>2,421</u>	<u>2,751</u>	<u>2,855</u>	<u>3,710</u>	132.6	30.0
TOTAL	19,592	27,322	30,090	33,885	35,213	45,498	132.2	29.2

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Mayville State University

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Mayville State University in the Mayville area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Mayville State University comprise the direct impacts, or "first round effects". Expenditures by Mayville State University were \$9.4 million in FY1999, \$15.8 million in FY2004, \$13.7 million in FY2006, \$14.0 million in FY2008, \$14.6 million in FY2009, and \$24.5 million in FY2011 (Appendix Table B4). Expenditures increased over the 12-year period by \$15.1 million or by 160 percent.

Total impacts associated with Mayville State University were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$28.4 million in FY1999, \$45.2 million in FY2004, \$41.0 million in 2006, \$41.5 million in FY2008, \$43.5 million in FY2009, and \$70.2 million in FY2011. The sector with the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$11.3 million in FY1999 to \$26.1 million in FY2011 or by 130 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$6.8 million in FY1999, \$10.3 million in FY2004, \$10.2 million in FY2006, \$10.2 million in FY2008, \$10.4 million in FY2009, and \$16.2 million in FY2011. This represents a \$9.3 million (135.9 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$748,000 in sales and use tax collections in FY2011, compared to \$317,000 in FY1999 and \$483,000 in FY2009. Personal income tax collections were estimated to be \$170,000 in FY1999, \$251,000 in FY2004, \$248,000 in FY2006, \$246,000 in FY2008, \$260 in FY2009, and \$391,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Mayville State University expenditures would support 179 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 238 positions (excluding student jobs) at Mayville State University in 2011. In the Fall of 2010, 704 full-time equivalent students were enrolled at Mayville State University.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Mayville area was \$6.7 million in FY2011. The total economic contribution was \$16.7 million. Student spending was estimated to generate an additional \$350,000 in sales and use tax revenue and \$61,000 in personal income tax collections. This level of student spending would create enough business activity to support nearly 36 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B4. Direct and Total Economic Impacts for Mayville State University, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	3,735	4,420	4,343	4,835	5,108	5,901	58.0	15.5
Nongeneral Fund	5,481	7,582	9,220	8,337	8,980	12,740	132.4	41.9
Capital Improvements	<u>210</u>	<u>3,778</u>	<u>176</u>	<u>871</u>	<u>521</u>	<u>5,875</u>	2,697.6	1,027.6
TOTAL	9,426	15,780	13,739	14,043	14,609	24,516	160.1	67.8
Direct Impacts by I-O Sector:								
Construction	210	3,778	176	871	521	5,875	2,697.6	1,027.6
Communication and Public Util	458	428	739	864	873	532	16.2	-39.1
Retail Trade	980	1,285	1,697	1,637	1,460	2,127	117.0	45.7
Finance, Insurance, Real Estate	1,799	1,858	2,140	2,135	2,244	3,127	73.8	39.4
Business and Personal Services	1,207	2,031	1,616	1,576	2,106	3,009	149.3	42.9
Households	<u>4,772</u>	<u>6,400</u>	<u>7,371</u>	<u>6,960</u>	<u>7,405</u>	<u>9,846</u>	106.3	33.0
TOTAL	9,426	15,780	13,739	14,043	14,609	24,516	160.1	67.8
Total Impacts:								
Construction	914	4,865	1,203	1,900	1,604	7,562	727.4	371.5
Communications and Public Util	1,443	1,912	2,152	2,280	2,380	2,837	96.6	19.2
Retail Trade	6,848	10,312	10,220	10,155	10,435	16,156	135.9	54.8
Finance, Insurance, Real Estate	3,114	3,857	4,055	4,045	4,263	6,228	100.0	46.1
Business and Personal Services	1,736	2,812	2,372	2,328	2,907	4,226	143.4	45.4
Professional Social Services	735	1,091	1,072	1,062	1,122	1,694	130.5	51.0
Households	11,322	16,782	16,551	16,377	17,301	26,056	130.1	50.6
Other ¹	<u>2,304</u>	<u>3,519</u>	<u>3,352</u>	<u>3,359</u>	<u>3,504</u>	<u>5,490</u>	138.3	56.7
TOTAL	28,416	45,150	40,977	41,506	43,516	70,249	147.2	61.4

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Minot State University

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Minot State University in the Minot area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Minot State University comprise the direct impacts, or "first round effects". Expenditures by Minot State University were \$30.1 million in FY1999, \$39.4 million in FY2004, \$46.3 million in FY2006, \$44.7 million in FY2008, \$48.5 million in FY2009, and \$61.6 million in FY2011 (Appendix Table B5). Expenditures increased over the 12-year period by \$31.5 million or by 105 percent.

Total impacts associated with Minot State University were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$89.0 million in FY1999, \$119.8 million in FY2004, \$136.5 million in 2006, \$135.1 million in FY2008, \$145.5 million in FY2009, and \$183.6 million in FY2011. The sector with the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$36.3 million in FY1999 to \$74.2 million in FY2011 or by 104 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$21.2 million in FY1999, \$28.2 million in FY2004, \$33.0 million in FY2006, \$31.9 million in FY2008, \$34.2 million in FY2009, and \$42.4 million in FY2011. This represents a \$21.2 million (100 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$1.9 million in sales and use tax collections in FY2011, compared to \$981,000 in FY1999 and \$1.6 million in FY2009. Personal income tax collections were estimated to be \$545,000 in FY1999, \$744,000 in FY2004, \$827,000 in FY2006, \$845,000 in FY2008, \$899,000 in FY2009, and \$1.1 million in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Minot State University expenditures would support 497 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 632 positions (excluding student jobs) at Minot State University in 2011. In the Fall of 2010, 3,002 full-time equivalent students were enrolled at Minot State University.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Minot area was \$27.0 million in FY2011. The total economic contribution of student spending was \$67.1 million. Student spending was estimated to generate an additional \$1.4 million in sales and use tax revenue and \$244,000 in personal income tax collections. This level of student spending would create enough business activity to support about 139 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B5. Direct and Total Economic Impacts for Minot State University, Fiscal Years 1999, 2004, 2006, 2008, 2009 , and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY20008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	16,966	20,712	13,822	14,710	15,159	18,756	10.6	23.7
Nongeneral Fund	9,747	18,019	28,043	28,920	30,204	37,218	281.8	23.2
Capital Improvements	<u>3,375</u>	<u>671</u>	<u>4,422</u>	<u>1,031</u>	<u>3,146</u>	<u>5,618</u>	66.5	78.6
TOTAL	30,088	39,402	46,287	44,661	48,509	61,592	104.7	27.0
Direct Impacts by I-O Sector:								
Construction	3,375	671	4,422	1,031	3,146	5,618	66.5	78.6
Communication and Public Util	1,063	1,266	1,223	1,338	1,293	1,434	34.9	10.9
Retail Trade	2,450	2,789	4,444	3,139	3,394	3,874	58.1	14.1
Finance, Insurance, Real Estate	3,718	6,701	5,891	6,632	6,858	8,591	131.1	25.3
Business and Personal Services	2,741	5,269	5,361	6,069	6,160	9,017	229.0	46.4
Households	<u>16,741</u>	<u>22,706</u>	<u>24,946</u>	<u>26,452</u>	<u>27,658</u>	<u>33,058</u>	97.5	19.5
TOTAL	30,088	39,402	46,287	44,661	48,509	61,592	104.7	27.0
Total Impacts:								
Construction	5,633	3,716	7,856	4,487	6,844	10,237	81.7	49.6
Communications and Public Util	4,063	5,444	5,850	6,038	6,297	7,740	90.5	22.9
Retail Trade	21,185	28,199	32,988	31,928	34,193	42,365	100.0	23.9
Finance, Insurance, Real Estate	7,902	12,403	12,269	13,099	13,757	17,204	117.7	25.1
Business and Personal Services	4,359	7,541	7,850	8,623	8,873	12,420	184.9	40.0
Professional Social Services	2,343	3,209	3,562	3,639	3,870	4,804	105.0	24.1
Households	36,308	49,615	55,102	56,338	59,902	74,224	104.4	23.9
Other ¹	<u>7,174</u>	<u>9,699</u>	<u>11,013</u>	<u>10,933</u>	<u>11,714</u>	<u>14,638</u>	104.0	25.0
TOTAL	88,967	119,826	136,490	135,085	145,450	183,632	106.4	26.3

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Dakota College at Bottineau

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Dakota College at Bottineau in the Bottineau area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Dakota College at Bottineau comprise the direct impacts, or "first round effects". Expenditures by Dakota College at Bottineau were \$4.6 million in FY1999, \$5.4 million in FY2004, \$6.0 million in FY2006, \$6.7 million in FY2008, \$7.4 million in FY2009, and \$9.5 million in FY2011 (Appendix Table B6). Expenditures increased over the 12-year period by \$5.0 million or by 108 percent.

Total impacts associated with Dakota College at Bottineau were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$13.5 million in FY1999, \$15.9 million in FY2004, \$17.6 million in 2006, \$19.8 million in FY2008, \$21.9 million in FY2009, and \$28.1 million in FY2011. The sector with the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$5.4 million in FY1999 to \$11.2 million in FY2011 or by 107 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$3.3 million in FY1999, \$3.9 million in FY2004, \$4.2 million in FY2006, \$4.9 million in FY2008, \$5.3 million in FY2009, and \$6.6 million in FY2011. This represents a \$3.3 million (101.2 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$307,000 in sales and use tax collections in FY2011, compared to \$153,000 in FY1999 and \$248,000 in FY2009. Personal income tax collections were estimated to be \$81,000 in FY1999, \$97,000 in FY2004, \$105,000 in FY2006, \$120,000 in FY2008, \$132,000 in FY2009, and \$169,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Dakota College at Bottineau expenditures would support 76 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 155 positions (excluding student jobs) at Dakota College at Bottineau in 2011. In the Fall of 2010, 540 full-time equivalent students were enrolled at Dakota College at Bottineau.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Bottineau area was \$4.7 million in FY2011. The total economic contribution was \$11.7 million. Student spending was estimated to generate an additional \$244,000 in sales and use tax collections and \$42,000 in personal income tax collections. This level of student spending would create enough business activity to support 23 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B6. Direct and Total Economic Impacts for Dakota College at Bottineau, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
	----- \$000 -----						----- % -----	
Direct Impacts:								
General Fund	2,456	2,813	2,248	2,439	2,535	1,875	-23.7	-26.0
Nongeneral Fund	1,878	2,420	3,228	4,025	4,614	6,780	261.0	47.0
Capital Improvements	<u>242</u>	<u>117</u>	<u>477</u>	<u>200</u>	<u>249</u>	<u>871</u>	<u>259.9</u>	<u>249.8</u>
TOTAL	4,576	5,350	5,953	6,664	7,399	9,526	108.2	28.8
Direct Impacts by I-O Sector:								
Construction	242	117	477	200	249	871	259.9	249.8
Communication and Public Util	212	241	216	250	256	358	68.9	39.8
Retail Trade	489	601	532	719	783	787	60.9	0.5
Finance, Insurance, Real Estate	515	756	798	924	966	1,230	138.8	27.3
Business and Personal Services	646	727	845	966	1,183	1,342	107.7	13.4
Households	<u>2,472</u>	<u>2,908</u>	<u>3,085</u>	<u>3,605</u>	<u>3,962</u>	<u>4,938</u>	99.8	24.6
TOTAL	4,576	5,350	5,953	6,664	7,399	9,526	108.2	28.8
Total Impacts:								
Construction	581	517	917	698	799	1,575	171.1	97.1
Communications and Public Util	674	791	819	934	1,014	1,320	95.9	30.2
Retail Trade	3,295	3,923	4,186	4,852	5,349	6,630	101.2	24.0
Finance, Insurance, Real Estate	1,146	1,503	1,617	1,853	1,993	2,539	121.6	27.4
Business and Personal Services	892	1,021	1,167	1,332	1,588	1,856	108.1	16.9
Professional Social Services	351	417	455	518	572	728	107.4	27.3
Households	5,432	6,449	7,030	8,009	8,830	11,237	106.9	27.3
Other ¹	<u>1,088</u>	<u>1,296</u>	<u>1,411</u>	<u>1,607</u>	<u>1,771</u>	<u>2,249</u>	106.7	27.0
TOTAL	13,459	15,917	17,602	19,803	21,916	28,134	109.0	28.4

¹ Includes agriculture, mining, manufacturing, transportation, and government.

North Dakota State College of Science

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of North Dakota State College of Science in the Wahpeton area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by North Dakota State College of Science comprise the direct impacts, or "first round effects". Expenditures by North Dakota State College of Science were \$30.6 million in FY1999, \$34.7 million by FY2004, \$35.6 million in FY2006, \$39.7 million in FY2008, \$40.5 million in FY2009, and \$44.6 million in FY2010 (Appendix Table B7). Expenditures increased over the 12-year period by \$14.0 million or by 46 percent.

Total impacts associated with North Dakota State College of Science were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$87.5 million in FY1999, \$100.8 million in FY2004, \$103.6 million in 2006, \$115.5 million in FY2008, \$117.7 million in FY2009, and \$131.4 million in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$33.5 million in FY1999 to \$51.9 million in FY2011. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$22.6 million in FY1999, \$26.0 million in FY2004, \$27.1 million in FY2006, \$29.5 million in FY2008, \$31.0 million in FY2009, and \$33.0 million in FY2011. This represents a \$10.5 million (46.3 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$1.5 million in FY2011 sales and use tax collections, compared to \$1.0 million in FY1999 and \$1.4 million in FY2009. Personal income tax collections were estimated to be \$503,000 in FY1999, \$588,000 in FY2004, \$607,000 in FY2006, \$665,000 in FY2008, \$688,000 in FY2009, and \$779,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from North Dakota State College of Science expenditures would support 352 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 605 positions (excluding student jobs) at North Dakota State College of Science in 2011. In the Fall of 2010, 2,217 full-time equivalent students were enrolled at North Dakota State College of Science.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Wahpeton area was \$21.9 million in FY2011. The total economic contribution was \$54.1 million. Student spending was estimated to generate an additional \$1.1 million sales and use tax revenue and \$197,000 in personal income tax collections. This level of student spending would create enough business activity to support 111 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B7. Direct and Total Economic Impacts for North Dakota State College of Science, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
	----- \$000 -----						----- % -----	
Direct Impacts:								
General Fund	15,199	16,116	12,404	14,276	14,736	17,462	14.9	18.5
Nongeneral Fund	12,302	17,777	22,478	25,110	25,382	25,978	111.2	2.4
Capital Improvements	<u>3,066</u>	<u>757</u>	<u>739</u>	<u>294</u>	<u>378</u>	<u>1,169</u>	-61.9	209.3
TOTAL	30,567	34,650	35,621	39,680	40,496	44,609	45.9	10.2
Direct Impacts by I-O Sector:								
Construction	3,066	757	739	294	378	1,169	-61.9	209.3
Communication and Public Util	1,662	1,838	1,693	1,594	1,494	1,832	10.2	22.6
Retail Trade	4,945	5,543	6,027	6,170	7,075	6,041	22.2	-14.6
Finance, Insurance, Real Estate	3,416	4,377	4,623	5,193	5,258	6,292	84.2	19.7
Business and Personal Services	3,499	5,503	5,176	8,220	6,660	6,781	93.8	1.8
Households	<u>13,979</u>	<u>16,632</u>	<u>17,363</u>	<u>18,209</u>	<u>19,631</u>	<u>22,494</u>	60.9	14.6
TOTAL	30,567	34,650	35,621	39,680	40,496	44,609	45.9	10.2
Total Impacts:								
Construction	5,204	3,232	3,287	3,102	3,263	4,422	-15.0	35.5
Communications and Public Util	4,588	5,302	5,241	5,613	5,542	6,359	38.6	14.7
Retail Trade	22,576	25,999	27,108	29,458	30,999	33,038	46.3	6.6
Finance, Insurance, Real Estate	7,361	8,983	9,362	10,445	10,637	12,357	67.9	16.2
Business and Personal Services	5,026	7,318	7,041	10,321	8,789	9,183	82.7	4.5
Professional Social Services	2,173	2,544	2,625	2,886	2,977	3,369	55.0	13.2
Households	33,495	39,178	40,444	44,330	45,835	51,942	55.1	13.3
Other ¹	<u>7,109</u>	<u>8,213</u>	<u>8,490</u>	<u>9,339</u>	<u>9,650</u>	<u>10,683</u>	50.3	10.7
TOTAL	87,532	100,769	103,598	115,494	117,692	131,353	50.1	11.6

¹ Includes agriculture, mining, manufacturing, transportation, and government.

North Dakota State University

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of North Dakota State University in the Fargo area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by North Dakota State University comprise the direct impacts, or "first round effects". Expenditures by North Dakota State University were \$167.6 million in FY1999, \$246.8 million in FY2004, \$284.7 million in FY2006, \$346.0 million in FY2008, \$355.4 million in FY2009, and \$404.3 million in FY2011 (Appendix Table B8). Expenditures increased over the 12-year period by \$236.7 million or by 141 percent.

Total impacts associated with North Dakota State University were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated to be \$490.8 million in FY1999, \$730.6 million in FY2004, \$835.6 million in 2006, \$1.0 billion in FY2008, \$1.04 billion in FY2009, and \$1.2 billion in FY2011. This represent. The sector with the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$194.2 million in FY1999 to \$478.5 million in FY2011 or by 146 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$125.3 million in FY1999, \$171.7 million in FY2004, \$206.4 million in FY2006, \$250.8 million in FY2008, \$255.6 in FY2009, and \$287.3 million in FY2011. This represents a \$162.0 million (129.3 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$13.3 million in sales and use tax collections for FY2011, compared to \$5,800,000 in FY1999 and \$11.8 million in FY2009. Personal income tax collections were estimated to be \$2.9 million in FY1999, \$4.4 million in FY2004, \$5 million in FY2006, \$5.7 million in FY2008, \$6.1 million in FY2009, and \$7.2 million in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from North Dakota State University expenditures would support 3,215 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 3,916 positions (excluding student jobs) employed at North Dakota State University in 2011. In the Fall of 2010, 12,708 full-time equivalent students were enrolled at North Dakota State University.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Fargo area was \$139.0 million in FY2011. The total economic contribution of student spending was \$345.6 million. Student spending was estimated to generate an additional \$7.2 million in sales and use tax revenue and \$1.3 million in personal income tax collections. This level of student spending would create enough business activity to support 711 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B8. Direct and Total Economic Impacts for North Dakota State University, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	67,041	70,715	76,513	88,150	98,272	102,250	52.5	4.1
Nongeneral Fund	95,014	155,899	193,757	232,749	239,061	274,916	189.3	15.0
Capital Improvements	<u>5,581</u>	<u>20,139</u>	<u>14,411</u>	<u>24,765</u>	<u>18,051</u>	<u>27,153</u>	386.5	50.4
TOTAL	167,636	246,753	284,681	345,664	355,384	404,319	145.6	13.8
Direct Impacts by I-O Sector:								
Construction	5,581	20,139	14,411	24,765	18,051	27,153	386.5	50.4
Communication and Public Util	8,168	10,185	9,966	11,993	12,696	13,246	62.2	4.3
Retail Trade	24,448	20,002	34,301	48,811	43,043	38,694	58.3	-10.1
Finance, Insurance, Real Estate	21,879	32,862	36,489	43,731	44,038	57,134	161.1	29.7
Business and Personal Services	22,510	35,840	45,494	59,668	64,159	58,669	160.6	-8.6
Households	<u>85,050</u>	<u>127,725</u>	<u>144,020</u>	<u>156,696</u>	<u>173,397</u>	<u>209,423</u>	146.2	20.8
TOTAL	167,636	246,753	284,681	345,664	355,384	404,319	141.2	13.8
Total Impacts:								
Construction	17,762	38,417	35,149	49,111	43,680	57,042	221.1	30.6
Communications and Public Util	24,968	35,257	38,690	46,173	48,534	54,384	117.8	12.1
Retail Trade	125,268	171,687	206,409	250,758	255,641	287,276	129.3	12.4
Finance, Insurance, Real Estate	44,531	66,886	75,136	89,009	91,838	112,833	153.4	22.9
Business and Personal Services	31,395	49,228	60,743	77,609	83,082	80,691	157.0	-2.9
Professional Social Services	12,585	18,903	21,432	24,895	26,391	31,000	146.3	17.5
Households	194,198	291,865	330,539	382,838	406,494	478,454	146.4	17.7
Other ¹	<u>40,073</u>	<u>58,373</u>	<u>67,452</u>	<u>80,499</u>	<u>83,475</u>	<u>96,318</u>	140.4	15.4
TOTAL	490,780	730,616	835,550	1,000,892	1,039,135	1,197,998	144.1	15.3

¹ Includes agriculture, mining, manufacturing, transportation, and government.

University of North Dakota

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of University of North Dakota in the Grand Forks area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by University of North Dakota comprise the direct impacts, or "first round effects". Expenditures by University of North Dakota were \$225.4 million in FY1999, \$315.1 million in FY2004, \$341.5 million in FY2006, \$370.5 million in FY2008, \$384.1 million in FY2009, and \$435.2 million in FY2011 (Appendix Table B9). Expenditures increased over the 12-year period by \$209.8 million or by 93 percent.

Total impacts associated with University of North Dakota were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$657.4 million in FY1999, \$931.1 million in FY2004, \$1.0 billion in 2006, \$1.09 billion in FY2008, \$1.13 billion in FY2009, and \$1.3 billion in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$255.7 million in FY1999 to \$522.0 million in FY2011 or by 104 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$166.0 million in FY1999, \$225.1 million in FY2004, \$243.8 million in FY2006, \$270.7 million in FY2008, \$278.0 million in FY2009, and \$317.7 million in FY2011. This represents a \$151.7 million (91.4 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$14.7 million in FY2011 sales and use tax collections, compared to \$7,686,000 in FY1999 and \$12.9 million in FY2009. Personal income tax collections were estimated to be \$3.8 million in FY1999, \$5.5 million in FY2004, \$6 million in FY2006, \$6.4 million in FY2008, \$6.7 million in FY2009, and \$7.9 million in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from University of North Dakota expenditures would support 3,502 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 4,229 positions (excluding student jobs) at University of North Dakota in 2011. In the Fall of 2010, 12,018 full-time equivalent students were enrolled at University of North Dakota.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Grand Forks area was \$120.5 million in FY2011. The total economic contribution of student spending was \$299.5 million. Student spending was estimated to generate an additional \$6.3 million in sales and use tax revenue and \$1.1 million in personal income tax collections. This level of student spending would create enough business activity to support about 619 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B9. Direct and Total Economic Impacts for University of North Dakota, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	62,990	62,320	66,308	77,379	81,708	91,230	44.8	11.7
Nongeneral Fund	152,076	227,572	259,366	281,470	298,233	331,144	117.7	11.0
Capital Improvements	<u>10,342</u>	<u>25,178</u>	<u>15,804</u>	<u>11,638</u>	<u>4,194</u>	<u>12,860</u>	24.4	206.6
TOTAL	225,408	315,070	341,478	370,487	384,135	435,234	93.1	13.3
Direct Impacts by I-O Sector:								
Construction	10,342	25,178	15,804	11,638	4,194	12,860	24.4	206.6
Communication and Public Util	9,024	9,914	9,566	11,946	12,395	11,362	25.9	-8.3
Retail Trade	32,174	33,193	35,697	48,859	45,793	47,576	47.9	3.9
Finance, Insurance, Real Estate	29,732	47,425	47,815	51,643	50,013	66,216	122.7	32.4
Business and Personal Services	36,108	42,150	61,087	68,032	80,527	65,807	82.3	-18.3
Households	<u>108,028</u>	<u>157,210</u>	<u>171,509</u>	<u>178,369</u>	<u>191,213</u>	<u>231,414</u>	114.2	21.0
TOTAL	225,408	315,070	341,478	370,487	384,135	435,234	93.1	13.3
Total Impacts:								
Construction	26,482	48,230	40,803	38,322	32,148	45,263	70.9	40.8
Communications and Public Util	31,569	41,692	44,526	49,586	51,988	56,225	78.1	8.1
Retail Trade	166,004	225,096	243,773	270,693	278,047	317,661	91.4	14.2
Finance, Insurance, Real Estate	59,779	90,315	94,538	101,496	102,398	126,782	112.1	23.8
Business and Personal Services	47,993	59,150	79,713	87,938	101,464	89,916	87.4	-11.4
Professional Social Services	16,607	23,853	25,904	27,556	28,945	33,826	103.7	16.9
Households	255,739	367,831	399,082	423,970	445,484	521,999	104.1	17.2
Other ¹	<u>53,259</u>	<u>74,979</u>	<u>80,995</u>	<u>87,740</u>	<u>90,939</u>	<u>105,154</u>	97.4	15.6
TOTAL	657,432	931,146	1,009,334	1,087,301	1,131,413	1,296,826	97.3	14.6

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Valley City State University

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Valley City State University in the Valley City area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Valley City State University comprise the direct impacts, or "first round effects". Expenditures by Valley City State University were \$13.4 million in FY1999, \$17.0 million in FY2004, 16.4 million in FY2006, \$18.7 million in FY2008, \$19.2 million in FY2009, and \$26.3 million in FY2011 (Appendix Table B10). Expenditures increased over the 12-year period by \$12.9 million or by 97 percent.

Total impacts associated with Valley City State University were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$39.3 million in FY1999, \$50.1 million in FY2004, \$48.8 million in 2006, \$55.7 million in FY2008, \$57.0 million in FY2009, and \$77.3 million in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$15.5 million in FY1999 to \$30.0 million in FY2011 or by 94 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$9.5 million in FY1999, \$11.5 million in FY2004, \$11.8 million in FY2006, \$13.0 million in FY2008, \$13.5 million in FY2009, and \$17.8 million in FY2011. This represents an \$8.4 million (88.1 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$826,000 in sales and use tax collections in FY2011, compared to \$439,000 in FY1999 and \$624,000 in FY2009. Personal income tax collections were estimated to be \$232,000 in FY1999, \$289,000 in FY2004, \$291,000 in FY2006, \$331,000 in FY2008, \$341,000 in FY2009, and \$450,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Valley City State University expenditures would support 204 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 250 positions (excluding student jobs) at Valley City State University in 2011. In the Fall of 2010, 957 full-time equivalent students were enrolled at Valley City State University.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Valley City area was \$8.8 million in FY2011. The total economic contribution of student spending was \$22.0 million. These levels of business activity would generate an additional \$461,000 in sales and use tax revenue and \$80,000 in personal income tax collections. This level of student spending would create enough business activity to support 44 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B10. Direct and Total Economic Impacts for Valley City State University, Fiscal Years 1999, 2004, 2006, 2008, 2009 and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	5,152	5,943	5,850	6,754	7,073	8,660	68.1	22.4
Nongeneral Fund	7,364	8,657	10,229	10,614	11,181	14,259	93.6	27.5
Capital Improvements	<u>841</u>	<u>2,423</u>	<u>295</u>	<u>1,291</u>	<u>984</u>	<u>3,371</u>	300.8	242.6
TOTAL	13,357	17,023	16,374	18,659	19,237	26,290	96.8	36.7
Direct Impacts by I-O Sector:								
Construction	841	2,423	295	1,291	984	3,371	300.8	242.6
Communication and Public Util	794	672	699	618	609	686	-13.6	12.6
Retail Trade	1,413	1,330	1,702	1,525	1,659	2,021	43.0	21.8
Finance, Insurance, Real Estate	1,744	2,636	2,532	2,971	2,586	3,767	116.0	45.7
Business and Personal Services	1,938	2,253	2,849	2,880	3,488	4,148	114.0	18.9
Households	<u>6,627</u>	<u>7,709</u>	<u>8,297</u>	<u>9,374</u>	<u>9,911</u>	<u>12,297</u>	85.6	24.1
TOTAL	13,357	17,023	16,374	18,659	19,237	26,290	96.8	36.7
Total Impacts:								
Construction	1,817	3,648	1,506	2,672	2,406	5,269	190.0	119.0
Communications and Public Util	2,143	2,367	2,402	2,538	2,590	3,318	54.8	28.1
Retail Trade	9,479	11,521	11,771	13,032	13,487	17,834	88.1	32.2
Finance, Insurance, Real Estate	3,558	4,907	4,798	5,548	5,245	7,296	105.1	39.1
Business and Personal Services	2,650	3,155	3,756	3,909	4,545	5,551	109.5	22.1
Professional Social Services	1,004	1,254	1,259	1,433	1,475	1,948	94.0	32.1
Households	15,485	19,295	19,385	22,077	22,744	30,000	93.7	31.9
Other ¹	<u>3,153</u>	<u>3,960</u>	<u>3,927</u>	<u>4,447</u>	<u>4,556</u>	<u>6,112</u>	93.9	34.2
TOTAL	39,289	50,107	48,804	55,656	57,048	77,328	96.8	35.6

¹ Includes agriculture, mining, manufacturing, transportation, and government.

Williston State College

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of Williston State College in the Williston area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by Williston State College comprise the direct impacts, or "first round effects". Expenditures by Williston State College were \$6.1 million in FY1999, \$10.1 million in FY2004, \$9.2 million in FY2006, \$10.9 million in FY2008, \$12.1 million in FY2009, and \$22.3 million in FY2011 (Appendix Table B11). Expenditures increased over the 12-year period by \$17.6 million or by 286 percent.

Total impacts associated with Williston State College were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$17.8 million in FY1999, \$29.1 million in FY2004, \$27.2 million in 2006, \$31.3 million in FY2008, \$34.5 million in FY2009, and \$64.9 million in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income increased from \$7.2 million in FY1999 to \$23.7 million in FY2011 or by 212 percent. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated at \$4.7 million in FY1999, \$7.3 million in FY2004, \$6.9 million in FY2006, \$8.8 million in FY2008, \$9.0 million in FY2009, and \$14.8 million in FY2011. This represents a \$10.1 million (214.7 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$685,000 in sales and use tax collections in FY2011, compared to \$218,000 in FY1999 and \$415,000 in FY2009. Personal income tax collections were estimated to be \$107,000 in FY1999, \$170,000 in FY2004, \$165,000 in FY2006, \$183,000 in FY2008, \$198,000 in FY2009, and \$335,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from Williston State College expenditures would support 157 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 206 positions (excluding student jobs) at Williston State College in 2011. In the Fall of 2010, 570 full-time equivalent students were enrolled at Williston State College.

In addition to the economic impact resulting from the institution's expenditures, spending by students also contributes to the local economy. Direct impacts of student spending in the Williston area was \$5.9 million in FY2011. The total economic contribution of student spending was \$14.6 million. Student spending was estimated to generate an additional \$306,000 in sales and use tax revenue and \$53,000 in personal income tax collections. This level of student spending would create enough business activity to support 31 secondary (indirect and induced) jobs. A detailed analysis of the economic impact resulting from student expenditures is presented in Appendix Table A15.

Appendix Table B11. Direct and Total Economic Impacts for Williston State College, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
----- \$000 -----							----- % -----	
Direct Impacts:								
General Fund	2,394	2,606	2,808	3,295	3,287	4,129	72.5	25.6
Nongeneral Fund	3,388	6,365	6,203	7,429	7,849	9,840	190.4	25.4
Capital Improvements	<u>363</u>	<u>1,117</u>	<u>192</u>	<u>204</u>	<u>933</u>	<u>9,765</u>	2,590.1	946.6
TOTAL	6,145	10,088	9,203	10,928	12,069	23,734	286.2	96.7
Direct Impacts by I-O Sector:								
Construction	363	1,117	192	204	933	9,765	2,590.1	946.6
Communication and Public Util	157	256	277	300	316	366	133.1	15.8
Retail Trade	1,001	1,318	1,271	2,478	2,001	2,309	130.7	15.4
Finance, Insurance, Real Estate	640	1,046	1,253	1,389	1,256	2,002	212.8	59.4
Business and Personal Services	645	1,449	1,225	1,242	1,976	1,977	206.5	0.1
Households	<u>3,339</u>	<u>4,902</u>	<u>4,985</u>	<u>5,315</u>	<u>5,587</u>	<u>7,315</u>	119.1	30.9
TOTAL	6,145	10,088	9,203	10,928	12,069	23,734	286.2	96.7
Total Impacts:								
Construction	810	1,834	873	970	1,775	11,274	1,291.9	353.2
Communications and Public Util	756	1,234	1,210	1,355	1,483	2,369	213.4	59.7
Retail Trade	4,703	7,261	6,931	8,828	8,971	14,798	214.7	65.0
Finance, Insurance, Real Estate	1,468	2,374	2,523	2,809	2,817	4,723	221.7	67.7
Business and Personal Services	964	1,966	1,725	1,798	2,587	3,011	212.3	16.4
Professional Social Services	463	733	710	789	859	1,455	214.3	69.4
Households	7,164	11,320	10,972	12,172	13,224	22,346	211.9	69.0
Other ¹	<u>1,468</u>	<u>2,340</u>	<u>2,227</u>	<u>2,625</u>	<u>2,800</u>	<u>4,964</u>	238.2	77.3
TOTAL	17,796	29,062	27,171	31,346	34,516	64,940	264.9	88.1

¹ Includes agriculture, mining, manufacturing, transportation, and government.

North Dakota University System Office

Each of the state's college campuses is an important component of that area's local economy. This brief analysis will provide highlights of an economic impact analysis of North Dakota University System Office in the Bismarck area. Key economic indicators estimated in the analysis include direct impacts, total level of economic activity, personal income, retail trade, tax revenues, and employment. All dollar values are presented in terms of current year dollars, i.e., the effects of inflation have not been removed. The Consumer Price Index indicates that inflation during the 12-year period from 1999-2011 was 35 percent.

Expenditures by North Dakota University System Office comprise the direct impacts, or "first round effects". Expenditures by North Dakota University System Office were \$6.1 million in FY1999, \$17.3 million in FY2004, \$6.1 million in FY2006, \$9.4 million in FY2008, \$9.0 million in FY2009, and \$32.1 million in FY2011 (Appendix Table B12). Expenditures increased over the 12-year period by \$26.0 million or by 425 percent.

The growth in the North Dakota University System office budget is misleading. Increases since 2009 are the result of changes in accounting practices rather than higher levels of expenditures. System Information Technology Services (SITS) serves all campuses in the state with computer hardware and personnel housed primarily at North Dakota State University. Prior to 2010, financial support for SITS was included in the respective host campus budget (NDSU), but transferred to the University System office for FY2010. These accounting changes were made to satisfy auditors requests.

Total impacts associated with North Dakota University System Office were estimated by applying the North Dakota Input-Output Model coefficients to total direct expenditures. Total economic contribution was estimated at \$18.3 million in FY1999, \$53.6 million in FY2004, \$18.7 million in 2006, \$28.8 million in FY2008, \$27.7 million in FY2009, and \$96.1 million in FY2011. The sector that had the largest impact was *households* (i.e., personal income of area residents) for each year presented. Personal income has grown from \$7.6 million in FY1999 to \$41.1 million in FY2011. Other sectors receiving major contributions included *retail trade, construction, finance, insurance, and real estate, and business and personal services*. Increased retail trade activity was estimated to be \$4.2 million in FY1999, \$10.7 million in FY2004, \$4.4 million in FY2006, \$6.8 million in FY2008, \$6.6 million in FY2009, and \$21.4 million in FY2011. This represents a \$17.2 million (413.3 percent) increase for the 12-year period. Increased levels of retail trade activity would generate \$990,000 in sales and use tax collections for FY2011, compared to \$193,000 in FY1999 and \$304,000 in FY2009. Personal income tax collections were estimated to be \$114,000 in FY1999, \$279,000 in FY2004, \$130,000 in FY2006, \$205,000 in FY2008, \$196,000 in FY2009, and \$616,000 in FY2011 as the result of increased economic activity in the *household* sector.

Levels of business activity resulting from North Dakota University System Office expenditures would support 269 secondary (indirect and induced) jobs in 2011. These jobs are in addition to the 28 positions at the North Dakota University System Office in 2011.

Appendix Table B12. Direct and Total Economic Impacts for the North Dakota University System Office, Fiscal Years 1999, 2004, 2006, 2008, 2009, and 2011 (Current Year Dollars)

Item	FY1999	FY2004	FY2006	FY2008	FY2009	FY2011	Change	
							FY1999-2011	FY2009-2011
	----- \$000 -----						----- % -----	
Direct Impacts:								
General Fund	4,202	15,096	5,934	8,664	8,280	31,163	641.6	276.4
Nongeneral Fund	1,918	2,169	178	715	765	942	-50.9	23.1
Capital Improvements	--	--	--	--	--	--	--	--
TOTAL	<u>6,120</u>	<u>17,265</u>	<u>6,112</u>	<u>9,379</u>	<u>9,044</u>	<u>32,105</u>	424.6	255.0
Direct Impacts by I-O Sector:								
Construction	--	--	--	--	--	--	--	--
Communication and Public Util	16	20	23	20	20	1,820	11,275.0	9,000.0
Retail Trade	273	482	96	128	160	581	112.8	263.1
Finance, Insurance, Real Estate	189	5,617	356	512	472	1,735	818.0	267.6
Business and Personal Services	1,773	6,777	652	696	756	7,334	313.7	870.1
Households	<u>3,869</u>	<u>4,369</u>	<u>4,985</u>	<u>8,023</u>	<u>7,363</u>	<u>20,635</u>	413.3	180.3
TOTAL	<u>6,120</u>	<u>17,265</u>	<u>6,112</u>	<u>9,379</u>	<u>9,044</u>	<u>32,105</u>	424.6	255.0
Total Impacts:								
Construction	470	1,198	516	805	772	2,529	438.1	227.6
Communications and Public Util	661	1,999	675	1,020	982	5,250	694.3	434.6
Retail Trade	4,166	10,742	4,380	6,808	6,560	21,385	413.3	226.0
Finance, Insurance, Real Estate	1,076	7,916	1,323	2,019	1,916	6,485	502.7	238.5
Business and Personal Services	2,118	7,827	1,017	1,259	1,296	9,163	332.6	607.0
Professional Social Services	492	1,239	555	869	831	2,644	437.4	218.2
Households	7,626	18,596	8,690	13,636	13,043	41,051	438.3	214.7
Other ¹	<u>1,421</u>	<u>4,040</u>	<u>1,532</u>	<u>2,376</u>	<u>2,282</u>	<u>7,580</u>	433.4	232.2
TOTAL	<u>18,030</u>	<u>53,557</u>	<u>18,688</u>	<u>28,792</u>	<u>27,682</u>	<u>96,087</u>	432.9	247.1

¹ Includes agriculture, mining, manufacturing, transportation, and government.