
DEPARTMENT OF COMMERCE TESTIMONY ON THE EFFECTIVENESS OF TAX CREDITS FOR ECONOMIC DEVELOPMENT

OCTOBER 19, 2011, 2:40 P.M.

TAXATION COMMITTEE

ROUGH RIDER ROOM

Justin Dever – Manager of the Office of Innovation and Entrepreneurship,
ND Department of Commerce

Good afternoon, Mr. Chairman and members of the committee, my name is Justin Dever and I'm with the ND Department of Commerce.

The Department of Commerce was asked to provide an analysis of the effectiveness of the tax credits related to economic development. At your last meeting, the Tax Department provided a spreadsheet containing information about all of the tax credits. The Tax Department has prepared two charts that summarize the tax credits that are specific to economic development. Chart 1 contains information about individual income tax credits and Chart 2 contains information about corporation income tax credits.

Ideally, we could just add to the spreadsheet the associated benefits of each of these tax credits. However, it is not possible for the Department of Commerce to provide a comprehensive analysis of all the tax credits at this time. Recipients of tax credits, as with any taxpayer information, is confidential. The only people within state government that knows who receives tax credits is the Tax Department and they are barred by state law from sharing that information. Without knowing who receives the tax credits, it is impossible to assess the benefits associated with the tax credits.

What we do have is anecdotal information that may be useful as you conduct your study.

As part of the Business Climate Study conducted during the 2005-06 interim, the Economic Development Committee proposed a tax expenditure report process. Given the scope of the request, the 2007 legislature amended this into a pilot project and appropriated \$50,000 to

conduct a study of both incentive and tax expenditures. The legislation directing the study provided an exemption to taxpayer confidentiality to allow the Tax Department to provide the necessary information in order to determine the economic benefits associated with the tax incentives. The results of this study were provided to legislative leadership during the 2009 legislative session and no effort was made to continue the pilot project. Rod Backman with Covenant Consulting assisted with the study and will provide an overview.

The Department of Commerce regularly conducts analysis of the economic impacts of projects that Commerce staff has been involved in using a Regional Economic Models, Inc. (REMI) Policy Insight™ model. For example, we analyzed the economic impacts of an ethanol plant in 2005. This demonstrated that an ethanol plant would over a five year period have an economic impact of \$126 million and would provide an increase of over \$20 million in state tax revenues. This ethanol plant was eligible for the Agricultural Processing Facility Tax Credit, and as you can see in the spreadsheet the \$20 million in additional state tax revenues more than offsets the cost of all of these tax credits.

One of the tax credits that we do collect information on is the Renaissance Zone program. We provide annual reports to Legislative Management on this program. The report provided in 2010 for the 2009 calendar year showed the 103 renaissance zone projects resulted in 8 new businesses, 30 business expansions, and 111 new jobs created. This committee will be receiving future reports on an annual basis.

On a related note, one tool we are able to use to evaluate other business incentives is the business incentive accountability law (NDCC Chapter 54-60.1). Under this law, the grantor and recipient must enter into an agreement that stipulates the job goals for the incentive and requires the recipient to report annually on the progress towards the job goals. Most tax expenditures are exempt from this law. The Department of Commerce provides a report annually to Legislative Management and this committee has been selected to receive that report.

Tax credits, as well as the other incentives the state offers, provide three main benefits for economic growth:

1. They help attract new businesses to the state.
2. They help with the retention and expansion of existing businesses.
3. They help strengthen the financial position of North Dakota businesses to be competitive nationally and globally.

North Dakota is always in competition with other states for business. States generally fall into two categories in regards to tax credits. Some states, such as South Dakota, do not have an

income tax and thus no use for tax credits. The other states use tax credits in the same manner as North Dakota.

Another important point is that it takes time to see the results of many of these tax credits. For example, Intelligent Insites, a Fargo-based technology company, was certified as eligible for the Seed Capital Investment Tax Credit in April, 2005. Six years later they are now at 48 employees.

Mr. Chairman, that concludes my testimony and I would be willing to answer any questions.

Economic Development-Targeted Individual Income Tax Credits and Claimed Amounts 2006 - 2009 Tax Years

CHART 1

A ► means the credit is only allowed for individual income tax purposes.			Number of Returns and Amount of Credits Claimed							
Name of Credit	Year Created	Expires after	2006 Tax Year		2007 Tax Year		2008 Tax Year		2009 Tax Year	
			No.	Amount	No.	Amount	No.	Amount	No.	Amount
1 Research expense credit ²	1987				67	436,007	125	682,225	91	512,613
2 Seed capital investment credit ³	1993		699	1,657,308	661	3,454,763	395	3,134,389	292	2,882,906
3 ► Renaissance zone: Single-family residence credit	1999									
4 Renaissance zone: Historic property preservation and renovation credit	1999									
5 ► Renaissance zone: Business purchase or expansion credit	1999									
6 Renaissance zone: Renaissance fund organization investment credit	1999									
Total renaissance zone credits			125	639,199	153	861,202	152	1,132,211	152	1,093,348
7 Agricultural commodity processing facility investment credit	2001		446	609,547	440	870,193	325	770,011	252	486,852
8 Biodiesel fuel blending credit (for supplier/wholesaler)	2005		6	3,943	Not reportable ¹		Not reportable ¹		Not reportable ¹	
9 Biodiesel fuel equipment credit (for seller/retailer)	2005		6	62,929	Not reportable ¹		0	0	0	0
10 Internship program credit	2007				16	3,499	32	12,692	31	9,636
11 Microbusiness credit (for increasing employment or property purchases)	2007				Not reportable ¹		Not reportable ¹		Not reportable ¹	
12 Angel fund investment credit	2007				31	224,152	53	588,716	67	905,088
13 Workforce recruitment credit	2007				0	0	Not reportable ¹		Not reportable ¹	
14 Renaissance zone: Nonparticipating property owner credit	2009		Included in "Total renaissance zone credits" above.							
15 Manufacturing automation equipment credit	2011	2015	Takes effect in 2013 tax year; expires after 2015 tax year.							
Total reportable credits ⁴			\$ 2,972,926		\$ 5,849,816		\$ 6,320,244		\$ 5,890,443	

Notes:

¹ "Not reportable" means there were less than five returns on which the credit was claimed, and therefore is not disclosed to protect confidentiality.

² The research expense credit was created in 1987. However, it was only allowed to a "C" corporation (on Form 40) until 2007. In 2007, the legislature enacted legislation allowing the credit to be claimed by all entity types, including individuals. For 2007 and 2008, individuals could claim this credit on either Form ND-1 or Form ND-2.

³ The seed capital investment credit was created in 1993. However, from 1993 to 2001, the credit was only allowed to an individual who used Form ND-2 (Form 37 prior to 2001). Less than 2% of all individual filers used Form ND-2 because of its high tax rates. Over 98% of filers used Form ND-1 (Form 37-S prior to 2001) with its lower tax rates. In addition, until 2005, only individuals could claim this credit. For these reasons, the seed capital investment credit program was not utilized at all from 1993 to 2001. In 2001, the legislature enacted legislation allowing the credit on Form ND-1 starting with the 2002 tax year.

⁴ The total number of individual income tax returns filed for each of the years reported in this table are as follows: 2006--341,947; 2007--353,331; 2008--358,519; 2009--356,278.

Economic Development-Targeted Corporation Income Tax Credits and Claimed Amounts

2006 - 2009 Tax Years

CHART 2

A ▶ means the credit is only allowed for corporation income tax purposes	Year Created	Expires After	Number of Returns and Amount of Credits Claimed											
			2006 Tax Year		2007 Tax Year		2008 Tax Year		2009 Tax Year					
			No.	Amount	No.	Amount	No.	Amount	No.	Amount				
Name of Credit														
1 ▶ Wage and salary credit	1969		Not reportable ¹		Not reportable ¹		Not reportable ¹		Not reportable ¹					
2 Research expense credit	1987		14	516,834	15	1,944,382	13	1,694,636	14	2,580,374				
3 Seed capital investment credit ²	1993		Not reportable ¹		Not reportable ¹		0	0	Not reportable ¹					
4 ▶ Certified nonprofit development corporation credit	1989		0	0	0	0	0	0	0	0				
5 Renaissance zone: Historic property preservation and renovation credit	1999													
6 Renaissance zone: Renaissance fund organization investment credit	1999													
Total renaissance zone credits			Not reportable ¹		0	0	0	0	Not reportable ¹					
7 Agricultural commodity processing facility investment credit ³	2001		Not reportable ¹		5	107,825	8	111,694	7	96,331				
8 ▶ Facility construction or retrofit credit: Biodiesel fuel production	2003		0	0	Not reportable ¹		Not reportable ¹		0	0				
9 Biodiesel fuel blending credit (for supplier/wholesaler)	2005		0	0	Not reportable ¹		Not reportable ¹		Not reportable ¹					
10 Biodiesel fuel equipment credit (for seller/retailer)	2005		0	0	Not reportable ¹		Not reportable ¹		0	0				
11 Internship program credit	2007				Not reportable ¹		Not reportable ¹		Not reportable ¹					
12 Microbusiness credit (for increasing employment or property purchases)	2007				0	0	0	0	0	0				
13 Angel fund investment credit	2007				Not reportable ¹		Not reportable ¹		Not reportable ¹					
14 Workforce recruitment credit	2007				0	0	0	0	0	0				
15 ▶ Facility construction or retrofit credit: Soybean and canola crushing	2009				Included in Total renaissance zone credits ⁴ above				0	0				
16 Renaissance zone: Nonparticipating property owner credit	2009													
17 Manufacturing automation equipment credit	2011	2015	Takes effect in 2013 tax year; expires after 2015 tax year											
Total reportable credits ⁴			\$ 516,834		\$ 2,052,207		\$ 1,806,330		\$ 2,676,705					

Notes:

¹ "Not reportable" means there were less than five returns on which the credit was claimed, and therefore is not disclosed to protect confidentiality.

² The seed capital investment credit was created in 1993. However, from 1993 to 2005, the credit was only allowed to individuals. In 2005, the legislature enacted legislation allowing the credit to all entity types, including "C" corporations.

³ The agricultural commodity processing facility investment credit was created in 2001. However, from 2001 to 2005, the credit was only allowed to individuals. In 2005, the legislature enacted legislation allowing the credit to all entity types, including "C" corporations.

⁴ The total number of "C" corporation income tax returns filed for each of the years reported in this table are as follows: 2006--9,784; 2007--9,634; 2008--9,565; 2009--9,332.



Regional Economic Models, Inc.

North Dakota Ethanol Plant

Prepared By
North Dakota Department of Commerce

Using
Regional Economic Models, Inc.

March 14, 2005

306 Lincoln Avenue Amherst, MA 01002
Telephone: (413) 549-1169 Fax: (413) 549-1038
e-mail: info@remi.com

© Copyright Regional Economic Models, Inc. 1999-2000. All rights reserved.

EXECUTIVE SUMMARY

This report evaluates the economic impacts of an expansion of the ethanol industry in North Dakota. It is based on information provided by and the data generated using a customized REMI Policy Insight™ model for North Dakota. The analysis shows the change in economic activity caused by the industry expansion.

In order to show the total implications of the expansion, REMI developed a Policy Insight model with detailed employment, population, personal income, and other data specific to North Dakota. Using this model, REMI generated the regional baseline forecast and then used the information provided by the new project to develop an alternative forecast that would occur in the event of the expansion in this sector.

Additional Benefits

Year	2005	2006	2007	2008	2009	5 year total
Direct Employment		36	36	36	36	
Indirect Employment	244	457	225	222	222	
Total Employment	244	493	261	258	258	
Gross Real Product Mill \$	11.12	35.0	25.5	26.4	27.9	125.92
Personal Income Mill \$	7.1	16.0	10.3	10.8	11.4	55.6
State Tax Revenues Mill \$	1.9	5.8	4.2	4.4	4.6	20.9
Population	49	142	171	199	224	

Employment

It is important to note that when the economy is stimulated, it raises employment and the real wage rate. In both cases, this leads to migration into the area. For the project under this study, total employment increases in 2005 through 2006 are significant at 493 new jobs. This results from construction of the facility itself, and also construction of new infrastructure necessary to support this activity. Total construction costs are estimated at \$80 million. Beginning in 2006 the plant is operational with 36 employees. Wage rates for these employees are higher than the state average wage rates. Secondary jobs as a result of the companies operations bring total new employment to 258. These secondary jobs are a result of inter-industry transactions to provide intermediate inputs, and from increased spending across other sectors.

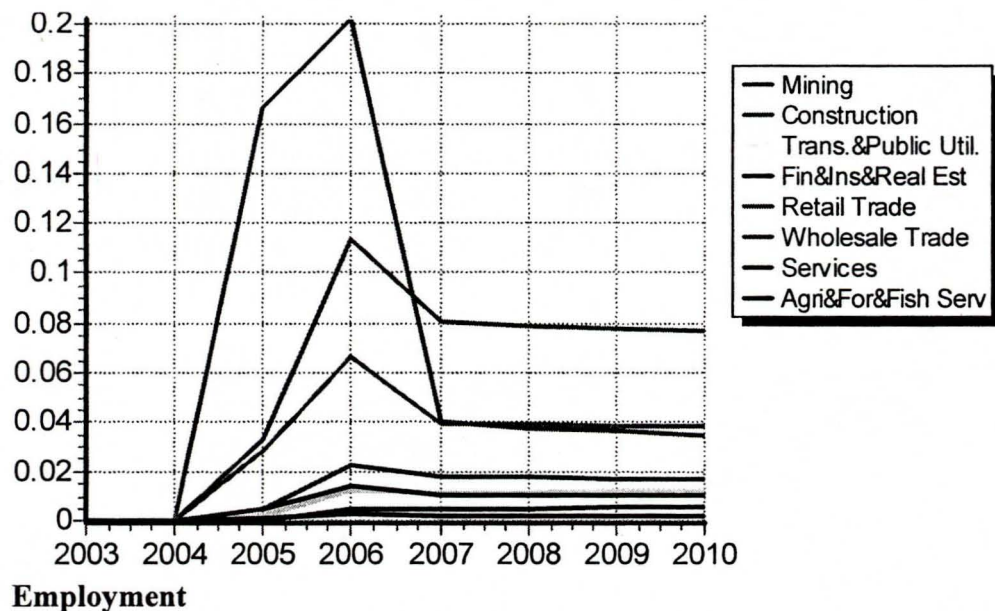
State Tax Revenues

State and local tax revenues are important economic impacts in determining the cost-benefit of a new project. In this case the state would realize a return of over 20 million dollars over a five-year period.

Appendix

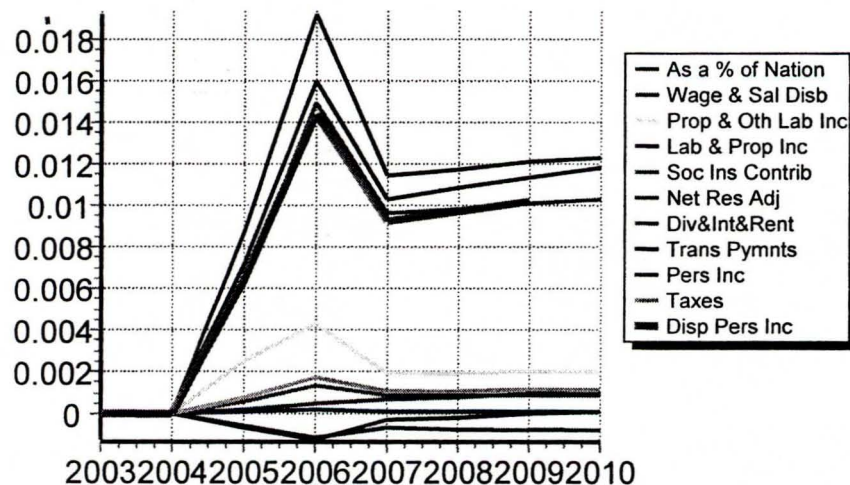
For this simulation the following assumptions are made:

- The increase in the employment of the firm in question is 30.
- The firm in question pays an average wage of \$35,000 which is 26.1% higher than the \$27,760 typical of food processing firms in the area.
- Initial construction spending for the project in 1999 dollars is \$20 million for Phase I and \$20 million for Phase II. The total equipment investment for Phase I and Phase II in 1999 dollars are \$110 million.
- There will be a change in government infrastructure spending for the project in millions of 1999 dollars of \$5 million.



Personal Income

The change in personal income that results from the expansion over a five-year time period is over 55.6 million dollars. Beginning in 2005, personal income increases by 7.1 million dollars. Major growth occurs during the construction phase where income increases by over 35 million for 2006. Subsequent increases of over 25 million dollars can be seen each year that the company is in operation. This represents new income into the economy that would not occur without the new expansion. The major components of personal income include wage and salary disbursements, proprietors and other labor income.



NORTH DAKOTA DEPARTMENT OF COMMERCE

2007-2009 INCENTIVE EXPENDITURE REPORTS

(PILOT PROJECT)

PREPARED BY COVENANT CONSULTING GROUP

BISMARCK, NORTH DAKOTA

JANUARY 6, 2009

CONTENTS

	<u>PAGE</u>
Introduction and Summary	3
Agricultural Commodity Processing Facility Investment Tax Credit	6
North Dakota Development Fund	8
Sales Tax Exemption-Manufacturing Equipment	14
Seed Capital Investment Tax Credit	17
Economic Impact-Examination of Changes in Business Activity Related to North Dakota Business Incentive Programs	20

INTRODUCTION AND SUMMARY

The 2007 North Dakota Legislative Assembly directed the ND Commissioner of Commerce and the ND Tax Commissioner to conduct a pilot project analysis of business incentives in North Dakota. Such project consisted of an incentive expenditure report on three tax expenditures and one business incentive program. The Commissioners select the following tax/programs for the report:

ND AGRICULTURAL COMMODITY PROCESSING FACILITY INVESTMENT TAX CREDIT

ND DEVELOPMENT FUND

ND SALES TAX EXEMPTION FOR MANUFACTURING EQUIPMENT

ND SEED CAPITAL INVESTMENT TAX CREDIT

The report is prepared with a separate section for each tax/program followed by the economic analysis which was prepared by Dr. F. Larry Leistritz and Dean Bangsund of North Dakota State University Department of Agribusiness and Applied Economics.

You will note that the analysis is not always consistent from one tax/program to the next. Sometimes the analysis differs because of differences in the tax or program and how they are applied to taxpayers. Still other times we have changed the manner of reporting as a means of protecting the identity of the specific taxpayers surveyed and analyzed in the report.

Broadly defined, tax expenditure is a tax revenue the government foregoes by means of preferential provisions in the tax code. Many states prepare expenditure reports, the purpose of which is to identify for policy makers the cost in lost tax revenue or program awards of providing such incentives. This pilot project is somewhat unique in that it not only identifies the cost side, but also the benefits side of such tax/programs.

An examination of the change in business activity, job creation, and tax collections associated with the firms receiving financial assistance through the state's business incentive programs revealed that the state has reaped substantial financial gains over the past several years as a result of investing in primary sector firms. This cursory examination of the benefits of the

state's business programs showed that gains made from business expansion clearly have exceeded measures of the cost to operate and implement the programs. However, the overall, long term benefits to the state are likely to exceed a strict definition of a financial cost-benefit perspective. The business incentive programs assist in diversifying the state's economy, stabilizing population, and creating opportunity for support businesses and related industries that rely on primary sector business output. The state appears to be creating these additional, wide-spread benefits at little, or no financial cost to taxpayers. While those larger, more qualitative benefits are likely to be difficult to quantify, those larger, more qualitative effects should remain an important part of any discussion of the benefits to the state's economy.

The current analysis has showed that business expansion directly linked to assistance provided by the incentive programs is, by itself, providing monetary benefits to the state that substantially exceed the state's monetary costs. However, the estimated benefits from business expansion, as defined in this study, are conservative. An important component of business expansion that was not included in the study was the value of new job creation, gross business volume, and tax revenues from start-up firms in previous years (i.e., the firms starting operations in 2000 through 2006 as a result of obtaining funding) were not included, nor were survey results from start-up firms extrapolated to arrive at state totals in the study analysis. Another omission of the potential benefits would include the value of business retention. The survey did not gather information on the extent that assistance from the business incentive programs kept various businesses viable and operating in North Dakota. To the extent that some businesses would have failed, moved, or otherwise ceased operations in the absence of obtaining financial assistance, the economic value of preventing those business closings were not included in the study.

With respect to the Seed Capital Investment Credit program where the comparison of the monetary benefits to the state associated with business expansion failed to exceed recent costs, the firms receiving assistance through this program differ in many ways from the manufacturing and agricultural processing ventures funded in other programs. Many of the agricultural processing firms, and many of the manufacturing firms, operate in established markets, and have readily identified outlets for their products.

In the case of many of the firms in the seed capital program, growth in sales and access to markets require longer time frames and present unique challenges not associated with other primary sector firms. These inherent differences could account for the discrepancy between costs and returns found in the other programs, and might require a longer time frame to accurately portray the long-term value of this fund to the state.

In conclusion the economic benefit to the State is extremely positive on 3 of the 4 tax/programs examined in this document. As is pointed out in this report, we cannot know what all factors have led to the successes of the companies involved. It also is valid to recognize the State, through these programs, has contributed in some way the success and the related growth in economic activity and increase tax collections.

In the report the State's cost is a cumulative amount from a number of years, whereas the increase in State tax collections are representative of just the last year (2007) in the study. Thus any standard return on investment computation is invalid; however, the following summary gives the reader an idea of just how positive the first 3 programs are.

The Agricultural Commodity Processing Facility Investment Tax Credit cost the State \$5.4 million in tax credits for 2005 & 2006 but increased tax collections by \$5.2 million just in 2007.

The Development Fund cost \$8.8 million over 8 years but increased tax collections by \$20.3 million just in 2007.

The Manufacturing Sales Tax Exemption cost the State \$12.3 million in 2005 & 2006 while it increased tax collections by \$10.9 in 2007 alone.

The Seed Capital Investment Tax Credit cost \$4.1 million in 2005 & 2006 and increased tax collects by \$234,000 in 2007.

Agricultural Commodity Processing Facility Investment Tax Credit

An individual, estate, trust, partnership, corporation, or limited liability company is allowed an income tax credit for investing in an agricultural commodity processing facility in North Dakota certified by the Department of Commerce Division of Economic Development and Finance.

An agricultural commodity processing facility includes a livestock feeding, handling, milking, or holding operation that uses as part of its operation a by-product produced at a biofuels production facility. A biofuels production facility is a North Dakota business that produces diesel fuel containing at least 5% biodiesel, produces corn-based or cellulose-based ethanol, or crushes soybeans or canola.

For purposes of this credit, an investment may consist of (1) a direct cash payment, (2) a transfer of a fee simple interest in North Dakota real property, or (3) a direct transfer of cash from a retirement plan in which the taxpayer is a participant and the taxpayer controls where the plan's assets are invested.

The credit is equal to 30% of the investment. No more than \$50,000 of the credit may be used in any year. An unused credit may be carried forward up to ten years. A taxpayer is allowed no more than \$250,000 in credits for all years. In the case of a pass-through entity, such as a partnership or S corporation, the credit is passed through to its owners in proportion to their respective interests in the entity.

- [Reference: N.D.C.C. ch. 57-38.6]

Report covers calendar years 2005 & 2006

6 entities eligible for the credit in 2005 & 2006

North Dakota potential revenue loss from the tax credit:

Private Investment (2005 & 2006)	\$21.8 million
Potential Loss of State Revenue	\$ 5.4 million

Types of businesses that received the tax credit:

Agricultural & Food processing

Survey Process & Results:

We surveyed all 6 of the companies that were eligible in 2005 & 2006. Of those companies we were able to access data on 5 companies representing \$21.5 million (98%) of the investments made and \$5.3 million (98%) of the eligible tax credit.

For the two year period those companies added 143 jobs at an average annual salary of \$29,468 or \$4.2 million in new payroll. Gross business volume grew by \$380 million and the related increase in state tax revenues were \$5.2 million.

Two year data summary reveals:

- 6 companies received the credit
- \$21.8 million in private investment
- \$5.4 million tax credits (lost state tax collections)
- \$380 million in increased gross business volume
- 143 direct new jobs
- \$4.2 in new direct payroll
- \$5.2 million in increased state tax collections
- 96.3% return on investment (\$5.2m/\$5.4m) (2007 only)

North Dakota Development Fund

The North Dakota Development Fund operates as a division of the Department of Economic Development and Finance of the North Dakota Department of Commerce. It is a statewide nonprofit development corporation. It has the authority to take equity positions in, to provide loans to, or to use other innovative financing mechanisms to provide capital for new or expanding businesses in this state, or relocating businesses to this state. The corporation's principal mission is the development and expansion of primary sector businesses in this state.

The Fund is responsible for the administration and management of two "fund pools," the **Development Fund** and the **Regional Rural Development Revolving Loan Fund (Rural Fund)**. Both Funds are revolving funds, as defined by legislation, and are administered by the North Dakota Development Fund's Board of Directors.

Mission Statement Creating flexible public/private gap financing partnerships through loans and equity investments to spur the development and expansion of primary sector business in the state of North Dakota.

Philosophy

The Fund is a flexible gap financier.

The Fund takes a disciplined approach to making informed credit decisions.

The entrepreneur must have a realistic financial commitment at stake.

The Fund is a team player in community economic development projects.

Economic development starts at the local level. The community must be involved and supportive and the local investor(s) must be committed.

The Fund acts as a resource for technical assistance to the entrepreneur, community and investor(s).

Program Overview

The Development Fund ("Fund") is authorized by law to make investments in primary sector North Dakota businesses. Development Fund investments include equity positions, loans, and other innovative financing mechanisms. The Fund may form corporations, limited partnerships, or other forms of business associations in order to further its mission of primary sector economic development.

The Regional Rural Development Revolving Loan Fund (the "Rural Fund") was created in 1993 as part of the bill that repealed North Dakota's Sunday closing laws. The result was a fund available for economic development in rural North Dakota. The funds must go to a new or expanding primary sector business. To access the Rural Fund, the business must be in a community with a population of 8,000 or less or the business is located more than five miles outside the city limits with a population of 8,000 or more. Specifically, businesses within five miles of the city limits of Williston, Minot, Dickinson,

Jamestown, Fargo, West Fargo, Bismarck-Mandan, Wahpeton and Grand Forks do not qualify for Rural Fund investments.

The Rural Fund is allocated equally among the eight economic development regions in North Dakota. Repayments return to the region that funded the original investment.

"North Dakota business" means a business owned by a North Dakota resident, partnership, association, corporation, or limited liability company domiciled in this state or a corporation or limited liability company, including a wholly owned subsidiary of a foreign corporation or limited liability company that does business primarily in this state or does substantially all of its production in this state.

"Primary sector business" means an individual, corporation, limited liability company, partnership, or association which through the employment of knowledge or labor adds value to a product, process, or service that results in the creation of new wealth. The term includes tourism, but does not include production agriculture.

"Production agriculture" means the production of crops and livestock on or near a farm as part of the regular farm enterprise directed by a farm operator and the farm operator's partners. The term does not include an investor-owned livestock feeding or milking operation located apart from a farm headquarters which is managed by employees.

- [Reference: N.D.C.C. § 10-30.5]

Application Process

Qualified projects are taken to the Development Fund Board of Directors for consideration. Requests for loans greater than \$100,000 are presented at the regular board meeting the last Thursday of the month. Requests of

\$100,000 or less may also be presented by teleconference. (Dollar limits are cumulative and include existing advances in determining the approval process.)

To determine whether or not your project is eligible, you must contact your local financial institution, a local economic development office or the ND Development Fund staff. We recommend an early meeting between investors, entrepreneurs, community developers and other appropriate team players.

After you've submitted sufficient information to determine the merits of your request, the Fund requires a 15-20 day lead time to conduct due diligence and complete other details needed to process debt and equity requests.

After board review, applicants receive written notice of approval or denial. Once you accept the commitment letter and provide necessary documents, closing takes place. This process usually takes 15-30 days.

Report covers fiscal years 2000 through 2007

The report is focused on the years 2000-2007, because of significant changes in management, operations and methods of selecting projects as compared to 1990-1999. Also, because many of the earlier projects have been paid off or the companies are no longer in business, the ability to access data from those early projects was very difficult. In addition, the small amount of accessible data for the earlier years made any analysis of state benefits unreliable.

The data summary below compares various operating statistics for the two periods July 1, 1990 to June 30, 1999 and July 1, 1999 to June 30, 2007.

<u>Summary:</u>	<u>7-'90 TO 6-'99</u>	<u>7-'99 TO 6-'07</u>
	(9 years)	(8 years)
Total Projects Funded:	184	246
Total Businesses Funded:	176	225
Average Projects Per Year:	20	30
Total Businesses Still Operating:	68 (39%)	163 (72%)
Total Invested:	\$ 27,995,031	\$ 37,105,965
Average Funded Per Year:	\$ 3,110,559	\$ 4,638,245
Average Project Funded:	\$ 152,147	\$ 150,837
Total Charged-Off:	\$ 9,024,864	\$ 3,483,125
Average Charge-Off Per Year:	\$ 1,002,763	\$ 435,390
Average Charged-Off Per Business:	(108)\$ 83,563	(63)\$ 55,287

Types of businesses that received loans or equity investments:

Tourism

Food & Agricultural products processing

Energy

Equipment manufactures

Specialty manufacturers

Construction & building materials

Technology

Financial

Survey Process & Results:

We surveyed 55 companies, of those companies we were able to access data on 26 companies with investments of \$9.8 of the \$37.1million awarded in the time period 2000-2007.

For the eight year period (based on extrapolation of the survey data) all companies' added 1469 jobs at an average annual salary of \$39,192 or \$57.6 million in new payroll. Gross business volume grew by \$1,311 million and the related increase in state tax revenues were \$20.3 million.

Eight year data summary:

Equity Investments = \$ 5,043,346

Loans = \$ 32,062,619

225 companies received a loan or equity investment

\$37.1 million in State loans or equity investments

\$8.8 million in State net investment (1)

\$1,311 million in increased gross business volume

1469 direct new jobs

\$57.6 million in new payroll

\$20.3 in increased state tax collections

54.4% on gross investment (\$20.3m/\$37.1m) (2007 only)

230% return on net investment (\$20.3m/\$8.8m) (2007 only)

- (1) State net investment computed as, direct appropriations, less growth in fund equity, plus 3.5% interest factor on fund equity.

Sales Tax Exemptions

Manufacturing Equipment

A new or expanding plant may exempt machinery or equipment from sales and use taxes if it is:

- used primarily for manufacturing or agricultural processing, or
- used solely for recycling.

The expansion must increase production volume, employment, or the types of products that can be manufactured or processed.

- [Reference: N.D.C.C. § 57-39.2-04.3]

Application and Exemption Process:

Taxpayers are to submit a letter to the Tax Commissioners Office requesting an exemption from the applicable sales taxes. The letter should be addressed to the Sales Tax Compliance Section of the Office of State Tax Commissioner and should include the following:

- Name, mailing address, plant address, and ID number of the manufacturer.
- Identify what products the manufacturer produces.
- Request exemption for cost of machinery and equipment purchased for the facility.
- If the request is for an expansion, explain how the company is expanding.
- Identify what is being purchased and how it is used in the manufacturing process. For a new plant or for very large expansions (for example, an addition processing line) we do not require the manufacturer to identify every piece of machinery or equipment.

- State the estimated cost of the machinery and equipment (cost that would normally be subject to tax).

After review by the Tax Commissioners Office a letter to the manufacturer approving the exemption and identifying the items that qualify. If the manufacturer is purchasing the exempt machinery or equipment, they are asked to provide a copy of the approval letter to its vendors to document the exemption and avoid payment of the tax on the machinery and equipment approved for exemption.

If the manufacturer does not have an approval letter prior to purchasing machinery and equipment, the manufacturer is required to pay sales or use tax at the time of purchase, but may apply to the Tax Commissioner for a refund of tax paid on exempt items.

If the manufacturer is also an agricultural commodity processor, the manufacturer may provide a copy of the approval letter to a contractor that is purchasing the machinery or equipment for the expansion. The contractor may also purchase approved machinery and equipment without paying tax. However, contractors that purchase machinery and equipment for other types of manufacturers (manufacturers that are not agricultural commodity processors), must pay tax on all machinery and equipment purchased for expansions even if the exemption is approved prior to purchase. Manufacturers may apply to the Tax Commissioner for a refund of all tax paid by the contractor for equipment that has been approved for exemption.

Report covers calendar years 2005 & 2006

Number of entities receiving the exemption:	99 in 2005
	104 in 2006

North Dakota revenue loss from the exemptions:

	<u>2005</u>	<u>2006</u>	<u>TOTAL</u>
Private Investment	\$109m	\$135m	\$244m
Loss of State Revenue	\$ 5.5m	\$ 6.8m	\$12.3

Types of Manufacturing businesses that received the exemptions:

Agricultural processing

Food processing

Printers

Farm equipment

Specialty manufacturers

Non-farm equipment

Technology

Energy industry

Construction & building materials

Transportation products

Survey Process & Results:

We surveyed 15 companies that represented \$195 million (79.6%) of the 2005 & 2006 tax exemption in dollars (\$9.7m of tax). Of those companies we were able to access data on 11 companies representing \$167.7 million (68.6%) of the exemptions granted (\$ 8.4m of tax).

For the two year period all companies added 1,068 jobs at an average annual salary of \$57,644 or \$61.6 million in new payroll. Gross business

volume grew by \$701 million and the related increase in state tax revenues were \$10.9 million.

Two year data summary reveals:

203 companies used the tax exemption

\$244 million in private investment

\$12.3 million in lost state sales tax collections

\$701 million in increased gross business volume

1068 direct new jobs

\$61.6 million in new payroll

\$10.9 million in increased state tax collections

88.6% return on investment (\$10.9m/\$12.3m) (2007 only)

Seed Capital Investment Credit

An individual, estate, trust, partnership, corporation, or limited liability company is allowed an income tax credit for investing in a business certified by the Department of Commerce Division of Economic Development and Finance. A real estate investment trust is not eligible for the credit.

In the case of a pass-through entity, such as a partnership or S corporation, or in the case of an angel fund, the credit is passed through to the entity's owners, or the fund's investors, in proportion to their respective interests. For purposes of this credit, an investment may consist of (1) a direct cash payment, or (2) a direct transfer of cash from a retirement plan in which the taxpayer is a participant and the taxpayer controls where the plan's assets are invested. The credit is equal to 45% of the investment. No more than \$112,500 of the credit may be used in any year. An unused credit may be carried forward up to four years.

For businesses first certified on or after January 1, 2005, or recertified on or after January 1, 2007, only the first \$500,000 of eligible investments in a certified business are eligible for the tax credit. The total amount of tax credits allowed for investments made in all certified businesses in any calendar year is limited to \$3.5 million.

- [Reference: N.D.C.C. ch. 57-38.5]

Report covers calendar years 2005 & 2006

12 entities eligible for the credit in 2005 & 2006

North Dakota potential revenue loss from the tax credit:

Private Investment (2005 & 2006)	\$15.1 million
Potential Loss of State Revenue	\$ 4.1 million

Types of businesses that received the tax credit:

Financial

Specialty manufacturers

Technology

Health care

Construction & building materials

Survey Process & Results:

We surveyed 11 of the companies that were eligible in 2005 & 2006. Of those companies we were able to access data on 5 companies representing \$8.1 million (54%) of the investments made and \$2.1 million (52%) of the eligible tax credit.

For the two year period, based on extrapolation of the survey data all Seed Capital companies added 34 jobs at an average annual salary of \$68,026 or \$2.3 million in new payroll. Gross business volume grew by \$13.2 million and the related increase in state tax revenues were \$234,000.

Two year data summary reveals:

- 12 companies received the credit
- \$15.1 million in private investment
- \$4.1 million tax credits (lost state tax collections)
- \$13.2 million in increased gross business volume
- 34 direct new jobs
- \$2.3 million in new payroll
- \$234,000 in increased state tax collections
- 5.7% return on investment ($234,000/4,100,000$) (2007 only)

Examination of Changes in Business Activity Related to North Dakota Business Incentive Programs

**Dean A. Bangsund
F. Larry Leistritz**

Department of Agribusiness and Applied Economics
North Dakota State University
Fargo, ND 58105

Working Report prepared for Covenant Consulting Group
January, 2009

Introduction

North Dakota has provided several types of tax assistance and business development incentives within the state for over a decade. In 2007, the North Dakota legislature directed the North Dakota Department of Commerce to conduct an economic analysis of the costs and benefits of those programs.

As part of the economic analysis of various North Dakota tax and business incentive programs, the North Dakota Department of Commerce and the Covenant Consulting Group surveyed businesses that received some form of financial assistance. The survey solicited information on sales (gross revenues), payroll expenditures, and employment, among other financial information. Information from the survey provided the basic data to evaluate the change in business activity stemming from firms receiving state assistance. The purpose of this report is to estimate changes in state-level business activity, tax revenue, and employment that can be linked to companies that received a tax benefit or other form of financial assistance from one of several North Dakota business incentive programs.

Methods

Primary data for the study came from a survey of firms that received financial assistance (e.g., loans, tax breaks) from one of four business incentive programs in North Dakota (see Tables 1 through 4). The North Dakota Department of Commerce and the Covenant Consulting Group administered the survey. The survey consisted of a cover letter and a three-page questionnaire, which sought to gather data on change in sales, payroll expenditures, and employment from the fiscal year prior to receiving financial assistance up through the company's last completed fiscal year.

The survey targeted firms receiving financial assistance from the Agricultural Commodity Processing Facility Investment Tax Credit (agricultural processing credit), Manufacturing Equipment Sales Tax Exemption, Seed Capital Investment Credit, and Development/Rural Fund. The survey represented a census of firms receiving assistance from the Agricultural Processing Credit and Seed Capital Investment Credit programs. The survey represented a stratified sample of firms receiving assistance from the Development/Rural fund and Manufacturing Equipment Sales Tax Exemption program. Firms were screened for the survey based on the size of financial assistance. Firms with the largest monetary awards/assistance were selected for the survey.

The purpose of the survey was to measure how key financial benchmarks for the firms changed after receiving financial assistance. Subsequently, changes in those benchmarks were then used to project estimates of state-wide changes in economic activity associated with all firms receiving some assistance from the business incentive programs.

Within each of the four survey groups, surveyed companies represented both established firms and companies which started operations in 2007. For firms that represented new start-up companies, the survey collected information on the company's first year of operations. Firms operating in the state prior to receiving financial assistance were classified as 'existing' firms. For existing firms, the survey measured the change the company's operations from the year prior to receiving the financial assistance to the last completed fiscal year (i.e., 2007).

As part of the process to estimate benefits associated with each of the four business incentive programs, survey data was used to develop estimates of changes in the amount of in-state spending for existing firms and total spending in the first year of operation for start-up firms. Changes in the level of in-state expenditures, delineated by economic sector, provided the necessary data to estimate the changes in state-wide gross business volume and provide estimates of state-collected tax revenues.

To use survey data to estimate changes in spending within the state, the survey firms were categorized as representing manufacturing, exported services, or agricultural processing companies. Firms in the survey were assumed to have in-state spending patterns similar to manufacturing, exported services, and agricultural processing firms evaluated in other economic impact analyses (Coon and Leistritz 1997; Coon and Leistritz 2001; Leistritz and Coon 2008). Data from previous studies of manufacturing, exported services, and agricultural processing firms provided the expenditure patterns necessary to delineate the change in business expenditures among various sectors of the North Dakota economy.

The change in sales and payroll expenditures, reported by survey firms, was divided by the number years since the business received financial assistance to generate an estimate of the annual (i.e., one-year effect) change in sales and payroll expenditures. For example, a firm received a loan in 2002 and reported a change in sales from 2002 through 2007 of \$150,000, then the annualized sales figure would be \$30,000 ($\$150,000 / 5$ years). The annualized change in payroll expenditures was subtracted from annualized sales. Annualized changes in net income, sales tax, and property tax expenses, if reported by survey firms, were also subtracted from annualized sales. The result produced a proxy for the change in total expenditures by the firm.

The estimate of the change in total expenditures was further adjusted to calculate the amount of expenditures occurring within North Dakota. The percentage of expenditures made to in-state entities compared to the amount of total expenditures varied by firm classification (Coon 2009). The in-state expenditure percentages for manufacturing, exported services, and agricultural processing firms were applied to the adjusted annualized expenditure figure to produce an estimate of the annualized change in spending within North Dakota for each survey firm. Expenditure pattern coefficients, obtained from Coon and Leistritz (1997), Coon and Leistritz (2001), and Leistritz and Coon (2008), were applied to the estimated amount of in-state expenditures. Annualized changes in payroll expenditures, reported by survey firms, were assumed to represent an in-state expenditure, and were not subject to the adjustment process outlined above.

In the case of start-up firms, the same procedures were used to estimate the amount of in-state expenditures. However, financial data were not annualized since all reported figures were for the first full year of operation. For both existing firms and new start-up firms, estimates of in-state expenditures by economic sector were used with Input-Output analysis to generate estimates of gross business volume and state-level tax collections.

Input-Output Analysis

Economic activity from a project, program, policy, or activity can be categorized into direct and secondary impacts. The initial task in any impact assessment is estimating the direct impacts, which are those changes in output, employment, or income that represent the initial or 'first-round' effects of the project, program, policy, or activity. In this study, the first round effects are either the expenditures for start-up firms or the change in expenditures for existing firms. Secondary impacts (sometimes further categorized into indirect and induced effects) result from subsequent rounds of spending and responding of the direct impacts within the economy. This process of spending and responding is sometimes termed the multiplier process, and the resultant secondary effects are sometimes referred to as multiplier effects (Leistritz and Murdock 1981).

Input-output (I-O) analysis is a mathematical tool that traces linkages among sectors of an economy and calculates the total business activity resulting from a direct impact in a basic sector (Coon et al. 1985). The North Dakota I-O Model has 17 economic sectors, is closed with respect to households (households are included in the model), and was developed from primary (survey) data from firms and households in North Dakota. Empirical testing has shown the North Dakota Input-Output Model is sufficiently accurate in estimating gross business volume, personal income, retail activity, and gross receipts in major economic sectors in North Dakota (Coon and Leistritz 2008).

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 Leistritz (1989). The model estimates the changes in gross business volume (gross receipts) for all sectors of the area economy resulting

from the direct expenditures (or direct impacts). The increased gross 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 (Leistritz and Coon 2008; Bangsund and Leistritz 2004; Hodur et al. 2006). Empirical testing has confirmed the model's accuracy in estimating changes in levels of economic activity in North Dakota; over the period 1958-2006, estimates of statewide personal income derived from the model averaged within 4 percent of comparable values reported by the U.S. Department of Commerce (Leistritz et al. 1990; Coon and Leistritz 2008).

Output from the North Dakota Input-Output Model was used to provide estimates of tax collections from state sales and use, personal income, and corporate income taxes. Relationships between estimates of state-wide gross business volume and state tax revenues provided the coefficients used to estimate the change in state tax collections. Productivity ratios, which represent the level of gross receipts (i.e., sales to final demand) required to support one-full time job in a given economic sector, were used with levels of secondary economic activity by economic sector to produce estimates of economy-wide changes in employment associated with business expansions. Secondary economic activity by sector was obtained from the North Dakota Input-Output Model.

Extrapolation Techniques

Survey results, which represented only a sample of firms participating in each of the four business incentive programs, were extrapolated to provide estimates of state-level benefits derived from all firms in each program. Since the survey sampling process (i.e., selection of firms to contact) for two of the four programs involved using financial assistance as a selection criterion, extrapolation of survey results were also based on the proportion of financial assistance received by responding firms to the total amount of assistance provided by the program. Stated alternatively, the percentage of financial assistance represented by the responding firms to the total level of assistance provided by the program was used to expand survey results. For two programs, the entire population (i.e., all firms receiving assistance) was surveyed without consideration given to the amount of financial assistance received by any individual firm. In each program, the percentage of assistance received by the survey firms, compared to the fund totals, were used to extrapolate survey results to state totals.

The amount of financial assistance provided to firms that closed or were no longer operating at the time the survey was conducted was subtracted from the total amount of financial assistance in each program. This adjustment corrected for a potential over-estimation of the state-level effects during the extrapolation process. Further, since some firms represented new or start-up firms, information from those firms was not extrapolated when estimating state-level total economic effects. While it is likely that some firms responding to the survey or non-surveyed firms would have represented a new start-up firm at some point in the analysis period, no attempt was made to extrapolate those potential economic effects. Only changes in economic activity from firms who were existing prior to receiving financial assistance were used to estimate state-level economic effects. The limitation of only relying on changes in economic activity to provide state-level assessments results in a conservative approach. There is a considerable difference in the degree of economic activity when comparing only changes in

economic activity by survey firms to the total annual expenditures by start-up firms. The two measures are not comparable. The failure to extrapolate the economic output from start-up firms primarily affected the Development/Rural Fund.

Key Findings

Several measures of economic value to the state economy were generated from the survey results. Of particular importance were measures of job creation (both direct and secondary employment estimates), change in gross business volume generated (direct and secondary economic activity), and increases in state tax collections.

Agricultural Commodity Processing Facility Investment Tax Credit

A questionnaire was sent to six firms that received assistance from the fund over a two-year period (2005-2006). A total of five firms responded to the survey (Table 1). Additional detail and sub-classifications of the five respondents cannot be disclosed. Disclosure of information for less than five firms, in any form, violates the disclosure policies of the North Dakota Office of State Tax Commissioner¹.

The \$3.2 million in gross business volume added by the existing firms was extrapolated to account for the one firm not responding to the survey (6 total firms in the population with 5 survey responses). The financial assistance received by the 5 firms responding to the survey represented 98.5 percent of the fund's total assistance (Table 5). Economic activity created by the three start-up firms was not extrapolated.

The Agricultural Commodity Processing Facility Investment Tax Credit was estimated to increase gross business volume in the state by \$380 million (combination of existing and start-up firms) (Table 5). The change in collections of state tax revenues over the period was estimated at \$5.1 million (combination of existing and start-up firms).

Estimated cost of the Agricultural Commodity Processing Facility Investment Tax Credit to the state was about \$5.4 million over the two-year period (Table 5). Costs to the state appear very close to the estimated increase in state-collected tax revenue. Clearly, the state appears to have obtained substantial economic benefits associated with the financial assistance provided over the two-year period. Considering the relatively short time frame of the analysis (i.e., just two years), the agricultural processing fund can be linked to substantial economic gains in the state, and it would be reasonable to conclude that the new start-up firms funded through the program will continue to generate substantial economic activity in future years.

¹ Certain provisions were granted by the North Dakota Office of State Tax Commissioner to access tax records and other confidential information in order to complete the study. A condition of gaining access to sensitive information was that the North Dakota Office of State Tax Commissioner retained oversight on disclosure of study findings that could reveal information on individual firms.

Development/Rural Fund

A questionnaire was sent to 55 firms that received assistance from the fund over an 8-year period (2000-2007) (Table 5). A total of 31 firms responded to the survey. However, only 30 of the 31 firms provided useable data. Of the 30 firms with useable data, 26 represented existing firms and 4 represented new start-up firms. Four of the existing firms were considered outside of the time frame for the analysis since they received assistance from the fund prior to 2000. Those four firms were not included in the analysis. The 22 existing firms reported adding nearly 1,300 full-time equivalent (FTE) jobs over the period (Table 2). The change in gross sales for the 22 existing firms was estimated at \$101 million over the 8-year period. Information pertaining to the new start-ups was not disclosed pursuant to North Dakota Office of State Tax Commissioner policies.

Based on the survey results and applying information from previous research, the existing firms were estimated to have increased in-state expenditures by \$78.3 million over the analysis period. The \$78.3 million of in-state expenditures were allocated the North Dakota Input-Output Model. An increase in gross business volume (i.e., direct and secondary economic effects) attributable to the change in spending in North Dakota by the existing firms was estimated at \$261.6 million over the 8-year period (Table 2). The gross business volume added to the state economy from the start-up firms was estimated at \$414.1 million in the first year of operation.

The \$261.6 million in gross business volume added by the existing firms was extrapolated to provide a state-level estimate that accounts for all firms that have received assistance from the fund over the 8-year period. The financial assistance received by the 26 firms (22 existing and 4 start-ups) responding to the survey represented 29.2 percent of the fund's total assistance (less investments lost to firms that closed) over the period (Table 5). A total of 225 firms received some financial assistance from the program from 2000 through 2007. Despite a large number of firms receiving assistance, economic activity created by the four start-up firms was not extrapolated.

The Development/Rural Fund was estimated to increase gross business volume in the state by \$897 million over the study period based on changes in spending by existing firms (Table 5). The change in collections of state tax revenues associated with existing firms was estimated at \$14.6 million over the period. Secondary job creation by existing firms was estimated at 522 FTE jobs over the period. Similar measures for the start-up firms included an increase in tax collections of \$5.7 million and a creation of about 1,980 FTE secondary jobs, both measures based on a gross business volume of \$414.1 million in the first year of operation (Table 5).

Estimated cost of the Development/Rural Fund to the state was about \$3.2 million over the 8-year period (Table 5). Costs to the state appear to be substantially less than the estimated increase in state-collected tax revenue from existing firms (\$14.6 million). Total collections from state taxes compared to fund costs show even more impressive gains if the effects from start-up firms are included (i.e., tax collections increase to nearly \$20.2 million compared to costs of \$3.2 million over the study period). Clearly, the state appears to have generated

substantial economic benefits that can be linked to the financial assistance provided to the 225 firms over the 8-year period.

Manufacturing Sales Tax Exemption

A questionnaire was sent to 15 firms that received assistance from the fund over a 2-year period (2005-2006). A total of 11 firms responded to the survey (Table 3). Ten companies represented existing firms and one response represented a new start-up firm. The 10 existing firms reported adding over 700 full-time equivalent (FTE) jobs over the period; however, the majority of that job creation came from a single firm which increased employment by 500 jobs over the study period. The new start-up firm added 31 FTE jobs in their first year of operation (Table 3). The change in gross sales for the 10 existing firms was estimated at \$67.9 million over the 2-year period. First-year gross sales for the start-up firm was equal to \$147 million (Table 3).

Based on the survey results and applying information from previous research, the existing firms were estimated to have increased in-state expenditures by \$60.7 million over the analysis period (Table 3). The \$60.7 million of in-state expenditures were allocated the North Dakota Input-Output Model. An increase in gross business volume (i.e., direct and secondary economic effects) attributable to the change in spending in North Dakota by the existing firms was estimated at \$192.3 million over the 2-year period. The gross business volume added to the state economy from the start-up firm was estimated at \$421.7 million in the first year of operation (Table 3).

The \$192.3 million in gross business volume added by the existing firms was extrapolated to provide a state-level estimate that accounts for all firms that have received assistance from the fund over the 2-year period. The financial assistance received by the 11 firms (10 existing and 1 start-up) responding to the survey represented 68.7 percent of the fund's total assistance over the period (Table 5). A total of 203 firms received some financial assistance from the program from 2005 through 2006 (Table 5). Despite a large number of firms receiving assistance, economic activity created by the start-up firm was not extrapolated.

The Manufacturing Equipment Sales Tax Exemption Fund was estimated to increase gross business volume in the state by \$279.8 million over the study period, measured by changes in spending by existing firms (Table 5). The change in collections of state tax revenues was estimated at \$5.2 million. Secondary job creation by existing firms was estimated at 522 FTE jobs over the period. Similar measures for the start-up firm included an increase in tax collections of \$5.7 million and a creation of about 2,000 FTE secondary jobs, both measures based on a gross business volume of \$421.7 million in the first year of operation (Table 5).

Estimated cost of the Manufacturing Equipment Sales Tax Exemption to the state was about \$12.3 million over the 2-year period (Table 5). Costs to the state were considerably higher in this business incentive program compared to the other three programs; however, in just a two-year period, the state will re-coop nearly all of the program's cost in added collections of state tax revenues. Again, the state appears to have substantial economic benefits that can be linked to the financial assistance provided by the fund over only a two-year period.

Seed Capital Investment Credit

A questionnaire was sent to 11 firms that received assistance from the fund over a 2-year period (2005-2006). A total of five firms responded to the survey (Table 4). All of the responding firms represented existing firms. The existing firms added 20 FTE jobs over the period. The change in gross sales for the 5 existing firms was estimated at \$3.1 million over the 2-year period (Table 4).

Based on the survey results and applying information from previous research, the existing firms were estimated to have increased in-state expenditures by \$2.4 million over the analysis period. The \$2.4 million of in-state expenditures were allocated the North Dakota Input-Output Model. An increase in gross business volume (i.e., direct and secondary economic effects) attributable to the change in spending in North Dakota by the existing firms was estimated at \$7.7 million over the two-year period (Table 4).

The \$7.7 million in gross business volume added by the existing firms was extrapolated to provide a state-level estimate that accounts for all firms receiving assistance from the fund over the 2-year period. The financial assistance received by the 5 firms responding to the survey represented 58.3 percent of the fund's total assistance (less investments lost to firms that closed) (Table 4). A total of 12 firms received some financial assistance from the program from 2005 through 2006.

The Seed Capital Investment Credit program was estimated to increase gross business volume in the state by \$13.2 million over the study period (Table 5). Collections of state tax revenues over the period were estimated to increase by \$234,000. Secondary job creation was estimated at 27 FTE jobs.

Estimated cost of the Seed Capital Investment Credit program to the state was about \$4.1 million over the two-year period (Table 5). Within the two-year period for this analysis, costs to the state appear to exceed changes in state-collected tax revenue. However, overall business growth is positive for the firms responding to the survey. The two-year time frame for many of the firms in this particular incentive program may be too short to realize the same percentage gains found in employment and sales growth found with participants in the state's other three programs.

Overall Assessment

An examination of the change in business activity, job creation, and tax collections associated with the firms receiving financial assistance through the state's business incentive programs revealed that the state has reaped substantial financial gains over the past several years as a result of investing in primary sector firms. This cursory examination of the benefits of the state's business programs showed that gains made from business expansion clearly have exceeded measures of the cost to operate and implement the programs. In a more strict definition, the benefit/cost ratio for three of the four programs would be positive. However, the overall, long-term benefits to the state are likely to exceed a strict definition of a financial

benefit-cost perspective. The business incentive programs assist in diversifying the state's economy, stabilizing population, and creating opportunity for support businesses and related industries that rely on primary sector business output. The state appears to be creating these additional, wide-spread benefits at little, or no financial cost to taxpayers. While those larger, more qualitative benefits are likely to be difficult to quantify, those qualitative effects should remain an important part of any discussion of the benefits to the state's economy.

The current analysis has showed that business expansion directly linked to assistance provided by the incentive programs is, by itself, providing monetary benefits to the state that substantially exceed the state's monetary costs. However, the estimated benefits from business expansion, as defined in this study, are conservative. An important component of business expansion that was not included in the study was the value of new job creation, gross business volume, and tax revenues from start-up firms in previous years (e.g., the firms starting operations in 2000 through 2006 as a result of obtaining funding from the Development/Rural Fund) were not included, nor were survey results from start-up firms extrapolated to arrive at state totals in the study analysis. Another omission of the potential benefits would include the value of business retention. The survey did not gather information on the extent that assistance from the business incentive programs kept various businesses viable and operating in North Dakota. To the extent that some businesses would have failed, moved, or otherwise ceased operations in the absence of obtaining financial assistance, the economic value of preventing those business closings or relocations were not included in the study.

With respect to the Seed Capital Investment Credit program where the comparison of the monetary benefits associated with business expansion failed to exceed recent costs, the firms receiving assistance through this program differ in many ways from the manufacturing and agricultural processing ventures funded in other programs. Many of the agricultural processing firms, and many of the manufacturing firms, operate in established markets, and have readily identifiable outlets for their products. In the case of many of the firms in the seed capital program, growth in sales and access to markets requires longer time frames and presents unique challenges not associated with other primary sector firms. These inherent differences could account for the discrepancy between costs and returns (economic benefits) found in the other programs, and might require a longer time frame to accurately portray the long-term value of this fund to the state.

Key Issues Arising from the Study

Aside from numerous procedural adjustments that could be considered in future studies if the data collected and goals of the research were to be different, two primary issues were identified. Those two issues are discussed below.

To what extent are changes in business operations due to participation in one of the state's four business incentive programs?

The general problem in estimating the benefit of business incentive programs is the inability to determine what would have happened in the absence of the incentive program. It becomes problematic to assign a causality to the change in business operations several years after

a firm receives an award or some other form of business assistance. The questionnaire used in this study was insufficient to determine to what extent financial assistance was solely responsible for the change in business growth. However, the limitations in data collection are probably reflective of a narrower, less ambitious study mandate—especially considering this effort represents a pilot study on the state’s incentive programs. In order to broaden future research efforts, much additional information would be required to sort out the causality issues with confidence. Clearly, the data collection required for that assessment is beyond the scope of this study.

Despite the challenges of investigating and identifying the all of the factors influencing business expansion and start-up, some likely areas where future studies could focus might include information on assistance from non-state funds (e.g., local development funds), the likelihood that the firm’s business activity (e.g., plant expansion) would have occurred in the absence of state assistance, and if any other developments(e.g., changes in markets, cost structure, debt refinancing, adoption of local input suppliers, new technology, etc.) over the period in question contributed the firm’s expansion of operations in North Dakota. Future studies would be improved if the survey process was adjusted to address many of those questions, or at a minimum briefly identify and describe the factors that contributed to recent business expansion.

Benefits of state programs should include both business expansion and business retention.

While related to the issue above, another important consideration in evaluating the benefits of the state’s business incentive programs is the effect of those programs on business retention. The survey (and study goals) in the current study focused heavily on business expansion, which is but one of several potential benefits to be measured. In some cases, businesses would have shut down, closed, or moved out-of-state in the absence of state-level financial assistance. The benefit to the state in those circumstances would not be limited to a firm’s change in spending within the state, but rather would represent all of the spending and tax revenues associated with the firm. Limiting the benefits of the state’s business incentive programs to just business expansion ignores the value to the state of keeping businesses viable, and ignores the value of prospective businesses evaluating the desirability of locating/operating in North Dakota. Defining the benefits of the incentive programs based on business expansions produces a very conservative estimate of the value of those programs. A more thorough assessment that includes the value of business retention and attraction of new business ventures would improve future studies.

References

- Bangsund, Dean A., and F. Larry Leistritz. 2004. *Economic Contribution of the Sugarbeet Industry to Minnesota, North Dakota, and Eastern Montana*. AAE Rpt. No. 532. Fargo: North Dakota State University.
- Coon, Randal C. 2009. *Personal communication*. Fargo: North Dakota State University.
- Coon, Randal C., and F. Larry Leistritz. 2008. *North Dakota Input-Output Model Data Base*. Fargo: North Dakota State University.
- Coon, R. C., and F. L. Leistritz. 2001. *Economic Impact of Production and Processing of Irrigated Potatoes in Central North Dakota*. AAE. Rpt. No. 452. Fargo: North Dakota State University.
- Coon, R. C., and F. L. Leistritz. 1997. *Assessing the Economic Impacts of New or Expanding Manufacturing and Exportable Service Firms in North Dakota*. Agr. Econ. Rpt. No. 375. Fargo: North Dakota State University.
- Coon, R. C., and F. L. Leistritz. 1989. *The North Dakota Economy in 1988: Historic Economic Base, Recent Changes, and Projected Future Trends*. Agr. Econ. Stat. Series No. 45. Fargo: North Dakota State University.
- Coon, Randal C., F. Larry Leistritz, Thor A. Hertsgaard, and Arlen G. Leholm. 1985. *The North Dakota Input-Output Model: A Tool for Analyzing Economic Linkages*. Agr. Econ. Rpt. No. 187. Fargo: North Dakota State University.
- Hodur, Nancy M., Dean A. Bangsund, F. Larry Leistritz, and John T. Kaatz. 2006. "Estimating the Contribution of a Multi-Purpose Event Facility to the Area Economy," *Tourism Economics* 12 (2): 303-316.
- Leistritz, F. Larry, and Randal C. Coon. 2008. *Socioeconomic Impacts of the Langdon Wind Energy Center*. AAE Rpt. No. 627. Fargo: NDSU, Department of Agribusiness & Applied Economics.
- Leistritz, F. Larry and Steve H. Murdock. 1981. *Socioeconomic Impact of Resource Development: Methods for Assessment*. Westview Press, Boulder, Colorado.
- Leistritz, F. Larry, Steve H. Murdock, and Randal C. Coon. 1990. "Developing Economic-Demographic Assessment Models for Substate Areas." *Impact Assessment Bulletin* 8 (4): 49-65.

Table 1. Agricultural Commodity Processing Facility Investment Tax Credit

Summary		Survey Sample		Extrapolated Totals	
		Existing Firms	New Start-ups	Existing Firms	New Start-ups
Number of survey responses	all firms	nd	nd	na	na
Total years represented	all firms	nd	na	na	na
Average years represented	per firm	nd	nd	na	na
Change in Sales (average annual)	per firm	nd	nd	na	na
Change in Payroll (average annual)	per firm	nd	nd	na	na
FTE jobs added (2005-2006)	per firm	nd	na	na	na
FTE jobs added (2007)	per firm	na	nd	na	na
Part-time jobs added (2005-2006)	per firm	nd	na	na	na
Part-time jobs added (2007)	per firm	na	nd	na	na
Change in Sales (2005-2006)	all firms	nd	na	\$1,105,752	na
Change in Payroll (2005-2006)	all firms	nd	na	\$260,237	na
Change in Sales (2007)	all firms	na	nd	na	\$128,084,827
Change in Payroll (2007)	all firms	na	nd	na	\$3,953,752
FTE Jobs added (2005-2006)	all firms	nd	na	6.0	na
FTE Jobs added (2007)	all firms	na	nd	na	137.0
Percent change in FTE Employment	all firms	nd	na	na	na
Part-time jobs added (2005-2006)	all firms	nd	na	0.0	na
Part-time jobs added (2007)	all firms	na	nd	na	9.0
Direct Impacts					
Change in In-state Exp. (2005-2006)	all firms	nd	na	\$936,000	na
In-state Expenditures (2007)	all firms	na	nd	na	\$103,122,000
Secondary Impacts					
Change in In-state Exp. (2005-2006)	all firms	nd	na	\$2,349,000	na
In-state Expenditures (2007)	all firms	na	nd	na	\$273,621,000
Gross Business Volume (direct & secondary economic impacts)					
Change from 2005-2006	all firms	nd	na	\$3,285,000	na
Added in 2007	all firms	na	nd	na	\$376,743,000
State Collected Tax Revenues					
Sales & Use Taxes (change 2005-2006)	all firms	nd	na	\$30,000	na
Personal Income (change 2005-2006)	all firms	nd	na	\$14,000	na
Corporate Income (change 2005-2006)	all firms	nd	na	\$6,000	na
Sales & Use Taxes (added in 2007)	all firms	na	nd	na	\$3,158,000
Personal Income (added in 2007)	all firms	na	nd	na	\$1,241,000
Corporate Income (added in 2007)	all firms	na	nd	na	\$732,000
Secondary FTE Employment (sustained annually)	all firms	na	na	4	1,807

nd = non disclosure based on North Dakota Office of State Tax Commissioner policies.

na = not available or not applicable.

Table 2. Development Fund/Rural Fund

Summary		Survey Sample		Extrapolated Totals	
		Existing Firms	New Start-ups	Existing Firms	New Start-ups
Number of survey responses	all firms	22	nd	na	na
Total years represented	all firms	84	na	na	na
Average years represented	per firm	3.82	nd	na	na
Change in Sales (average annual)	per firm	\$1,204,650	nd	na	na
Change in Payroll (average annual)	per firm	\$183,439	nd	na	na
FTE jobs added (2000-2007)	per firm	18.0	na	na	na
FTE jobs added (2007)	per firm	na	nd	na	na
Part-time jobs added (2000-2007)	per firm	6.7	na	na	na
Part-time jobs added (2007)	per firm	na	nd	na	na
Change in Sales (2000-2007)	all firms	\$101,190,636	na	\$346,939,323	na
Change in Payroll (2000-2007)	all firms	\$15,408,859	na	\$52,830,373	na
Change in Sales (2007)	all firms	na	nd	na	\$142,283,900
Change in Payroll (2007)	all firms	na	nd	na	\$4,743,507
FTE Jobs added (2000-2007)	all firms	379.0	na	1,299	na
FTE Jobs added (2007)	all firms	na	nd	na	170.0
Change in FTE Employment	all firms	25.4%	na	na	na
Part-time jobs added (2000-2007)	all firms	141.0	na	483.0	na
Part-time jobs added (2007)	all firms	na	nd	na	10.0
Direct Impacts					
Change in In-state Exp. (2000-2007)	all firms	\$78,319,000	na	\$268,522,000	na
In-state Expenditures (2007)	all firms	na	nd	na	\$113,594,000
Secondary Impacts					
Change in In-state Exp. (2000-2007)	all firms	\$183,323,000	na	\$628,537,000	na
In-state Expenditures (2007)	all firms	na	nd	na	\$300,551,000
Gross Business Volume (direct & secondary economic impacts)					
Change from 2000-2007	all firms	\$261,642,000	na	\$897,059,000	na
Added in 2007	all firms	na	\$414,145,000	na	\$414,145,000
State Collected Tax Revenues					
Sales & Use Taxes (change 2000-2007)	all firms	\$2,633,000	na	\$9,026,000	na
Personal Income (change 2000-2007)	all firms	\$1,138,000	na	\$3,903,000	na
Corporate Income (change 2000-2007)	all firms	\$488,000	na	\$1,673,000	na
Sales & Use Taxes (added in 2007)	all firms	na	nd	na	\$3,487,000
Personal Income (added in 2007)	all firms	na	nd	na	\$1,373,000
Corporate Income (added in 2007)	all firms	na	nd	na	\$804,000
Secondary FTE Employment (sustained annually)	all firms	na	na	522	1,985

nd = non disclosure based on North Dakota Office of State Tax Commissioner policies.

na = not available or not applicable.

Table 3. Manufacturing Sales Tax Exemption

Summary		Survey Sample		Extrapolated Totals	
		Existing Firms	New Start-ups	Existing Firms	New Start-ups
Number of survey responses	all firms	10	nd	na	na
Total years represented	all firms	16	na	na	na
Average years represented	per firm	1.60	nd	na	na
Change in Sales (average annual)	per firm	\$4,241,144	nd	na	na
Change in Payroll (average annual)	per firm	\$2,532,858	nd	na	na
FTE jobs added (2005-2006)	per firm	101.9	na	na	na
FTE jobs added (2007)	per firm	na	nd	na	na
Part-time jobs added (2005-2006)	per firm	0.0	na	na	na
Part-time jobs added (2007)	per firm	na	nd	na	na
Change in Sales (2005-2006)	all firms	\$67,858,301	na	\$98,732,412	na
Change in Payroll (2005-2006)	all firms	\$40,525,731	na	\$58,964,092	na
Change in Sales (2007)	all firms	na	nd	na	\$146,896,000
Change in Payroll (2007)	all firms	na	nd	na	\$2,600,000
FTE Jobs added (2005-2006)	all firms	713.0	na	1,037	na
FTE Jobs added (2007)	all firms	na	nd	na	31.0
Percent change in FTE Employment	all firms	47.5%	na	na	na
Part-time jobs added (2005-2006)	all firms	0.0	na	0.0	na
Part-time jobs added (2007)	all firms	na	nd	na	0.0
Direct Impacts					
Change in In-state Expenditures (2005-2006)	all firms	\$60,714,000	na	\$88,338,000	na
In-state Expenditures (2007)	all firms	na	nd	na	\$115,124,000
Secondary Impacts					
Change in In-state Expenditures (2005-2006)	all firms	\$131,570,000	na	\$191,431,000	na
In-state Expenditures (2007)	all firms	na	nd	na	\$306,550,000
Gross Business Volume (direct & secondary economic impacts)					
Change from 2005-2006	all firms	\$192,284,000	na	\$279,769,000	na
Added in 2007	all firms	na	nd	na	\$421,674,000
State Collected Tax Revenues					
Sales & Use Taxes (change 2005-2006)	all firms	\$2,090,000	na	\$3,041,000	na
Personal Income (change 2005-2006)	all firms	\$1,165,000	na	\$1,694,000	na
Corporate Income (change 2005-2006)	all firms	\$309,000	na	\$450,000	na
Sales & Use Taxes (added in 2007)	all firms	na	nd	na	\$3,518,000
Personal Income (added in 2007)	all firms	na	nd	na	\$1,364,000
Corporate Income (added in 2007)	all firms	na	nd	na	\$822,000
Secondary FTE Employment (sustained annually)	all firms	na	na	701	2,017

nd = non disclosure based on North Dakota Office of State Tax Commissioner policies.

na = not available or not applicable.

Table 4. Seed Capital Tax Credit

Summary		<u>Survey</u> <u>Sample</u>	<u>Extrapolated</u> <u>Totals</u>
		Existing Firms	Existing Firms
Number of survey responses	all firms	5	na
Total years represented	all firms	9	na
Average years represented	per firm	1.80	na
Change in Sales (average annual)	per firm	\$341,482	na
Change in Payroll (average annual)	per firm	\$149,754	na
FTE jobs added (2005-2006)	per firm	6.7	na
FTE jobs added (2007)	per firm	na	na
Part-time jobs added (2005-2006)	per firm	1.3	na
Part-time jobs added (2007)	per firm	na	na
Change in Sales (2005-2006)	all firms	\$3,073,341	\$5,274,004
Change in Payroll (2005-2006)	all firms	\$1,347,786	\$2,312,867
Change in Sales (2007)	all firms	na	na
Change in Payroll (2007)	all firms	na	na
FTE Jobs added (2005-2006)	all firms	20.0	34
FTE Jobs added (2007)	all firms	na	na
Percent change in FTE Employment	all firms	55.6%	na
Part-time jobs added (2005-2006)	all firms	4.0	7.0
Part-time jobs added (2007)	all firms	na	na
Direct Impacts			
Change in In-state Expenditures (2005-2006)	all firms	\$2,366,000	\$4,060,173
In-state Expenditures (2007)	all firms	na	na
Secondary Impacts			
Change in In-state Expenditures (2005-2006)	all firms	\$5,327,000	\$9,140,827
In-state Expenditures (2007)	all firms	na	na
Gross Business Volume (direct & secondary economic impacts)			
Change from 2005-2006	all firms	\$7,693,000	\$13,201,000
In-state Expenditures (2007)	all firms	na	na
State Collected Tax Revenues			
Sales & Use Taxes (change 2005-2006)	all firms	\$79,000	\$136,000
Personal Income (change 2005-2006)	all firms	\$44,000	\$76,000
Corporate Income (change 2005-2006)	all firms	\$13,000	\$22,000
Sales & Use Taxes (added in 2007)	all firms	na	na
Personal Income (added in 2007)	all firms	na	na
Corporate Income (added in 2007)	all firms	na	na
Secondary FTE Employment (sustained annually)	all firms	na	27

nd = non disclosure based on North Dakota Office of State Tax Commissioner policies.

na = not available or not applicable.

Table 5. Summary, All Business Incentive Programs

	Business Incentive Program			
	Development Rural Fund	Ag Processing Facility Credit	Sales Tax Exemption	Seed Capital Investment
Time Period for Study Analysis	2000-2007	2005-2006	2005-2006	2005-2006
Businesses Funded (survey population)	225	6	203	12
Businesses Surveyed (survey sample)	55	6	15	11
Businesses Responding (survey response)	31	5	11	5
Useable Responses	30	5	11	5
Existing Firms (pre-1999)	4	na	na	na
Existing Firms (1999-2007)	22	nd	10	5
New Start-up Firms	4	nd	nd	0
Overall Response Rate (responses/sample)	56.4%	83.3%	73.3%	45.5%
Assistance/Investments Provided - All Firms	\$37,100,000	\$21,800,000	\$244,000,000	\$15,100,000
Assistance/Investments Lost - All Firms	\$3,500,000	\$0	\$0	\$1,200,000
Assistance/Investments Represented by Survey Sample	not available	\$21,800,000	\$195,000,000	not available
Percent of Investments Survey Firms (sample size)	0.0%	100.0%	79.9%	0.0%
Assistance /Investments Represented by Survey Respondents	\$9,800,000	\$21,500,000	\$167,700,000	\$8,100,000
Percent of Investments Represented by Survey Respondents	29.2%	98.6%	68.7%	58.3%
Estimate of Costs				
State Investments	\$37,100,000	na	na	na
Private Investments	na	\$21,800,000	\$244,000,000	\$15,100,000
Loss of State Revenues/Cost to State	\$8,800,000	\$5,400,000	\$12,300,000	\$4,100,000
Estimate of Benefits (Extrapolated Totals)				
Change in Gross Business Volume	8 year totals	2 year totals	2 year totals	2 year totals
Existing Firms	\$897,059,000	\$380,028,000*	\$701,443,000*	\$13,201,000
New Start-ups	\$414,145,000	nd	nd	na
Change in State-collected Tax Revenues				
Existing Firms	\$14,602,000	\$5,181,000*	\$10,889,000*	\$234,000
New Start-ups	\$5,664,000	nd	nd	na
Change in Primary Sector Employment				
Existing Firms	1,299	143*	1,037	34
New Start-ups	170	nd	31	na
Change in Secondary (all sectors) Employment				
Existing Firms	522	1,811*	701	27
New Start-ups	1,985	nd	2,017	na
Change in Gross Sales				
Existing Firms	\$346,939,000	\$129,191,000*	\$98,732,000	\$5,274,000
New Start-ups	\$142,284,000	nd	\$146,896,000	na

Table 5. Continued.

		Business Incentive Program			
		Development Rural Fund	Ag Processing Facility Credit	Sales Tax Exemption	Seed Capital Investment
Change in Payroll Expenditures					
	Existing Firms	\$52,830,000	\$4,214,000*	\$58,964,000	\$2,313,000
	New Start-ups	\$4,744,000	nd	\$2,600,000	na
Average Compensation per Job Added					
	Existing Firms	\$40,670	\$29,468**	\$56,860	\$68,026
	New Start-ups	\$27,903	nd	\$83,871	na

nd = non disclosure based on North Dakota Office of State Tax Commissioner policies.

na = not available or not applicable.

* Combined values for existing and start-up firms.

** Average value for existing and start-up firms.