



THE ECONOMIC VALUE

Of Aaniiih Nakoda College

DECEMBER 2015

ANALYSIS OF THE ECONOMIC IMPACT & RETURN ON INVESTMENT OF EDUCATION

Aaniiih Nakoda College (ANC) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential. It provides students with the skills they need to impact their families and communities. Further, it supplies an environment for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

The value of ANC influences both the lives of students and also the county economy. The college serves a range of industries in Blaine County, supports local businesses, and benefits society nationwide from an expanded economy and improved quality of life. The benefits created by ANC even extend back to government through increased tax revenues and public sector savings.

The purpose of this study is to investigate the economic impacts created by ANC on the business community and the benefits that the college generates in return for the investments made by its key stakeholder groups—students, taxpayers, and society. The county the college serves is Blaine County. The following two analyses are presented:

- **ECONOMIC IMPACT ANALYSIS**
- **INVESTMENT ANALYSIS**

All results reflect student and financial data for Fiscal Year (FY) 2013-14. Impacts on the county business community are reported under the economic impact analysis in terms of Gross Regional Product (GRP), and the return on investment to students, taxpayers, and society are reported under the investment analysis. Both analyses are described more fully in the following sections.

ECONOMIC IMPACT ANALYSIS

ANC promotes economic growth in Blaine County in a variety of ways. The college is an employer and buyer of goods and services. In addition, ANC is a primary source of education to Blaine County residents and a supplier of trained workers to county.

OPERATIONS SPENDING IMPACT

ANC is an important employer in Blaine County. In FY 2013-14, the college employed 68 full-time and part-time faculty and staff. Of these, 91% lived in Blaine County. Total payroll at ANC was \$3.3 million, much of which was spent in the county for groceries, rent, eating out, clothing, and other household expenses.

ANC is itself a large-scale buyer of goods and services. In FY 2013-14 the college spent \$4.4 million to cover its expenses for facilities, professional services, and supplies.

ANC added \$4.2 million in GRP to the county during the analysis year as a result of its day-to-day operations. This figure represents the college's payroll, the multiplier effects generated by the spending of the college and its employees, and a downward adjustment to account for funding that the college received from government sources.

TABLE 1. IMPACTS CREATED BY ANC IN FY 2013-14

	GROSS REGIONAL PRODUCT	JOB
Operations Spending Impact	\$4.2 million	75
Alumni Impact	\$17.4 million	376
Total Impact	\$21.6 million	452



ALUMNI IMPACT

The education and training ANC provides for county residents results in the greatest impact. Since the college was established, students have studied at ANC and entered the workforce with new skills. Today, hundreds of former students are employed in Blaine County.

During the analysis year, past and present students of ANC generated \$17.4 million in GRP for the county. This figure represents the higher wages that students earned during the year, the increased output of the businesses that employed the students, and the multiplier effects that occurred as students and their employers spent money at other businesses.

TOTAL IMPACT

The overall impact of ANC on the local business community during the analysis year amounted to \$21.6 million in GRP, equal to the sum of the operations spending impact and the alumni impact. This GRP was equal to approximately 13.3% of Blaine County's total GRP. By comparison, this contribution that the college provides on its own is nearly as large as the entire regional Wholesale Trade, Retail Trade, and Transportation & Warehousing industries.

ANC IMPACT BY INDUSTRY

INDUSTRY	GRP (THOUSANDS)	JOBS
Public Administration	\$4,889	90
Other Services (except Public Administration)	\$2,340	104
Transportation and Warehousing	\$1,367	11
Construction	\$1,187	47

INVESTMENT ANALYSIS

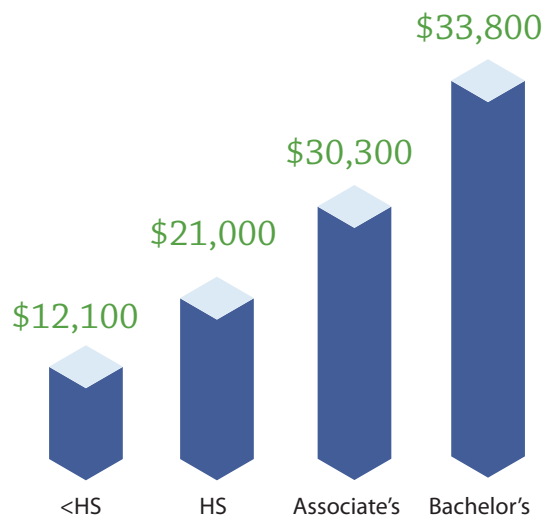
Investment analysis is the process of evaluating total costs and measuring these against total benefits to determine whether or not a proposed venture will be profitable. If benefits outweigh costs, then the investment is worthwhile. If costs outweigh benefits, then the investment will lose money and is considered unprofitable. This study considers ANC as an investment from the perspectives of students, taxpayers, and society. The backdrop for the analysis is the national economy.

STUDENT PERSPECTIVE

In FY 2013-14, ANC served 294 credit students and 55 non-credit students. In order to attend college, students paid for tuition, fees, books, and supplies. They also gave up money that they would have otherwise earned had they been working instead of attending college. The total investment made by ANC's students in FY 2013-14 amounted to \$2.6 million, equal to \$566,659 in out-of-pocket expenses plus \$2.1 million in forgone time and money.

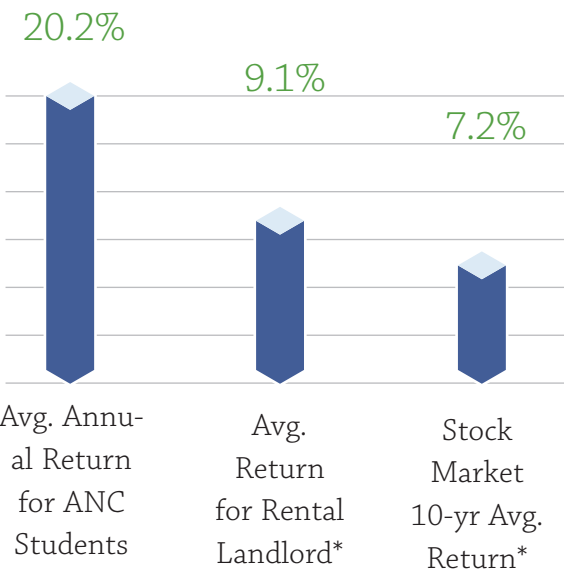
In return for their investment, ANC's students will receive a stream of higher future wages that will continue to grow through their working lives. As shown in Figure 1, mean income levels at the midpoint of the average-aged worker's career increase as people achieve higher levels of education. For example, the average associate's degree completer from ANC will see an increase in earnings of \$9,300 each year compared to someone with a high school diploma or equivalent. Over a working lifetime, this increase in earnings amounts to an undiscounted value of approximately \$399,900 in higher income.

FIGURE 1. ANNUAL INCOME BY EDUCATION LEVEL AT CAREER MIDPOINT IN BLAINE COUNTY



Source: EMSI complete employment data.

FIGURE 2. STUDENT RATE OF RETURN



*RealtyTrac’s Q3 2014 study of 586 counties nationwide.
*Forbes’s S&P 500 (compounded annualized) avg. return, 1994-2014.



The present value of the higher future wages that ANC’s students will receive over their working careers is \$14.4 million. Dividing this value by the \$2.6 million in student costs yields a benefit-cost ratio of 5.5. In other words, for every \$1 students invest in ANC in the form of out-of-pocket expenses and forgone time and money, they receive a cumulative of \$5.50 in higher future wages. The average annual rate of return for students is 20.2%. This is an impressive return compared, for example, to the less than 1% return per annum that is generally expected from saving money in today’s standard bank savings accounts.

TAXPAYER PERSPECTIVE

ANC generates more in tax revenue than it takes. These benefits to taxpayers consist primarily of taxes that the government will collect from the added income created by the students. As ANC students earn more, they will make higher tax payments. Employers will also make higher tax payments as they increase their output and purchase more supplies and services. By the end of the FY 2013-14 students’ working careers, the government will have collected a present value of \$12.9 million in added taxes.

Benefits to taxpayers consist of the savings generated by the improved lifestyles of students and the proportionally reduced government expenditures. Education is statistically correlated with a variety of lifestyle changes that generate taxpayer savings across three main categories: 1) health, 2) crime, and 3) unemployment. Improved health habits lower the students’ demand for national health care services. Students are also less likely to commit crimes, so the demand for law enforcement and criminal justice services is reduced (study references are available in the main report). Students are also more employable, so the demand for welfare and unemployment benefits, such as income assistance and welfare benefits, is reduced. For a list of study references to these statistical benefits, please contact the college for a copy of the main report. All of these benefits will generate a present value of \$2.3 million in savings to taxpayers.

Total benefits to taxpayers equal \$15.2 million, equal to the sum of the added taxes and public sector savings. Comparing this to the taxpayer costs of \$6.6 million—equal to the funding that ANC received from the government during the analysis year—yields a benefit-cost ratio of 2.3. This means that for every \$1 of



public money invested in ANC, taxpayers receive a cumulative value of \$2.30 over the course of the students' working lives. The average annual rate of return is 6.0%, a solid investment that compares favorably with other long-term investments in both the private and public sectors.

SOCIAL PERSPECTIVE

Society nationwide benefits from the presence of ANC in two major ways. The first and largest benefit that society receives is the added income created nationwide. As discussed in the previous section, students earn more because of the skills they acquire while attending ANC. Businesses also earn more because the enhanced skills of students make them more productive. Together, higher student wages and increased business output stimulate increases in income across the nation, thereby raising prosperity and expanding the economic base for society as a whole.

Benefits to society also consist of the savings generated by the improved lifestyles of students. Similar to the taxpayer section above, education is statistically correlated with a variety of lifestyle changes that generate social savings across three main categories: 1) health, 2) crime, and 3) unemployment. Note that these costs are avoided by the consumers, and are distinct from the costs avoided by taxpayers outlined above. Health savings include avoided medical costs associated with smoking, alcoholism, obesity, drug abuse, and mental disorders. Crime savings include reduced security expenditures and insurance administration, lower victim costs, and reduced criminal justice system expenditures. Unemployment savings include the reduced employer contributions towards unemployment claims. For a list of study references to these statistical benefits, please contact the college for a copy of the main report.

Figure 2 shows the present value of the added income and social savings that will occur nationwide over the working lifetime of the FY 2013-14 student population at ANC. Added income amounts to a present value of \$54.5 million due to the increased lifetime incomes of students and associated increases in business output. Social savings amount to \$3.2 million, the sum of health, crime, and unemployment savings nationwide. Altogether, total benefits to society equal \$57.7 million (in present value terms).

FIGURE 2. PRESENT VALUE OF ADDED INCOME AND SOCIAL SAVINGS NATIONWIDE

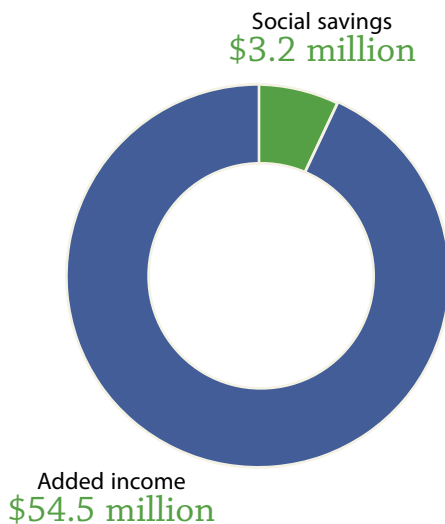


TABLE 2. SUMMARY OF INVESTMENT ANALYSIS RESULTS

STUDENT PERSPECTIVE	
\$14,438	Benefits (thousands)
\$2,634	Costs (thousands)
\$11,804	Net present value (thousands)
5.5	Benefit-cost ratio
20.2%	Rate of return

TAXPAYER PERSPECTIVE	
\$15,169	Benefits (thousands)
\$6,630	Costs (thousands)
\$8,539	Net present value (thousands)
2.3	Benefit-cost ratio
6.0%	Rate of return

SOCIAL PERSPECTIVE	
\$57,658	Benefits (thousands)
\$10,059	Costs (thousands)
\$47,599	Net present value (thousands)
5.7	Benefit-cost ratio
NA	Rate of return*

* The rate of return is not reported for the social perspective because the beneficiaries of the investment are not necessarily the same as the original investors.

Society invested \$10.1 million in ANC educations during the analysis year. This includes all expenditures by ANC, all student expenditures, and all student opportunity costs. For every dollar of this investment, society nationwide will receive a cumulative value of \$5.70 in benefits, equal to the \$57.7 million in benefits divided by the \$10.1 million in costs. These benefits will occur for as long as ANC’s FY 2013-14 students remain employed.

SUMMARY OF INVESTMENT ANALYSIS RESULTS

Table 2 presents the results of the investment analysis for all three of ANC’s major stakeholder groups—students, society, and taxpayers. As shown, students receive great value for their educational investment. At the same time, the investment made by taxpayers to the college creates a wide range of benefits to society and returns more to government budgets than it costs.



CONCLUSION



The results of this study demonstrate that ANC creates value from multiple perspectives. The college benefits local businesses by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers into the workforce. It enriches the lives of students by raising their lifetime incomes and helping them achieve their individual potential. It benefits society nationwide by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students. Finally, it benefits taxpayers through increased tax receipts across the nation and a reduced demand for government-supported social services.

ABOUT THE STUDY

Data and assumptions used in the study are based on several sources, including the FY 2013-14 academic and financial reports from the college, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of EMSI's Social Accounting Matrix (SAM) model, and a variety of studies and surveys relating education to social behavior. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of investment effectiveness and economic impact. For a full description of the data and approach used in the study, please contact the college for a copy of the technical report.

ABOUT EMSI

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