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Contribution of Cankdeska Cikana Community College to North Dakota's Economy in 2016



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Acknowledgments

The North Dakota Association of Tribal Colleges and Universities (NDATC) commissioned and provided financial support for this project. The association is a private, non-profit organization established in 1994 and is comprised of the five Tribal Colleges and Universities (TCUs) located in North Dakota. Member institutions and the Board of Directors are:

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Laurel Vermillion, President, Sitting Bull College (SBC)
James Davis, President, Turtle Mountain Community College (TMCC)
Leander “Russ” McDonald, President, United Tribes Technical College (UTTC)

The North Dakota Tribal Colleges are members of the American Indian Higher Education Consortium (AIHEC).

This research effort was based on actual expenditures data (annual audits) provided by each of the five respective Tribal Colleges in North Dakota. Special thanks to each of the colleges and individuals that provided requested information. This effort would not have been possible without their participation.

Thanks are extended to Norma Ackerson for document preparation and to our colleagues in the Department of Agribusiness and Applied Economic and the Center for Social Research for document review.

The authors assume responsibility for any errors of omission, logic, or otherwise. Any opinions, findings, and conclusions expressed in this publication are those of the authors and do not necessarily reflect the view of the Department of Agribusiness and Applied Economics, North Dakota State University, or the study sponsors.

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Executive Summary

The North Dakota Association of Tribal Colleges (NDATC) is comprised of the state's five Tribal Colleges. Tribal colleges are relatively new in North Dakota with the first college established in 1969. Cankdeska Cikana Community College was chartered in 1974. Tribal colleges were established to provide post-secondary cultural-based educational opportunities on North Dakota's Native American reservations and for the urban Indian population in the Bismarck-Mandan area.

Expenditure and enrollment data provided by each respective college were used to estimate the economic impact for each of the individual colleges and the cumulative impact of the five Tribal Colleges. The combined economic impact of the five colleges is reported in Coon et al. 2017a. This report will focus specifically on Cankdeska Cikana Community College in Fort Totten, North Dakota, which serves the Spirit Lake Dakota reservation.

Expenditures by tribal colleges constitute the direct, or first-round, economic effects. Cankdeska Cikana Community College spent over \$13 million in North Dakota in Fiscal Year (FY) 2016. Over half of these expenditures (direct effects) (\$6.9 million) represent personal income (*Households* sector) consisting of payments for wages and salaries. Total economic impact (direct plus secondary) of Cankdeska Cikana Community College was nearly \$40 million in FY2016. Total business activities (direct and secondary) in the *Households* sector (economy-wide personal income) was \$15.9 million, and 9.5 million in the *Retail Trade* sector. Cankdeska Cikana Community College employed 125 full-time and 37 part-time workers. Levels of business activity generated by Cankdeska Cikana Community College's expenditures would support an additional 90 secondary jobs in various sectors of the North Dakota economy.

In addition to expenditures related to the college's operations, student spending also contributes to the economic impacts associated with the college. Expenditures by full-time and part-time students for personal items, recreation, books, supplies, and room and board were estimated to be \$1.6 million in the 2015-2016 academic year. Total economic impact associated with student spending was estimated using the North Dakota Input-Output Model. Total economic impact (direct plus secondary) from student spending was \$3.9 million (\$1.6 million in direct impacts plus \$2.3 million in secondary impacts). Student spending would generate enough economic activity to support 6 secondary (indirect and induced) jobs in North Dakota.

Cankdeska Cikana Community College provides valuable post-secondary educational programs which results in both social and economic benefits. While the social value of a college degree is difficult to quantify, the economic value can be described in terms of business activity, lower unemployment, higher median annual earnings, and higher total lifetime income. Social and economic benefits accrue to individuals with higher academic achievement. Previous studies have determined that college graduates have healthier life styles, healthier children, increased job satisfaction, have shown decreased prejudice, enhanced knowledge of world affairs, and have enhanced social status. Many of these benefits are passed onto succeeding generations. Further, college graduates have lower unemployment rates and higher annual incomes. Cankdeska Cikana Community College and its students have substantial impacts on their local economy.

Contribution of Cankdeska Cikana Community College to North Dakota's Economy in 2016

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

Introduction

North Dakota has numerous institutions of higher education. The North Dakota University System (NDUS) consists of 11 colleges and the North Dakota Association of Tribal Colleges (NDATC) consists of five institutions. One of those five institutions is Cankdeska Cikana Community College (CCCC). Located in Fort Totten, CCCC serves the Spirit Lake Dakota reservation. The Tribal Colleges are relatively new to the state's educational system. Established in 1969, United Tribes Technical College in Bismarck was the first tribal college chartered. CCCC was established in 1974. In addition to educational opportunities for students, CCCC has an economic impact on the state and local community. Cankdeska Cikana Community College makes expenditures for goods and services purchased in the state, hires employees to staff their institutions, and constructs campus buildings to deliver post-secondary cultural-based education. The purpose of this study is to estimate the economic impact of CCCC's operations and student expenditures on North Dakota's economy. The combined economic effects of the five Tribal Colleges are reported in Coon et al. 2017a, while this report will focus on the economic impacts of CCCC. Consistent with previous studies, an economic impact analysis will be completed for each of the other four Tribal Colleges and presented in separate reports (Coon et al. 2017b, Coon et al. 2017c, Coon et al. 2017d, Coon et al. 2017e). Methods, analysis, and format are consistent for each of the five colleges and previous assessments of the colleges' economic effects. Methods and analysis are also consistent with an assessment of the economic contribution of the North Dakota University System. This analysis will parallel studies conducted for the North Dakota University System.

An economic impact assessment of the North Dakota Association of Tribal Colleges was previously completed in 2012 (Coon et al. 2013). The current study will update the previous study and estimate the economic impact of CCCC operations in Fiscal Year (FY) 2016 and student spending during the 2015 – 2016 academic year using similar analytic methods as previous studies. Prior to the 2012 study, the impacts of Tribal Colleges were examined individually; Cankdeska Cikana Community College for FY2008 (Leistriz and Bangsund 2008), Sitting Bull College for FY2009 (Leistriz and Bangsund 2010), and United Tribes Technical College for FY2010 (Gipp et al. 2011). The North Dakota University System has sponsored several economic impact assessments beginning with FY1999 and FY 2004 (Leistriz and Coon 2005), FY2006 (Leistriz and Coon 2007), FY2008 (Leistriz and Coon 2009), FY2009 (Bangsund et al. 2010), FY2011 (Coon et al. 2012a), FY2012 and FY2013 (Coon et al. 2014), and FY2014 and FY2015 (Coon et al. 2017).

In addition to the economic impact analysis, this study will examine the value of a college education. A comprehensive review of published literature summarizes the social and economic value of

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a college education. While data on the value of a college education is not specific to North Dakota's tribal colleges, it illustrates the value of a college education in general. Published statistics and selected research findings highlight the social and economic value of a post-secondary education. Also, contained within this report is background information about CCCC including a history of the school, campus location, academic areas of study, degrees granted, and the mission of the college.

Background of Cankdeska Cikana Community College

Cankdeska Cikana (Little Hoop) Community College (CCCC) was established in 1974 by the Spirit Lake Tribe and is located at Fort Totten, ND. CCCC is named in honor of Paul Yankton, Sr., who died while serving with the U.S. Army's 11th Infantry in Lorraine, France during World War II (Cankdeska Cikana Community College 2012). CCCC was one of the 29 Native American post-secondary institutions recognized as a "1994 Tribal Land Grant College" by the Equity in Education Land Grant Status Act of 1994. The other four North Dakota Tribal Colleges were also recognized. Acquiring land grant status allowed CCCC to access resources necessary to carry out the three missions of a land grant institution: teaching, extension, and research. Cankdeska Cikana Community College provides opportunities that lead to student independence and self-sufficiency through academic achievement and continuation of the Spirit Lake Dakota language and culture.

CCCC was granted accreditation at the Associate Degree granting level from the Higher Learning Commission and Schools in 1990. CCCC offers 20 programs of study with degrees in Associate of Arts (6), Associate of Science (6), Associate of Applied Sciences (8), and five certificate degree programs. CCCC also offers an Associate of Applied Science degree in Automotive Technology in collaboration with Lake Region State College. In addition to the college curriculum, CCCC also provides an Adult Learning Center and childcare services, but does not currently offer student housing. For the 2015-2016 academic year, CCCC had 125 full-time and 76 part-time students, which equates to 158 full-time equivalent (FTE) students for the fall semester. The college employed 125 full-time and 37 part-time workers.

Methods

In-state expenditures for the state Tribal Colleges comprise the direct economic impacts, or first-round effects. Actual total in-state expenditures for each of the state's Tribal Colleges were used to calculate combined direct effects. A brief questionnaire requesting expenditures for various expenditure categories was distributed to each of the Tribal Colleges. Each of the colleges completed the questionnaire providing estimates for in-state expenditures for operations expenses such as wages and salaries, benefits, construction, utilities, repairs etc. Data collection efforts for this assessment resulted in a complete and consistent data set. In-state expenditures were allocated to industrial categories, or sectors, defined by the North Dakota Input-Output Model (Coon et al. 2012b). Expenditures included both outlays for capital improvements and general campus operations. Impacts can vary year to year based on the level of capital improvements in any given year.

The North Dakota Input-Output Model was used to estimate the secondary economic impacts based on the combined expenditures of the state's Tribal Colleges. 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., firms engaged in retail trade make up the *Retail Trade* sector). For a complete description of the input-output model, see Coon et al. (1989). The model estimates the changes in total business activity (gross receipts) for all sectors of the area economy resulting from the direct expenditures associated with each of the five Tribal Colleges. Increased business volumes were used to estimate secondary employment and estimates of tax revenues were based on historic relationships. Methods and procedures for this analysis were similar to those used in estimating the impact of other facilities and activities in the state (Leistriz 1995; Bangsund and Leistriz 2004). The North Dakota Input-Output Model was previously used to estimate the economic impacts for the Tribal Colleges in 2012 (Coon et al. 2013) and for several assessments of the North Dakota University System (Coon et al. 2014). Empirical testing has confirmed the model's accuracy in estimating changes in levels of economic activity in North Dakota. Over the period 1958-2014, estimates of statewide personal income derived from the model averaged within 8 percent of comparable values reported by the U.S. Department of Commerce (Coon et al. 2016. Bureau of Economic Analysis 2016).

In addition to impacts associated with the tribal college's operations expenditures, the economic effects associated with student expenditures were estimated. Previous assessments used secondary data from the North Dakota Career Resource Network to estimate expenditures for room and board. Representatives of the Tribal Colleges believe that tribal college students have different characteristics than students at non-tribal institutions and that secondary data used previously may not adequately represent tribal college student expenditures. For example, many tribal college students do not live on-campus, are older or may have dependents. Accordingly, in order to more accurately estimate tribal college student expenditures, financial aid cost of attendance budgets from each tribal college were used to estimate student expenditures. The direct and total economic impact of student spending was estimated separately from the impacts associated with Tribal College operations expenditures.

Student expenditures were estimated separately for each of the Tribal Colleges using each college's cost of attendance budget. Each college had several cost of attendance budgets based on student characteristics. For example, dependent students still live at home, independents students are financially independent and student with dependents are students with children. Cost of attendance budgets were on a per semester basis. Financial aid application data was used to determine how many students were in each of the cost of attendance budget categories. Student enrollment and enrollment status (i.e., full-time, $\frac{3}{4}$ -time, $\frac{1}{2}$ -time, or $\frac{1}{4}$ -time) were provided by each of the Tribal Colleges and converted to FTE students based on credit hours. Fall semester attendance was used to estimate FTE enrollment. Spring semester attendance was assumed to be the same as fall semester attendance. FTE students for the 2015-2016 fall semester and spring semester were multiplied by the estimated student living expenses based on the various cost of attendance budgets to obtain total student spending for the academic year. Student spending for personal items, recreation, books, supplies, and room and board represent direct or first-round economic effects. Student spending for each enrollment type and category was summed to calculate total student expenditures. Outlays for tuition and fees were excluded from the estimate of student expenditures to prevent double counting. Economic effects of expenditures for tuition and fees were captured in the assessment of college operations.

Results

Cankdeska Cikana Community College expenditures to North Dakota entities for FY2016 totaled \$13.3 million (Table 1). Direct expenditures were the greatest in the *Households* sector (e.g., wages and salaries) with direct expenditures of \$6.9 million, followed by outlays to the *Construction, and Finance, Insurance and Real Estate* sectors of \$1.9 million and \$1.4 million, respectively. Expenditures in *Professional and Social Services, and Retail Trade* sectors totaled \$1.4 and \$1.3 million, respectively. When the North Dakota Input-Output Model coefficients (multipliers) were applied to the direct impacts, secondary impacts were estimated to be \$26.5 million in FY2016. Total (direct plus secondary) economic impacts totaled \$39.8 million in FY2016. Total economic impact for the CCCC would generate business activity in the *Households* Sector (personal income) of \$15.9 million and *Retail Trade* sector of \$9.5 million.

In FY2016, Cankdeska Cikana Community College had a measurable impact on the local and state economies. Cankdeska Cikana Community College employed 125 full-time and 37 part-time workers. Levels of business activity resulting from CCCC's spending would support an additional 90 FTE secondary (indirect and induced) jobs in various sectors of the local and state economy. These levels of economic activity would be expected to generate sales and use tax revenues of \$440,000, personal income taxes of \$239,000, and corporate income taxes of \$67,000.

Table 1. Direct, Secondary, and Total Economic Impacts for Cankdeska Cikana Community College Operations, FY2016			
Sector	Direct	Secondary	Total
	-----\$000-----		
Construction	1,920	1,004	2,924
Transportation	86	134	220
Communications & Public Utilities	225	1,313	1,538
Retail Trade	1,157	8,367	9,524
Finance, Insurance, Real Estate	1,420	1,844	3,264
Business & Personal Services	295	691	986
Professional & Social Services	1,316	1,070	2,386
Households	6,912	8,992	15,904
Other ¹	--	3,045	3,045
Total	13,331	26,460	39,791
¹ Other includes agriculture, mining, manufacturing, and government.			

Student Economic Impact

Fall enrollment for the 2015-2016 academic year was 125 full-time and 76 part-time students. student expenditures (e.g., books, supplies, and room and board) likely were made in the community that is home to the college. While some student expenditures may occur in cities and trade areas other than those where the college is located, it was assumed all student spending was in the local community where the college is located.

Based on expenditures per FTE student, students were estimated to have spent \$1.6 million in North Dakota on books, room and board, personal items, and recreation. As detailed in the methods section, expenditures for fees and tuition were not included in the estimate of student expenditures to prevent double counting. Expenditures for tuition and fees were captured in the assessment of college operations.

Average expenditures were \$4,986 per FTE student for the 2015-2016 academic year which was slightly below the average for all expenditures by all students at the five Tribal Colleges for the 2015-2016 academic year. Average student expenditures for all five Tribal Colleges was \$5,417. Student expenditures at CCCC were 11.8 percent of the college's outlays, compared to 25.4 percent for all of the Tribal Colleges and 26.5 percent for the North Dakota University System (Coon et al. 2012a).

Student spending at the Tribal Colleges was allocated to two sectors of the North Dakota Input-Output Model: *Retail Trade* sector (75 percent), and *Finance, Insurance, Real Estate* sector (25 percent). Direct economic impact of student spending of \$1.5 million for academic year 2015-2016 was allocated to the *Retail Trade* sector (\$1.1 million) and the *Finance, Insurance, and Real Estate* sector (\$394,000). Applying these expenditures to the North Dakota Input-Output Model produced an estimate of the total (direct and secondary) economic impact. Secondary economic impacts resulting from student spending totaled \$2.3 million, and total economic impacts were estimated to be \$3.9 million for academic year 2015-2016 (Table 2). The largest impacts were in the *Retail Trade* sector with \$1.8 million in retail trade activity and the *Households* sector (economy-wide personal income) with total impacts of \$1.0 million. The total level of retail trade activity generated by student spending would be expected to generate \$82,000 in sales tax revenues, assuming all purchases were made in the North Dakota economy. Household expenditures would be expected to generate \$14,000 in personal income tax. Business activity from student spending would support 6 secondary (indirect and induced) jobs in the state.

Purchases for books and educational materials present some minor limitation. Books and educational materials are likely largely purchased at campus-sponsored bookstores and accordingly would be captured in the assessment of the college operations. Further, it is likely that most textbooks and educational materials would be purchased from publishing entities outside of North Dakota, and accordingly would not represent in-state expenditures by the colleges. Purchases of books and educational materials from off-campus entities would represent an in-state expenditure. Data was not available to suggest to what degree students purchase books and educational materials from on-campus or off-campus entities. To maintain consistency with previous analyses, the cost of books and educational materials was included in the student spending analysis. (Coon et. al. 2012a). Although the potential for some double counting of spending for books and educational materials does exist, the effect on the total would be relatively small. CCCC cost of attendance budgets estimate student expenditures for books and educational materials to be \$350 per semester.

Table 2. Direct, Secondary, and Total Economic Impacts for Cankdeska Cikana Community College Student Spending, Academic Year 2015-2016

Sector	Direct	Secondary	Total
-----\$000-----			
Construction	--	70	70
Communication & Public Utilities	--	115	115
Retail Trade	1,182	590	1,772
Finance, Insurance, Real Estate	394	124	518
Business & Personal Services	--	53	53
Professional & Social Services	--	65	65
Households	--	950	950
Other ¹	<u>--</u>	<u>373</u>	<u>373</u>
Total	1,576	2,340	3,916

¹Other includes agriculture, mining, transportation, manufacturing, and government.

Value of a College Education

A college education has both social and economic benefits. A review of published literature illustrates the range of benefits associated with a college degree. While the monetary value of higher education has been studied extensively, social benefits have been more difficult to quantify. While an analysis of the value of a college education for graduates of the CCCC was beyond the scope of this study, a review of published findings on the value of a college education will provide insight into how a college education can benefit both students and communities.

One obvious advantage of a college degree is better wages, but benefits extend beyond increased salaries. Adults with a college degree are healthier, more active citizens, and are more likely to read to their children than those without a college degree (Baume et al.2010). College graduates are 14 percent less likely to be obese than high school graduates and nearly twice as likely to exercise vigorously. Only 9 percent of college graduates smoke compared to 27 percent of those with, at the most a high school diploma. A higher percentage of college-educated parents (68 percent) read to their children daily than do high school graduates (27 percent) (Baum et al. 2010) and people with a college degree donate their time to community organizations at a higher rate than any other group. Rawley and Hurtado (2002) contend that benefits of a college degree are also passed along to succeeding generations. Additionally, “college attendance has been shown to decrease prejudice, enhance knowledge of world affairs, and enhance social status while increasing economic and job security” (Rawley and Hurtado, 2002).

The Alliance for Excellent Education (2012) published a report stressing the importance of providing a quality education to all children, regardless of race or socioeconomic status. This report states that in order to maintain the economic strength of the United States, it is imperative to provide all students with a quality education. In addition to the economic benefits individuals receive from increased education, communities, states, and the nation also benefit. For example, if the 2011 high school graduation rate would have been 90 percent, an additional 750,000 students would have earned a diploma, which would have resulted in an additional \$9 billion earned each year and increased tax collections of \$2 billion per year at the federal, state, and local levels (Balfanz et al. 2012). The actual U.S. graduation rate in 2010-2011 was 79 percent and 86 percent in North Dakota (U.S. Department of Education, 2017). Although the study did not report statistics specifically for Native American students, it stated that 31 percent of whites age twenty-five and older held a Bachelor's degree in 2011, compared to just 20 percent for blacks and 14 percent for Hispanics (Alliance for Excellent Education 2012).

The Alliance for Excellent Education (2012) study concluded that improving education levels in the United States could save tens of billions of taxpayer dollars annually on social costs, such as health care, unemployment, and incarceration. Improving education for traditionally underserved and under-represented groups is a major factor in breaking the cycle of poverty and disenfranchisement. Low education levels are closely associated with increased rates of homelessness, teen pregnancy, and community violence.

Research by Hardy (2010) compiled seven benefits associated with higher education. Benefits are categorized as either economic or social. Economic benefits include higher earnings potential, employer-provided health care coverage, and job stability. Social benefits were lower stress, healthier lifestyle choices, job satisfaction, and future children benefits. Job satisfaction is a benefit that might be overlooked, but because people spend most of their lives working, how they feel about their work can greatly affect them. Salient observations regarding future benefits for children included correlation between mother's education and the health of her children. Child mortality rates decreased as the mother's education attainment levels increased, and parents with a higher education had higher expectations for their children to earn a college degree. In addition, parents with college degrees were more likely to pay for their children's college education. In a report released by Cankdeska Cikana Community College (2010) the social benefits particular to Native American reservations were listed as mitigation of social problems, centers for preservation of culture, language and traditions, provision for further educational opportunities, technology transfer, and community programs.

Numerous studies have examined the earnings advantage for a college graduate compared to a high school graduate. However, the lifetime earnings advantage for a college degree varies by study. Lifetime earnings advantage ranged from a low of \$150,000 (Robinson 2010), to a middle range of \$650,000 (Pew Research Center 2011), with the highest of \$1,000,000 (Longley 2010). The wide range of values for a college degree were due to assumptions regarding unemployment and underemployment. Robinson (2010) assumed that 29 percent of college graduates are underemployed (i.e., working at high school-level jobs). Current national unemployment rates remain in the 5 percent range, and many college graduates may be underemployed based on the level of education. However, these workers will move into jobs in their career field as they become available. Robinson (2010) also acknowledged that the value of a college education could range from \$150,000 to \$500,000 over the course of a lifetime. An estimated \$1 million earnings advantage for a college degree was the highest reported. People with less than a high school degree are at an even greater disadvantage to those with high school or college

degrees. The unemployment rate for individuals in the United States with less than a high school diploma was 8.0 percent compared to 2.8 percent for individuals with a Bachelor’s degree in 2015 (Figure 1).

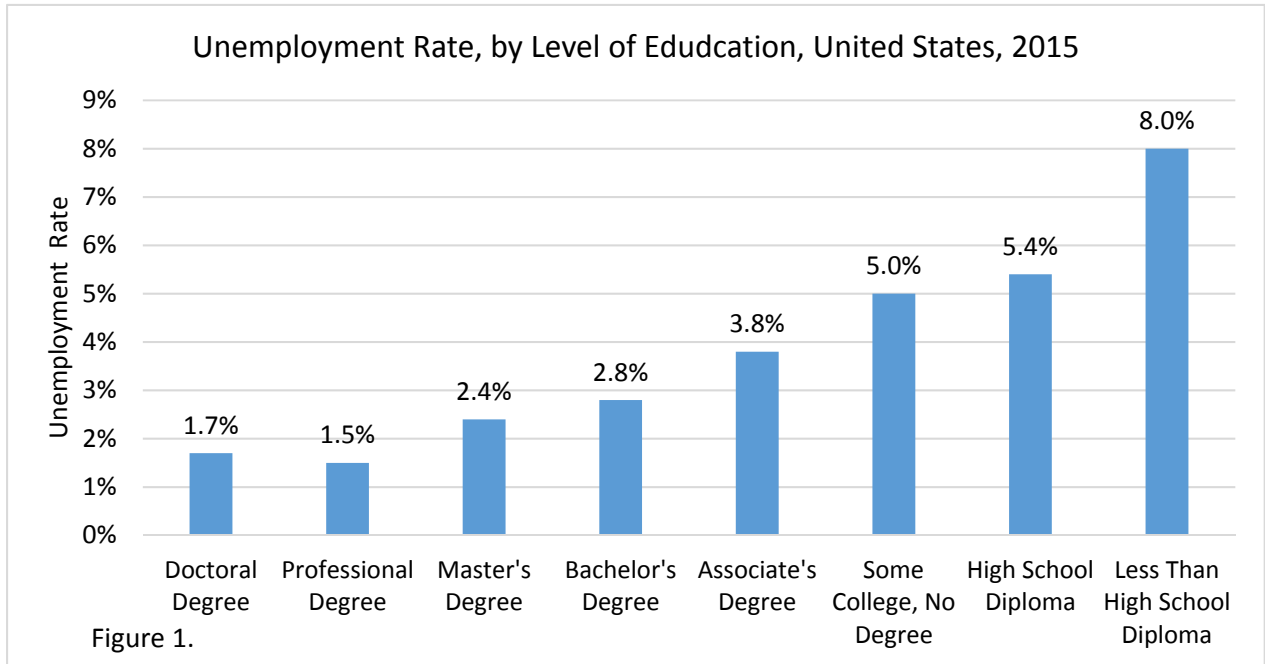


Figure 1. Unemployment Rate by Level of Education in the United States, 2015.
Source: U.S. Bureau of Labor Statistics 2015.

Adults in the United States with a high school degree received median annual earnings were about 60 percent of those with a Bachelor’s degree in 2012 (Figure 2). Bachelor’s degree holders median annual earnings were \$59,124 compared to \$35,256 for those with a high school degree (Bureau of Labor Statistics, 2012). Baum and Ma (2007) completed a comprehensive assessment on the value of higher education and analyzed income earning potential by level of education, race/ethnicity, and gender. This study developed rates of lifetime earnings for all educational levels compared to a high school degree baseline (i.e., a high school degree had a value of 1.00).

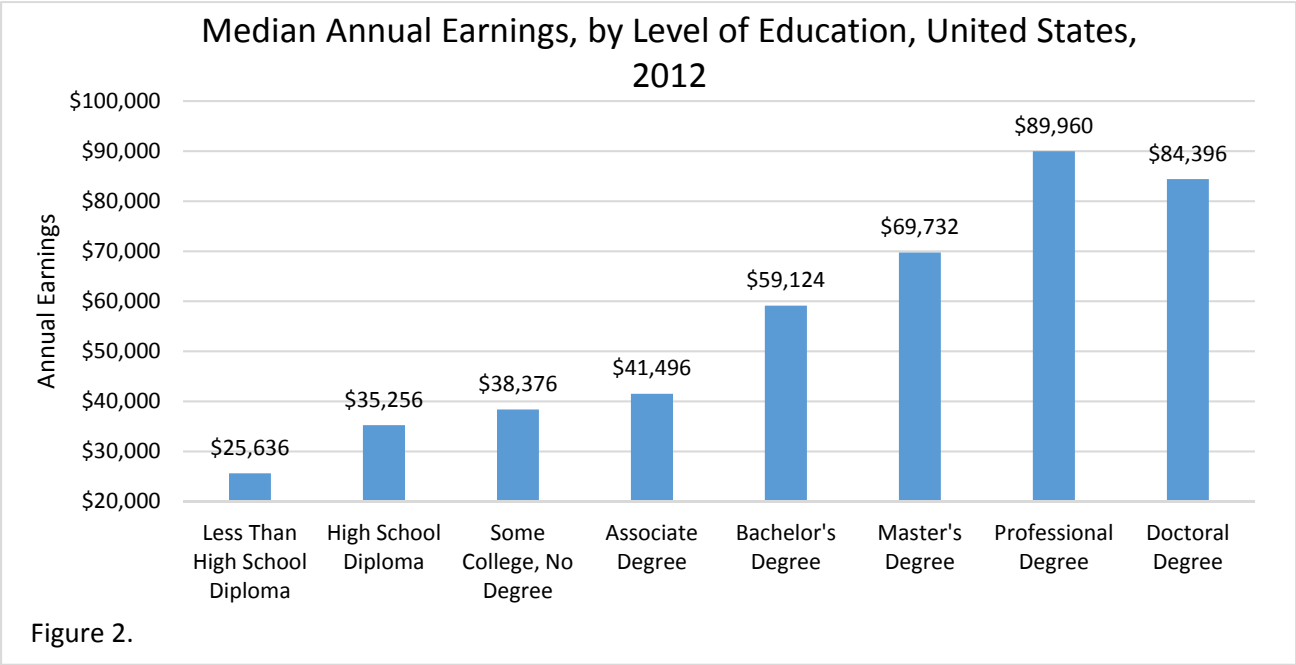


Figure 2. Median Annual Earnings of Adults Age 25 and Older, Full-time Workers in the United States, 2012
 Source: U.S. Bureau of Labor Statistics 2012.

Figure 3 presents the earnings ratio for various levels of education. A Bachelor’s degree has an earnings ratio of 1.65, meaning that lifetime earnings of a college graduate will be 65 percent more than a high school graduate (Baum and Ma 2013). Lifetime earnings for those with an Associate’s degree were 27 percent higher than earnings for those with a high school diploma. A non-high school graduate will earn 28 percent less than a high school graduate over their working lives. Post-baccalaureate degrees returned even higher lifetime earnings.

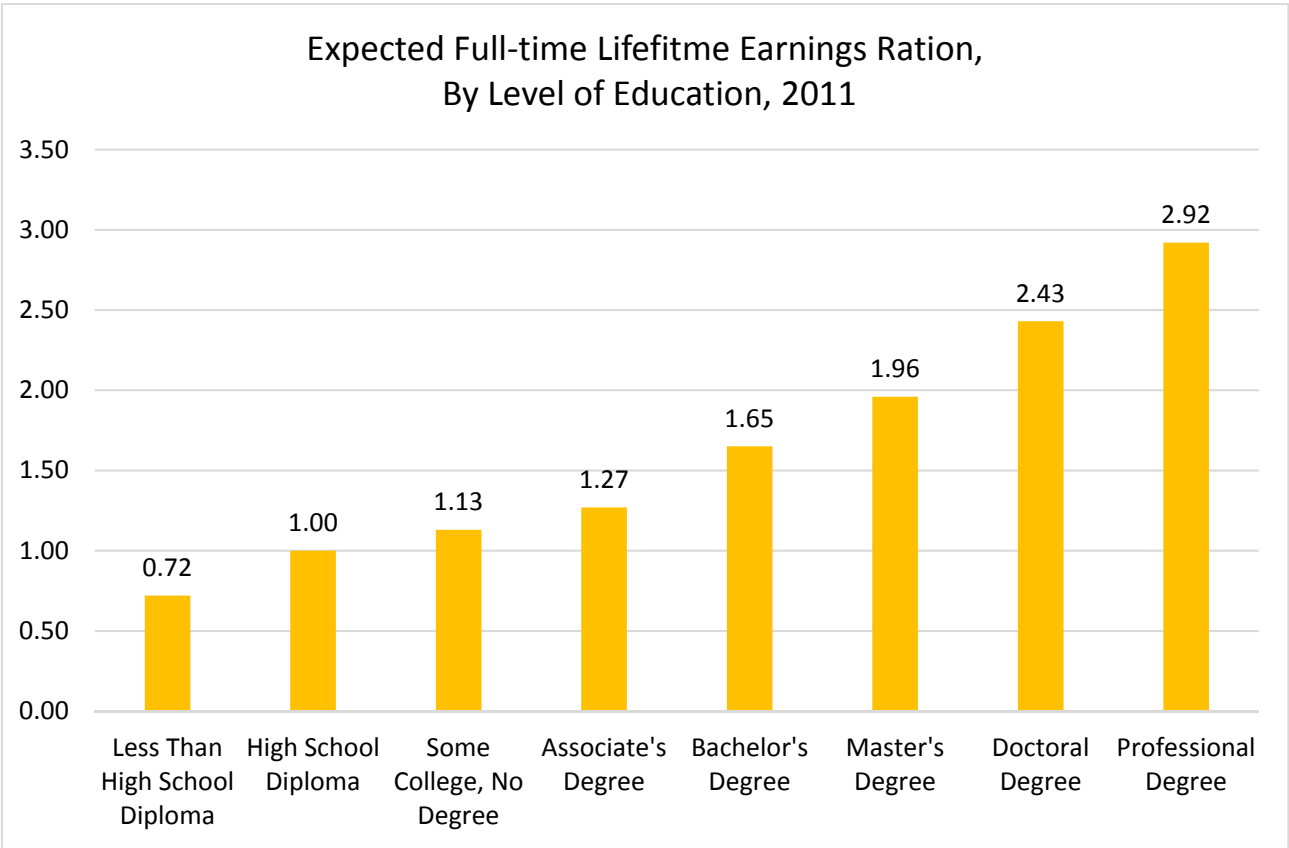


Figure 3. Ratio of Expected Lifetime Earnings Relative to High School Graduates in the United States, by Education Level, 2005.
 Source: Baum et al. 2013.

The percentage difference in median wages associated with level of education clearly shows the wage effects associated with education. The median income for individuals with an Associate’s degree was 27 percent higher than the median income for an individual with a High School diploma in 2015. Median earnings associated with a Bachelor’s degree were 65 percent higher earnings associated with a High School diploma and median earning for a Master’s Degree were 104 percent greater than a High School diploma. The differences in median wages between a High School Diploma and higher levels of education have remained relatively constant since 2005 (Figure 4).

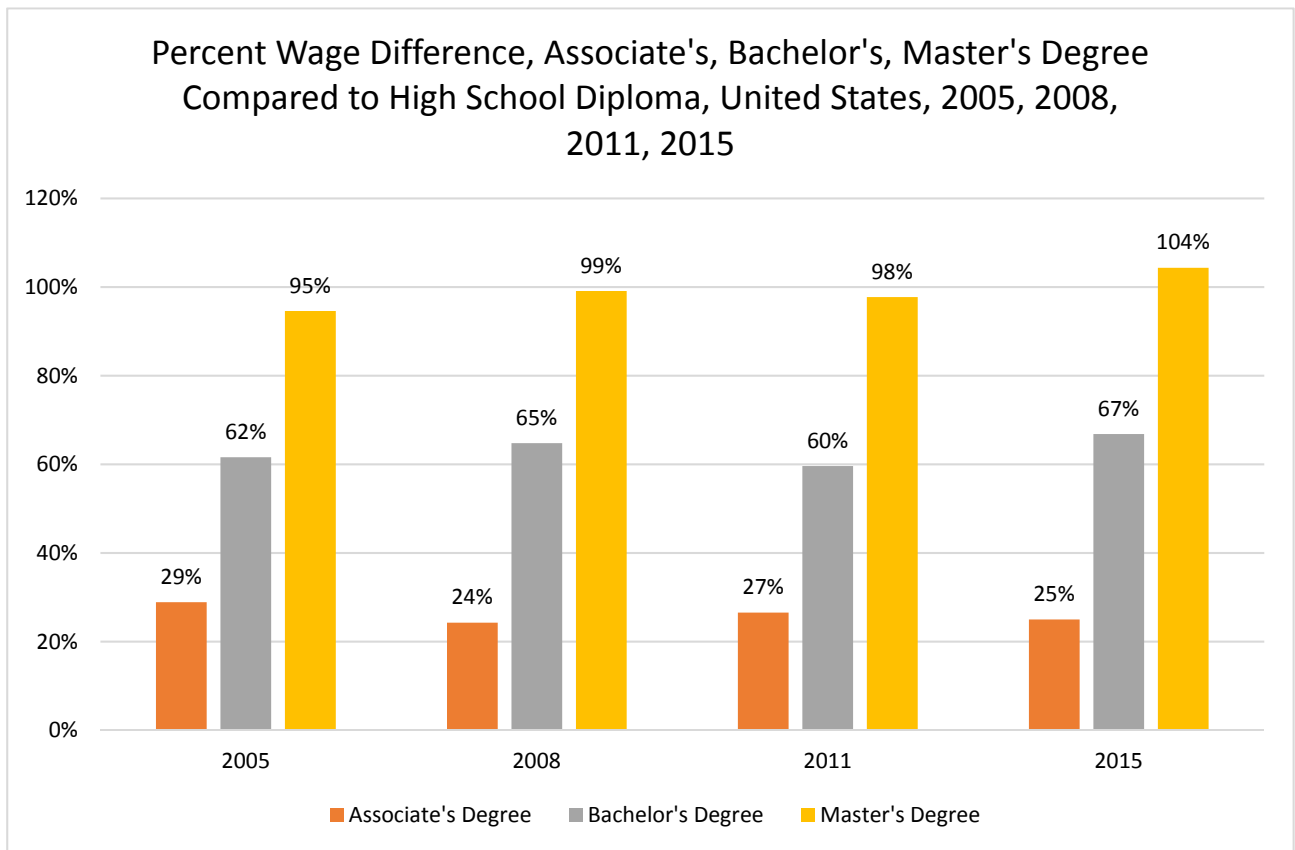


Figure 4. Percent Average Difference, Associate's, Bachelor's, Master's Degree Compared to High School Diploma, 2005, 2008, 2011, 2015

Source: Baum et al. 2010.

Zaback et al. (2012) also developed earnings ratios for education levels relative to a high school degree and developed the ratios for different academic areas (i.e., arts and humanities, business) and for each state. The analysis found that a college degree results in a higher median income, even though the variation across states and disciplines is substantial. Almost without exception, each successive level of higher education attainment results in additional economic benefits. Clearly, education achievement at every level is associated with greater lifetime earnings.

Despite well-documented benefits of higher educational attainment, educational attainment levels are lower on Native American reservations than for North Dakota overall (U.S. Census, 2015). Statewide, 4 percent of the state's population, age 25 or older have, at most, some high school education but not a diploma. On the state's Native American Indian reservations, rates for those with some high school education but no diploma range from 6 percent on Fort Berthold to 15 percent on Spirit Lake. Alternately statewide, 20 percent of the population age 25 years and older has a Bachelor's degree compared to rates that range from 9 percent on Spirit Lake and 16 percent on Fort Berthold. Statewide, 20 percent of the population, 25 years and older, has a Bachelor's degree, as compared to rates that ranges from 10 percent on the Spirit Lake Reservation 16 percent on Turtle Mountain. Nationally, in 2015, 42.3 percent of the population, 25 years and older, had a two-year degree, and 32.5 percent had a

four-year college degree (Ryan and Baum 2016). Across nearly every level of education, educational attainment is lower on the Spirit Lake reservation than in North Dakota and the United States overall (Figure 5 and 6).

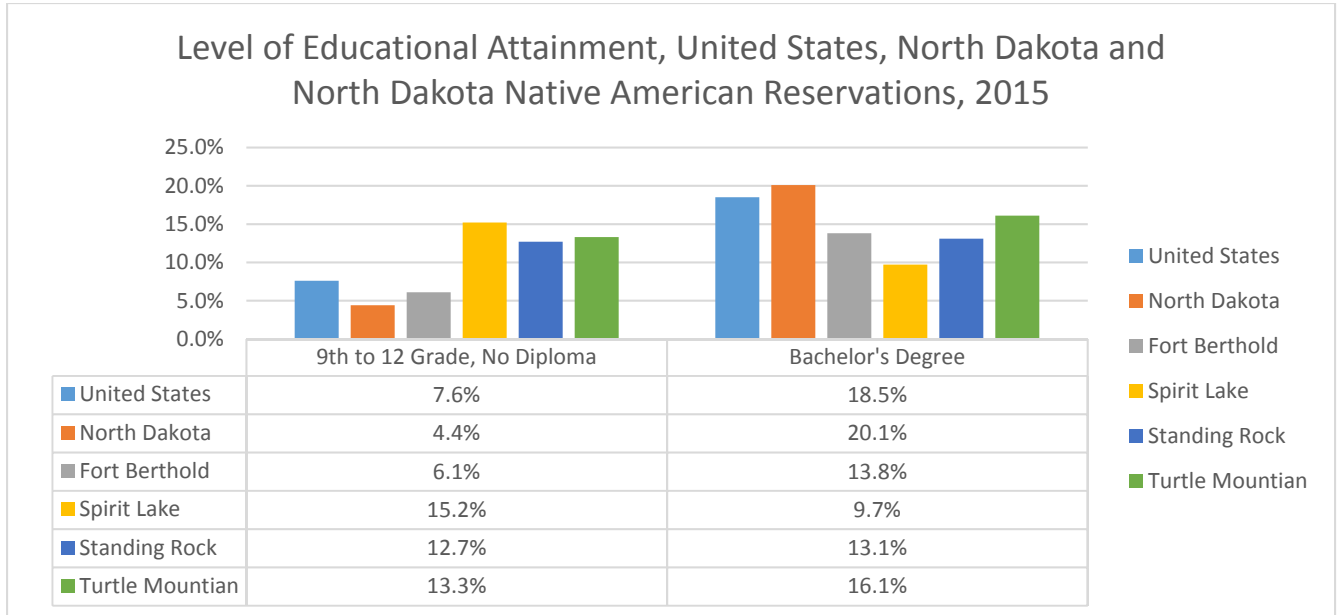


Figure 5. Level of Educational Attainment, North Dakota and Spirit Lake Native American Reservation, 2015

Source: 2011-2015 U.S. Census American Community Survey, 2015

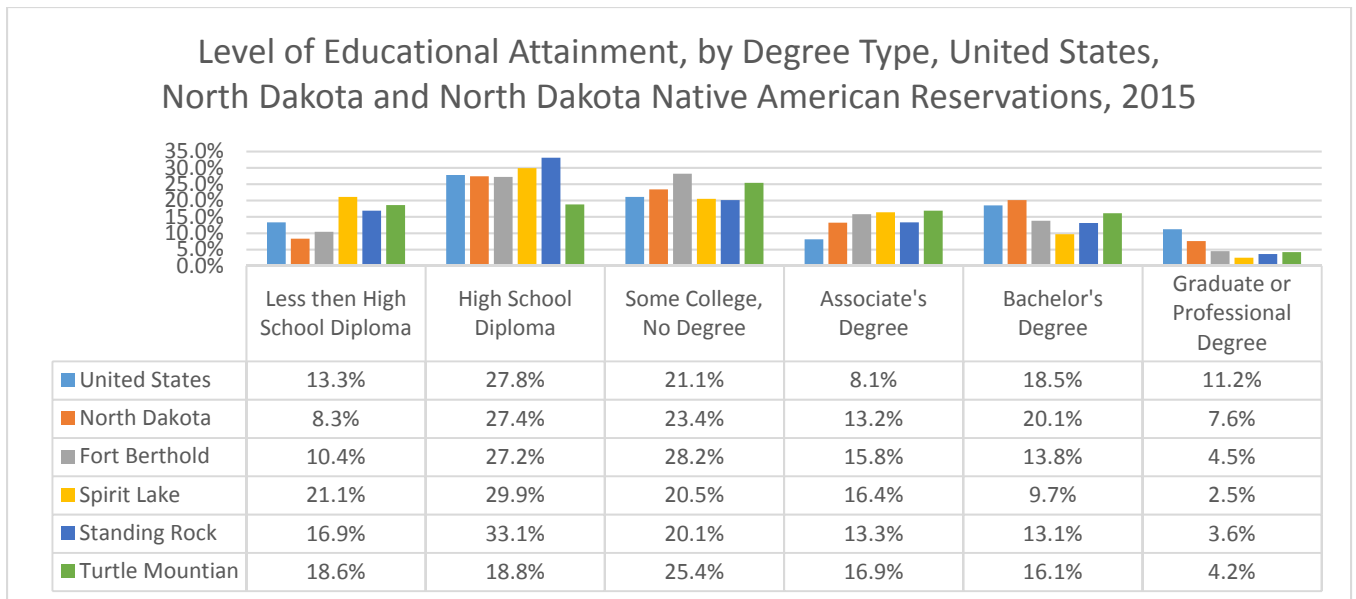


Figure 6. Level of Educational Attainment, by Degree Type, United States, North Dakota and North Dakota Native American Reservations, 2015

Source: 2011-2015 U.S. Census American Community Survey, 2015

High school graduation rates are lower on Native American reservation as well. The high school graduation rate for all Native American students in North Dakota in 2014-2015 was at 60 percent compared to the overall statewide graduation rate of 86 percent (Figure 7) (North Dakota Department of Public Instruction, 2015). Dropout rates for Native American students statewide were 34 percent compared to 10 percent statewide, for all students. Graduation rate at the Fort Totten School District in 2014-15 was 50 percent and the dropout rate for Fort Totten Native American students was 42 percent, (ND Department of Public Instruction, 2015)

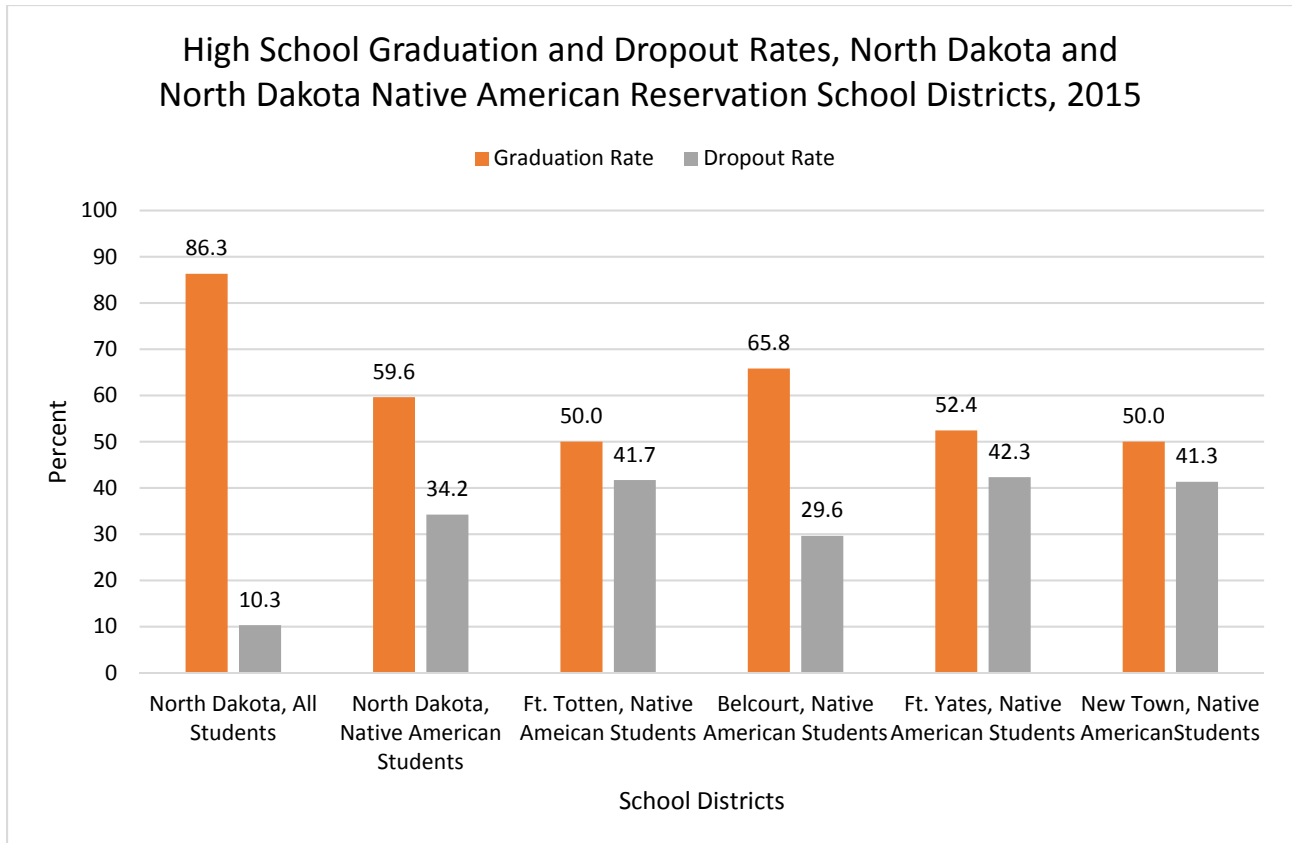


Figure 7. High School Graduation and Dropout Rates, North Dakota and North Dakota Native American Reservation School Districts, 2014-2015
Source: North Dakota Department of Public Instruction, 2015

The social and economic benefits that result from educational attainment are well documented. Higher education results in increased earnings and improved social conditions. Improved economic and social conditions from post-secondary education enhance quality of life and the social and economic benefits of a college education are often passed onto subsequent generations. While the value of a post-secondary degree specific to the state's Tribal Colleges was beyond the scope of this study, published research and statistics clearly illustrate positive social and economic benefits of higher education. North Dakota Tribal Colleges serve an important role in improving economic and social conditions on the Spirit Lake Native American reservation and communities in North Dakota through the delivery of post-secondary higher education.

Conclusions

The North Dakota Association of Tribal Colleges (NDATC) consists of five colleges located in North Dakota. One of those five colleges is the Cankdeska Cikana Community College that serves the Spirit Lake Reservation in Fort Totten. In addition to providing cultural-based education opportunities for Native Americans, tribal colleges also have an economic impact as a result of college operations, spending for goods and services, and wages and salaries. Student spending also contributes to the economic effects related to the Tribal Colleges. In addition to economic impacts, the higher education opportunities provided by CCCC have both positive social and economic benefits.

Cankdeska Cikana Community College direct expenditures into the North Dakota economy were \$13.3 million in FY2016. The college employed 125 full-time workers and 37 part-time workers. Total economic impact for CCCC was \$39.8 million in FY2016, which included \$26.5 million of secondary impacts. Business activity in the *Households* sector, which measures economy-wide personal income, was estimated to be \$15.9 million in FY2016. Considering the largest expenditure category for the college was for wages and salaries this result was not unexpected. Retail trade activity attributed to CCCC's expenditures were estimated to be \$9.5 million in FY2016. Business activity generated by CCCC's expenditures would produce \$440,000 in sales and use taxes, and \$239,000 in personal income taxes. In addition to the 125 full-time and 37 part-time jobs at Cankdeska Cikana Community College, the level of business activity associated with college expenditures would support another 90 FTE secondary (indirect and induced) jobs.

Student expenditures for living expenses also have economic effects. Four hundred and two students were enrolled on a full-time or part-time basis during the 2015-2016 academic year. Expenditures by the 158 FTE students at Cankdeska Cikana Community College for personal items, recreation, books, supplies, and room and board totaled \$1.6 million for the 2015-2016 academic year. Total economic impacts (direct plus secondary) associated with student expenditures was \$3.9 million; secondary effects totaled \$2.3 million. Impacts were the greatest in the *Retail Trade* sector (\$1.8 million) due to the high percentage of student spending for retail trade items. The next highest level of business activity was in the *Households* sector (economy-wide personal income) with \$10 million in total (direct plus secondary) impacts. This level of business activity would support 6 secondary jobs in various sectors of the North Dakota economy. Economic effects from student expenditures are in addition to those of Cankdeska Cikana Community College operations.

In addition to local economic impacts, social and economic benefits accrue to individuals with higher academic achievement. Previous studies have reported that college graduates have healthier life styles, healthier children, increased job satisfaction, have shown decreased prejudice, enhanced knowledge of world affairs, and enhanced social status. Many of these benefits are passed onto succeeding generations. Further, college graduates have lower unemployment rates and higher annual incomes than those without a college degree. The national unemployment rate for high school graduates was 5.4 percent in 2015, nearly double the 2.8 percent rate for person with a Bachelor's degree. Higher income is also associated with educational attainment. In 2012, median annual earnings in the United States for a Bachelor's degree was \$59,124, while median annual earnings for a high school degree was \$35,256, approximately 60 percent of the earnings associated with a Bachelor's degree.

Currently in North Dakota there is considerable education disparity between the Native American population and the state population overall. Educational attainment is lower on Native American reservations than North Dakota and the United States overall. Across nearly every level of education, educational attainment is lower on the Spirit Lake reservation than state and national averages. Published research and statistics clearly illustrate positive social and economic benefits of higher education. The Tribal Colleges and CCCC serve an important role in improving economic and social conditions for people and communities on the Spirit Lake Native American reservation and throughout North Dakota through the delivery of post-secondary higher education.

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