

The local economic impact of Northwest Technical College

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Summary

- **Northwest Technical College adds an estimated \$24,508,683 per year in activity to the local economy; and**
- **Northwest Technical College adds an estimated 343 jobs to the local economy.**

These estimates are based on data from the 2005-2006 fiscal year and reflect the contribution the college makes to the local economy.

Overview

A college has economic impact on the community in which it is located in several ways:

- First, there is the direct spending of the college itself, including funds spent for wages and salaries, contracted services, supplies, repairs, and the like;
- Second, there is spending by students, many of whom are residents of the local area; and
- Third, the college has a multi-faceted impact on the local labor market. The college employs local residents; college and student spending creates jobs; many students work part-time while going to school; and some students stay in the local area after completing their studies.

Spending, either by the college or by its students, is not a one-time event. A portion of initial spending by one party becomes income to someone else in the local economy, who then also spends a portion of that income, so that the total spending impact is a multiple of the initial spending. Multipliers vary by location and by the initial source of the spending. The best estimate of multipliers is prepared by RIMS II (Regional Impact Multipliers). The appropriate multiplier for spending by colleges, universities and professional schools in Bemidji is 1.825. Thus, the economic impact of the college on Bemidji is the sum of the college's direct spending and spending by students in Bemidji times the multiplier. The total annual impact of Northwest Technical College on Bemidji is \$24,508,683. Spending is summarized in Figure 1 below, and explained in some detail in the next few pages.

The additional impact on the local labor market includes direct jobs of people working for the college and additional jobs generated by the overall increase in economic activity. The total jobs impact of Northwest Technical College is 343 full-time equivalent jobs in the local economy.

1. Estimated annual local economic impact of Northwest Technical College

College direct spending	\$6,948,000
Plus student spending	\$6,481,415
Equals total direct spending	\$13,429,415
Times multiplier	1.825
Equals total spending impact	\$24,508,683
Jobs impact of spending	343 jobs

Direct spending by Northwest Technical College

While salaries account for Northwest Technical College's largest single expense, not all of that amount is spent locally and so cannot be included as part of college direct spending. The amount the college reported spending on salaries and benefits, \$4,275,000, has been reduced 60 percent in order to account for income taxes, benefits, and personal savings and spending outside the area. The portion of college spending on salaries that has local impact is estimated to be \$1,710,000.

Other spending by the school injects additional dollars into the local economy. Additional spending categories that have local impact include purchases of supplies, services, repairs and maintenance, and miscellaneous other expenses. These totaled \$5,238,000 in 2006. Figure 2 below shows total direct local spending by Northwest Technical College was \$6,948,000.

2. Direct spending in Bemidji by Northwest Technical College in 2006

Salaries (adjusted)	\$1,710,000
Supplies, services, repairs, maintenance, misc. expenses	\$5,238,000
Total direct spending	\$6,948,000

Spending by students

To obtain information on student spending, Wilder Research surveyed students at each of the participating colleges. The spending reported below is the spending reported by full- and part- time Northwest Technical College students.

Students were surveyed in May, 2007. They were asked questions about their spending on meals away from home, their shopping in the local area, and their rent and living arrangements. In addition, we included questions about their jobs, cars, education and career objectives and whether or not they planned to stay in the area once their studies were completed. The surveys were conducted online. There was no way to verify that the students responding to the survey mirrored the entire college, but the number of responses (34) was large enough that the sample could be considered to be representative of the student body.

Students were separated into two groups: full-time students and part-time students. Average spending by students in each of these groups was multiplied by the actual number of students in each of these groups during the 2005-2006 school year.

Three types of student spending were considered: spending on books and supplies, weekly spending on food away from home, and other shopping per month. To obtain annual spending, reported spending on books and supplies per term was multiplied by two (the number of school terms), weekly spending on food away from home was multiplied by 34 (the number of weeks in the school year), and monthly shopping was multiplied by 8 (the number of months in the school year). Estimates of spending by each of these groups is reported in Figure 3 below. Spending on rent or mortgage payments has been excluded from the figure since neither has any substantive impact on local spending.

The pattern of student spending at Northwest Technical College was similar to most of the colleges surveyed. Part-time students were more often employed, tended to work longer hours and a larger share of them lived with their spouse and/or children. Unlike other colleges, full-time students reported higher average spending per student than part-time students. We do not have sufficient data to fully explain this difference at this time.

3. Estimated local spending by students at Northwest Technical College

	Full-time students	Part-time students
Average annual \$ per student		
Books and supplies	\$1,481	\$1,079
Food away from home	\$729	\$751
Other shopping	\$4,828	\$3,305
Total	\$7,038	\$5,136
Times:		
Number of students	451	644
Equals:		
Average annual spending	\$3,174,102	\$3,307,314
Total student spending (both groups)		\$6,481,415

Automobile expenses were a large share of student spending in all groups. A significant share of students bought their automobiles outside of Bemidji. However, their spending on auto operations occurred largely in the local economy.

4. Estimated automobile-related spending by students

	Full-time students	Part-time students
Own a car	100.0%	100.0%
Average monthly spending on auto operation	\$194	\$130
Auto purchased in Bemidji	43.5%	0.0%

Labor market impact

The presence of Northwest Technical College has a number of important impacts on the local labor market. The first of these, of course, is that the school brings jobs to the community. It does so both directly, through its employment of faculty and staff, and indirectly, as its spending and the spending of its students support additional jobs in the community. Based on standard multiplier analysis, we estimate that Northwest Technical College brings a total of 343 to Bemidji, jobs that would not be there if the school were not a part of the community.

The second way in which the school affects the local labor market is by adding to the local workforce because many students work part-time while in school. A high percent

of the student body works in addition to attending classes. The economic effect of these part-time student workers is easy to overlook. However, student workers can be a reliable and flexible source of labor for local companies. Taken together, the students make a significant contribution to the local labor force as the survey results in the Figure 5 show.

5. Northwest Technical College Students in Bemidji workforce

	Full-time students	Part-time students
Number of students	451	644
Percent employed	56.5%	90.9%
Average weekly hours	22.7	32.5
Total number of student workers in local labor force		840
Full-time equivalent student workers		620

Based on survey results, 56.5 percent of full-time and 90.9 percent of part-time students hold jobs in the community. The full-time students work an average of 22.7 hours while the part-time students work an average of 32.5 hours per week. Thus, there are 840 student workers in Bemidji. Given the average hours worked, this student workforce is the equivalent of 620 full-time workers.

The third and most important way that the Minnesota state colleges and universities contribute to the labor market is by providing a pool of graduates whose higher skill level enhances the productivity of the local workforce and the profitability of local companies. A recent study by Wilder Research of the statewide economic impact of the system reports that the ongoing economic contribution of the graduates of its schools is approximately \$2.4 billion per year. That figure represents the added wages graduates who work in Minnesota earn as a result of the training they received.

It is not possible to calculate a corresponding figure to estimate to the enhancement to the productivity of the local labor force generated by Northwest Technical College graduates. Sufficient data for such an estimate are not available. Moreover, since workers are highly mobile, Northwest Technical College graduates may end up working in other Minnesota cities just as some graduates of other institutions in the system may fill jobs in Bemidji.

Nevertheless, it is reasonable to expect that having a Minnesota state college or university located in a community adds to the skill level of the workforce for two reasons. Workers who have already settled in the community can seek additional training while working and some of the students who come to the community for school will choose to stay and take jobs in the area. The results of the student survey support this idea. When students

were asked whether or not they intended to stay in this area after their studies were completed, 88.2 percent indicated they planned to stay in Bemidji. Clearly the local economy will benefit from their doing so.