

Data and Evidence Analysis Summary – Machine Tool Operation 2016

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WTCS Comparative Data:

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-31-4201-Machine-Tool-Operation-QRP-1-Year-Tech-Diploma-Evidence-Analysis-Report.pdf>

Course Completion

- C or better course completion for the Machine Tool Operation program ranged from 40.0% in 2011 to 88.9% in 2015. When compared to the three other colleges selected as a comparison group, Western ranks 2nd out of four. Northeast Wisconsin Technical College consistently outperformed Western during these years and may be worth further examination.
- Western's number of students ranged from 15 in 2011 and 2012 to 22 in 2013, 20 in 2014 and 18 students in 2015. The other three WTCS colleges also saw increased enrollments in 2013 and 2014 and lower enrollments in 2015. Again further examination and possible discussions with program faculty might be of value.

Fall to Spring Retention

- Western's fall to spring retention ranged from 60.0% in 2010 to 75.0% in 2013 for an average over time of 70.7%.
- It experienced a low in 2012 at 41.7% and rebounded to 80.0% in 2013.
- When compared to the other three schools in the comparison group, Western had the lowest average fall to spring retention over the 6 years of measurement. Averages over the 6 years ranged from 70.7% for Western to 91.9% for Northeast Wisconsin Technical College.
- Western's cohort size (number of starting students) ranged from 15 in 2010 to a high of 21 in 2014. With an average of 17 first-term students declaring the program in a given year, Western has the lowest enrollment of first-term students within this comparison group for 2015.

Western's Second Year Graduation

- Western's second year graduation ranged from 16.7% in 2013 to 38.1% in 2015 with an average over the six years of 41.5%. Western's 2014 report year cohort (students starting in 2013) achieved the highest second year graduation with 60.0% of students graduating within two years.
- In a comparison to the other five colleges, Western's second-year graduation rate (average) of 41.5% is 3rd out of four. Other schools include Lakeshore Technical College at 40.4% and Northeast Wisconsin Technical College at 81.4%.

Labor Market Analysis October 2015

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-OCT-Machine-Tool-Operation-Program-Trends.pdf>

In an analysis of the Western District and occupations associated with the field of machine tool operation, the following points are noted:

- From 2016-2020, these occupations in Western's district are expected to grow 2.3%.
- Expectations for district trends are much stronger than both state (0.35) and national (0.0%) trends.
- Job distribution throughout the district has high concentrations in La Crosse County, Juneau County and Trempealeau County.
- This program includes occupations with an aging population, 54.1% of those employed are 45 years of age or older. The smallest segment of workers is the 19-24 year old population with 7.2%. The high school population of students may benefit from greater exposure to the occupations and benefits of working in agribusiness occupations.
- Specific occupations with strong growth include Computer-Controlled Machine Tool Operators, Metal and Plastic (10% - 29 new positions)
- Other occupations with high percentages of increase but relative mild numbers of new positions include:
 - Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic (13% - 9 positions)
 - Machinists – (8% - 41 Positions)
- Earnings for graduates of this program (median) are strong ranging from \$12.57 per hour for Forging Machine Setters, Operators, and Tenders, Metal and Plastic to \$23.20 for Layout Workers, Metal and Plastic.

Student Satisfaction Trends

The Noel Levitz Student Satisfaction Inventory was conducted in the fall of 2015. The instrument asks students to rate the importance AND the satisfaction with 95 items (1-7 with 7 as highest) related to the following "scales":

- Instructional effectiveness
- Academic advising/counseling
- Concern for the individual
- Registration effectiveness
- Admissions and financial aid
- Student centeredness
- Campus climate
- Academic services
- Service excellence
- Safety and security
- Campus support services and responsiveness to diverse populations

In the program self-study process (data and evidence analysis work), programs are asked to identify gaps between importance and satisfaction. Gaps are calculated as the difference between the importance of an item and the satisfaction level. Gaps that are close to a “1” should be discussed and explored – particularly if they are tied to items that are rated as high in importance for students.

This survey had 5 students respond. A cursory glance at the “scale” level reveals gaps in instructional effectiveness (2.07), academic advising/counseling (1.81), concern for the individual (1.74), registration effectiveness (1.63), admissions and financial aid (2.52), student centeredness (1.39), campus climate (1.51), academic services (2.10), service excellence (1.46), safety and security (1.80), and campus support services (1.37). The students in machine tool rated their overall satisfaction with their experience at Western at 4.74 which is slightly lower than how all students rated (5.72).

A more detailed analysis was conducted at the “item” level. Items are associated with one or more “scales” and provide additional insight into specific areas.

Items rated **highest in importance** for Machine Tool Operation students include several items that scored a 6.75+ (scale of 1-7 with 7 as very important):

- Item # 13 – Financial aid awards are announced to students in time to be helpful in college planning.
- Item #29 – Faculty are fair and unbiased in their treatment of individual students.
- Item #31 – The campus is safe and secure for all students.
- Item #32 – My academic advisor is knowledgeable about my program requirements.
- Item #58 – Nearly all of the faculty are knowledgeable in their fields.
- Item #65 – Students are notified early in the term if they are doing poorly in class.
- Item #88 – Financial aid as factor in decision to enroll.

Note that the students in this program seemed to associate a higher level of importance to many items as compared to students in other programs. This resulted in several items with larger gaps between importance and satisfaction. Items that may be topics of discussion for this program include:

- Item #3 – The quality of instruction in the vocational/technical programs is excellent. (1.00)
- Item #7 – Adequate financial aid is available for most students. (2.20)
- Item #8 – Classes are scheduled at times that are convenient for me. (1.60)
- Item #9 – Internships or practical experiences are provided in my degree/certificate program. (1.50)
- Item #11 – Security staff respond quickly in emergencies. (1.65)
- Item #13 – Financial aid awards are announced to students in time to be helpful in college planning. (2.60)
- Item #15 – I am able to register for classes I need with few conflicts. (2.10)
- Item #16 – The college shows concern for students as individuals. (2.20)
- Item #17 – Personnel in the Veterans’ Services program are helpful. (2.00)
- Item #18 – The quality of instruction I receive in most of my classes is excellent. (2.00)
- Item #19 – This campus provides effective support services for displaced homemakers. (2.67)
- Item #20 – Financial aid counselors are helpful. (2.90)

- Item #23 – Faculty are understanding of students’ unique life circumstances. (3.00)
- Item #24 – Parking lots are well-lighted and secure. (1.00)
- Item #25 – My academic advisor is concerned about my success as an individual. (1.35)
- Item #26 – Library staff are helpful and approachable. (1.33)
- Item #27 – The campus staff are caring and helpful. (2.00)
- Item #28 – It is an enjoyable experience to be a student on this campus. (1.20)
- Item #29 – Faculty are fair and unbiased in their treatment of individual students. (2.60)
- Item #30 – The career services office provides students with the help they need to get a job. (2.23)
- Item #31 – The campus is safe and secure for all students. (1.08)
- Item #32 My academic advisor is knowledgeable about my program requirements. (2.55)
- Item #33 – Admissions counselors accurately portray the campus in their recruiting practices. (3.00)
- Item #34 – Computer labs are adequate and accessible. (1.90)
- Item #35 – Policies and procedure regarding registration and course selection are clear and well-publicized. (2.40)
- Item #36 – Students are made to feel welcome on this campus. (1.20)
- Item #37 – Faculty take into consideration student differences as they teach a course. (2.00)
- Item #39 – The amount of student parking space on campus is adequate. (4.00)
- Item #40 – My academic advisor is knowledgeable about the transfer requirement of other schools. (2.34)
- Item #41 – Admission staff are knowledgeable. (2.00)
- Item #42 – The equipment in the lab facilities is kept up to date. (3.60)
- Item #43 – Class change (drop/add) policies are reasonable. (2.00)
- Item #46 – Faculty provide timely feedback about student progress in a course. (3.20)
- Item #47 – There are adequate services to help me decide upon a career. (2.00)
- Item #48 – Counseling staff care about students as individuals. (2.10)
- Item #49 – Admissions counselors respond to prospective students’ unique needs and requests. (2.40)
- Item #50 – Tutoring services are readily available. (3.50)
- Item #51 – There are convenient ways of paying my school bill. (2.10)
- Item #52 – This school does whatever it can to help me reach my education goals. (3.40)
- Item #53 – The assessment and course placement procedures are reasonable. (2.00)
- Item #54 – Faculty are interested in my academic problems. (2.00)
- Item #55 – Academic support services adequately meet the needs of students. (2.17)
- Item #57 – Administrators are approachable to students. (1.80)
- Item #58 – Nearly all of the faculty are knowledgeable in their fields. (2.00)
- Item #59 – New student orientation services help student adjust to college. (2.00)
- Item #60 – Billing policies are reasonable. (2.40)
- Item #61 – Faculty are usually available after class and during office hours. (1.50)
- Item #62 – Bookstore staff are helpful. (1.20)
- Item #63 – I seldom get the “run-around” when seeking information on this campus. (3.20)
- Item #64 – Nearly all classes deal with practical experiences and application. (2.20)
- Item #65 – Students are notified early in the term if they are doing poorly in a class. (4.80)

- Item #66 – Program requirements are clear and reasonable. (1.20)
- Item #67- Channels for expressing student complaints are readily available. (2.00)
- Item #69 – There is a good variety of courses provided on this campus. (1.60)
- Item #70 – I am able to experience intellectual growth here. (1.00)
- Item # 73 – Campus: The college provides effective support services to assist with transfer to a 4-year university. (3.67)
- Item #74 – Campus: Registration reminders help me to register in a timely manner. (1.80)
- Item #76 – Campus: The college helps me identify resources to finance my education. (1.20)
- Item #77 – Campus: There is sufficient financial assistance for child care available to me. (1.67)
- Item #78 – Campus: Help is readily available to students whose grades fall below average. (3.17)
- Item #80 – Campus: The communication I receive from the college makes me feel like I made a good choice in attending Western. (2.20)

Student Learning Outcomes Assessment Trends

<https://facultyresources.westernc.edu/wp-content/uploads/2015/07/MachineToolOperationSpring2015StudentSLOReport.pdf>

Your program had 10 responses to the survey. Items that may be topics of discussion for this program include:

- Celebrate the good feedback you received about the real-life application of concepts and the variety of courses included in the program. Students seem to really appreciate the hands-on learning.
- There are some suggestions for improvement from the students. It might be valuable to look at past survey results to identify trends in the qualitative feedback received from students. Those results are housed on the Program Excellence web site.
- A couple of students commented about the differences in the teaching styles of their two instructors and their wish for more consistency.
- By the lack of responses to some questions, there may be some confusion as to what the question is actually asking. (i.e., incorporating sustainability in your decisions, transferring social and natural science theories into practical applications).
- There were a couple instances when students expressed frustration with having to buy expensive textbooks and then hardly using them.

Graduate Follow-Up Trends

Year	2012-13
Types of jobs obtained	Apprentice Tool Maker Machine Operator Machinist CNC Machinist Punch Press & Machining
Companies hiring Western graduates	Truline Inc., La Crosse, WI Trane, La Crosse, WI M.T.I., La Crosse, WI Empire Screen Printing, Onalaska, WI TMD Tool and Design, Winona, MN Northern Engraving, West Salem, WI

Year	2013-14
Types of jobs obtained	Machinist
Companies hiring Western graduates	Chart Energy & Chemicals, La Crosse, WI

Year	2014-15
Types of jobs obtained	Tool and Die Maker
Companies hiring Western graduates	Chart Energy & Chemicals Inc., La Crosse, WI

Career Pathways Self-Survey

- Your program had 1 response to the survey. One full-time faculty.

With a small response rate, it is difficult to analyze potential areas for program improvement.

There is opportunity to offer this or similar surveys to other stakeholders to develop a more holistic view of potential program improvements