

Data and Evidence Analysis Summary – IT Web and Software Developer - 2016

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WTCS Comparative Data:

WTCS Data Definitions

<http://mywtcs.wtcsystem.edu/data-systems-grp/continuous-improvement-indicators>

Source

<https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-10-1527-IT-Web-Software-Developer-QRP-Associate-Degree-Evidence-Analysis-Report.pdf>

Course Completion

- Western's C or Better course completion rate for this program has ranged from 52.8% in 2012 to 68.8% in 2014. The average over the past five years is 58.1%. When compared to the only other WTCS institution with the same program, Western's program is outperformed. Lakeshore's five-year average for course completion is 66.3%. It may be worthwhile to talk with faculty at Lakeshore to understand best practices in course completion.
- Western's enrollment has fluctuated from 94 in 2011 to 106 in 2012 to 86 in 2015. Lakeshore has seen steady growth from 24 in 2012 to 62 in 2015.

Second Year Retention

- An analysis of second year retention from 2010 to 2015 shows a high of 55.4% in 2012 (these students joined the cohort in 2010-2011) and a low of 37.3% in 2013 (these students joined the cohort in 2011-2012).
- The average 2nd year retention over the past six years is 49.2% compared to 51.6% at Lakeshore.
- A course-by-course analysis of completion rates would be helpful to determine where students experience difficulties that result in attrition.
- It may be beneficial for this program to compare 2nd year retention to other Western programs in the Business Division. For example, the Accounting program has an average 2nd year retention rate of 55% while the Admin Professional program has an average 2nd year retention rate of 62.8%. Business Management averaged 48.1%. The IT CSS program averaged 47.8% and the IT Network Systems Administration program averaged 59.6% for the same period of time.

Third Year Graduation

- Western's 3rd year graduation rate for this program ranged from a high of 16.7% in 2011 and 2015 to a low of 6.8% in 2014 (these students joined the cohort in 2011-2012).
- The average graduation rate for the five years of measurement is 13.2% as compared to Lakeshore at 21.3%.

- Third year graduation in the IT Network Systems Administration program averaged 20.2% and 13.8% for the IT CSS program.

Labor Market Analysis October 2015

Source: <https://facultyresources.westernnc.edu/wp-content/uploads/2015/11/2015-OCT-IT-Web-and-Software-Developer-Program-Trends.pdf>

- Occupations related to IT Web and Software are expected to grow by 6.7% in the district as compared to a national growth rate of 6.8% and a state growth rate of 8.7%. This results in the addition of 39 new jobs to this career pathway from 2016-2020 in the Western District. This does not take into consideration job openings due to attrition or retirement.
- Median hourly wages are \$31.11 per hour as compared to \$42.87 per hour nationally.
- Graduates of this program can expect to see 21 annual openings through 2020.
- Occupations with the greatest number of annual openings includes 6 jobs per year for Software Developers, Applications (6) and Computer Programmers (5).
- Jobs are projected to be concentrated in La Crosse County in 2020 (383) with solid representation in Monroe County (78).
- Occupations in this field appear to employ a younger population with only 15.4% of those currently employed over the age of 55. Recruiting and building relationships with high schools would be a strategy to consider. In addition, these occupations tend to have a bit more ethnic diversity with 8% Asian.
- An analysis of the Classification of Instructional Programs (CIP) shows that there are 11 educational programs housed in the district that are tagged to deliver graduates into the IT Web and Software Developer field. Education programs associated with this field include Computer and Information Sciences, General (33 graduates in 2014); Computer Systems Network and Telecommunications (25 graduates in 2014); Management Information Systems, General (23); Computer Software Engineering (15 in 2014) and Computer Programming/Programmer, General (6 graduates in 2014).
- There were 111 completions for 23 openings in 2014. It is important to note that both Viterbo and UW-La Crosse contribute to the number of completers – and that their graduates (unlike Western’s graduates) may seek employment outside of the district. That said, it will be important to monitor job placement rates to make sure that the market is not being over-saturated.
- The majority of jobs in 2015 were housed within the Federal government-civilian, software publishers, corporate settings, computer systems design services, and custom computer programming services.

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.

Eight students responded to the survey. A cursory glance at the “scale” level reveals several areas at a gap greater than “1” or approaching a “1.” These areas include instructional effectiveness (1.06), admissions and financial aid (1.01), concern for the individual (.99), registration effectiveness (.99), academic services (1.09), safety and security (1.18), and campus support services (.98). The overall satisfaction with the experience at Western for IT Web and Software Developer students was 5.86 as compared to 5.68 for all students responding to the survey. IT Web and Software Developer students indicated that the experience thus far was slightly better than expected (4.86) which is just a bit below that of all students (4.93).

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 IT Web and Software Developer students include (scale of 1-7 with 7 as very important):

- Item #31 – The campus is safe and secure for all students (6.86)
- Item #32 – My academic advisor is knowledgeable about my program requirements (6.80)
- Item #36 – Students are made to feel welcome on this campus (6.57)
- Item #20 – Financial aid counselors are helpful (6.75)
- Item #34 – Computer labs are adequate and accessible (6.71)
- Item #57 – Administrators are approachable to students (7.00)
- Item #73 – The college provides effective support services to assist with transfer to a four-year university (7.00)
- Item #40 – My academic advisor is knowledgeable about the transfer requirements of other schools (6.75)
- Item #49 – Admissions counselors respond to prospective students’ unique needs and requests (6.75)
- Item #56 – The business office is open during hours which are convenient for most students (7.00)
- Item #72 – The wellness center meets my fitness needs (7.00)

- Item #77 – There is sufficient financial assistance for child care available to me (7.0)

Items that may be topics of discussion for this program include:

- Item #65 – Students are notified early in the term if they are doing poorly (2.57 gap)
- Item #78 – Help is readily available to students whose grades fall below average – (2.30 gap)
- Item #8 – Classes are scheduled at times that are convenient for me (1.37 gap)
- Item #3 – The quality of instruction in the vocational/technical programs is excellent (1.37 gap)
- Item #23 – Faculty are understanding of students' unique life circumstances (2.00 gap)
- Item #16 – The college shows concern for students as individuals (1.38 gap)
- Item #42 – The equipment in the lab facilities is kept up to date (1.43 gap)
- Item #37 – Faculty take into consideration student differences as they teach a course (1.58 gap)
- Item #34 – Computer labs are adequate and accessible (1.57 gap)

Student Learning Outcomes Assessment Trends

- Your program had 5 responses to the survey. You may wish to consider finding a way to have more students respond to the survey. Five responses provide limited data that you can use to identify opportunities to increase student success.
- Your program may wish to look at results from prior years housed on the Program Excellence web site.
- Students appeared to enjoy the variety of courses.
- Suggestions to change the program are varied – and again, it would be valuable to look at past years or individual course evaluations over time to identify patterns.
- Overall, the respondents were pleased with the program and students were pleased with the experience.

Graduate Follow-Up Trends

Year	2012-13
Types of jobs obtained	Technical Service Rep Web Application Programmer
Companies hiring Western graduates	Authenticom, La Crosse, WI NUK USA LLC, Reedsburg, WI

Year	2013-14
Types of jobs obtained	Programmer/Analyst Programmer/Contractor Software Programmer
Companies hiring Western graduates	Kwik Trip Inc., La Crosse, WI Golden Ratio LLC

Year	2014-15
Types of jobs obtained	Internet Programmer

	Programmer Associate Software Developer Web Developer
Companies hiring Western graduates	PHA WEB, La Crosse, WI Powercode, Random Lake, WI WinCraft, Winona, MN

Career Pathways Assessment

Your program had only three responses to this assessment (one faculty and two deans/associate deans). Limited participation makes it difficult to summarize and identify opportunities for improvement. Please contact Mike Poellinger to administer to a broader stakeholder audience.