

Methodology and Notes

BACKGROUND

This tool is designed to assist job seekers, students, career counselors, educators, and planners with a better understanding of training options and typical work outcomes of program graduates. Information includes program details along with demographic and performance measures when data is available.

A consortium of Missouri's community colleges received a U.S. Department of Labor, Employment and Training Administration grant to develop this tool, henceforth "MoSCORES," to provide the public, education institutions and planners with outcome measures to help stakeholders make better informed decisions. The grant also supports the inclusion of credit and non-credit (certificate) programs in a sustainable, secure manner that ensures this tool will grow in value over time. The Missouri Economic Research and Information Center (MERIC), within the state Department of Economic Development at the time of the project, managed the development of this tool in collaboration with community colleges, the Department of Higher Education (DHE), the Division of Workforce Development, and the Department of Labor and Industrial Relations (DOLIR). Since the development of MoSCORES, the Department of Higher Education and Workforce Development (DHEWD) was formed, merging DHE, Workforce Development, and MERIC into one new department.

Data for this tool are collected and linked through different administrative sources. Program and school information are merged from two systems, the [Missouri Eligible Training Provider System](#) and credit program inventory, both administered within DHEWD. Work outcomes are compiled in a longitudinal database from student records submitted to the DHEWD and linked to wage records in the DOLIR unemployment insurance system.

All results are shown in aggregate with no access to individual data. Any programs with 10 or less results will not be shown. Subcategories of measures with results of 10 or less are compiled in the "Other/Unknown" category.

METHODOLOGY

Training records are linked to outcome information across state agencies in a secure process. Individual records are de-identified through this process, so no person may be identified through information shown on the site. Records are matched across state agencies and reported in aggregate for each of the measures. Results of less than 10 program participants are not shown.

Student records from each educational institution are aggregated by the 4-digit Classification of Instructional Programs (CIP) code assigned to the program for all measures. If the institution offers the same program at multiple locations, data from all locations are aggregated for measurement.

MoSCORES analyzes students who enroll and exit a program of study, called a "Cohort", to develop statistics regarding completion time and work outcomes. Additional Cohort details:

Cohort: A group of students enrolled in the same program of study at the same institution. Three years of student enrollees, or Cohorts, are used to increase the number of participants for analysis since some programs are very small.

Cohort Exiter: A student who exits a program of study by either completing or graduating (both terms used interchangeably) or by withdrawing from the program prior to completion.

Cohort Completer: A subset of students in the Cohort Exiters who completed or graduated from the program of study.

Program Details

The program name, credential awarded, program length, program location map, and other details such as admission requirements and tuition are shown on the Program Details webpage if available.

Information for MoSCORES is provided from institutions registered with the [Missouri Eligible Training Provider System](#) and the credit program inventory. If very limited information is shown, the program is listed in the credit program inventory by CIP and credential award but other data may not be available.

A new feature is now available that allows institutions to create a file and upload program information through MOSIS to populate information in MoSCORES. The upload file will permit the institution to submit program information if seeking ETPS approval or if simply providing information to the public for the program on MoSCORES (without ETPS approval process).

School Details

The School Details webpage, with schools defined as postsecondary educational institutions or training providers, shows information on the location of the main campus and training site, web address, contact information, and other details provided by the institution. Data is either from the [Missouri Eligible Training Provider System](#), if the school is registered with this program, or the credit program inventory with DHEWD.

Demographics

Age: Age of the student population enrolled in the program. Age is calculated based on the birth date reported by the student and collected by the institution. Age is calculated at enrollment for credit programs and at completion for noncredit programs.

Gender: Gender of the student population enrolled in the program. The statistics are collected and reported by the institution.

Race: Race of the student population enrolled in the program. The statistics are collected and reported by the institution.

Demographic information for programs with 10 or less results will not be shown. Subcategories of measures with results of 10 or less will be compiled in the "Other/Unknown" category.

Performance

Earnings: Earnings are the median wages for graduates one and three years after completing the program. Those completers who are in another education program (as reported to DHEWD), are self-employed, or who move out of state are not included for wage calculations. Student education records are matched with wages reported quarterly by employers to the DOLIR unemployment insurance program. The fourth or twelfth quarter wage records after program completion, one year or three years respectively, are used to determine the student's earnings level. The quarterly number is multiplied by 4 to annualize the wages and if a student works at more than one business during a quarter then the wages are combined. Median wages are used as a better indicator than averages because it removes the influence of data outliers.

On the Performance Screen, the median wage is listed for the same graduates based on whether they are working in an urban or rural location of Missouri as defined by metropolitan statistical areas. The median wage for all similar programs in the state is also shown for context.

Credentials Attained: Credentials are an award from a postsecondary education or training provider for program completion. Examples of credentials include a bachelor or associate's degree; industry recognized credentials; and specialized certificates in fields such as nursing or welding.

The credential rate for credit programs is calculated as the number of first-time, full-time students enrolled in the program that receives a credential within 100% or 150% of the standard time for completion. This is the standard methodology used in higher education for credit programs. For example, associate's degrees are typically 2-year programs, so "Credentials Attained" would include those that complete the program within any quarter prior to 2 years (standard) and 3 years (extended).

The cohort for credentials attained does take into account students who change programs of study while attending an institution. If a student changes majors from business to engineering, for example, they would be added to the engineering cohort and subtracted from the business cohort.

The credential rate for noncredit programs is calculated as the total enrollment for the program divided by the number of completers. The time to completion for certificate programs is extended beyond the 150 percent used for credit programs to 200% of the standard time for program completion, with a minimum of one year to complete.

Payroll Employment Rate: The percentage of graduates that are employed one and three years after successfully completing the program within the standard or extended time period, and who are not still in an education program. Employment, reported quarterly by firms to the DOLIR unemployment insurance program, is matched with student records in a longitudinal database. The rate is an underestimate as data on program completers working outside of the state, with some federal agencies, or the self-employed are unavailable, and therefore, not reflected in the employment percentages.

Total Students: The total number of students enrolled in the program during the calendar year. The program is identified by 4-digit CIP. The student may be at any level of their program (e.g. first year, third year).

Top Industries: Program completers that are working in Missouri are linked to employers that report quarterly to the DOLIR unemployment insurance program. The NAICS (North American Industry Classification System) code for the employers is used to determine which industries program completers work in. Industries employing the highest numbers of graduates are listed.

Potential Careers: Potential Careers are a crosswalk of the program of study (CIP) with potential career titles found in O*NET, providing an indication of the variety of job titles advertised for individuals with this program credential. O*NET is the nation’s primary source for occupational information and is developed by the U.S. Department of Labor, Employment and Training Administration.

Reporting Periods: Demographic and most Performance figures are reported using a 3-year time period (see table below). The Credential Rate is an exception. The Credential Rate is based on the length of typical training to ensure enough time is allowed to capture completion date for rate calculations. Total Students reports last three years of complete enrollment data.

2018-2019 Reporting Time Period Table

Figures	Credit Reporting Period	Noncredit Reporting Period
Demographics - All Figures	2013-2015	2017-2018
Performance - Earnings	2013-2015	2017-2018
Performance - Employment Rate	2013-2015	2017-2018
Performance - Total Students	2015-2017	2016-2017
Performance - Credential Rates	Cohort	Cohort
Certificate 1 Semester or Less	2013-2015	2017-2018
Certificate over 1 Semester to 1 Year	2013-2015	2017-2018
Certificate 1 Year to 2 Years	2013-2015	2017-2018
Associate Degree	2013-2015	N/A
Graduate Degree	2013-2015	N/A
Bachelor or Doctorate Degree	2010-2012	N/A

Table updated August 2019

Measures listed in the “Figures” section of the table above are reporting outcomes for those students that completed programs in the 3-year period listed. Measures of credential rates use a methodology that tracks students that enrolled in programs during the academic years listed and calculates the credential rate percentage based on students that completed the program on or before 100 percent of the standard time for completion and at 150 percent of the standard time to completion.

Collection of data for students in noncredit programs began in 2016 and will grow to 3 year cohorts as time passes and the data builds each quarter.

WIOA INFORMATION

The Workforce Innovation and Opportunity Act (WIOA) provides U.S. Department of Labor funds to individuals for in-demand career training at approved institutions. Programs approved for use of WIOA funds have an indicator on the Search Results screen.

DATA LIMITATIONS

While MoSCORES presents useful information regarding programs of study, it is limited to educational institutions that provide data, the constraints of administrative records, and the need to always protect individual identities. Below are a few limitations to keep in mind:

- Work outcomes are for completers employed in Missouri as identified through unemployment insurance records. Graduates who are self-employed, in some federal jobs, or work out of state are largely excluded as most of this detailed data is unavailable for longitudinal tracking. Outcomes can also vary based on where a graduate works in the state. In the Performance tab, the tool notes the urban vs. rural wage as one way to put work outcomes into context.
- Programs with a small number of work-linked completers may not be representative of the larger population. In addition, specialized programs such as information technology certifications are often obtained by students with prior degrees which can inflate work outcome measures.
- Work outcomes should not be used with tuition costs to evaluate the overall program return on investment as wages reflect only a point in time, not a lifetime of earnings, and there is no ability to link high school graduates to work outcomes for comparison.
- Performance outcomes should be part of a student's decision-making process when considering a program but there are certainly other benefits a person might derive from a particular study focus that this tool cannot answer.

FREQUENTLY ASKED QUESTIONS (FAQ)

What are "WIOA" approved programs?

Many institutions can accept Workforce Innovation and Opportunity Act (WIOA) federal funds, available to qualified jobseekers, for programs of study that have a WIOA badge indicator on the Search Results screen and in the Financial Information section of the Program Details webpage. For more information, please visit [Missouri Eligible Training Provider System](#) website.

Why is an educational institution not listed?

An institution may be new to Missouri or may not be required to provide administrative records to the DHEWD and are therefore not reported in this tool. An institution that wishes to be in this system can find more information about the requirements at the [Missouri Eligible Training Provider System](#) website.

Why is some information blank?

There are several reasons information may be missing:

- Some institutions are not required to report program or student information, or only report a few details, and therefore will not have robust information to use in this tool.
- When the student cohort or a selected demographic subgroup in a program of study is smaller than 10 individuals, information is not provided to ensure confidentiality. However, statewide results from all similar programs are often available for a general understanding of performance outcomes.
- A large number of institutions, especially private education providers, are not required to report individual student records to the DHEWD so demographic and performance data is often missing for these institutions. However, statewide results from all similar programs are often available for a general understanding of performance outcomes.
- Student records from many certificate programs, which can often lead to good work outcomes, are just beginning to be reported to the DHEWD so information will improve in the coming years as those datasets grow.

Program Details Tab	
MoSCORES Field Name	“i” Definition
Approved Funding Regions	This field will list Workforce Development Board region(s) that approved this program to receive WIOA funds at the local level. Please consult with the local Workforce Development Board(s) to determine the amount of funds that may be paid out for this program.
Financial Information Section	
Tuition – Community College District	Residents of certain taxing districts may receive a discounted tuition rate at public community colleges.

“i” INDICATORS

Throughout MoSCORES, “i” indicators are located by some field titles or data. Scroll over the “i” for a pop-up box that provides definitions and/or additional information on that field. The table below lists the “i” definitions included on each page of MoSCORES.

School Details Tab	
MoSCORES Field Name	“i” Definition
Institution-wide Transfer Rate	Transfer rate is the percentage of first-time full-time degree- or credit certificate-seeking students who transferred out of the institution (without earning a degree/award) within 150% of normal time to completion and subsequently re-enrolled at another institution.

Student Pell Grant Percentage	Pell grant percent is the percentage of all undergraduate degree- or credit certificate-seeking students receiving a Pell grant for the most recent fall semester for which data are available. Pell grants are need-based federal grants, generally for students who have not yet earned a bachelor's degree.
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Performance Tab	
MoSCORES Field Name	"I" Definition
Earnings	Earnings are the median wages at one or three years after a student completes a program. Below the graphic, the statewide median wage is listed for graduates working in urban or rural areas of Missouri.
Credentials Attained	The rate that first-time, full-time students complete the program within 100% or 150% of expected time of completion (200% for certificates). For example, an Assoc. Degree has an expected completion of 2 years (100%).
Payroll Employment Rate	Employment rate is the percentage of graduates that are employed one or three years after program completion. The rate, with some exceptions, does not include graduates working outside Missouri or the self-employed.
Total Students	Total number of students enrolled in the program each year.
Top Industries	Top Missouri industries employing graduates of this program.
Potential Careers	Potential careers that are typical of this program of study.