PROGRAM PERFORMANCE MATRIX

TECHNICAL DOCUMENTATION

Contents

Purpose

The purpose of the Program Performance Matrix[1] (PPM) is to provide clear, consistent, and objective information for academic program evaluation. These data provide a quantitative view of an academic program's competitive intensity, capacity to educate students, uniqueness, and financial viability. This is one of several resources to consider for informing whether to grow, sustain, adjust, or sunset programs.

The Program Performance Matrix is organized into four criteria with specific measures. Each criterion includes a single score summarizing the performance of corresponding measures with a comparison to the prior year. Moreover, many measures include trends from the three most recently completed academic years and an MATC benchmark for intra-college comparisons. Whenever possible, these measures parallel Wisconsin Technical College System (WTCS) Outcomes Based Funding measures to align with those expectations. Externally sourced data are used where applicable to gauge the academic program's impact in the community.

This document will provide an explanation for each report element. It will begin with describing the summary table followed by detailed explanation of each measure.

Summary Table

The Summary Table communicates the total score of each criterion used to gauge the health of a program. These are:

1. **External Demands** include student outcome measures and the likelihood of career related employment after graduation.
2. **Student Success** reviews the persistence of program students.
3. **Program Uniqueness** identifies the niche or specialized contribution to the school and community.
4. **Cost Analysis** measures the financial viability and sustainability of a program.

Each criterion's total score is benchmarked across all MATC programs to determine a performance level. The top third of scored programs receive a 'Gold' level, the middle third receive a 'Silver' level, and the bottom third receive a 'Bronze' level. Program criteria without scores were excluded from this valuation.

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[1] These reports were designed in by the Office of Institutional Research in cooperation with the Curriculum Learning and Assessment Committee. They are maintained and updated by the Office of Institutional Research and the Office of Academic Assessment and Evaluation.

Table 1: Example of Summary Table data with scoring, levels, and change from previous year

Criteria	Total Score	Level		Level Change From Last Year
External Demands	78	🟡	Gold	➡️
Student Success	54.2	🟤	Bronze	⬇️
Program Uniqueness	87.6	🟡	Gold	➡️
Cost Analysis	52.1	🟡	Gold	⬆️

Table 1 shows an example where an academic program scores in the top third in three criteria and in the lowest third in one criterion, student success. As seen in the comparison to last year's levels, this program showed improvement for cost analysis, remained stable across in external demands and program uniqueness, and declined in student success. The Total Score column provides a quantifiable number to compare against the total points available or other programs.

Criterion Details

The four criteria of the summary table consist of 25 separate measures. Each criterion's measures are summarized in a tabular format which includes the last three academic years and a benchmark calibrated on the most recent year. A majority of benchmarks are calculated using the 75% percentile of a 3-year rolling average.

Most measures were selected because they are a part of Outcome Based Funding (OBF) model, available in the data cubes maintained by WTCS, or other external data sources. Measures tied to OBF values provide a direct link to state appropriation dollars generated at the program level. WTCS data cubes enables cross-college comparisons and standardized definitions. External data sources provide insight into MATC program's connection and impact in the community and comparisons with other regional schools.

A long dash where a value is expected indicates that a measure is not available. Earlier versions of this tool excluded the measure from the 'weighted' total score. This is a determent to programs with missing data, especially graduate outcome survey data. Applying a weighted score based on only the available measures is a future enhancement under consideration.

The following technical document provides detailed description of the measures, including Source, Calculation, Benchmark, Possible points, Scoring Criteria, Rationale, and Notes.

For an example program for scoring, see Appendix.

Detailed Description of Measures

Table 2: Example of External Demands table data with measures

External Demands

Measure	Benchmark (2018-19)	2016-17	2017-18	2018-19
Placement Rate	79%	100%	100%	100%
Transfer Agreements	Yes	Yes	Yes	Yes
Employment Opportunities	1.1	0.8	0.8	0.8
Meet TSA Standard	100%	—	100%	100%
Graduate Wages	$43,715	$38,298	—	—
Student Satisfaction	100%	100%	100%	100%
High Demand Field	Yes	No	No	No

Table 3: Description of External Demands point distribution

Measure	Benchmark	Measure Value	Possible Points	Score
Placement Rate	79%	100%	25	25
Transfer Agreements	Yes	Yes	10	10
Employment Opportunities	1.1	0.8	20	13
Meet TSA Standard	100%	100%	20	20
Graduate Wages	$43,715	NA	10	0
Student Satisfaction	100%	100%	10	10
High Demand Field	Yes	No	5	0
Total Points	--	--	**100**	**78**

Measure: Placement rate

Source: WTCS Cube: QRP - Indicator #5 Job Placement. An alternative source is the WTCS Graduate Follow-up Survey Report FLW500 for complete district and MATC only.

Calculation: The number of graduates who report they are working in jobs related to their program of study divided by the total number of respondents who are employed by academic year. This calculation may vary slightly from the FLW500 report which first calculates the average placement rate by program then calculates an institutional average for the year using the program placement rate percent.

Benchmark: Represents the top quartile of placement rates from the average placement rate of each WTCS academic programs over the last three years.

Possible points: 25

Scoring Criteria: A program at or above the benchmark receive all available points. Score for programs below threshold are based on distance from the benchmark.

The example program in Table 2 receives all available points because the measure is 100% (i.e., greater than the 79% benchmark). However, if actual performance was only 60%, then the program would have received 18.98 points out of 25.

Rationale: As one of the most important indicators of external demand this measure receives the largest share of available points. One of the primary goals of MATC is to provide the training students need to get hired in related field.

Notes: Job placement is part of the state's outcomes based funding (OBF) formula. OBF funds distributed based on placement rate include both the college's placement rate (50%) and proportionate share of the number of graduates (50%) who report they are working in jobs related to their programs of study. The placement rate trails the reported academic year by one year. Because the WTCS Graduate Follow-up Survey Report for the most recent year is not available at the time the Program Performance Matrix is published this measure reflects the prior year results (i.e., a lagging indicator).

Measure: Transfer Agreements

Source: MATC Articulation Agreements

Calculation: Whether a program has at least one articulation agreement with a related program offering a bachelor's degree (Yes or No).

Benchmark: Yes

Possible points: 10

Scoring Criteria: Yes = 10 points (at least one articulation agreement) and No = 0 points (no articulation agreements).

The example program in Table 2 has an articulation agreement in place and awarded 10 points.

Rationale: MATC is a cost-effective stepping stone for students whose goal is a bachelor's degree. Articulation agreements create transparency in an otherwise hidden process of credit evaluation, and send a clear message to students that an MATC course will count toward a bachelor's degree.

Notes: This source was last updated in 2018.

Measure: Employment Opportunities

Source: Economic Modeling Specialists, Intl. (EMSI) Employment Opportunities Report includes new and replacement job openings in all Milwaukee, Waukesha, Ozaukee, and Washington (WOW) Counties. These data are based on final industry data and staffing patterns derived from Wisconsin Department of Workforce Development, Bureau of Workforce Information reporting. Standard Occupational Classification (SOC) maintained by WTCS links industry data to academic programs.

Calculation: Uses the Program to Occupation crosswalk maintained by WTCS for related occupations (1 or 2 on priority score) to link annual projected openings in the four county Milwaukee/WOW metro region to each academic program. An "openings to employment ratio" is created by dividing projected total openings into the total related employment over ten year employment projections.

Benchmark: The 'Openings to Employment Ratio' of 1.1 was set in 2015 by an economics expert. Historically, 40% of programs have a ratio equal to or greater than the benchmark.

Possible points: 20

Scoring Criteria: Programs with a ratio equal to or above the benchmark (1.1 or above) receive 20 points, programs with a ratio from 0.6 to 1.0 receive 13 points, and all other programs receive 6 points. Programs where a ratio cannot be calculated still receive 6 points.

The example program in Table 2 has a score below the benchmark of 0.8, thus receiving 13 points.

Rationale: The technical college system is based on providing programs which focus on education and training for students who will have jobs available when they graduate. Job openings come from two sources: growth and replacement. The ratio of 1.1 was selected by examining ratios across all occupations. This measure relies on external data, and not all programs have data.

Notes:

Measure: Meets TSA Standards

Source: WTCS Data Cube: Program Enrollment View

Calculation: The number of students that passed a Technical Skill Attainment (TSA) assessment (a WTCS code of "1") divided by the total number of students that were assessed (WTCS codes of "1" plus "2").

Benchmark: 100% of students are expected to pass the TSA Assessment. A review of TSA approved programs throughout WTCS revealed a pass rate of 95% for the fiscal years between 2016 and 2019.

Possible points: 20

Scoring Criteria: Programs at or above the benchmark (100%) receive all available points. Score for programs below threshold are based on distance from the benchmark.

The example program in Table 2 has a 100% TSA rate, thereby receiving the full 20 points. However, if this program's actual performance were just 60%, then the program would have received 12 points.

Rationale: TSA Assessment is required for all graduating program students in programs obtaining WTCS TSA Phase 2 approval. This approval affirms programs worked with industry leaders to align curriculum and evaluation to work place requirements. This improves the likelihood program graduates are prepared for employment in their field.

Notes:

Measure: Graduate Wages

Source: The WTCS Graduate Follow-up Survey Report FLW500 for the MATC district, and the U.S. Department of Health and Human Services poverty level for a family unit of 1 in the 48 contiguous states.

Calculation: The average annual wage of graduates employed in a related field as reported in the graduate outcomes survey in comparison to the 350% poverty rate.

Benchmark: The Department of Health and Human Services Federal Poverty Level (FPL) multiplied by 350%.

Possible points: 10

Scoring Criteria: The 350% FPL benchmark in the Table 2 example is $43,715, using 2019 guidelines ($12,490 * 350%). Any average annual wage of graduates employed in a related field at or above the 350% FPL is awarded 10 points. For those programs with an annual average wage less than the 350% FPL, scoring is based on the proportion of average annual wage against the benchmark. For example, if the example annual average wage was just $35,000, then the program would earn 8 points ($35,000/$43,715 = 80%). 200% FPL is typically used to define "low income," and considered to be the "floor." As such, programs with an average annual wage below this level or with no reported annual salary are not awarded points.

Rationale: The FPL was selected because it is consistent with the measure used by WTCS to determine the "Economically Disadvantaged" classification for students. FPL is updated annually, and using the guideline implicitly adjusts the threshold for inflation and other factors that go into developing the measure. 350% was selected as a multiplier because the average FTE wage of graduates employed in a related field divided by the federal poverty level (FPL) for an individual is just below the multiplier. Shifting to Internal calculations instead of WTCS will provided greater accuracy figures because data are available for more programs.

Notes: The WTCS Graduate Follow-up Survey Report for the most recent year is not available at the time the Program Performance Matrix is published. This measure reflects the prior year results (i.e., lagging indicator).

Measure: Students' Satisfaction

Source: WTCS Cube QRP - Indicator #5 Job Placement. An alternative source is the WTCS Graduate Follow-up Survey Report FLW502 for complete district and MATC only. The alternative source feeds the WTCS Cube.

Calculation: The percentage of graduate follow-up survey respondents that were "very satisfied" or "satisfied" with the training they received at MATC out of total respondents to the item.

Benchmark: 100%. Analysis shows 75% of programs report a satisfaction rate of 95% or higher so 100% was set of the benchmark.

Possible points: 10

Scoring Criteria: Programs scoring 100% satisfaction receive the full 10 points. Scores for programs less than 100% are based on distance from the benchmark.

The example program in Table 2 scores 100% thus receiving the full 10 points. However, if the student satisfaction of a program was 75% the program would have received 7.5 points. A program with no score receives 0 points.

Rationale: Student satisfaction can be viewed as an indicator of program quality.

Notes: The WTCS Graduate Follow-up Survey Report for the most recent year is not available at the time the Program Performance Matrix is published. This measure reflects the prior year results (i.e., lagging indicator).

Measure: High Demand Field

Source: The list of Top 50 Occupations and related WTCS Programs provided annually by WTCS. This list is developed in cooperation between WTCS and Wisconsin Department of Workforce Development.

Calculation: Whether or not a program is identified as a high demand occupation (Yes or No).

Benchmark: Yes

Possible points: 5

Scoring Criteria: Yes = 5 points (program is a "high demand field"). No = 0 points (program is not a "high demand field").

The example in Table 2 is not a high demand field, thereby no points are awarded.

Rationale: The measure is part of the state's outcomes based funding (OBF) formula. It indicates a higher likelihood of employment after graduation.

Notes:

Student Success

Table 4: Example of Student Success table data with measures

Student Success

Measure	Benchmark (2018-19)	2016-17	2017-18	2018-19
Course Completion Rate	95%	59%	72%	65%
%age Point Change in Course Completion Rate	2%	-6%	13%	-7%
Retention Rate	62%	35%	38%	35%
%age Point Change in Retention Rate	3%	-12%	3%	-3%
Graduation Rate	28%	6%	4%	8%
%age Point Change in Graduation Rate	2%	-4%	-2%	4%

Table 5: Description of Student Success point distribution

Measure	Benchmark	Measure Value	Possible Points	Score
Course Completion Rate	95%	65%	35	24.1
%age Point Change in Course Completion Rate	2%	-7%	15	7.5
Retention Rate	62%	35%	15	8.4
%age Point Change in Retention Rate	3%	-3%	10	5
Graduation Rate	28%	8%	15	4.2
%age Point Change in Graduation Rate	2%	4%	10	5
Total Possible Points	--	--	**100**	**54.2**

Measure: Course Completion Rate

Source: WTCS Cube - QRP - Indicator #1 Successful Course Completion

Calculation:[2] The quotient of the duplicated count of curriculum course enrollments with a grade of C or better or a PP grade for a specific program among FTE generating technical course enrollment in the program and the duplicated count of curriculum course enrollments for a specific program among students enrolled in the program. If a student takes the same course multiple times in a fiscal year, then the course will be assessed for each time they were enrolled.

Benchmark: Uses the average of three years of course completion rate by program of all MATC programs to identify the top 25% percentile of all MATC programs.

Possible points: 35

Scoring Criteria: Compares the most recent academic year to the benchmark. Program Course Completion Rate at or above the benchmark are awarded the full value of possible points. Score

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[2] The WTCs user manual for the QRP – Indicator 1 Successful Course Completion calculation method can be referenced: https://mywtcs.wtcsystem.edu/data-systems-grp/qrp/cube-user-manuals-(1); last visited 1/16/2020

for program course completion rate below the benchmark are based on distance from the benchmark.

For the example in Table 3, the benchmark was 95%. The course completion rate was 65%, which is less than the benchmark. Points awarded would be calculated as follows: 65%/95% = 68.4% of benchmark. 35 points possible x 68.4% of benchmark = 23.9 points awarded.

Rationale: Students who successfully complete courses are more likely to be retained and graduate, and it is closer to a "real-time" indicator. As such, this measure receives more possible points in this criteria because retention and graduation are lagging indicators.

Notes:

Measure: Percentage Point Change in Course Completion Rate

Source: WTCS Cube - QRP - Indicator #1 Successful Course Completion

Calculation: Change in percentage points when subtracting Course Completion Rate of the reported year to the prior year.

Benchmark: The average of three years of percentage point change of course completions rate by program of all MATC programs to identify the top 25% percentile of all MATC programs.

Possible points: 15

Scoring Criteria: The percent point change score is based on the following ranges in the chart below. If no course completion rate was reported, then zero points are awarded.

For the example in Table 3, the percentage point change was -7%, meaning that the course complete rate decreased. Based on this, the program would be awarded 3.75 points.

Percentage Point Change	Score
> +15%	15
7% to 14%	11.25
-6% to 6.0%	7.5
-15% to -7.0%	3.75
<= -16%	0

Rationale: Percentage point change in course completion is a leading indicator of a students' success in a program compared to the previous year.

Notes:

Measure: Retention Rate

Source: WTCS Cube: QRP - Indicator #2 Retention

Calculation:[3] The beginning cohort includes only first time program students who have not been enrolled in the program assessed during the four years previous to the year the cohort is generated. However, program enrollees in the cohort may have been enrolled in another program at any time program enrollees in the cohort must be enrolled in at least one FTE generating course with a course completion status of 01-Pass, 02-Fail, 03-Incomplete, or 04-Withdrew in the year the cohort is generated. This is an academic year to academic year measure. A student who began in a program during a spring term and stopped after the next fall is counted as retained.

A cohort student is considered retained if they graduated within the years assessed or are still coded to the program and enrolled in at least one FTE generating course with a completion status of 01-Pass, 02-Fail, 03-Incomplete, or 04-Withdrew in the last year the cohort is assessed.

Retention Rate calculation is the quotient of the unduplicated count of program enrollees from the cohort who graduated from the program assessed in the same year the cohort was generated or in the second year or are enrolled in courses in the second year and the unduplicated count of program enrollees for a specific program who meet the above cohort requirements.

Benchmark: The average of three years of retention rate by program to identify the top 25% percentile of all MATC programs.

Possible points: 15

Scoring Criteria: Compares the most recent academic year to the benchmark. All programs at or above the benchmark receive all available points. Score for programs below threshold are based on distance from the benchmark.

For the example in Table 3, the benchmark was 62%. The retention rate was 35%, which is less than the benchmark. Points awarded would be calculated as follows: 35%/62% = 56.5% of benchmark. 15 points possible x 56.5% of benchmark = 8.4 points awarded.

Rationale: Students who are retained from (fall to fall, fall to spring) are more likely to graduate. Moreover, it is an institutional measure used by MATC to determine progress and performance.

Notes: The calculation, while defined by WTCS, is not standard practice. Future development includes changing this measure to follow standard practice for calculating retention rates

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[3] The WTCs user manual for the QRP – Indicator 2 Retention Rate calculation method can be referenced: https://mywtcs.wtcsystem.edu/data-systems-grp/qrp/cube-user-manuals-(1); last visited 1/16/2020

Measure: Percentage Point Change in Retention Rate

Source: WTCS Cube: QRP - Indicator #2 Retention

Calculation: The change in percentage points between the retention rate of the reported year and the retention rate of the prior year.

Benchmark: The average of three years of percentage point change of retention rate by program of all MATC programs to identify the top 25% percentile.

Possible points: 10

Scoring Criteria: The percent point change score is based on the following ranges in the chart below. If no retention rate was reported, then zero points are awarded.

For the example in Table 3, the percentage point change was -3%, meaning that the retention rate decreased. Based on the chart, the program would be awarded 5 points.

Percentage Point Change	Score
> +15%	10
7% to 14%	7.5
-6% to 6.0%	5
-15% to -7.0%	2.5
<= -16%	0

Rationale: Percentage point change in retention rate is a lagging indicator of a students' success in a program compared to the previous year.

Notes:

Measure: Program Graduation Rate

Source: WTCS Cube: QRP - Indicator #3 Graduation

Calculation: The beginning cohort includes only first time program students who have not been enrolled in the program assessed during the four years previous to the year the cohort is generated. However, program enrollees in the cohort may have been enrolled in another program at any time. These students must also be enrolled in at least one FTE generating course with a course completion status of 01-Pass, 02-Fail, 03-Incomplete, or 04-Withdrew in the year the cohort is generated.

> **2nd Year Graduation Rate**– the quotient of the unduplicated count of program enrollees from the cohort who graduated from the program assessed in the same year the cohort was generated or in the year following and the unduplicated count of program enrollees for a specific program who meet the above cohort requirements. This is calculated for

Short-term tech Diplomas ("30"and "31" program codes) and Apprenticeship ("50" program codes).

3rd Year Graduation Rate– the quotient of the unduplicated count of program enrollees from the cohort who graduated from the program assessed in the same year the cohort was generated or in the second year following and the unduplicated count of program enrollees for a specific program who meet the above cohort requirements. This is calculated for associate degrees ("10" program codes), liberal arts programs ("20" program codes), and two-year technical diploma programs ("32" program codes).

Benchmark: Uses the average of three most recent years of retention rates by program to identify the top 25% percentile of all MATC programs.

Possible points: 15

Scoring Criteria: Use three years (2012-2014) of MATC data by program to determine levels of performance. All programs at or above 75th percentile receive all available points. Score for programs below threshold are based on distance from threshold.

For the example in Table 3, the benchmark was 28%. The completion rate was rate was 8%, which is less than the benchmark. Points awarded would be calculated as follows: 8%/28% = 28.6% of benchmark. 15 points possible x 28.6% of benchmark = 4.2 points awarded.

Rationale: Program graduation/completion rate is the primary goal of MATC.

Notes: Separate measures for two-year programs and less than 2 year programs were selected based on data availability.

Measure: Percentage Point Change in Graduation Rate

Source: WTCS Cube: QRP - Indicator #3 Graduation

Calculation: The difference between the Program Graduation Rate of the reported year and the Program Graduation Rate of the prior year.

Benchmark: The top 25% percentile of the average of three years of percentage point change of graduation rate by program of all MATC programs.

Possible points: 10

Scoring Criteria: The percent point change score is based on the following ranges in the chart below. If no graduation rate was reported, then zero points are awarded.

For the example in Table 3, the percentage point change was 4%, meaning that the graduation rate increased. Based on the chart, the program would be awarded 5 points.

Percentage Point Change	Score
> +15%	10

7% to 14%	7.5
-6% to 6.0%	5
-15% to -7.0%	2.5
<= -16%	0

Rationale: Percentage point change in graduation rate is a lagging indicator of a students' success in a program compared to the previous year.

Notes:

Program Uniqueness

Table 6: Example of Program Uniqueness table data with measures

Program Uniqueness

Measure	Benchmark (2018-19)	2016-17	2017-18	2018-19
Identical Programs within WTCS	2	1	1	1
Identical Programs in MATC Region	0	16	12	8
Part of Pathway Credential	Yes	Yes	Yes	Yes
Dual Enrolled High School Student	Yes	Yes	Yes	Yes
Industry Validated Credential	Yes	No	Yes	Yes
Special Populations	82%	70%	69%	60%

Table 7: Description of Program Uniqueness point distribution

Measure	Benchmark	Measure Value	Possible Points	Score
Identical Programs within WTCS	2	1	10	10
Identical Programs in MATC Region	0	8	10	3
Part of Pathway Credential	Yes	Yes	20	20
Dual Enrolled High School Student	Yes	Yes	20	20
Industry Validated Credential	Yes	Yes	20	20
Special Populations	82%	60%	20	14.6
Total Possible Points	--	--	**100**	**87.6**

Measure: Identical programs within WTCS

Source: WTCS Portal - Program Enrollment View.

Calculation: Total number of other WTCS colleges that offer the same program code, excluding MATC.

Benchmark: 2 identical program offerings at other colleges in the Wisconsin Technical College System, excluding MATC.

Possible Points: 10

Scoring Criteria: Benchmark for performance ranging from "Unique" to "Widespread" and described in the chart below.

For the example in Table 4, only one other college has this program offering across WTCS ("Unique"). Based on this, the program would be awarded 10 points.

Uniqueness	Score
Unique (0 to 1 other colleges)	10
Uncommon (2 to 3 other colleges)	7
Ordinary (4 to 7 other colleges)	5

Common (8 to 14 other colleges)	3
Widespread (15 other colleges)	0

Rationale: While MATC primarily serves students in the local region, the more unique a program offering is the likelihood the program experiences limited recruitment competition from other WTCS colleges (intra-system competition).

Notes:

Measure: Identical programs in MATC Region

Source: IPEDS Completions, post-secondary credentials of Associates degree or less. Programs are identified by CIP Code listed for each program in WTCS Cube: Program Enrollment.

Calculation: Total count of institutions located in Milwaukee, Waukesha, Ozaukee, or Washington County (excluding MATC) that awarded at least one credential with the *CIP Code* corresponding to the MATC Program Number. The credentials counted include: Award of less than 1 academic year, Award of at least 1 but less than 2 academic years, Associate's degree, and Certificates below the baccalaureate total.

Benchmark: No identical program offerings (0) at other colleges in the four county region, excluding MATC.

Possible Points: 10

Scoring Criteria: Benchmark for performance ranging from "Unique" to "Widespread" and described in the chart below.

For the example in Table 4, eight other regional colleges awarded credentials in the same CIP code ("Common"). Based on this, the program would be awarded 3 points. The example above tallies 8 other programs in the region and is categorized as "Common" and receives only 3 points.

An added observation would be the decrease in the number of schools with this program has declined 50% from current to previous year, which could lead to further investigation for future planning.

Uniqueness	Score
Unique (0 other college awards with CIP)	10
Uncommon (1 other college awards with CIP)	7
Ordinary (2 to 5 other colleges awards with CIP)	5
Common (6 to 9 other colleges awards with CIP)	3
Widespread (10 or more other colleges awards with CIP)	0

Rationale: While MATC primarily serves students in the local region, the more unique a program offering is the likelihood the program experiences limited recruitment competition from other colleges (intra-regional competition).

Notes: Between 2015 and 2018, there were 26 institutions located within the district that awarded at least one credential at the associate degree level or below. Ranges were determined by distributing the totals by program across 5 groups.

Measure: Part of Pathway Credential

Source: MATC Pathway Program Status Report

Calculation: Whether a program curriculum was approved as part of a stacked credential, (Yes or No). i.e., the Real Estate Broker associate diploma leads into a Real Estate associates degree.

Possible Points: 20

Scoring Criteria: Yes = 20 points (part of stacked credentials) and No = 0 points (not part of stacked credentials).

The example program in Table 4 is part of a pathway credential and awarded 20 points.

Rationale:

Notes:

Measure: Course for High School Dual Enrollment

Source: WTCS Cube - Course Enrollments View.

Calculation: Whether a program has at least one dual enrolled student enrolled in at least one course associated with the department as determined by the middle three digit code of the program number (Yes or No). A dual enrolled student is identified using the WTCS filters for the Outcomes based funding #6, as follows:

- Recognized Credit Code = Advanced Standing (1A, 1B), Youth Options (9C), Other Course Credit (8A, 8B, 9B, 9H, 9K)
- High Schools = Public and Private
- Aid Codes = 10, 20, 30, 31, 32, 50
- High School Last Attended = All except Unknown, Not Reported, those starting with "9999"
- Highest Grade Completed = 8-12, 99 or Unknown

Benchmark: Yes

Possible Points: 20

Scoring Criteria: Yes = 20 points (has at least one dual enrollment student) and No = 0 points (does not have at least one dual enrollment student).

The example program in Table 4 does include courses with dual enrollment students and awarded 20 points.

Rationale: The measure is part of the state's outcomes based funding (OBF) formula.

Notes: The WTCS funding formula utilizes the college's proportionate share of earned credits in all types of dual enrollment. However, this measure credits the program if it enrolls at least one dual enroll student in a course in an academic year.

Measure: Industry Validated Credential

Source: WTCS Program Approval and Client Reporting. Alternative source is the World Wide Instructional Design System (WIDS) which maintains the program approval forms.

Calculation: Whether the program curriculum is developed with business or industry input and that is based on competencies and evaluations that reflect the skills and knowledge necessary for a specific job or jobs within a specific type of business or industry (Yes or No).

Benchmark: Yes

Possible Points: 20

Scoring Criteria: Yes = 20 points (industry-validated credential) and No = 0 points (not an industry-validated credential).

The example program in Table 4 has an industry-validated credential and awarded 20 points.

Rationale: The measure is part of the state's outcomes based funding (OBF) formula.

Notes: WTCS defines Industry Validated Credential as a curriculum that is developed with business or industry input and that is based on competencies and evaluations that reflect the skills and knowledge necessary for a specific job or jobs within a specific type of business or industry.

Measure: Special Populations

Source:[4] WTCS CLI330 - Full/Part-Time Status and Demographics Report (CLI330).

Calculation: Program students who meet a special population definition divided by total number of program students. WTCS report CLI330 defines special populations as an unduplicated headcount of non-traditional student (NTO), Single Parent, Displaced Homemaker, Limited English Proficiency (LEP), Disabled, and Economically Disadvantaged.

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[4] This information is also available in the WTCS Cube - Course Enrollments View. The cubes are a preferred data source. Future development includes replacing the CLI330 with the Cube data.

Benchmark: Average percent of all MATC programs whose total academic year enrollment that meets the special student definition

Possible Points: 20

Scoring Criteria: Three years of WTCS all district data for measure by program are used to set top performance threshold at 75th percentile. All programs at or above 75th percentile receive all available points. Score for programs below threshold are based on distance from threshold.

For the example in Table 4, the benchmark was 82%. The special population rate was 60%, which is less than the benchmark. Points awarded would be calculated as follows: 60%/82% = 73.2% of benchmark. 20 points possible x 73.2% of benchmark = 14.6 points awarded.

Rationale: This is an Outcomes Based Funding (OBF) measure and is benchmarked against other schools in the system

Notes: The CLI330 Report definition of Special Population differs from OBF #9 definition of Special Populations. For consistency the definition of this measure will be changed in the future to mirror the OBF #9.

Cost Analysis

Table 8: Example of Cost Analysis table data with measures

Cost Analysis

Measure	Benchmark (2018-19)	2016-17	2017-18	2018-19
Program Total FTE	56	62	51	54
% Change in FTE from Prevous Yr	14%	26%	-17%	5%
FTE % Chg compared to MATC	Faster	Faster	Slower	Faster
Program Total Headcount (HC)	122	129	111	136
% Change in HC from Prevous Yr	14%	1%	-14%	23%
% Chg in HC compared to MATC	Faster	Same	Slower	Faster

Table 9: Description of Cost Analysis point distribution

Measure	Benchmark	Measure Value	Possible Points	Score
Program Total FTE	56	54	10	9.6
% Change in FTE from Previous Yr	14%	5%	10	5
FTE % Chg compared to MATC	Faster	Faster	10	10
Program Total Headcount (HC)	122	136	10	10
% Change in HC from Previous Yr	14%	23%	10	7.5
% Chg in HC compared to MATC	Faster	Faster	10	10
Total Possible Points	--	--	**60**	**52.1**

Measure: Program Total FTE

Source: WTCS Cube - Program Enrollment View

Calculation: Full-time equivalent (FTE) is the sum of all credits taken by students with the declared major in an academic year divided by 30.

Benchmark: The 75th percentile of the program full-time equivalent (FTE) of all MATC programs for the most recent academic year

Possible Points: 10

Scoring Criteria: Use current year MATC data for the measure by program to set top performance benchmark at 75th percentile. All programs at or above 75th percentile receive all available points. Scores for programs below threshold are based on distance from benchmark.

For the example in Table 5, the benchmark was 56 FTE. The current year FTE was 54, which is less than the benchmark. Points awarded would be calculated as follows: 54/56 = 96.4% of benchmark. 10 points possible x 96.4% of benchmark = 9.6 points awarded.

Rationale: FTE are an indicator of student enrollment and credits taken, which also have direct budget implications.

Notes:

Measure: Program % Change in FTE from Previous Year

Source: WTCS Cube - Program Enrollment View

Calculation: Percentage change in count of FTE from the previous year

Benchmark: Average percentage change in a program's FTE when compared to the previous year

Possible Points: 10

Scoring Criteria: The percentage change score is based on the following ranges. If there is no change in FTE, then then zero points are awarded.

For the example in Table 5, the percentage point change was 5%, meaning that the graduation rate increased decreased. Based on the chart, the program would be awarded 5 points.

Percentage Change	Score
> 30%	10
11% to 29%	7.5
-9% to 10%	5
-29% to -10%	2.5
<= -30%	0

Rationale: FTE are an indicator of student enrollment and credits taken, which also have direct budget implications. Changes indicate a growth or decline in one of these facets, which can suggest further investigation.

Notes:

Measure: Program % Change in FTE Compared to MATC

Source: WTCS Cube - Program Enrollment View

Calculation: The program percent change in FTE compared to MATC. This is defined below.

Change in FTE compared to MATC	Score
Faster (greater than 1% change with the MATC average percent change in FTE)	10
Same (within -1% to +1% change with the MATC average percent change in FTE)	6
Slower (less than -1% change with the MATC average percent change in FTE)	3

Benchmark: Faster

Possible Points: 10

Scoring Criteria: The percentage change score is based on the ranges defined above.

For the example in Table 5, the percentage point change was greater than 1% (Faster), meaning that there was growth in headcount. As such, the program was awarded 10 points.

Rationale: Growth or decline in a program FTE could be driven by the external economic environment such as the unemployment rate. Comparing the program percent change to the average MATC percent change provides some context regarding the source of the change.

Notes:

Measure: Program Total Headcount

Source: WTCS Cube - Program Enrollment View

Calculation: Unduplicated headcount of students in the program reported as taking at least one course in the college.

Benchmark: The 75th percentile of the program headcount of all MATC programs for the most recent academic year

Possible Points: 10

Scoring Criteria: Use current year MATC data for the measure by program to set top performance threshold at 75th percentile. All programs at or above 75th percentile receive all available points. Score for programs below threshold are based on distance from threshold.

For the example in Table 5, the benchmark was 122 students. The current year total headcount was 136 students, which is greater than the benchmark. As such, this program was awarded 10 points. However, consider the example if the total headcount was less than the benchmark at 100 students. Points awarded would be calculated as follows: 100/122 = 81.9% of benchmark. 10 points possible x 81.9% of benchmark = 8.2 points awarded.

Rationale: Unduplicated headcount is an important measure of student enrollment and may suggest interest and even success of recruitment efforts.

Notes:

Measure: Program % Change in Headcount from Previous Year

Source: WTCS Cube - Program Enrollment View

Calculation: Percentage change in count of students actively enrolled in the program

Benchmark: Average percent change in a program's headcount when compared to the previous year

Possible Points: 10

Scoring Criteria: The percentage change score is based on the following ranges. If there is no data for in student headcount, then no points are awarded. For the example in Table 5, the percentage point change was 23%, meaning that there was growth in headcount. Based on the chart, the program would be awarded 7.5 points.

Percentage Change	Score
> 30%	10
11% to 29%	7.5
-9% to 10%	5
-29% to -10%	2.5
<= -30%	0

Rationale: Growth or decline in a program could be driven by many factors, including external economic environment. Comparing the program percent change to the average MATC percent change provides some context regarding the source of the change.

Notes:

Measure: Program % Change in Headcount compared to MATC

Source: WTCS Cube - Program Enrollment View

Calculation: The program percent change in headcount compared to MATC. This is defined below.

Change in Student Headcount compared to MATC	Score
Faster (greater than 3% change with the MATC average percent change in headcount)	10
Same (within -3% to +3% change with the MATC average percent change in headcount)	6
Slower (less than -3% change with the MATC average percent change in headcount	3

Benchmark: Faster

Possible Points: 10

Scoring Criteria: The percentage change score is based on the ranges defined above.

For the example in Table 5, the percentage point change was greater than 1% (Faster), meaning that there was growth in headcount. As such, the program was awarded 10 points.

 Rationale: Growth or decline in a program could be driven by the external economic environment such as the unemployment rate. Comparing the program percent change to the average MATC percent change provides some context regarding the source of the change.

Notes:

Appendix: Summary of Awarded Points for example program

Criteria	Measure	Benchmark	Measure Value	Possible Points	Score
Cost	Program Total FTE	56	54	10	9.6
Analysis	% Change in FTE from Previous Yr	14%	5%	10	5
	FTE % Chg compared to MATC	Faster	Faster	10	10
	Program Total Headcount (HC)	122	136	10	10
	% Change in HC from Previous Yr	14%	23%	10	7.5
	% Chg in HC compared to MATC	Faster	Faster	10	10
	Total Possible Points	--	--	**60**	**52.1**

Appendix: Summary of Awarded Points for example program

Criteria	Measure	Benchmark	Measure Value	Possible Points	Score
External	Placement Rate	79%	100%	25	25
Demands	Transfer Agreements	Yes	Yes	10	10
	Employment Opportunities	1.1	0.8	20	13
	Meet TSA Standard	100%	100%	20	20
	Graduate Wages	$43,715	NA	10	0
	Student Satisfaction	100%	100%	10	10
	High Demand Field	Yes	No	5	0
	Total Points	--	--	**100**	**78**
Student	Course Completion Rate	95%	65%	35	24.1
Success	%age Point Change in Course Completion Rate	2%	-7%	15	7.5
	Retention Rate	62%	35%	15	8.4
	%age Point Change in Retention Rate	3%	-3%	10	5
	Graduation Rate	28%	8%	15	4.2
	%age Point Change in Graduation Rate	2%	4%	10	5
	Total Possible Points	--	--	**100**	**54.2**
Program	Identical Programs within WTCS	2	1	10	10
Uniqueness	Identical Programs in MATC Region	0	8	10	3
	Part of Pathway Credential	Yes	Yes	20	20
	Dual Enrolled High School Student	Yes	Yes	20	20
	Industry Validated Credential	Yes	Yes	20	20
	Special Populations	82%	60%	20	14.6
	Total Possible Points	--	--	**100**	**87.6**
Cost	Program Total FTE	56	54	10	9.6
Analysis	% Change in FTE from Previous Yr	14%	5%	10	5

FTE % Chg compared to MATC	Faster	Faster	10	10
Program Total Headcount (HC)	122	136	10	10
% Change in HC from Previous Yr	14%	23%	10	7.5
% Chg in HC compared to MATC	Faster	Faster	10	10
Total Possible Points	--	--	**60**	**52.1**