MICHIGAN TEST FOR TEACHER CERTIFICATION

Faculty Guide

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Overview of the Program

Basis of the MTTC Program

Section 1531 of Public Act 451 (1976), as amended by Public Act 267 (1986), Public Act 282 (1992), and Public Act 289 (1995), mandates a testing program as part of Michigan's teacher certification requirements. The purpose of the tests is to ensure that each certified teacher has the necessary basic skills and content knowledge to serve in Michigan schools. The examinations of the Michigan Test for Teacher Certification (MTTC) program are the only tests that satisfy the testing requirement for teacher certification in Michigan at this time. In accordance with Public Act 96 (1995), a person who uses or attempts to use a certificate or other credential that he or she knows is fraudulently obtained, altered, or forged for the purposes of obtaining a Michigan teaching certificate is guilty of a misdemeanor punishable by imprisonment or a fine.

The tests are criterion referenced and objective based. Criterion-referenced multiple-choice tests are designed to measure a candidate's knowledge and skills in relation to an established standard of performance (a criterion) rather than in relation to the performance of other candidates. The tests are designed to help identify those candidates who have the level of knowledge required to perform satisfactorily as entry-level teachers in their fields of specialization.

Understanding Test Design and Content

Each MTTC test assesses a candidate's knowledge and skills as required by the guidelines for Michigan teacher certification. The test objectives for each test describe:

▶ the content areas covered on each test; and

▶ the approximate percentage of test questions ("test proportion") by subarea.

See the "MTTC Preparation Materials" section for more information about how to read the objectives.

Alignment of the MTTC Program with Michigan State Board of Education Standards

The development process for the MTTC tests was designed to meet the specific needs of the state of Michigan. The MTTC tests are responsive to and consistent with Michigan regulations, Michigan public school curriculum frameworks and standards, and Michigan educator preparation programs. Michigan regulations, guidelines, textbooks, and other instructional materials served as the foundation for test content to ensure alignment between the regulations, standards, and programs and the MTTC tests.

For each test field, education and policy materials used in Michigan were consulted in developing the test objectives to ensure that the objectives reflect the appropriate content. Test questions were then developed to correspond to the approved content for each test to further ensure that the MTTC tests are aligned with Michigan education standards.
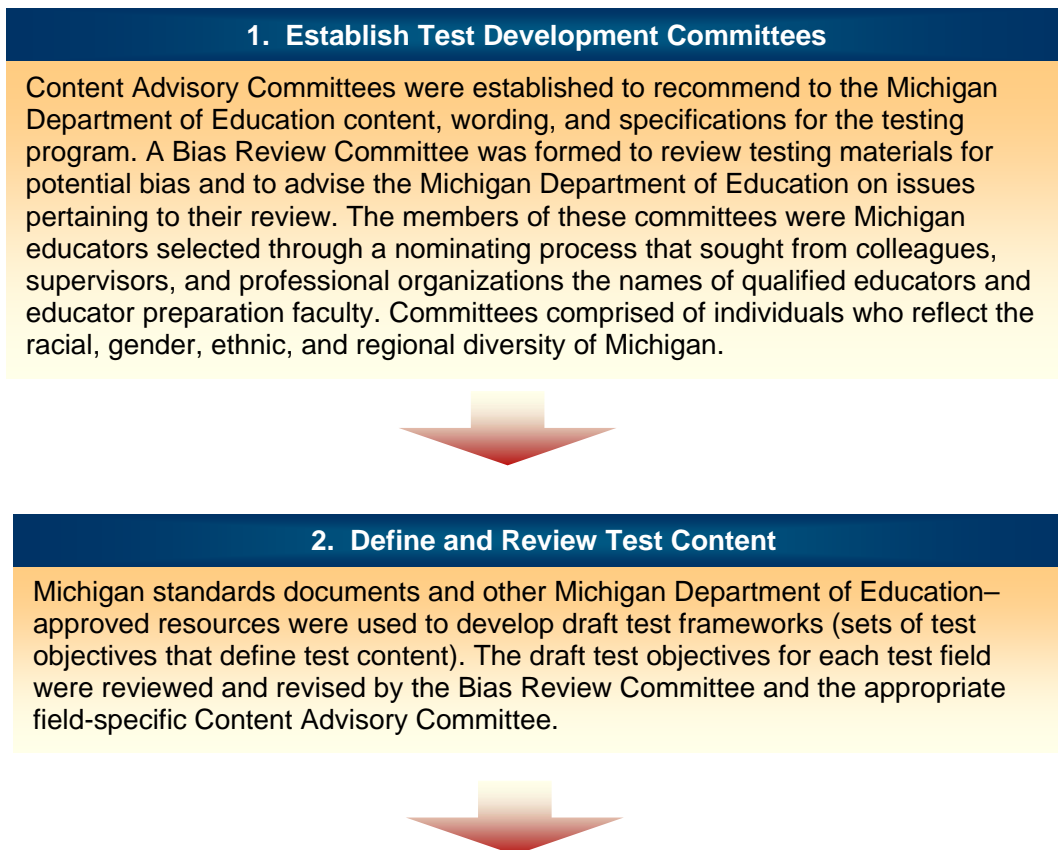
Broadly inclusive groups of Michigan educators and educator preparation faculty were extensively involved in the development and validation of the MTTC tests in the following ways:

▶ For each test field, a Content Advisory Committee—made up of educators and educator preparation faculty from throughout the state with experience and expertise in the field—was convened to participate in the critical test development activities described in the next section.

▶ The Bias Review Committee—composed of Michigan educators who provide representation of gender and ethnic groups and individuals with disabilities—played a critical role in the development process by reviewing test materials to help ensure fairness and sensitivity.

Thousands of Michigan educators completed content validation surveys to help validate test content and served on Standard Setting Panels.

The Test Development Process

Key steps in the test development process are summarized in the illustration below.

1. Establish Test Development Committees

Content Advisory Committees were established to recommend to the Michigan Department of Education content, wording, and specifications for the testing program. A Bias Review Committee was formed to review testing materials for potential bias and to advise the Michigan Department of Education on issues pertaining to their review. The members of these committees were Michigan educators selected through a nominating process that sought from colleagues, supervisors, and professional organizations the names of qualified educators and educator preparation faculty. Committees comprised of individuals who reflect the racial, gender, ethnic, and regional diversity of Michigan.

2. Define and Review Test Content

Michigan standards documents and other Michigan Department of Education–approved resources were used to develop draft test frameworks (sets of test objectives that define test content). The draft test objectives for each test field were reviewed and revised by the Bias Review Committee and the appropriate field-specific Content Advisory Committee.

3. Conduct the Content Validation Survey

The approved test objectives were prepared for validation through content validation surveys. Thousands of Michigan educators and educator preparation faculty completed surveys to rate the importance of objectives in each test field for performing the job of an educator in Michigan. Results from the content validation survey were analyzed to ensure that all objectives measured by the tests are important to the job of a Michigan entry-level educator.

4. Develop and Review Test Questions

Test questions matching the final test objectives for each test field were drafted. Each draft test question was developed to correspond to an approved element of the test objectives. This correspondence established the alignment of the test questions—through the test objectives—with approved Michigan standards.

5. Review Draft Test Questions for Bias and Content

The Bias Review Committee focused its review on excluding from the test materials any language, content, or perspectives that might disadvantage an examinee because of gender, race, nationality, ethnicity, religion, age, disability, or cultural, economic, or geographic background. The Bias Review Committee also focused on including in the test materials content and perspectives that reflect the diversity of the Michigan population. The Content Advisory Committees met to review and revise the draft test questions primarily from a content perspective, reviewing the questions for accuracy and freedom from bias and ensuring that the questions match objectives, align with Michigan standards, and relate to the job of a Michigan educator. The committee-approved test questions were then finalized.

6. Conduct Field-Testing

Test questions were field-tested at Michigan colleges and universities. The field-test data showed how the questions performed with potential Michigan educator candidates. Questions that did not perform acceptably on the field tests were either identified for deletion or revised for re-examination by the Bias Review Committee and the Content Advisory Committees.

7. Develop Preparation Materials

A study guide for each test field was prepared and published on the MTTC Web site. See the "MTTC Preparation Materials" section to learn about the test objectives, study guides, and other related test-preparation materials for each specific test.

8. Determine Passing Scores

Following the first administration of the tests, panels of Michigan educators participated in a structured process to make judgments regarding a passing score for each test. After the meetings, the passing score judgments were compiled and presented to the Michigan Department of Education, which set the passing score for each test field.

Test Administration and Scoring

MTTC tests are administered under standardized, consistent procedures at sites across Michigan. Test administrations are designed to provide a professional, equitable, and secure testing environment for examinees, including those who need alternative testing arrangements. Testing sites are screened and selected based on criteria relating to test security, accessibility, and the quality of testing conditions and facilities. Test administrators receive training in the test administration procedures and follow detailed procedural manuals before and during the test administration.

The MTTC tests are scored accurately and promptly. The answers to multiple-choice questions are scored electronically, and the process is checked to verify accuracy. For constructed-response assignments, qualified scorers are selected, trained in the scoring process, and monitored for accuracy and consistency. Scoring of constructed-response assignments typically involves two or more scorers working independently.

Test results are reported to individual examinees, up to three colleges or universities as requested by the examinee at the time of registration, and the Michigan Department of Education.

Note that individual examinee test results provided to the Michigan Department of Education are for use by the MDE only and are not distributed by the MDE to examinees or any Michigan teacher preparation program. For purposes of confirming a candidate's eligibility for a teaching certificate, Michigan teacher preparation programs must securely obtain each of their students' MTTC results via the Institution Score Reporting Web site (see the "Score Reporting for Institutions" section of this guide). It is the responsibility of each teacher preparation program to retain their own official score report for each candidate that they recommend to the MDE for certification. If copy of a candidate's MTTC test results is

needed, it is up to the teacher preparation program to request a copy of the examinee score report from the examinee.

See the "Score Reporting" page on the MTTC Web site for a detailed description of MTTC examinee score reports. See the "Score Reporting for Institutions" section of this guide for a detailed description of MTTC reports provided to teacher preparation programs at colleges and universities.

For information about test administration and scoring policies and procedures for the MTTC program, visit the program Web site at **www.mttc.nesinc.com**.

Helping Students Prepare for an MTTC Test

This section provides test-preparation guidelines for both first-time test takers and those who must retake a test. In addition, it describes the preparation materials available for the MTTC tests, including study guides and test preparation worksheets. Provided free of charge, these materials can be accessed on the MTTC Web site by visiting **www.mttc.nesinc.com** and selecting "Prepare."

Guiding Preparation for First-Time Test Takers

An academic advisor may suggest to a candidate that he or she take the following steps in preparing for the MTTC tests:

1. Begin by completing the Test Preparation Worksheet, where the candidate records his or her academic background, certification requirements, and testing history, and completes a checklist of preparation steps for testing.

2. Next, complete the Test Objective and Subarea Matching Worksheet. This activity involves having the candidate review the test objectives and his or her course work to date, and record on a worksheet whether his or her studies have covered the knowledge and skills described by each test objective.

3. Meet with you to review the completed worksheets and test preparation steps taken to date, and to obtain assistance in evaluating his or her readiness to test.

When meeting with a candidate to review the completed materials listed above, an academic advisor may wish to take the following steps:

✔ Review page 1 of the completed Test Preparation Worksheet to learn the candidate's academic background, certification requirements, and testing history.

✔ Review the completed worksheet for mapping the test objectives to the courses the candidate has taken to determine if he or she has completed sufficient course work to take the test.

✔ Review page 2 of the completed Test Preparation Worksheet to guide the candidate in gathering and using MTTC test preparation materials and, if needed, learning or reviewing test content and test-taking strategies.

Guiding Preparation for Students Who Are Retaking a Test

An academic advisor may suggest to a candidate that he or she take the following steps in preparing to retake the MTTC tests:

1. Review a copy of his or her latest score report for the test. Complete or update the Test Preparation Worksheet as well as the Test Objective and Subarea Matching Worksheet for mapping objectives to courses taken that the candidate completed prior to testing.

2. Use their completed Test Objective and Subarea Matching Worksheet along with the score report to help the candidate analyze test results and identify areas of weakness in his or her past performance to better focus his or her studies in preparation for retaking the test.

3. Meet with you to review the completed worksheets and test preparation steps taken to date, and to obtain assistance in developing a study plan before retaking the test.

When meeting with a candidate preparing to retake the MTTC, an academic advisor may wish to take the following steps:

☑ Review the completed Test Preparation Worksheet to learn the candidate's academic background, certification requirements, and testing history. If the candidate has answered "no" to any of the test preparation questions on page 2 of this worksheet, the advisor may wish to suggest that the candidate follow the test preparation steps discussed in these questions.

☑ Review the completed worksheet for mapping the test objectives to the courses the candidate has taken to learn the course work that he or she has completed to date.

☑ Review the completed worksheet for analyzing test results to understand the candidate's past performance on the test and identify areas of weakness.

☑ Review testing performance by content area for multiple-choice questions and constructed-response assignments. If the candidate performed less than adequately in some content areas, the advisor may wish to direct the candidate to study particular content in those areas and can assist the candidate by

▶ identifying one or more additional courses in which the candidate could enroll to learn the required material;

▶ guiding the candidate in gathering the appropriate test preparation materials, such as textbooks and other references, and the MTTC test objectives and study guide for the test;

▶ helping the candidate develop a study plan for reviewing test content, textbooks, and notes from courses already taken;

▶ offering special workshops for candidates or tutoring the candidate in specific content areas.

✔ If the candidate did not perform well on a particular type of question, the advisor may wish to suggest that he or she review the sample questions in the study guide. For example, if the candidate received a subarea score of less than three +'s, the advisor might suggest that the candidate complete the sample assignments in the study guide and review the sample response—score point 4, his or her response, and the scoring criteria for each sample assignment. In addition, the advisor might offer to review the candidate's sample response to provide direct feedback to the candidate on his or her performance.

✔ Assist the candidate in completing the Recommendations for Test Preparation section on page 2 of the Test Preparation Worksheet by listing additional test preparation activities.

MTTC Preparation Materials

You will find a variety of preparation materials for all test fields by selecting "Prepare" on the MTTC Web site at **www.mttc.nesinc.com.** You can search by preparation product or for all preparation materials available by test.

Reviewing the test objectives for a test field is an important step for candidates in preparing to take the MTTC tests. More information about the MTTC tests can be obtained from the study guides. A study guide is available for each test in the MTTC program. The study guide for each test contains the test objectives, sample multiple-choice questions, sample constructed-response assignments for the fields that include these items, sample responses, and suggestions for preparing for the test.

In addition to the preparation materials describing the test design and content, the MTTC program offers the following worksheets to assist candidates in evaluating their preparedness to test:

▶ **Test Preparation Worksheet**: This worksheet assists candidates in reviewing their certification requirements, tracking their test preparation, and evaluating their preparedness to test.

▶ **Test Objective and Subarea Matching Worksheet**:

  ▶ For candidates preparing to test, this worksheet enables candidates to assess whether they have had instruction in the knowledge and skills tested by the MTTC tests in their college course work to date.

  ▶ For candidates retaking a test, this worksheet helps candidates analyze their test results to identify areas of weakness in their performance to better focus their studies when preparing to retake an MTTC test.

Score Reporting for Institutions

Overview of Score Reporting to Institutions

Test results for each MTTC test administration are provided, by request of the examinee at the time of registration, to Michigan colleges and universities with educator preparation programs approved by the Michigan Department of Education. Select "Institution Codes" from the "Before You Register" page on the MTTC Web site for a list of the colleges and universities approved to receive MTTC individual examinee test results.

Test results are made available to colleges and universities on the Institution Score Reporting Web site—a secure, password-protected Web-based data transmission system that allows Michigan institutions and faculty to receive score report information quickly and efficiently after the scoring for an administration is complete. The dean or director of education at each institution designates a contact person to receive test results. Institution contacts are notified by e-mail when reports and data files are available after each test administration.

The Institution Score Reporting Web site enables institution contacts to download reports and data files to be saved on the institution's computer system or network. The files are available in two formats:

- ▶ **PDF documents** are versions of the reports that can be viewed or printed.

- ▶ **ASCII files** are data files containing the test results. These files can be downloaded and imported into software databases or applications that are unique to each college or university. The ASCII file format allows institutions to format test results to meet their individual needs.

Because test results are confidential and need to be protected in a secure manner, the contact person at each institution restricts access to the files—both electronic and hard-copy versions. To protect examinees' privacy, PDF reports display only the last four digits of examinees' social security numbers.

Test Results Reported

Colleges and universities chosen by the examinee at the time of registration to receive their test results, as well as the Michigan Department of Education, will receive the following reports after each MTTC test administration:

- ▶ The **Alphabetical Score Report Roster**, which provides an alphabetical list of examinees who requested that their test results be provided to the institution and their passing status for the tests taken at the administration

- ▶ The **Institution Roster by Test** provides the following information:

  - a summary by test of examinee scores for each examinee who indicated at the time of registration that he or she currently attends the institution and was confirmed eligible during the institution eligibility verification process, and

  - a statewide summary of test results by test for the administration

Examinees who do not request that their test results be released to their institution are not included in reports to institutions.

Individual examinee test scores are confidential and are for the purpose of Michigan certification only. They are not intended to be used for employment decisions, college admissions, or any other purpose.

Reading the Alphabetical Score Report Roster

For each institution, the Alphabetical Score Report Roster provides an alphabetical list of examinees from that institution that tested on the specified test administration date. The report lists, for each test, or in the case of Basic Skills each subtest, taken on that test date each examinee's name, the last four digits of his or her social security number, the test status (P = Pass, F = Not pass, N = Not taken), a scaled score for any test not passed, and an indicator of the examinee's performance on each subarea. The first page of this report summarizes the guidelines and cautions regarding the data on this report.

Sample Report

The following is a sample Alphabetical Score Report Roster. Refer to the table below for a description of the data contained in this score report.

Area of Report	Report Field	Field Description
Institution and test date	Institution Test Date	Lists the institution name and the test administration date for which results are reported.
Examinee test results	Examinee Name SSN (last four digits) Test Taken Test Date Status Scaled Scores Subarea Perf. Unscr or Analytic	Lists the names of all examinees (in alphabetical order) that tested on the date indicated. For each examinee, the report provides the social security number (last four digits only), test status (P = Pass, F = Not pass, N = Not taken), a scaled score for any test not passed, and an indicator of the examinee's performance on each subarea for each test taken on the date indicated. For examinees whose Basic Skills Writing assignment was assigned a score of "0" (indicating that the essay was unscorable), the reason for the unscorable designation is provided. Also, for examinees that did not pass the Basic Skills Writing subtest, one or more analytic codes are provided to indicate areas of weakness. The meaning of the unscorable designations and analytic codes are provided on the first page of the Alphabetical Score Report Roster.

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Reading the Institution Roster by Test

The Institution Roster by Test provides a summary of institution results compared to statewide results for each test as well as rosters of examinees and their individual test results, organized by test. This report is organized by test field and by subarea within each test. For each test, or, in the case of Basic Skills, each subtest, information is provided regarding

- ▶ the composition of the test, including the number of items in each subarea assessed;

- ▶ the number of examinees from the institution and statewide who tested, the mean scaled score, the number and percent passing and not passing, and the percentage of examinees with subarea scaled scores of 220 or greater;

- ▶ for the subject-area tests, the number of examinees from the institution and statewide who tested, the mean scaled score, the number and percent passing and not passing, and the percentage of examinees with subarea scaled scores of 220 or greater, broken down by examinee academic major and minor and grade level at which examinees plan to seek certification; and

- ▶ the names and social security numbers (last four digits only) of examinees and the test date, as well as examinees' passing status, their total test scaled score for any test not passed, and an indicator of their performance on each subarea.

Reporting Elements

Test results for the MTTC are calculated on a scale of 100 to 300, with the passing score equal to a scaled score of 220.

Sample Report

The following is a sample Institution Roster by Test. Refer to the table below for a description of the data contained in this report.

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                    Michigan Test for Teacher Certification
                            INSTITUTION ROSTER

   Institution: 18 Michigan State Univ      ← Institution and test date
   Test Date: July 9, 2011

   Summary for Test 002: English      ← Composition of the test

   Subarea                                        # of Items
   ------------------------------------------------------------------------
     1   Meaning and Communication                   11-20
     2   Literature and Understanding                21-30
     3   Genre and Craft of Language                 21-30
     4   Skills and Processes                        11-20
```

← Institution performance versus statewide results	Number of Examinees	Mean Scaled Score	Number (Percent) Passing	Number (Percent) Not Passing	Percentage of Examinees with Subarea Scaled Scores of 220 or Greater			
					1	2	3	4
Institution	7	240.0	7 (100%)	0 (0%)	43	86	71	100
Statewide	303	223.4	173 (57%)	130 (43%)	42	40	59	79

Roster for Test 002: English   ← Results by testing candidate

Examinee Name	SSN	Test Date	Status	Scaled Scores	Subarea Perf 1 2 3 4 5 6 7 8 9								
EXAMINEE A	1-1111	07/09	P	--	2	4	3	4					
EXAMINEE B	2-2222	07/09	P	--	3	3	4	4					
EXAMINEE C	3-3333	07/09	P	--	2	3	4	3					
EXAMINEE D	4-4444	07/09	P	--	2	3	3	3					
EXAMINEE E	5-5555	07/09	P	--	3	2	4	4					

	Number of Examinees	Mean Scaled Score	Number (Percent) Passing	Number (Percent) Not Passing	Percentage of Examinees with Subarea Scaled Scores of 220 or Greater			
					1	2	3	4
Academic Major								
Institution	3	---	3 (100%)	0 (0%)	67	67	67	100
Statewide	167	226.2	103 (62%)	64 (38%)	47	43	65	79
Academic Minor								
Institution	4	---	4 (100%)	0 (100%)	25	100	75	100
Statewide	136	219.9	70 (51%)	66 (49%)	37	37	52	79
Grade Level - Elementary								
Institution	0							
Statewide	44	215.5	21 (48%)	23 (52%)	36	27	50	75
Grade Level - Secondary								
Institution	7	240.0	7 (100%)	0 (100%)	43	86	71	100
Statewide	255	225.3	152 (60%)	103 (40%)	44	43	62	80

Area of Report	Report Field	Field Description
Institution and test date	Institution Test Date	Lists the institution name and the test administration date for which results are reported.
Institution performance versus statewide results	Number of Examinees Mean Scaled Score Number (Percent) Passing Number (Percent) Not Passing Percentage of Examinees with Subarea Scaled Scores of 220 or Greater	Provides a comparison of institution results to statewide testing results by summarizing the performance of the institution's examinees on the test and the performance of all examinees for the test date. For each group, the report lists the number of examinees who tested, the mean scaled scores, the number of examinees who passed, the number of examinees who did not pass, and the percentage of examinees with subarea scaled scores of 220 or greater.
Results by testing candidate	Examinee Name SSN (last four digits) Test Date Status Scaled Scores Subarea Perf.	Lists the names of all examinees (in alphabetical order) that tested on the date indicated. For each examinee, the report provides the social security number (last four digits only), test status (P = Pass, F = Not pass, N = Not taken), a scaled score for any test not passed, and an indicator of the examinee's performance on each subarea for each test,
Institution performance versus statewide results: Academic Major/Minor and Grade Level	Number of Examinees Mean Scaled Score Number (Percent) Passing Number (Percent) Not Passing Percentage of Examinees with Subarea Scaled Scores of 220 or Greater	Provides a comparison of institution results to statewide testing results by summarizing the performance of the institution's examinees on the test and the performance of all examinees for the test date, broken down by examinee academic major and minor and grade level at which examinees plan to seek certification. For each group, the report lists the number of examinees who tested, the mean scaled scores, the number of examinees who passed, the number of examinees who did not pass, and the percentage of examinees with subarea scaled scores of 220 or greater.

Using the Test Results Data Files to Interpret and Analyze Students' Results

In addition to receiving test results in a format that can be viewed or printed, institutions receive test results data as ASCII files. The ASCII file layout, which defines each field within a record, is provided on the Institution Score Reporting Web site.

ASCII file records include the following information for each examinee:

- ▶ Examinee name
- ▶ Social security number
- ▶ Test taken
- ▶ Test administration date
- ▶ Passing status
- ▶ Total test scaled score (for examinees who did not pass)
- ▶ Subarea performance indicators
- ▶ Examinee address

ASCII files can be downloaded and the data exported into databases or other applications such as spreadsheets to accumulate test results for more than one test administration. Once centralized, those data can be sorted or filtered to gain unique and meaningful results for the institution. For example, test results can be sorted by examinee to view the cumulative test results for a testing candidate over a given period. Test results can also be filtered to display the names of examinees that have not yet passed a test.

Test results files can also be used to analyze areas of strength and weakness for all institution candidates and to enable an institution to determine whether any changes in the curriculum are needed to better prepare students for the MTTC.

Using ResultsAnalyzer

In addition to the reports described above, institutions also have the ability to generate custom reports for themselves. Authorized users of the score-reporting system have access to *ResultsAnalyzer*™, a program that enables users to view, analyze, reorganize, download, and print reports based on test results data and on background information gathered during test registration. The system allows users to instantly access candidate, test, and program data, giving them the capability to

- ▶ create relevant and timely reports on candidate and institution test results;
- ▶ customize data queries to align with institution goals and areas of interest;
- ▶ aggregate performance data across testing program years;
- ▶ export data to Excel or other report software and print graphics; and
- ▶ analyze candidate and institution data for numerous variables (including self-reported data such as gender and education level).

Reading the Annual Summary Report

At the end of the program year, Michigan educator preparation programs and the Michigan Department of Education (MDE) receive the Annual and Three-Year Summary of Institution Results report, which provides, by test, an annual and three-year summary of score information for an educator preparation program. The Annual and Three-Year Summary of Institution Results report is designed to enable educator preparation program personnel to analyze program performance and identify if any changes in the curriculum may be needed to better prepare students for the MTTC.

The Annual and Three-Year Summary of Institution Results report provides a summary of performance for an educator preparation program's students over the course of a year, and over the course of the past three years. Only those students who were deemed eligible through the institution verification process are included.

The report presents mean scaled score information for candidates who tested for the first time in the program year(s) listed. The initial mean scaled score presents the mean scaled score of candidates who took the test for the first time during the program year, or during the three-year reporting cycle. The cumulative mean scaled score presents the mean scaled score of candidates who tested one or more times during the program year, or during the three-year reporting cycle. The data reflect the best attempt of each candidate, including initial attempts and retakes. Each examinee is counted once.

The first page of the report provides interpretive notes and cautions regarding the data on the report. The report contains two sections:

▶ the annual results section (denoted by "September 20XX–August 20YY"), which provides educator preparation program results for a single program year

▶ the three-year results section (denoted by "20XX–20YY"), which provides cumulative educator preparation program results for a three-year period

Reporting Elements

Test results for the MTTC are calculated on a scale of 100 to 300, with the passing score equal to a scaled score of 220

Annual Results by Test

Following is a sample of the Annual Results by Test section of the Annual Summary of State Results. Refer to the table below for a description of the data contained in this section of the report.

Area of Report	Report Field	Field Description
Program year and preparation institution name	Program year Preparation institution name	Lists the program year or span of three years and the preparation institutions to which results are reported.
Summary of preparation institution performance	Number tested Initial mean scaled score Cumulative mean scaled score	Provides a summary of educator preparation program results for the program year or for the past three years. The report lists the number of examinees who tested* and the initial and cumulative means of the examinees' total test scaled scores. The initial mean scaled score presents the mean scaled score of candidates who took the test for the first time during the program year, or during the three-year reporting cycle. The cumulative mean scaled score presents the mean scaled score of candidates who tested one or more times during the program year, or during the three-year reporting cycle. The data reflect the best attempt of each candidate, including initial attempts and retakes. Each examinee is counted once. * Only those students who were deemed eligible through the institution verification process are included.

Analyzing Test Results to Improve Program Performance

Test results can be used to analyze areas of strength and weakness to enable educator preparation programs to identify if any changes in the curriculum may be needed to better prepare students for the MTTC.

Faculty and staff can take the following steps to analyze annual test results and determine how program performance might be improved:

- Begin by obtaining a copy of the test objectives for the MTTC test results being reviewed. MTTC test objectives are available as PDF files (at no charge) from the MTTC Web site.

- For each test, review your preparation program's passing percentage and mean total test scaled score (on a scale of 100 to 300, with the passing score equal to a scaled score of 220). How does this performance compare to your preparation program's goals? How does this performance compare to statewide results?

- For each test, review your preparation program's performance by subarea (i.e., the percentage of examinees with subarea scaled scores of 220 or greater). Are there any subareas for which the percentage of examinees with subarea scaled scores of 220 or greater is less than 75%? Are there any subareas for which the percentage is markedly lower than for other areas? Are your preparation program's percentages for each subarea higher, lower, or comparable to statewide results?

- For each test, review the percentage of multiple-choice questions answered correctly by examinees from your preparation program for each subarea. Do the results show any subareas with low performance as compared with other subareas or to statewide performance?

- Based on your analysis, are there particular areas of content in which test results for your preparation program's educator candidates are lower than desired? If so, these are possible areas of development for your program's curriculum. It is recommended that you review your test-objectives-to-curriculum mapping, focusing on these areas of curriculum development. If you have not yet done so, refer to the instructions for completing the Test Objective and Subarea Matching Worksheet on the MTTC Web site, which is designed to assist faculty in determining how well their curricula cover the knowledge and skills tested by the MTTC. Based on your analysis of test results, are there additional courses that are needed for MTTC candidates? Is there particular content that is not being adequately covered within courses?

- After you review your program's overall results, you may wish to conduct a more detailed data analysis. To do so, you may utilize the ASCII data files (described in "Using the Test Results Data Files to Interpret and Analyze Students' Results") that are provided to you on the Institution Score Reporting Web site. ASCII data may be sorted, merged, or filtered in other ways appropriate for a program provider to yield meaningful results.