

APPENDIX B: USING MCAS ITEM ANALYSIS DATA



In Step 3, the planning team will use MCAS item analysis data to identify specific skills and knowledge that students have not mastered. To make the data easier to discuss in a group setting, the team will generate user-friendly graphs and reports.

TestWiz is a Windows-based software application available to all Massachusetts educators that allows one to import, disaggregate, and report student-level data from a number of assessments and data sources, including MCAS, SIMS, DIBELS, GRADE, LAS R/W, and MELA-O. To graph data prior to 2003, use Excel templates from the MA DOE Web site at www.doe.mass.edu/sdi/pim/steps.html?step=0.

This appendix explains how to create MCAS item analysis graphs and reports using TestWiz. For downloading instructions and information on manipulating other data with TestWiz, visit the TestWiz Web site at www.testwiz.com.

Import student performance data into Testwiz



MCAS and accountability data must be downloaded from the MA DOE Security Portal by an authorized person in the district. For more information, contact the district's directory administrator. A list of administrators is available from the MA DOE Web site at www.doe.mass.edu/infoservices/data/diradmin/list.asp.

- **Use the “Import Files” function to import into TestWiz the student performance data that the planning team will use in its analysis. The data must be imported separately for each grade.**

Note the following:

- For test administrations beginning in 2005, student-level MCAS data (from the MCAS Dropbox) includes variables used to make AYP determinations at the school and district level in the aggregate and for student subgroups. These contain student test results for the MCAS as well as the test results of students who took the MCAS-Alt. An accompanying file layout file detailing field names and descriptions is available from the MA DOE Web site at www.doe.mass.edu/mcas/2005/results/cd_layout.xls.
- For test administrations prior to 2005, two different data sets were distributed. Schools will need to use the student-level accountability data file (from the Accountability Dropbox) if they want to consider variables used to make AYP determinations in their analysis. Unlike the standard MCAS data file, the accountability data includes student test results for both the MCAS and the MCAS-Alt. Accompanying file layout files detailing field names and descriptions are posted in the dropboxes for those years.

Generate item analysis reports and item analysis graphs

NOTE: Item analysis reports and graphs are prepared in Step 0 and analyzed in Step 3 of the PIM process.

The two kinds of TestWiz reports used in the PIM process are:

- 3.1 School – Item Analysis generates a report containing a list of items, data on student responses, and a brief description of each item.
- 3.2 School – Item Analysis Graph depicts student performance on each item in a graphical format.

The following steps explain how to generate each.

- 1. From the Testwiz main screen, select Print Reports.**
- 2. Select the appropriate Test Configuration (e.g., MCAS Grade 3 2004) and Test Administration (e.g., MCAS304 for Grade 3).**
- 3. Under Reporting Group, select School.**
- 4. Under Report Type, select either:**
 - a. 3.1 School – Item Analysis
 - b. 3.2 School – Item Analysis Graph
- 5. Narrow the data to one school or a group of schools.**
 - a. Select Customize
 - b. Select School
 - c. Select the school name, and click OK. A check mark will appear next to each school selected.

NOTE: In the raw data files, special Code labels may differ slightly from year to year.

6. Use Special Codes to select specific groups of students (as needed).

Special codes are used to define student demographics. Testwiz allows users to select up to four special codes per report, which is useful for generating reports for specific groups of students, such as students counted in AYP determinations, for example, or students belonging to a specific subgroup.

Some useful special code combinations are:

- a.** Students counted in AYP determinations (for use with accountability data prior to 2005 or with MCAS data from 2005 onward)
 - Octenroll(Official) = 1—Student enrolled in the school as of October 1 (0 = No; 1 = Yes)
 - E-Numin(MCAS)/M-Numin(MCAS) = 1—Student included in AYP determinations in ELA or mathematics, respectively (0 = Not included; 1 = Included)
 - ELAstat(MCAS)/MathStat(MCAS) = T—Indicates whether the student actually took a particular MCAS test. (T = Tested; NTA = Not tested, absent; NTO = Not tested, other; NTM = Not tested, medical)
- b.** Students belonging to NCLB subgroups
 - Race(Official)—(1 = African American; 2 = Asian or Pacific Islander; 3 = Hispanic; 4 = Native American; 5 = White; 6 = Mixed)

NOTE: There is some duplication in the codes. For example, there is LEP(official) and LEP(Status). Notice that the values for these codes are slightly different. The LEP(Status) code has details as to how long the student has been LEP. The LEP(Official) code only has a Yes or No indication. This is the one used for AYP purposes.

- LEP(Official)—Limited English Proficient code used for AYP determinations; includes students currently identified as LEP and students designated as LEP in the previous 2 years (0 = Not Limited English Proficient; 1 = Limited English Proficient)
- SPED(Official)—Special Education student (0 = No; 1 = Yes)
- Lunch(Official)—Student eligible for free/reduced lunch (0 = No; 1 = Yes)
- c.** Students who were or are Limited English Proficient
 - LEPstat(MCAS)—Limited English Proficient status (0 = Not LEP; 1 = First year; 2 = 1+ Years; 3 = Formerly LEP)
- d.** Other useful codes
 - Sex—(0 = Male; 1 = Female)
 - Migrant(Official)—(0 = No; 1 = Yes)
 - Title 1(MCAS)—(0 = No; 1 = Yes)

7. Rank order data on the score for the state average.

- a.** Select Customize
- b.** Select Gap Score
- c.** Select State Average as the comparison group.
- d.** Select Rank order on score for comparison group
- e.** Next to the option Show By, click the radio button entitled Descending

- 8. If desired, use the Customize function to narrow the group to students scoring at or between specific MCAS performance levels.**
 - a. Select Customize
 - b. Select Cutoff
 - c. Select Cutoff by Score
 - d. Choose Performance Level as the cutoff

- 9. Customize item analysis graphs and reports to display MCAS subtests.**
 - a. Select Customize
 - b. Select Subtests
 - c. To generate a single item analysis graph that plots all of the items on one page, click the Clear button to deselect all subtest categories, then add “ENGLISH LANG. ARTS” or “MATHEMATICS” as appropriate (For MCAS Grade 3 Reading graphs, include all subtests).

- 10. View and print the report.**
 - a. Select Preview to view item analysis graphs and reports for printing.
 - b. Select Print to print the graph, keeping in mind that the team may not want to print every page. The first page displays data for the whole population, and subsequent pages display data for specific MCAS reporting categories, item types, and so forth.