

**A Report from the Assessment Resource Office at Eastern New Mexico University**

This **DataWave** reports spring 2008 results of the Measures of Academic Proficiency and Progress (MAPP) administered to rising juniors in spring 2008.

**Measures of Academic Proficiency and Progress (MAPP) Test Results**

Last spring (April 2008), ENMU conducted assessments of 164 rising juniors. Reported below are composite data of the 158 valid scores, with comparisons from spring 2006 and spring 2007. This spring, ENMU students' mean score was 439.31 on the MAPP test, slightly above the 50<sup>th</sup> percentile (437.0). Scores from spring 2008 show a slight gain over all 2007 categories and in six categories of spring 2006.

	Spring 2008	Spring 2007	Spring 2006
Total Score	<b>439.31</b>	437.69	438.03
Skills Sub-scores			
Critical Thinking	<b>110.91</b>	110.51	110.69
Reading	<b>116.26</b>	115.72	115.90
Writing	<b>113.63</b>	113.00	113.41
Mathematics	<b>111.85</b>	111.60	111.10
Context-Based Sub-scores			
Humanities	<b>113.40</b>	113.13	113.41
Social Science	<b>112.35</b>	111.85	112.05
Natural Sciences	<b>114.39</b>	113.90	113.96

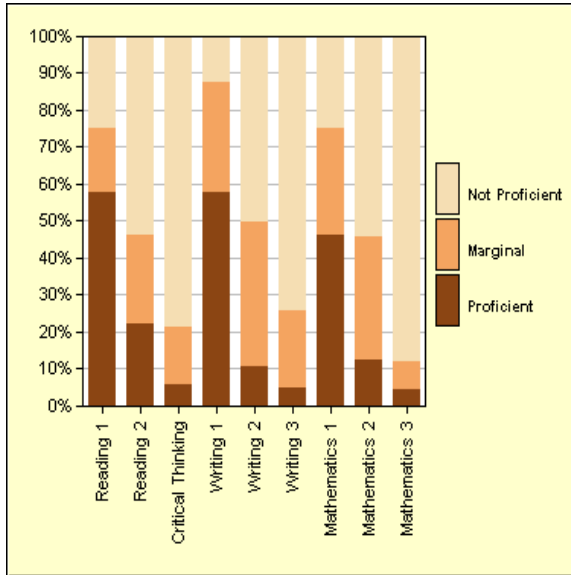
The skills measures by the MAPP test are grouped into proficiency levels, with three basic proficiency levels for reading /critical thinking, writing, and mathematics. In the table below, gains are reflected in smaller percentages of students scoring "not proficient" in Reading Level 2 and Critical Thinking in 2008. Increases in Reading Level 1 (proficient) are also noted.

Gains over 2007 are discernible in Writing Level 1, 2, and 3 and Mathematics Level 1. Percentages in the "not proficient" declined in all categories except one (Math Level 3) in 2008 compared to 2007.

Skill Dimension	Proficiency Classification								
	Proficient			Marginal			Not Proficient		
	2008	2007	2006	2008	2007	2006	2008	2007	2006
Reading Level 1	58%	51%	55%	18%	24%	21%	25%	25%	24%
Reading Level 2	22%	24%	22%	24%	14%	19%	54%	62%	58%
Critical Thinking	6%	6%	4%	16%	13%	10%	78%	81%	86%

Skill Dimension	Proficiency Classification								
	2008	2007	2006	2008	2007	2006	2008	2007	2006
Writing Level 1	58%	55%	54%	30%	28%	32%	13%	16%	14%
Writing Level 2	11%	9%	13%	39%	37%	33%	50%	54%	54%
Writing Level 3	5%	4%	7%	21%	20%	23%	74%	76%	70%
	2008	2007	2006	2008	2007	2006	2008	2007	2006
Mathematics Level 1	46%	41%	42%	29%	26%	29%	25%	33%	29%
Mathematics Level 2	13%	18%	17%	33%	21%	25%	54%	60%	58%
Mathematics Level 3	4%	8%	3%	8%	9%	10%	88%	84%	87%

**Overview of ENMU MAPP Scores – Spring 2008**



The graph above displays the percentage of students who scored at the “proficient,” “marginal,” or “not proficient” categories in each of the Skill Dimensions of the MAPP test. The designation “marginal” means that the results do not provide enough evidence to classify a student either as proficient or as not proficient.

**Abilities Reflected by “Proficiency” Scores in the MAPP Test**

Reading 1: recognize factual material; understanding words or phrases in context.

Reading 2: ability to synthesize information, recognize valid inferences, interpret figurative language, discern focus of passage.

Critical Thinking (highest level): evaluating procedures, casual explanations, and hypotheses.

Writing 1: recognize grammar, word choice, sentence order, transitions

Writing 2: detect subtle grammar errors, use sophisticated syntax, ability to recast sentences in effective ways

Writing 3: effective revision, ability to use sophisticated syntax, constructions.

Math 1: graph reading, solving problems using number line, properties of numbers of operations

Math 2: algebra problems that can be solved with arithmetic; embedded ratios, complex word problems

Math 3: solve problems with difficult concepts (exponents, roots), interpret graphs in which trends are expressed algebraically, etc.

While gains are certainly good news, additional examination of the high and low scorers tells us more about students’ preparation for this exam. The Assessment Office reviewed transcripts for the overall high scorers on the MAPP test and transcripts for high and low scorers in the areas of mathematics and English. The high scorers on the MAPP test represented an interesting cross-section of ENMU students. Math majors did not earn all the high scores on the Math section, and English majors did not dominate the “writing” category. GPAs of these students tended to be high. Of this sample, 35% of high scorers did some of their work at other institutions. The percentage of students who did a substantial portion (more than half) of their work at other institutions was only 10%.

**The MAPP Top Ten**

	Majors of "Top Ten" Scorers	Average GPA	Course-taking Patterns	Transfer Students
Mathematics High Scorers	Computer Science, EET (2), Theatre, Business, Forensic Science, Chemistry, Religion/History, Accounting, Agriculture	3.48 (from 2.95 to 4.0)	All took College Algebra or Calculus. Four have taken CALC 2 or higher	4 transfer students (58, 51, 16, 10 hrs)
Writing High Scorers	Theatre, Business, Early Childhood, EET, Communication, Biology, Music, Anthropology, Communication/Political Science, Social Work	3.64 (from 2.72 to 4.0)	All took ENG 104. Three took an additional 200-level literature course	3 transfer students (47, 17, and 12 hrs)

**The MAPP Low Performers**

	Majors of Low Performers	Average GPA	Course-taking Patterns	Transfer Students
Mathematics Low Scorers	University Studies/Sociology, Criminal Justice, Business (2), CDIS, Communication, Art, History, Psychology/Criminal Justice, Elementary Education	2.28 (from 1.71 to 3.0)	8 of 10 took Math 101; for 4, highest course was Math 107; 5 took College Algebra.	4 transfer (49, 45, 28, 23 hrs)
Writing Low Scorers	Criminal Justice/Psychology, Business, Communication, Communicative Disorders, Agricultural Business, Elementary Ed, Sociology, Agriculture, History, Criminal Justice	2.97 (from 2.15 to 3.89)	9 of 10 completed ENG 104; 2 of 10 also took ENG 100; one is an ESL student; 2 took ENG courses beyond 104. 9 of 10 took ENG 104	3 transfer (58, 57, 12)

A more detailed review of individual student performance will show other patterns that can guide faculty advising and departmental decisions as to curriculum design and instruction. Individual student performance scores on the MAPP are prepared for each student and copies are sent to the chairperson of the student’s department. These data can be discussed with the student and reviewed by the entire department.

The ultimate variable that is impossible to assess is the amount of effort that any individual puts into the MAPP test. But this has always been a challenge when assessments are not tied to “high stakes” testing (for a grade, for example).

## Summary of Findings for this Sample:

The following are some preliminary findings (based on the small analyzed sample) from the MAPP test administration:

- Student performance does not appear to be substantially different for “native” students than for transfer students
- A student’s major is not a predictor of good performance on the MAPP test in any particular area
- Students required to take developmental math tend to score lower on the mathematics MAPP component, and low scorers tend to have completed fewer courses beyond Intermediate Algebra than high scoring students.
- Students who have taken more English courses (beyond Eng 104) do not necessarily score higher on the English MAPP component.

## How can these data be used?

- Individual student reports (sent to the department chair) in conjunction with the student’s academic record, may reveal patterns of strong preparation or optimal course-taking strategies that are helpful or effective in earning high scores on the MAPP test.
- MAPP performance may be compared to students’ performance on the New Mexico Teachers Assessment (NMTA) to see whether the tests are comparable and/or useful confirmations of student learning.

In addition to the norm-referenced MAPP test, which is measured against the performance of all other test-takers, the University also administers a criteria-referenced critical thinking assessment to a percentage of rising juniors. In spring 2008, the critical thinking assessment was administered to 85 students, about 50 on campus and 35 off-campus students. These results will be presented in a subsequent **DataWave**.

## Upcoming Assessment Issues

**Academic Assessment Plans.** The Assessment Committee will request the submission of department assessment plans in November. Templates for reporting and instructions will be provided early in the fall semester.

**State-Wide General Education Assessment.** The office will be providing information to the campus about the new required assessment of general education.

**Voluntary System of Accountability (VSA).** All four-year universities in New Mexico have elected to participate in the American Association of State Colleges and Universities (AASCU) VSA program. More details will be coming to you about this initiative reporting student engagement and learning outcomes.

**New Coordinator.** The Assessment Resource Office welcomes Dr. Anthony B. Schroeder to this position of coordinator. Dr. Schroeder can be reached at 562-4313.

Save the Date!  
ENMU’s Assessment Day is  
Wednesday, April 8, 2009.