



# NEW MEXICO

## Sciences & Life Sciences Achievement

### STUDENT ACHIEVEMENT

NAEP Grade 8	NM	U.S. Avg.	State Rank
Science Average, 2005	138.1	147.1	40
Science, 2005 (% at or above "proficient")	18.4%	27.3%	41
Life Sciences Average, 2005	138.5	148.2	40

ACT	NM	U.S. Avg.	State Rank
Science Average, 2008	20.2	20.8	44
Biology, 2008 (% of students ready for college level)	22%	28%	44

AP	NM	U.S. Avg.	State Rank
Science Scores, 2008 (% with a score of 3 or higher)	47.7%	55.4%	39
Science Exams, 2008 (Exams as % of all H.S. grads)	6.0%	10.5%	38
Biology Scores, 2008 (% with a score of 3 or higher)	45.9%	49.8%	32
Biology Exams, 2008 (Exams as % of all H.S. grads)	2.5%	4.6%	41

SCIENCE TEACHER QUALITY and PROFESSIONAL DEVELOPMENT	NM	U.S. Avg.	State Rank
Science Teachers with Major in Assigned Field, 2003–04 (% , Grades 7–12)	61%	77%	44
Science Teachers Certified, 2006 (% , Grades 7–8)	50%	N/A%	24
Biology Teachers Certified, 2006 (% , Grades 9–12)	100%	88%	1

**Note:** NAEP = National Assessment of Educational Progress, AP = Advanced Placement  
N/A = Data not available.

## Examples of Bioscience Education Activities

### Teacher Preparation and Professional Development

Los Alamos National Laboratory (LANL) operates the Northern New Mexico Math and Science Academy, supporting K-12 teachers in adopting standards-based learning. The program involves 200 hours of training and collaboration with LANL staff, with a stipend.

## NM STATE SCIENCE STANDARDS & REQUIREMENTS

### STANDARDS PROFILE

- Most recent update of K-12 Science Standards: **2003**
- Research scientists provided input in development of standards
- Current K-12 science standards include benchmarks based on understanding "that applications of genetics can meet human needs"

*New Mexico Science Content Standards, Benchmarks, and Performance Standards, 2003*

### BIOSCIENCE-RELATED GRADUATION REQUIREMENTS:

Biology is not specified in laboratory-science requirement

Approximately 80% of recent high school graduates have taken a biology or life science course

31% of 6th graders; 33% of 7th graders; 26% of 8th graders; and 34% of 11th graders met the "proficient" level under the No Child Left Behind (NCLB) Adequate Yearly Progress test



### Experiential Learning and Outreach

**New Mexico Tech** offers a summer minicourse for high school students known as “**CSI: DNA,**” featuring use of a genetic sequencer acquired with support from the National Science Foundation. With support from the Applera Foundation, the minicourse is being brought to the Internet.

The **Lovelace Respiratory Research Institute** and **Albuquerque Public Schools** collaborate on **Lovelace Science Academy**, which serves middle school students from groups underrepresented in science. The target is six schools that have failed to achieve Annual Yearly Progress under NCLB. Student activities consist of both a summer and an after-school program. The Academy also operates family science and science career nights.



## Basic Skills Achievement and Other Summary Metrics

### STUDENT ACHIEVEMENT

NAEP Grade 8	NM	U.S. Avg.	State Rank
Math Average, 2007	267.5	280.2	48
Math, 2007 (% at or above "proficient")	17.4%	31.0%	49
Reading Average, 2007	250.8	261.0	49
Reading, 2007 (% at or above "proficient")	17.3%	29.2%	50
Writing Average, 2007	143	154.3	44
Writing, 2007 (% at or above "proficient")	17.2%	30.6%	44

  

ACT	NM	U.S. Avg.	State Rank
Percentage of Graduates Tested	63%	43%	22
Math Average, 2008	19.8	21.0	44
Reading Average, 2008	21.0	21.4	39
English Average, 2008	19.6	20.6	46

  

SAT	NM	U.S. Avg.	State Rank
Percentage of Graduates Tested	12%	48%	33
Math Average, 2008	548	515	21
Critical Reading Average, 2008	557	502	21
Writing Average, 2008	540	494	21

  

AP	NM	U.S. Avg.	State Rank
Math Scores, 2008 (% with a score of 3 or higher)	58.9%	65.2%	39
Math Exams, 2008 (Exams as % of all H.S. grads)	5.0%	8.7%	38
English Scores, 2008 (% with a score of 3 or higher)	44.3%	59.2%	48
English Exams, 2008 (Exams as % of all H.S. grads)	18.7%	18.9%	17

### SUMMARY STATE EDUCATION METRICS

Selected Indicators	NM	U.S. Avg.	State Rank
High School Graduation Rate, 2005–06	67.3%	73.4%	42
Student/Teacher Ratio, 2006–07	14.9	15.5	29*
Low-income Students, 2006–07 (% of all students)	60.8%	41.6%	–
Expenditure per Student (\$), 2005–06	\$8,354	\$9,154	32

**Note:** NAEP = National Assessment of Educational Progress, AP = Advanced Placement  
 N/A = Data not available. \* Lowest value receives highest ranking.

#### TABLE SOURCE NOTES:

**NAEP Assessments, grade 8:** U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (NCES), National Assessment of Educational Progress (NAEP), 2005; **ACT Exam:** ACT, Inc., 2008; **SAT Reasoning Test:** The College Board, 2008.

**Advanced Placement (AP):** Battelle analysis of data from the College Board, 2008; AP test takers as a share of high school graduates includes graduate data from U.S. Department of Education, NCES for both public (Common Core of Data) and private high schools (Private School Survey).

**Science Teacher Indicators:** Council of Chief State School Officers (CCSSO) analysis of State Departments of Education data on public schools, 2007; U.S. Department of Education, NCES Schools and Staffing Survey, 2003–04 as reported by CCSSO, 2007.

**Summary State Education Metrics:** U.S. Department of Education, National Center for Education Statistics (NCES), Common Core of Data (CCD) on public elementary and secondary education.

**Note:** High school graduation rates are averaged freshman graduation rates—the rate is the number of graduates divided by the estimated count of freshmen 4 years earlier. U.S. figure for share of students eligible for free or reduced-price school lunch (“low-income” students) is available for 2005–06 only (state data are for 2006–07).

