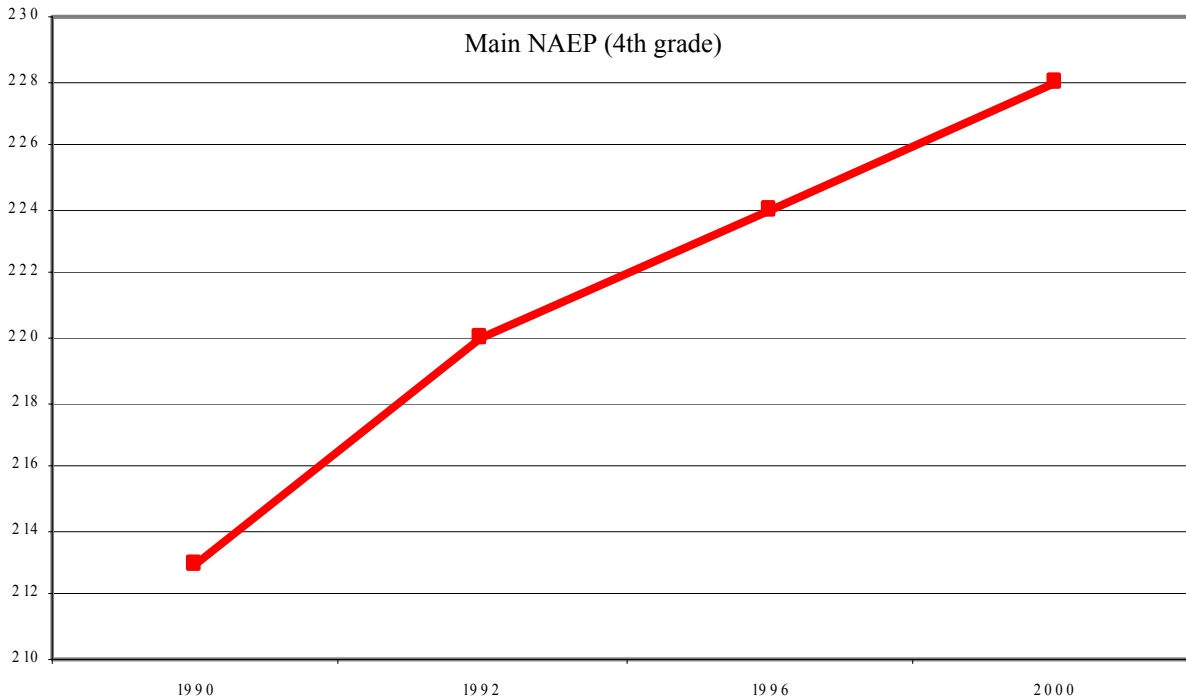
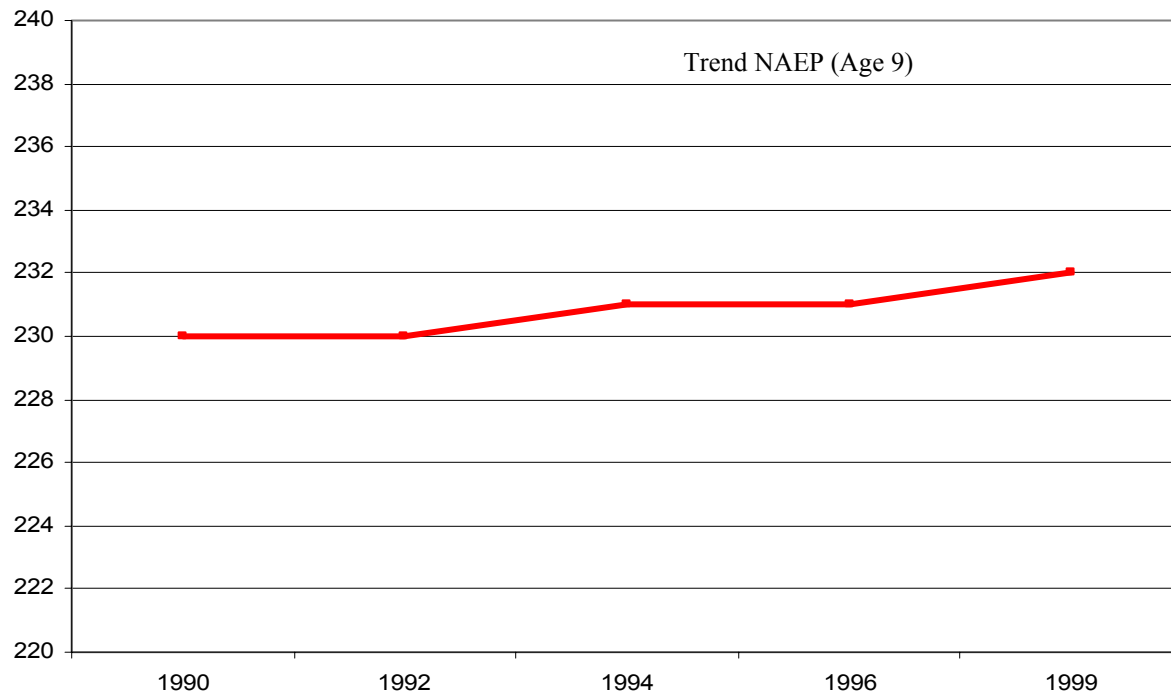


Scale Scores



Math scores on Main NAEP vs. Trend NAEP in the 1990s

Scale Scores



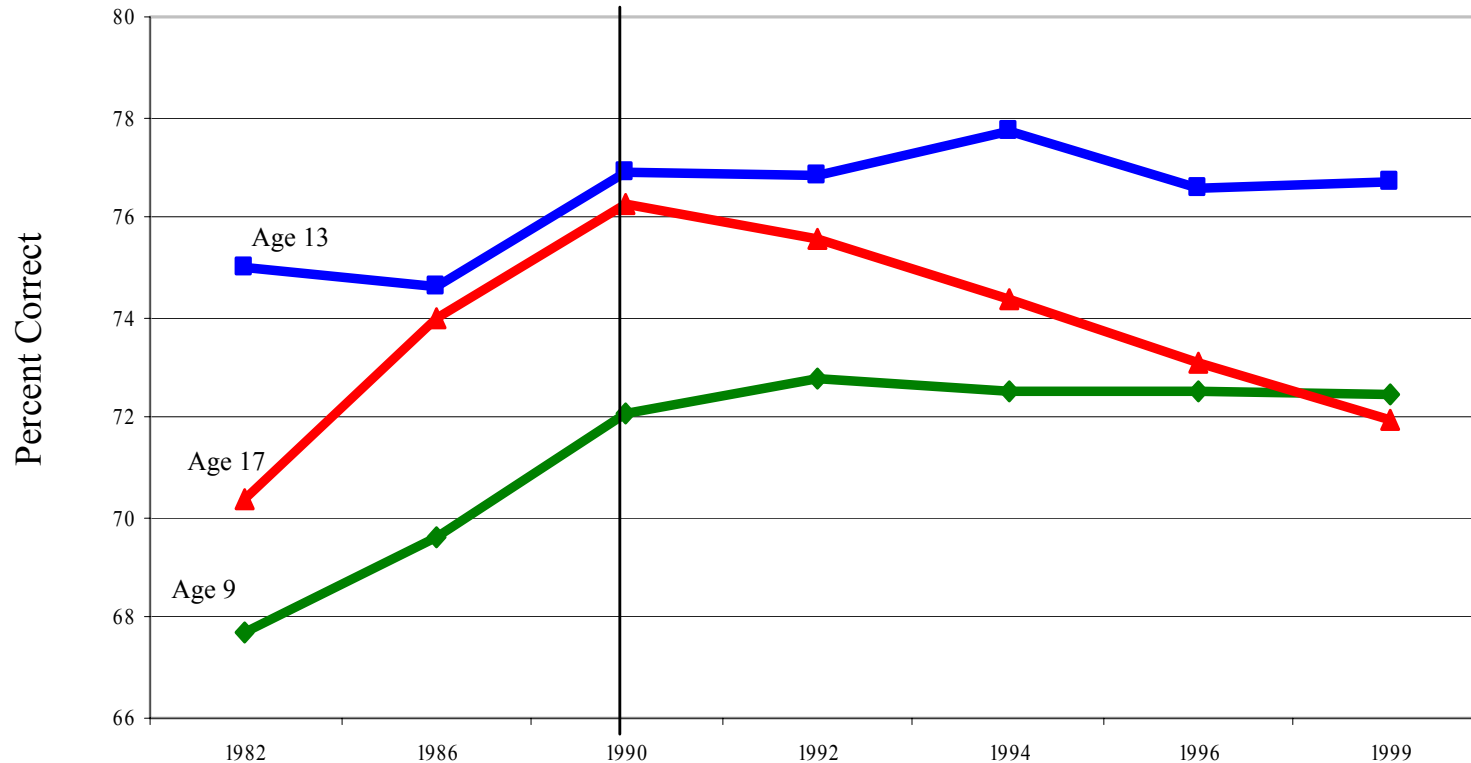
Main NAEP scores taken from
<http://www.nces.ed.gov/nationsreportcard/naepdata/search.asp>

Trend NAEP scores taken
from <http://www.nces.ed.gov/naep3/tables/Ltt1999/>

Tom Loveless, Brown Center on Education Policy
Brookings Institution
Presentation on Math Reform at AEI March 4, 2002
<http://www.brookings.edu/browncenter>

Arithmetic Cluster-- Item Analysis

NAEP Long-Term Trend, 1982-1999



Arithmetic data taken from NAEP 1999 Long-term trend Mathematics Summary Data Tables: <http://www.nces.ed.gov/naep3/tables/Ltt1999/>

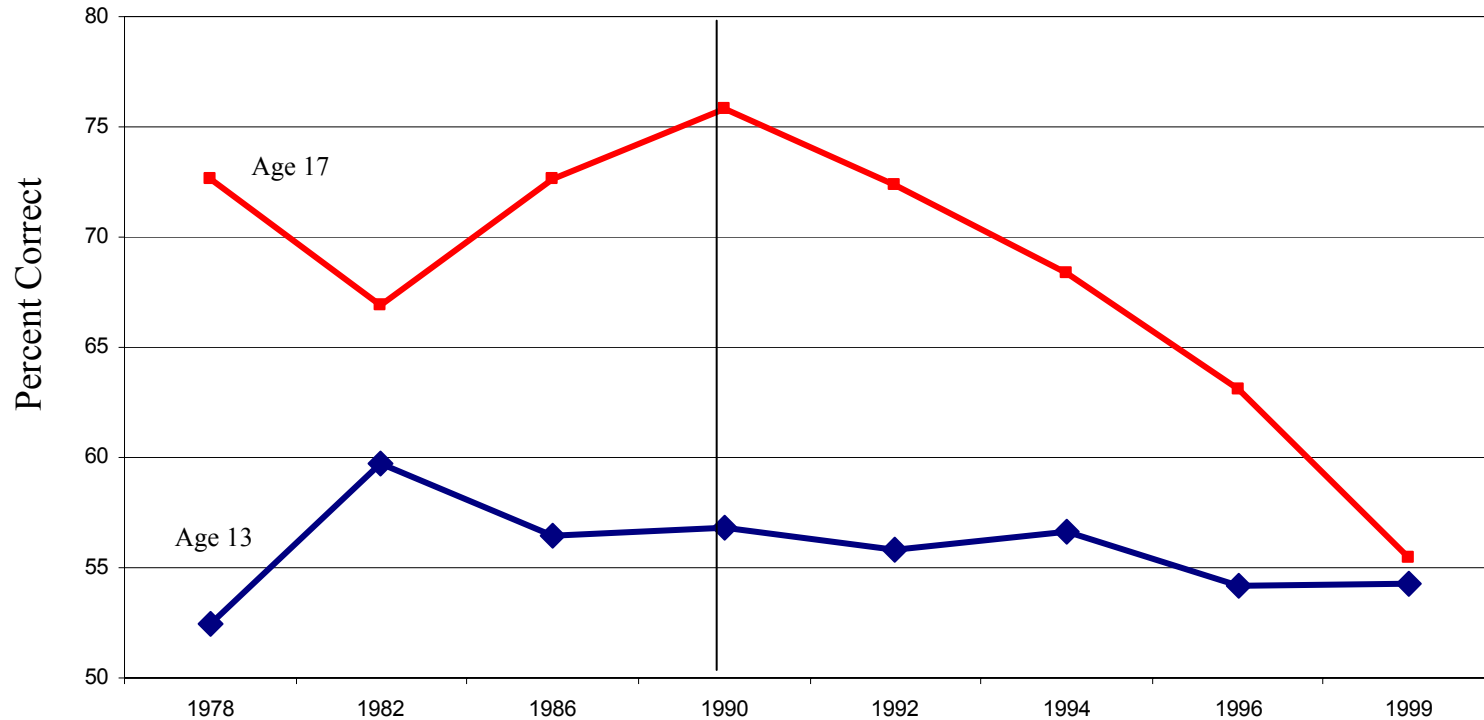
Age 9 Arithmetic Cluster includes Addition, Subtraction, Multiplication, and Division of Whole Numbers (21 items).

Age 13 Arithmetic Cluster includes Addition and Subtraction of Whole Numbers, Fractions, and Decimals (23 items).

Age 17 Arithmetic Cluster includes Addition of Whole Numbers, Fractions, Decimals, and Converting Decimals into Fractions (17 items).

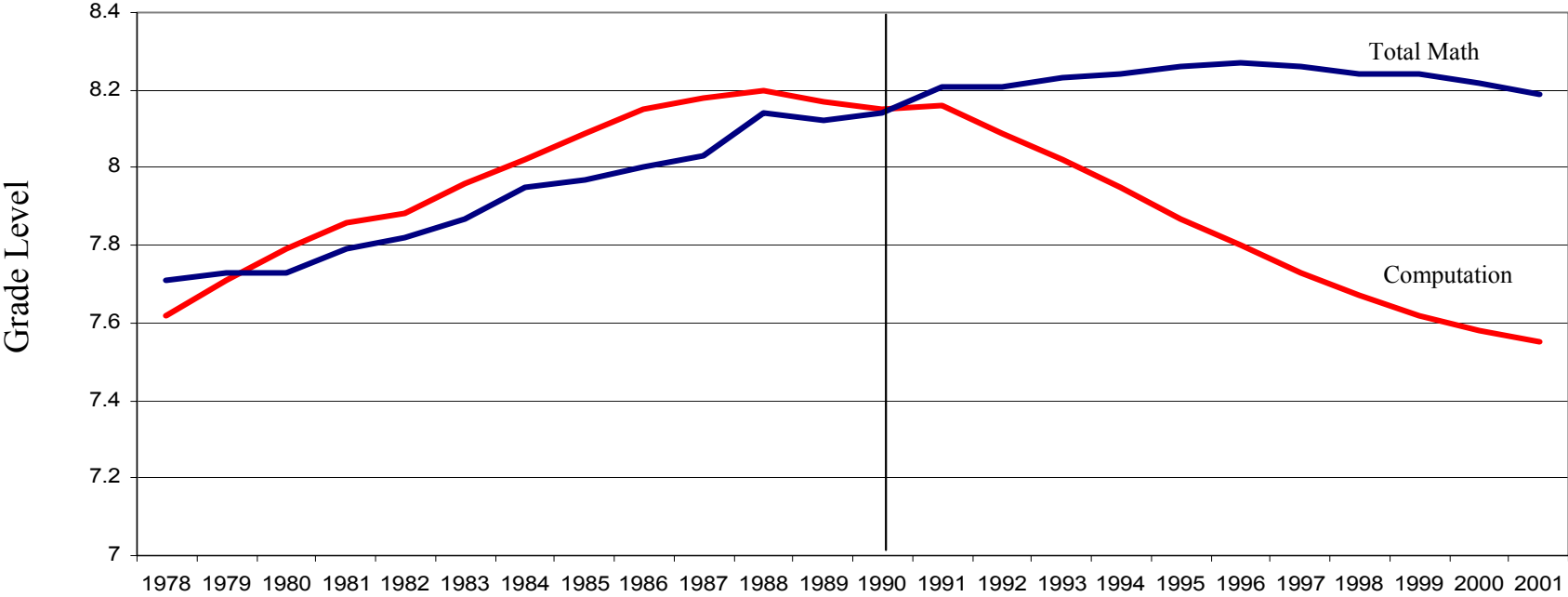
Fractions-- Item Analysis

NAEP Long-Term Trend, 1978-1999



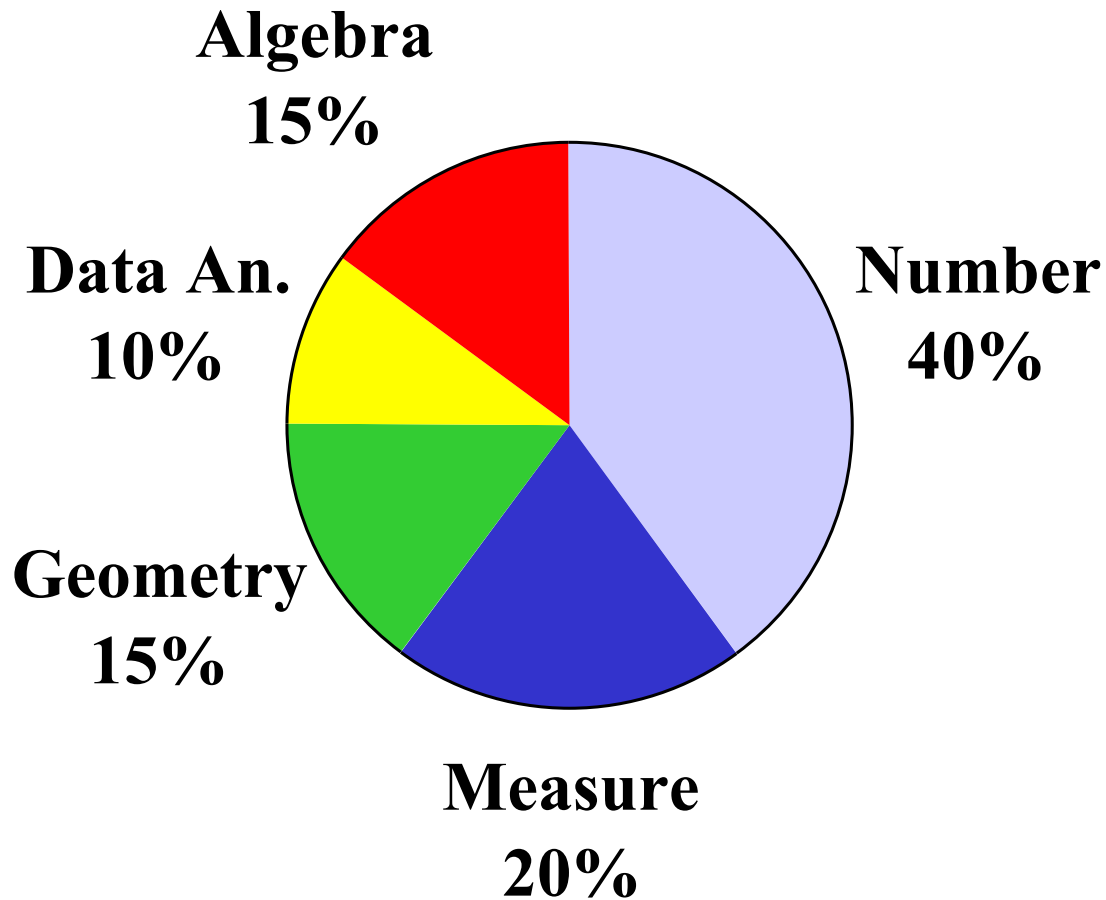
Fraction data taken from NAEP 1999 Long-term trend Mathematics Summary Data Tables

ITBS 8th Grade State of Iowa, 1978-1999



Data taken from Iowa Basic Skills Testing Program--IA Annual Comparisons
Computation assesses operations with whole numbers, fractions, and decimals.
Total Math assesses non-computation math skills.

Main NAEP Distribution of Math Items 4th Grade



**Students were asked:
Do you agree with the statement,
“I like mathematics”?**

		Agree/ Strongly Agree	Disagree/Strongly Disagree
4 th grade	2000	70%	14%
	1990	70%	14%
8 th grade	2000	53%	25%
	1990	57%	22%
12 th grade	2000	47%	37%
	1990	54%	29%

12th grade responses by Race/Ethnicity

		Agree/ Strongly Agree	Disagree/Strongly Disagree
White	2000	46%	39%
	1990	53%	31%
Black	2000	48%	37%
	1990	61%	25%
Hispanic	2000	47%	33%
	1990	54%	24%

Data taken from <http://www.nces.ed.gov/nationsreportcard/naepdata/search.asp>