

KERA UPDATE

December 2001

About The Kentucky Education Reform Act

#58

New CATS Credibility Crisis: Inflated Scores, Deflated Goals, Part 3

KERA Updates 55 to 57 discussed several aspects of the inflation in Kentucky's new CATS assessment when compared to the old KIRIS assessment. **Update 55** examined a rescoring scheme for CATS that caused some **incredible score boosts for individual subjects**. **Update 56** explained how **the effective Kentucky goal had been lowered from 100 to something less than 80**. **Update 57** farther expanded on the **tremendous inflation in overall scores** that occurred during the transition from KIRIS to CATS. Now, using recent information from the National Assessment of Educational Progress (NAEP), this **Update** will deal with another inflationary part of CATS, the **overstatement of the rate of progress**.

To begin, please understand that recent results from the NAEP must be treated with considerable caution. This is spelled out on page 27 of the year 2000 NAEP science report for Kentucky. The problem is that there have been big increases in exclusion of Kentucky's learning disabled students on the more recent NAEP assessments. As a result, Kentucky's recent NAEP progress is inflated, possibly to a considerable degree. So, the CATS inflation factors I am about to discuss understate the real situation.

With that caution in mind, here is how I compared CATS and NAEP rates of progress. I'll use 4th Grade math results as the example.

Kentucky participated in NAEP 4th Grade math in both 1996 and 2000. The state scored 220 in 1996 and 221 in the 2000 testing. That's an improvement average of 0.25 points per year. NAEP's math scoring scale runs from 0 to 500, so this 0.25 point per year increase was merely a 0.05 percent change per year on the NAEP

scoring scale.

By comparison, the statewide average for elementary school math in CATS was 57.7370 in 1999 and rose to 63.9376 in 2001. That is a change of 6.2006 points in just two years. On the CATS 140 point academic scale, this is about a 2.2 percent change per year.

So, according to NAEP, math for our elementary school students only improved 0.05 percent per year, while CATS implied a rate of improvement of 2.2 percent. The CATS rate of progress thus exceeds the NAEP rate by an enormous 44 times. That is 4400 percent! Wow!

Put another way, if NAEP's rate of progress had been matched by CATS, the 4th grade CATS math score would have risen only 0.14 points rather than the 6 plus points reported between 1999 and 2001.

So, judging by available data from CATS and NAEP, **CATS' rates of improvement are overstated**. Coupled with the inflation factors discussed in the earlier **KERA Updates**, the overall inflation in CATS is enormous.

Recall that **this NAEP comparison provides only a lower boundary for the**

inflation because of problems with NAEP exclusion. **The real inflation factors are probably even higher**. The bottom line — **CATS is not trustworthy!**

NAEP Results Show: CATS is BLOATED!

Rate of Progress Inflation Factors, 1999 to 2001 CATS Versus 1994 to 1998 NAEP Reading and 1996 to 2000 NAEP Math and Science

School Level and Subject	CATS Inflation Factor Vs. NAEP
Elementary Reading	2.14
Elementary Math	44.3
Middle School Math	7.78
Middle School Science	2.56

Comparison of CATS Score Changes That Would Occur if NAEP Rates Applied and Actual CATS Score Changes Reported

School Level and Subject	CATS Score Change if CATS matched NAEP's Rate of Progress, 1999 to 2001	Actual Change Reported in CATS, 1999 to 2001
Elementary Reading	0.84	1.7953
Elementary Math	0.14	6.2006
Middle School Math	0.7	5.4455
Middle School Science	1.17	2.9863