

KERA UPDATE

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#31

Trend disparities this large suggest appreciable inflation of gains on KIRIS

A new report from the RAND "think tank" presents a well documented case that Kentucky's KIRIS assessment for public schools was seriously inflated. The report, titled *The Validity of Gains in Scores on the Kentucky Instructional Results Information System (KIRIS)*, was authored by Daniel M. Koretz and Sheila L. Barron.

RAND compared KIRIS to two important national tests, the National Assessment of Educational Progress (NAEP) and the ACT test from American College Testing. Inflation was quite obvious.

INFLATION SHOWN BY NAEP

RAND says NAEP showed serious inflation. How bad? Take a look at the this:

Inflation Ratio, KIRIS Vs. NAEP 1992 to 1996

4th Grade Math	3.6 (Pg. xiv)
8th Grade Math	4.1 (Pg. xiv)

When Kentucky students' performance on KIRIS was compared to their performance on NAEP math, RAND found inflation on the order of 3.6 to over 4 times. RAND didn't list an inflation ratio for 4th grade reading, which NAEP also tested, but the report showed that while NAEP reading remained unchanged, KIRIS showed a dramatic increase of 0.75 standard deviation from 1992 to 1994 (Pg. 111). If you are not familiar with standard deviation scoring, RAND offers an

See for yourself at:

example: During the well-known decay in United States test results in the 1960s and 1970s, the TOTAL decline was only 0.4 standard deviation (Pg. xiii). So, the KIRIS inflation over just a few years was nearly twice as large! Had it been in use, KIRIS would have totally hidden the real education decay of the 60's and 70's and actually would have indicated progress!

INFLATION SHOWN BY ACT

RAND also found serious inflation when KIRIS was compared to ACT, but the analysis is much more involved because KIRIS and ACT are designed for somewhat different purposes. RAND concludes those differences mean ACT cannot show the entire inflation in KIRIS. RAND winds up giving KIRIS considerable benefit of the doubt by reducing their raw ACT inflation calculation by about half. Never-the-less, the report emphatically states that ACT data definitely supports a finding that KIRIS inflated Kentucky's progress.

NOTE: When you look at the KIRIS/ACT table, keep in mind that the RAND researchers determined only a portion of the total inflation in KIRIS could be measured by the ACT. As a result, the figures shown are only half the original numbers RAND calculated.

THE BOTTOM LINE

RAND says the KIRIS to NAEP inflation numbers are the most accurate. KIRIS was supposed to be like the NAEP, and Kentucky' assessment even used NAEP's question frameworks. Thus, RAND says the KIRIS to NAEP inflation factors shown here probably are very close to the true inflation on KIRIS, at least for 4th and

8th grade math.

In other words, the actual total inflation in KIRIS is probably at

An interesting question: If schools had their KIRIS gains cut by 3.5, how many would have

least 3.5.

IMPLICATIONS FOR CATS

KIRIS is now history, phasing out for a new assessment called CATS. But, it looks like CATS is going to be heavily weighted towards the same vague open-response questions that were used in KIRIS. CATS will even keep the same scoring goal of 100. So, is it likely CATS will really solve the KIRIS problem?

RAND shows real progress since KIRIS started has been slight. RAND also says most Kentucky schools need to improve scores by 2 standard deviations to reach the goal of 100. That is 5 times that US score decline in the 60's and 70's. And, if CATS starts to show many schools won't make 100, will there be pressures to inflate CATS? Inflation happened with KIRIS.

Can Kentucky pull this off? Will CATS overcome inflation? Will it be more

Inflation Ratio, KIRIS Vs. ACT 1992 to 1996 (See Discussion)

Math	2.0 (Pg. 113)
Reading	2.0 (Pg. 113)
Science	1.7 Pg. 113)