We Are At Risk

And what we can do about it

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A Nation At Risk

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world.

... the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people.

If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves.

We have, in effect, been committing an act of unthinking, unilateral educational disarmament.

Source: National Commission on Excellence in Education; April 1983

Source: Goldman Sachs, Global Economics Paper No: 99, BRICs Model
College grads: US, India, and China

College graduates this past year:

- **Total College Graduates**
  - U.S.: 1.3 Million
  - India: 3.1 Million
  - China: 3.3 Million

- **Engineering Graduates**
  - U.S.: 70,000
  - India: 350,000
  - China: 600,000

*Source: Geoffrey Colvin, Fortune Magazine, July 20, 2005*
Tennessee’s student pipeline, 2004

100 ninth graders:
- 63 graduated high school on time
- 39 entered community college or university
- 27 were still enrolled the sophomore year
- 17 graduated within 150% of time
2008 Tennessee and National ACT-Tested Graduates Likely to Be Ready for College-Level Work (in percent)

- **English Composition**
  - Tennessee: 70%
  - National: 68%
  - ACT English Benchmark Score = 18
- **Algebra**
  - Tennessee: 33%
  - National: 43%
  - ACT Math Benchmark Score = 22
- **Social Sciences**
  - Tennessee: 51%
  - National: 53%
  - ACT Reading Benchmark Score = 21
- **Biology**
  - Tennessee: 23%
  - National: 28%
  - ACT Science Benchmark Score = 24
- **Students Meeting All 4 ACT Benchmark Scores**
  - Tennessee: 18%
  - National: 22%

N = 50,225 for Tennessee
N = 1,421,941 for National
Developmental (aka Remedial) studies

• First-time Freshmen, 2007-2008
  – Community College: 74%
  – Universities: 40%
  – Overall: 60%

• Tennessee Board of Education’s
  2014 Target: 10%
# Remedial’s impact on chance of success

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Prepare All Tennessee Children for Successful Post-Secondary Work, Education and Citizenship

Tennessee Students

GOALS
- Successful transitions
- Rigorous, relevant high school
- Relevant middle grade experiences
- Dynamic elementary grade education
- High quality Pre-K availability

MEASURES
- Developmental studies rate
- College-going rate
- Graduation rate
- ACT benchmarks
- ACT PLAN (10th Grade)
- ACT EXPLORE (8th Grade)
- NAEP (8th Grade)
- NAEP (4th Grade)

Effective school leaders
Effective teachers
Rigorous, relevant curriculum
Sufficient resources
“. . . too many [8th graders] are arriving at high school so far behind academically that, under current conditions, they cannot become ready for college and career regardless of the rigor of the high school curriculum, the quality of high school instruction, or the amount of effort they put into their coursework.”
Tennessee 8th grade students, 2007 NAEP: Around 75% are not ready for high school.
Gap between state/national assessments

8th Grade Achievement on State Assessment v. NAEP (2005)

- Reading Proficient:
  - Tennessee: 87%
  - NAEP: 26%

- Math Proficient:
  - Tennessee: 87%
  - NAEP: 21%
Predicting 11th/12th grade career/college readiness

Figure 1a: English

Figure 1b: Mathematics

Figure 1c: Reading

Figure 1d: Science
Tennessee 4th grade students, 2007 NAEP: Around 70% have not mastered basic skills.
What is going on in PreK-3?

Over 70% of students are not fully prepared to move ahead in school despite having been enrolled in school for 4 to 5 years.

Answer: We do not know.

Tennessee and (most other states) have no required testing below grade 3.
Kennewick, WA addressed this issue

In 1995, found 40% of students entering kindergarten were 1-3 grade-levels behind peers.

Set a goal of 90% of 3rd graders to read at grade level, and used direct instruction to produce "catch-up" growth.
Kennewick changed to teaching similar to that recommended by Tennessee
Kennewick’s direct instruction proven decades ago: Project Follow Through (1967-1977)
Direct Instruction still the best

“Dozens of studies have found over the years that in head-to-head comparisons with traditional classroom instruction or other educational interventions, the winner is often Direct Instruction or DISTAR.”

Education Week
March 17, 1999
Direct Instruction: 2009 evidence

Exchanging the core: Relations among reading curricula, poverty, and first through third grade reading achievement

Elizabeth Coyne Crowe\textsuperscript{a,b,*}, Carol McDonald Connor\textsuperscript{a,c}, Yaacov Petscher\textsuperscript{a}

Results from 30,000 students enrolled in grades 1, 2, & 3, of the Florida Reading First program. Highly scripted Reading Mastery was top performer among 6 research-based reading programs. Schools not using RM employed it for struggling readers.
Why is Kennewick’s approach not widely used?
Accountability is very unpopular at Prek-3

“There are two major perspectives on the issue: those who strongly oppose using child assessment data for local agency accountability and those who favor it.”

Opponents say “it will lead to serious negative consequences for children.”

October 31, 2007
What are accountability’s ‘negative consequences’—according to opponents?

- Teaching capable of producing “catch-up” growth would require deviation from 1980s best-practice teaching standards
- “Developmentally appropriate practice” teaching standards derived from theory and adopted in 1980s by the then new early childhood education specialty
- According to theory, the “developmentally inappropriate” teaching that would be compelled by accountability harms children
- Since the 70s, however, research shows that teaching like that used in Kennewick not only lacks adverse effects, it significantly enhances self-esteem.
In fact, standards are changing but only very recently—and very slowly.

Shifting Images of Developmentally Appropriate Practice as Seen Through Different Lenses
by David K. Dickinson

“The 1987 version of Developmentally Appropriate Practice in Early Childhood Programs marked as inappropriate ‘isolated skill development such as recognizing single letters, [and] reciting the alphabet’ (p. 55).”

- AERA Educational Researcher; January/February 2002
Teaching ABCs long thought “inappropriate” but now found beneficial!

“A long-promised review of early-reading research concludes that teaching the alphabet and letter sounds in preschool strengthens children’s chances of success in learning to read later on.”

Education Week
January 21, 2009

Articles screened: 8000
Articles synthesized: 500
Early reading now found to be beneficial

The long-term effects on high school seniors of learning to read in kindergarten

- “Students who learned to read in kindergarten were found to be superior in reading skills and all other educational indicators measured as seniors in high school.”
- “Also, there was absolutely no evidence of any negative effects from learning to read in kindergarten.”
Accountability issue: Educators v. public

• Should prek-3 classrooms be judged on how well they prepare children for future academic success?
• Should academic outcomes be prek-3’s top (but not only) priority?

• Most parents, policymakers, & the public say yes. They assume that is now the case.
• Most early childhood educators: no
Why change is coming so slowly

Change in policies & practices have received only mixed and limited acceptance among practicing educators

• Prek-3 teachers trained over last 30 years all believe “developmentally appropriate practice” is best and that teaching practices like Direct Instruction put children at risk—despite empirical evidence

• Researchers contend that the theory has been discredited, that more effective and well-tested, alternatives are available, and that there is no evidence of risk. **Substantial improvements in 4th grade proficiency percentages are possible with minutes a day of instruction.**

• In essence, the opponents of accountability are more concerned about the hypothetical risk suggested by theory than they are about the well documented risk of basic skill deficiencies.
In summary

- An approach to prek-3 like that used by Kennewick would give a huge (but not sufficient) boost to the attainment of Tennessee’s college and career preparedness aims. With 4th grade proficiencies in reading & math moving from 25% to 85%, schooling outcomes would improve from top to bottom.
- Data-driven, research-based approaches like those used in Kennewick require systematic assessment and accountability in prek-3.
- Currently Tennessee has no required testing below grade 3.
Current, widely-used prek-3 practices are not producing “catch-up” rates of academic growth.

“Our analyses that examined student achievement through the fifth grade reinforce the notion that full-day program may not enhance achievement and may actually be associated with poorer mathematics performance.”

RAND 2006
Research says, Tennessee’s current practices not producing “catch-up” rates of growth

Pre-K and non-pre-K students performed similarly by grade 5

Tennessee Comptroller of The Treasury,
Office of Research & Education Accountability

Assessing the Effectiveness of Tennessee’s Pre-Kindergarten Program: Second Interim Report

August 18, 2008
New and enhanced versions of current practice are not producing “catch-up” rates of growth.

Tennessee hosted 2 of 14 model programs

*Bright Beginnings* and its control were implemented in state pre-kindergarten classrooms in Tennessee. **No impacts** on the pre-kindergarten or kindergarten student-level outcomes were found.

*Creative Curriculum* and its control were implemented in state pre-kindergarten classrooms in Tennessee. **No impacts** regarding pre-kindergarten or kindergarten student-level outcomes were found.
Media reporting on “input” quality, not outputs

“Tennessee pre-K gets high marks”
*Tennessean*
April 9, 2009

The *State of Preschool* is an almanac of state performance on 10 indicators of input, not output.

Improved achievement is the indispensable indicator of quality. Without it, the rest is meaningless.
Teacher preparation remains dedicated to developmentally appropriate practice

Using seven recent, major studies of classroom-based educational programs for 4-year-olds, these analyses, taken together, do not provide convincing evidence of an association between teachers’ education or major and either classroom quality or children’s academic gains.

March/April 2007, Volume 78, Number 2, Pages 558 – 580

Teachers’ Education, Classroom Quality, and Young Children’s Academic Skills: Results From Seven Studies of Preschool Programs
Early Childhood Policy Specialists have only recently lessened opposition

Position Statement 2001:

“Kindergarten teachers and administrators guard the integrity of effective, developmentally appropriate programs for young children . . .

. . . they do not yield to pressure for acceleration of narrowly focused skill-based curricula or the enforcement of academic standards derived without regard for what is known about young children’s development and learning.”
Article is an excellent summary of the issue

Shepard Barbash
Pre-K Can Work
Needy kids could benefit, but only if we use proven pedagogy and hold programs accountable.
Autumn 2008

“Congress [and Tennessee] would do more good with less money if it focused its pre-K efforts on disadvantaged children, emphasized pedagogical approaches proven to work (in pre-K and beyond), and held programs accountable for results.”
Here is the main reason why prek-3 children need “catch-up” growth
For More Information:

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