

Education In Tennessee: At a Crossroads?

Campbell County Rotary Club

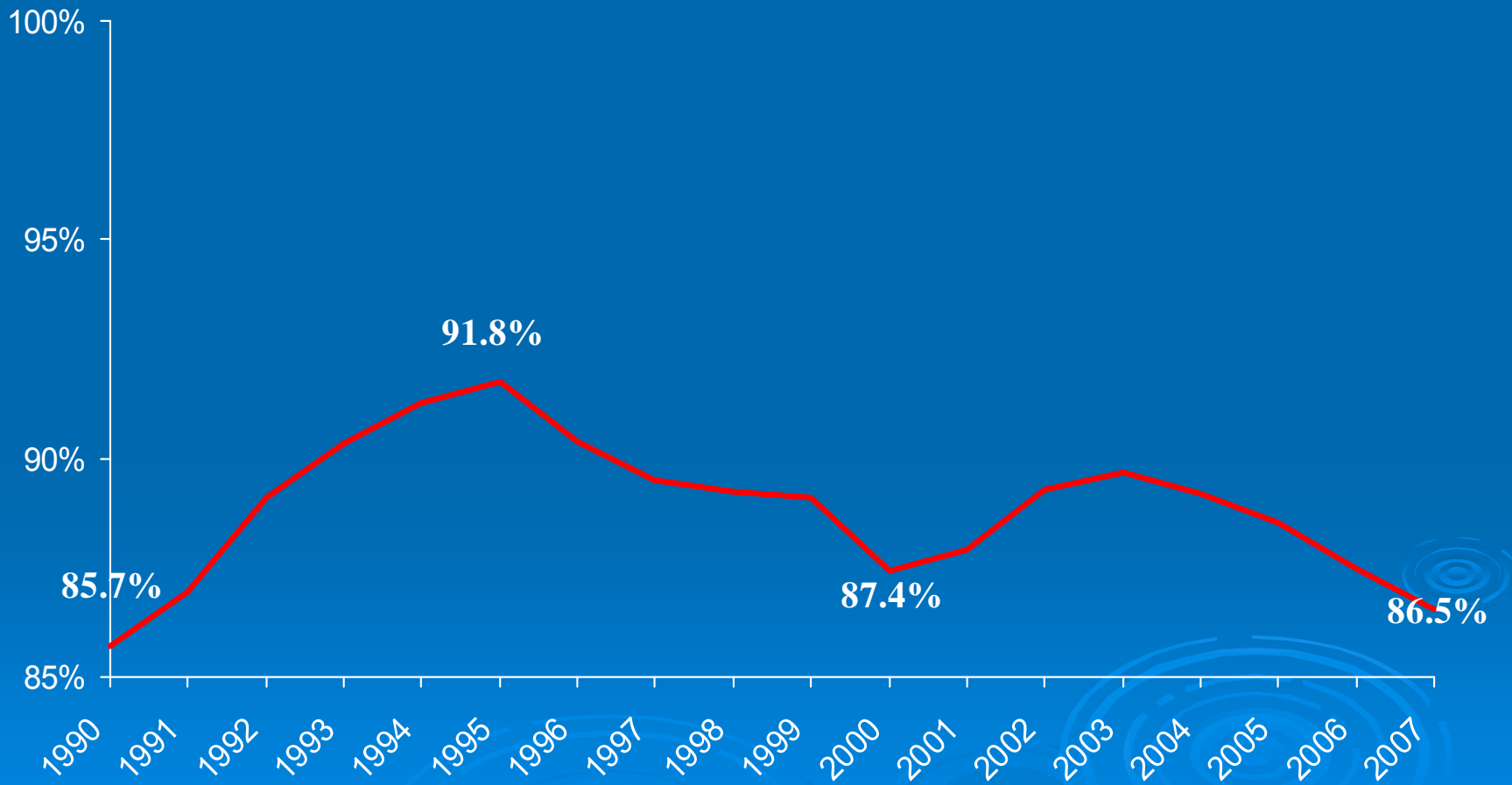
October 7, 2008

“....In the international competition to have the biggest and best supply of knowledge workers, America is falling behind.”

- Bill Gates, “America’s High Schools are Obsolete” Speech given to National Governors Association, February 26, 2005

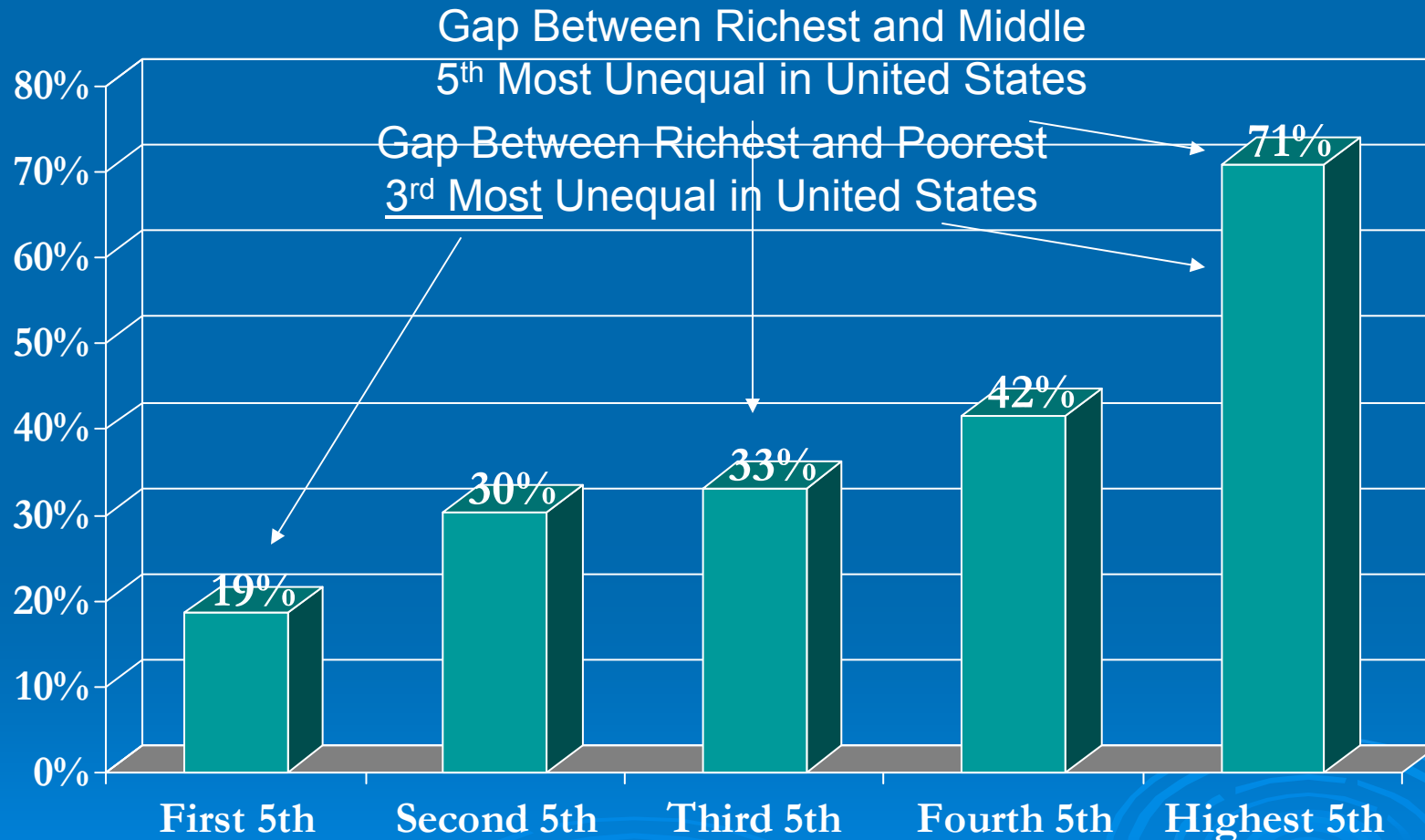
- A 2005 survey of manufacturers by National Association of Manufacturers found:
 - 84% do not believe K-12 schools are doing a good job
 - 80% of are experiencing a shortage of qualified workers; they need problem solving skills, reading, writing and communication skills
 - They want more investment in teacher education, science and math instruction, and career education in school
- For students in elementary school today, the majority of jobs they will hold do not exist (Jim Carroll)
- In today's global economy, work gets done where it is most effective and efficient (Thomas Freidman)

Tennessee Per Capita Income as a Percent of the U.S., 1990-2007



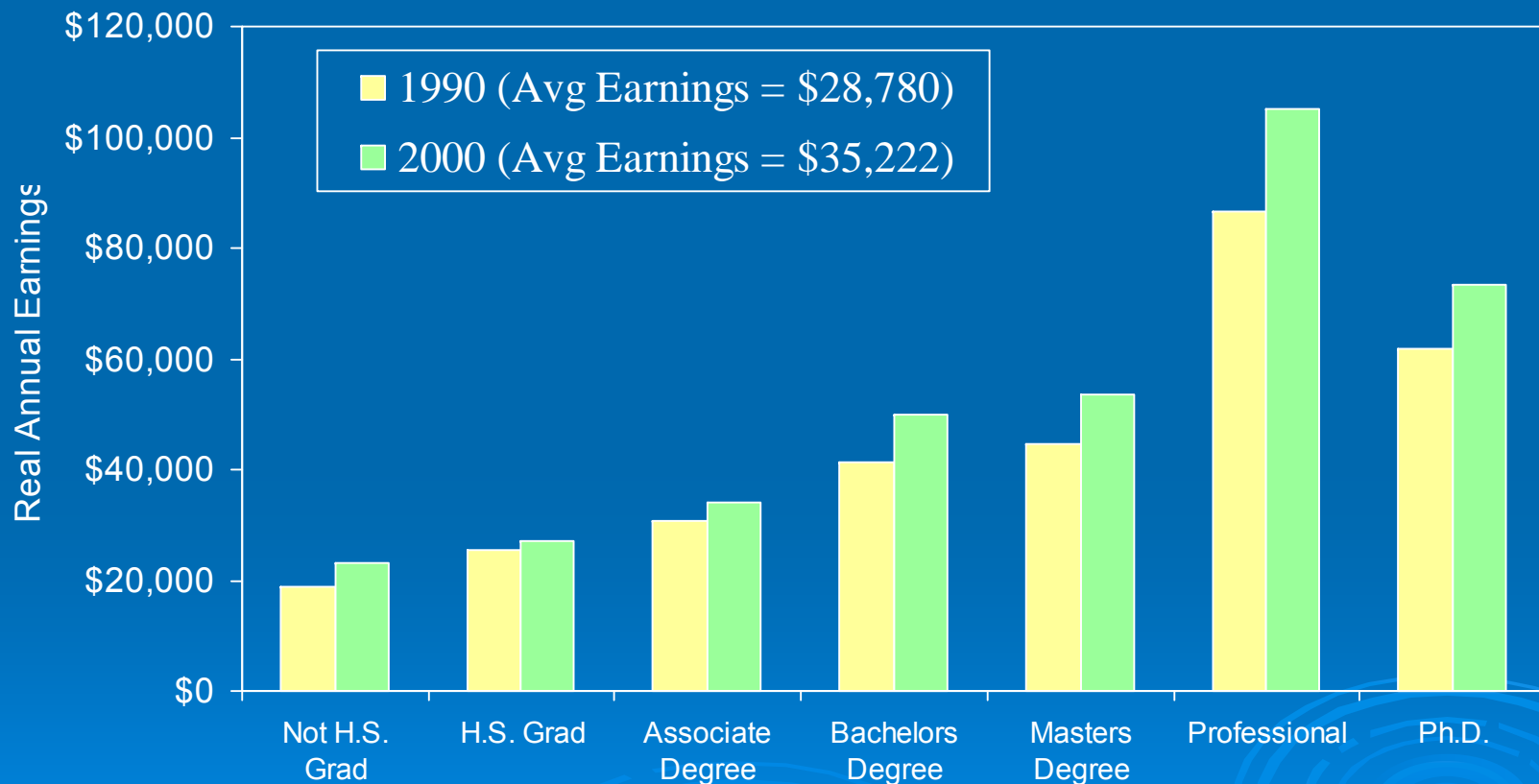
Source: Bureau of Economic Analysis.

Income Changes for Tennessee Families Early 1980s to Early 2000s, by quintiles



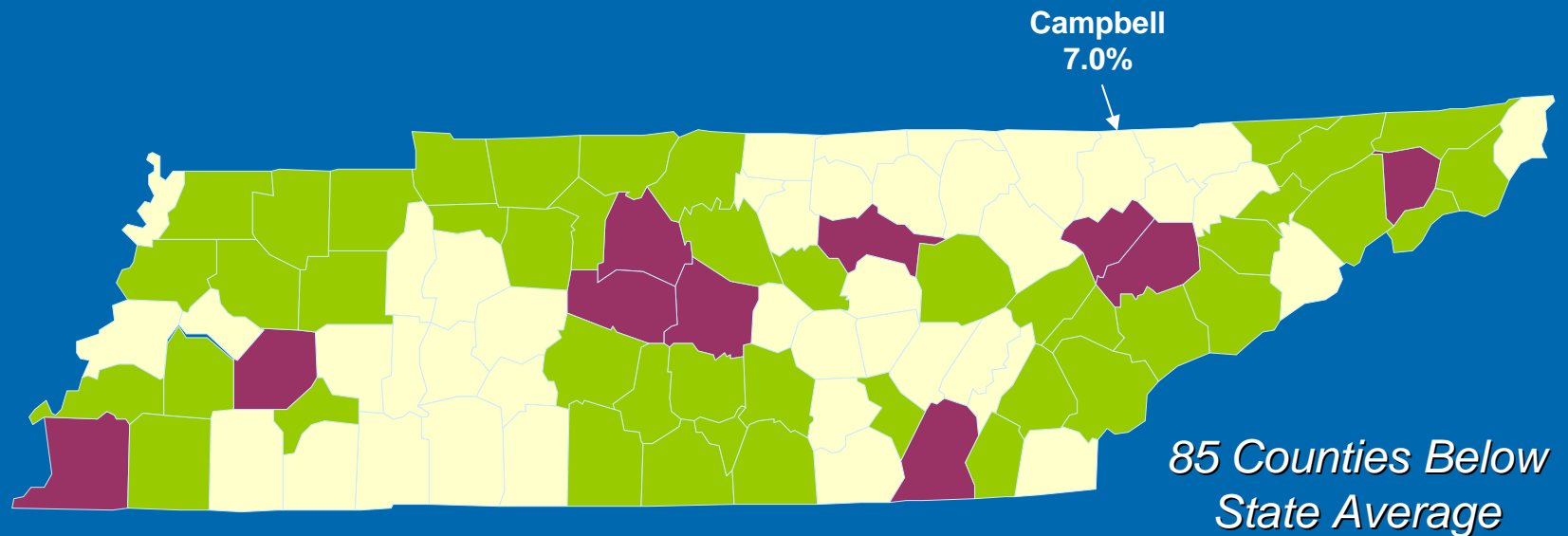
Source: Economic Policy Institute/Center on Budget and Policy Priorities, *Pulling Apart: A State by State Analysis of Income Trends*, January 2006.

Educational Attainment And Economic Well-being (Real Average Earnings): Tennesseans Aged 25 And Older



Source: CBER, UT

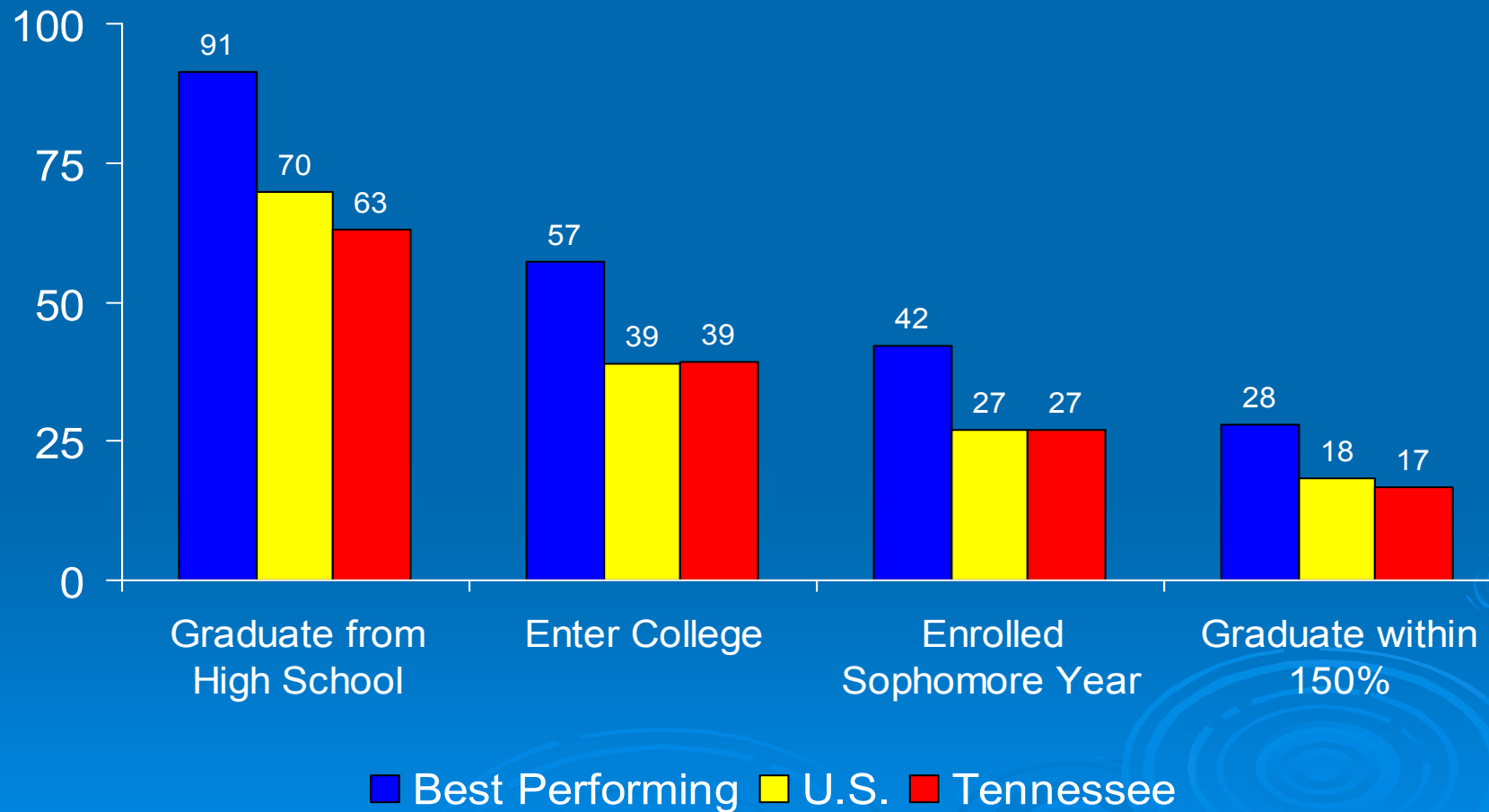
Educational Attainment of Persons 25 Years and Over, Percent With At Least A Bachelor's Degree, 2000



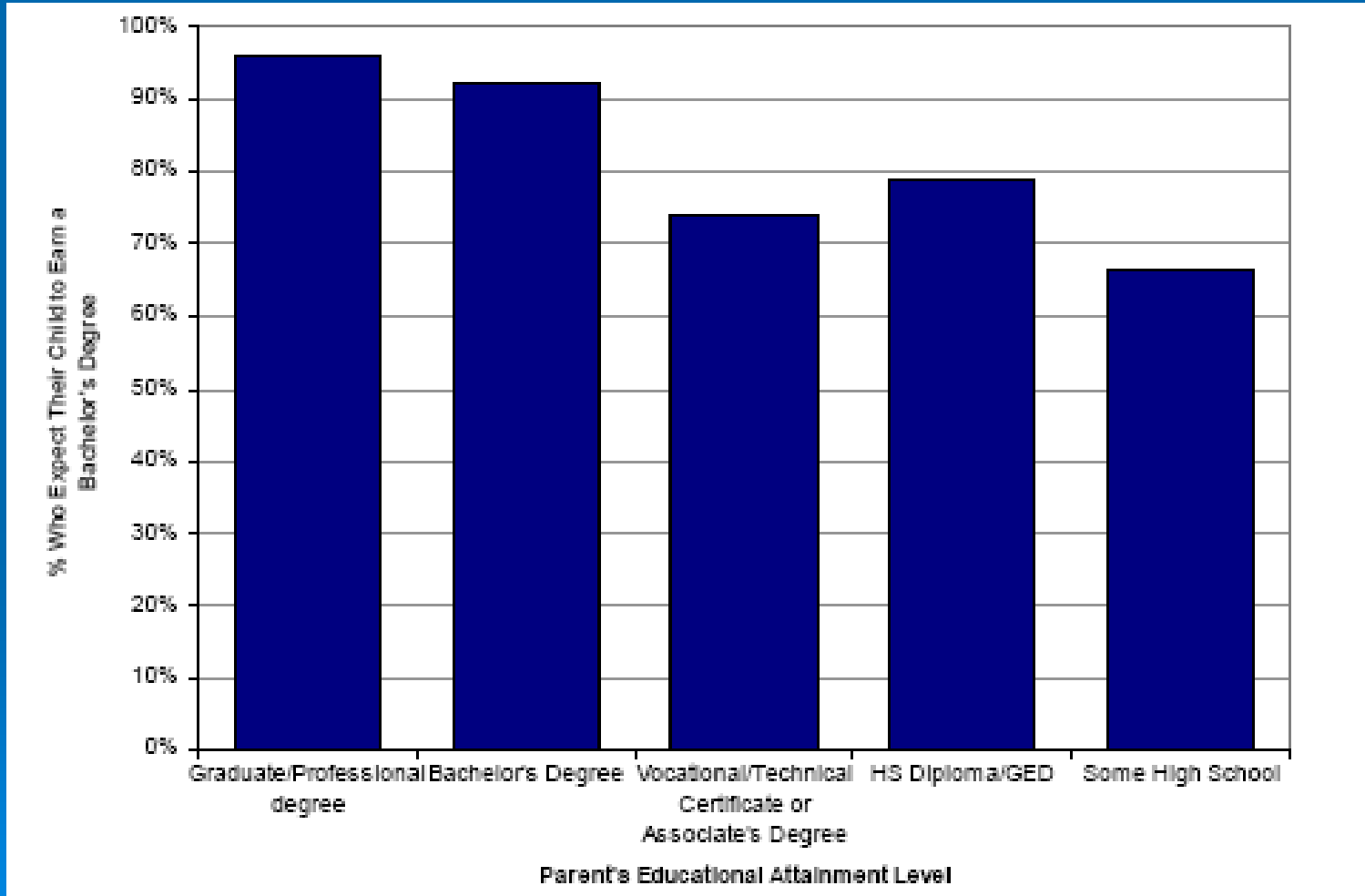
TN Average = 19.6%
U.S. Average = 24.4%



The Student Pipeline - Tennessee, 2004



Percent of Parents Who Expect Their Children to Earn a Bachelor's Degree By Educational Attainment Level



Source: University of Tennessee-CBER for the Comptroller of the Treasury of Tennessee, *Understanding Tennesseans' Attitudes About Education*, Part 1, Section IX, February 2006

K-8 All Students Achievement 2006 State Report Card

State

		2006		
CRT	% Below Proficient	% Proficient	% Advanced	
Math	12.0	48.0	40.0	
Reading	9.0	53.0	38.0	

Campbell

		2006		
CRT	% Below Proficient	% Proficient	% Advanced	
Math	15.0	54.0	31.0	
Reading	17.0	54.0	29.0	

National Ranking of Difference between State Proficiency and NAEP Proficiency

Tennessee

46

Out of 50 states ranked on the difference between the share of 4th graders rated proficient on the state reading test, compared to the NAEP test (1= best, 50= worst)

Tennessee

49

Out of 50 states ranked on the difference between the share of 4th graders rated proficient on the state math test, compared to the NAEP test (1= best, 50= worst)

Tennessee

43

Out of 47 states ranked on the difference between the share of 8th graders rated proficient on the state reading test, compared to the NAEP test (1= best, 47= worst)

Tennessee

47

Out of 47 states ranked on the difference between the share of 8th graders rated proficient on the state math test, compared to the NAEP test (1= best, 47= worst)

Strength of state proficiency standards: 2005

	Overall	4th grade		8th grade	
	grade	Math	Reading	Math	Reading
Arkansas	B-	B	B+	B	C
Georgia	D-	D	F	D-	F
Kentucky	C+	–	C	B-	–
Mississippi	D-	F	F	D+	C-
Missouri	A	B	–	A	–
North Carolina	F	D-	D-	F	F
Tennessee	F	F	F	F	F
Virginia	D+	–	–	D-	C-

Note: No grade (–) means either state scores or National Assessment of Educational Progress (NAEP) standards were not available.

Source: Peterson and Hess, *Keeping an Eye on State Standards*, **Education Next**, 2006 No. 3.

Part II: Measuring College Readiness

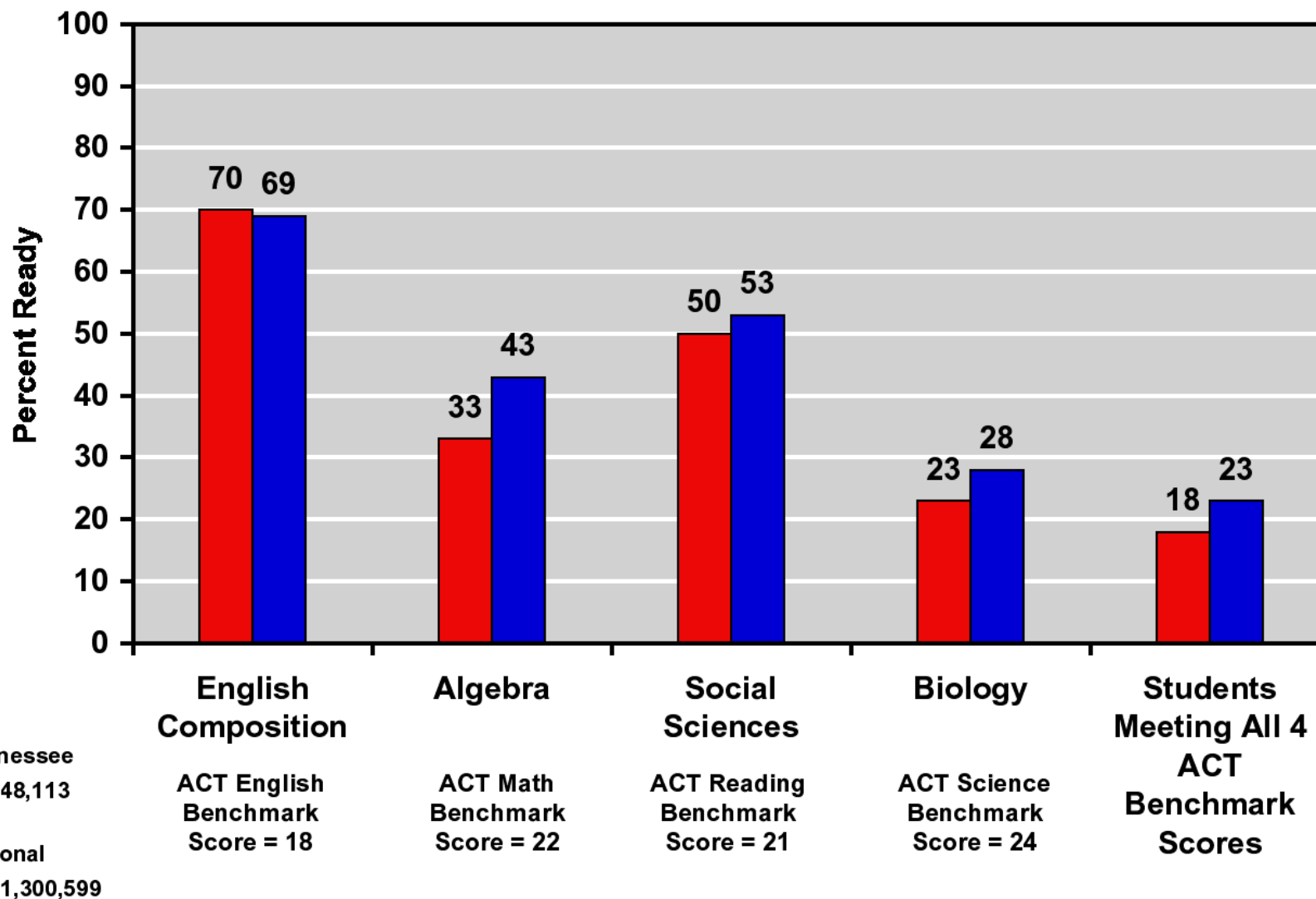
➤ ACT College Readiness Benchmark Scores

➤ Through collaborative research with postsecondary institutions nationwide, ACT has established the following College Readiness Benchmark Scores:

ACT Subject Area Test	College Course(s)	College Readiness Benchmark Score
English	English Composition	18
Math	Algebra	22
Reading	Social Sciences	21
Science	Biology	24

➤ A benchmark score is the minimum score needed on an ACT subject area test to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college courses.

2007 Tennessee and National ACT-Tested Graduates Likely to Be Ready for College-Level Work (in percent)

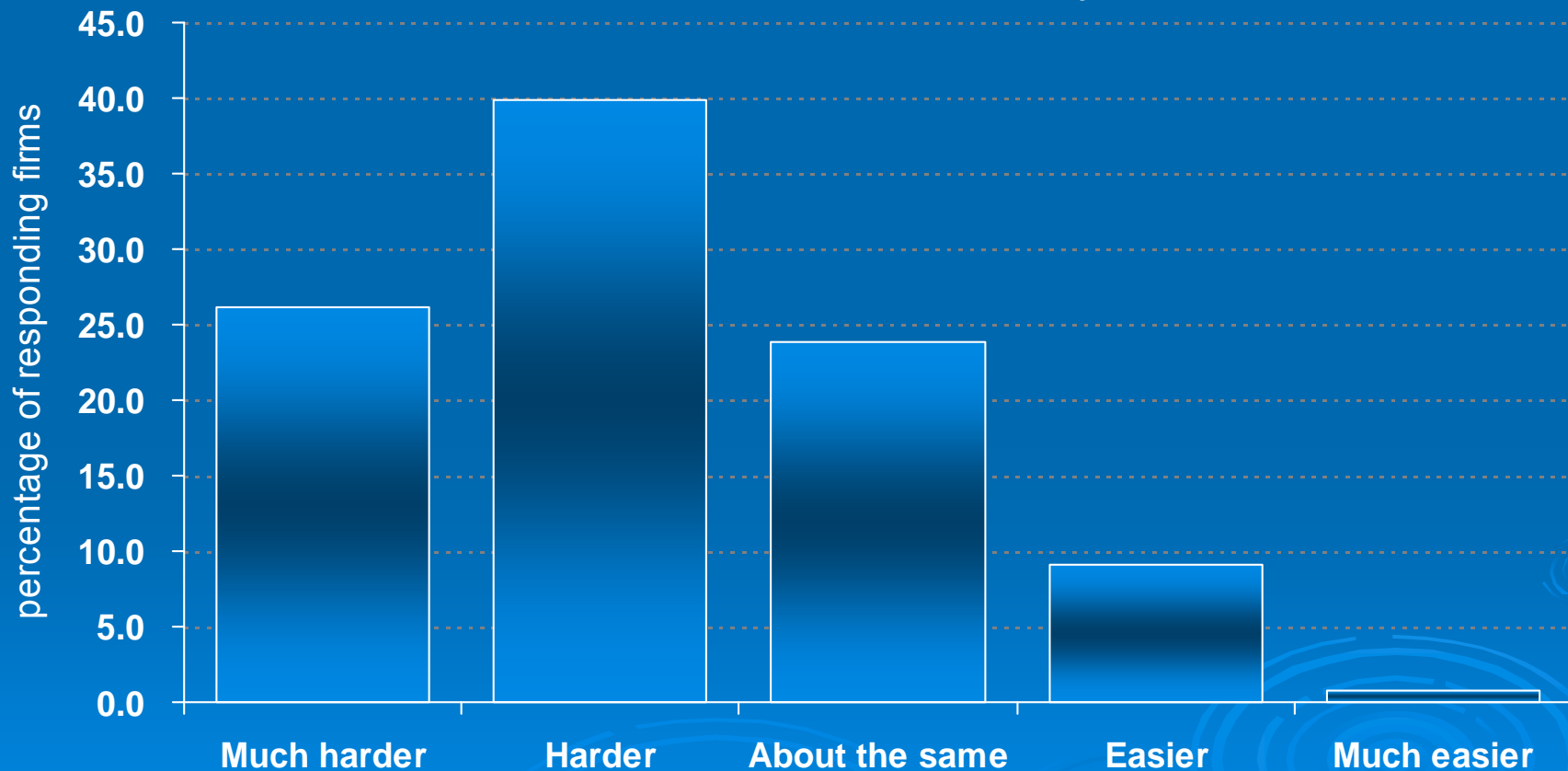


Job Trends for the Future

- **70%** of the 30 fastest-growing jobs will require an education beyond high school.
- **40%** of all new jobs will require at least an associate's degree.
- Total college-level job openings between 1990-2008 will nearly equal to the number of college educated entrants to the workforce.

Expectations of the future Tennessee workforce

The level of difficulty anticipated in finding qualified/educated Tennessee workers over the next 10 years



Tomorrow's workforce: Quantity and quality

- About 76 million baby boomers will retire by the end of the decade. Boomers make up about one-third of the U.S. workforce, and there aren't enough younger workers to replace them
- The labor force is expected to grow 5.4% between 2005 and 2010. But growth from 2010 to 2015 will total only 3.0%
- Tennessee ranks 3rd out of 50 states in the percentage change in the foreign-born population between 2000 and 2005. The foreign-born population in Tennessee grew by 42.6% between 2000 and 2005.
- By 2014, the workforce will have openings for 9 million more degree holders than will be available. There will be 3 million surplus openings for 2-year degree holders, 4 million for 4-year degree holders, and 2 million for advanced degree holders.

What Are Our Aspirations?

“If we do not move from the bottom up to at least the middle in terms of public education, Tennessee will fail the people who live there.”

Business survey respondent

Grading Tennessee's schools: Business survey respondents (in percent)

Category	A	B	C	D	F
Basic skills	1.3	20.0	52.1	24.5	2.1
Computer literacy	2.7	30.5	45.1	19.6	2.2
Technical/vocational training	1.7	25.4	48.5	20.6	3.8
College prep	2.0	23.4	47.5	23.4	3.8
Providing highly qualified teachers	2.6	23.7	47.0	20.1	6.8
Arts, extracurricular activities	3.2	22.6	36.2	27.1	11.0
Discipline/work ethic	0.4	9.7	32.4	40.6	17.0
Leadership	0.5	11.0	46.9	32.1	9.8
Initiative	0.4	9.3	45.1	34.6	10.7
Life skills	0.2	13.2	40.6	36.3	9.8
Critical thinking	0.4	7.9	34.1	39.3	18.4

Why is curriculum rigor important?

High school students know they are not prepared for college or the workplace

- According to a February 2005 survey conducted by Peter Hart Research Associates, **approximately 40 percent of graduates reported key gaps in their preparation.** A majority noted that if they could do high school over again, they would work harder and take **more challenging courses.**

Source: Peter D. Hart Research Associates/Public Opinion Strategies (Washington, D.C.: Achieve, Inc. February 2005)

U. S. businesses know high school students are not prepared for college or the workplace

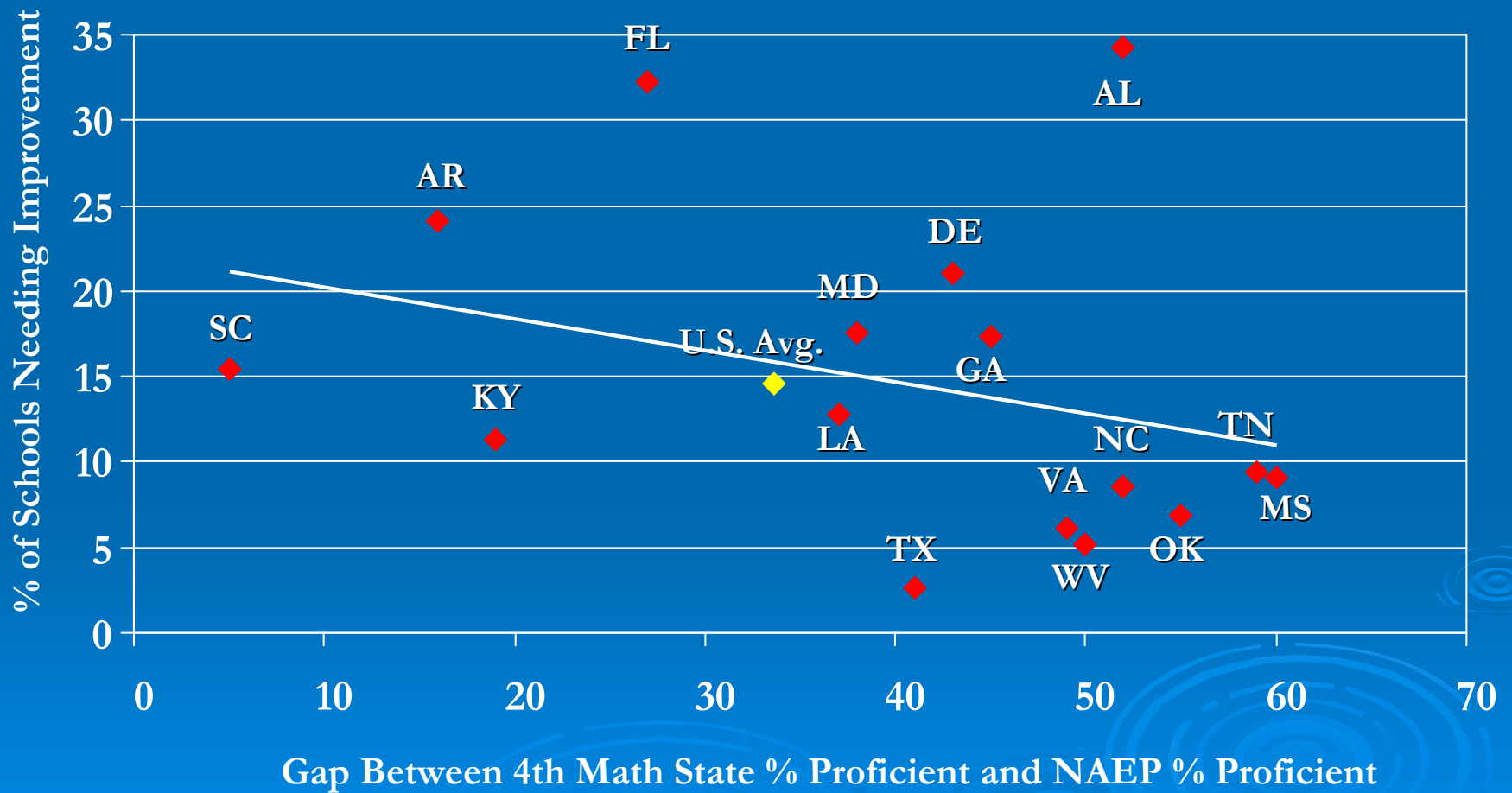
- According to the **Committee for Economic Development**, only **31 percent** of high school students complete the rigorous complement of courses recommended by the National Commission on Excellence in Education.

Source: "Cracks in the Education Pipeline: A Business Leader's Guide to Higher Education Reform."
Committee for Economic Development, (May 2005).

Heading In The Right Direction

- Tennessee participating in American Diploma project.
 - More closely aligned with national standards
 - Raise high school graduation requirements to increase the value of a high school diploma
 - Improve the alignment of curriculum content, assessments and exit requirements
 - Improve integration of educational levels from Pre-k through senior level of college

Relationship between Proficiency Gap and % of Schools In Need of Improvement – 2005



Reporting Progress

- The impact of making school harder means more schools will not meet standards for measured progress, INITIALLY.
- Informed public will serve a vital role (negative or positive)
 - Will be the interpreter of the results of the changes
 - Everyone needs to know what is happening in schools and why.
- *How the opinion leaders interpret the initial results from the American Diploma changes will be very important to the long-term success.*

6,038,803* reasons to care

EDUCATION CROSSROADS



Opportunity for You, Me, and Tennessee

Education Crossroads

- A book about how education affects our lives and the lives of those around us.
- The data is easily accessed and verified through online and other sources.
- Broken into 6 chapters: Future, Foundation, Prosperity, Family, Citizenship, and Public Sector.
- ***If we cannot articulate and document how education matters, we cannot develop the momentum for change.***

Future: External forces of change

- Global competition and outsourcing
 - Off-shore medical care and outsourcing the drive up window
- Income disparities
 - Income is increasingly concentrated at the top
 - US-Tennessee income disparities
- Structural change and decline of mfg
 - Nearly 60,000 jobs lost in apparel alone since 1990
- Perceptions of workforce
 - Beauty contests (*and* real data) place us in the bottom ten

Forces of change (cont.)

- Demographic change
 - Boomers are one-third of workforce
- Skill requirements of the future:
 - Top ten declining occupations → no post secondary ed.
 - These jobs average only \$12.62/hr
 - 8 of 10 fastest growing occupations → some post secondary ed.
 - These jobs average \$26.32/hr
- The promise of productivity change is tied to skilled workers.
 - 2004 mfg output *up* 12.4 percent, jobs *down* nearly 0.4 percent

Education → economic security for people and places

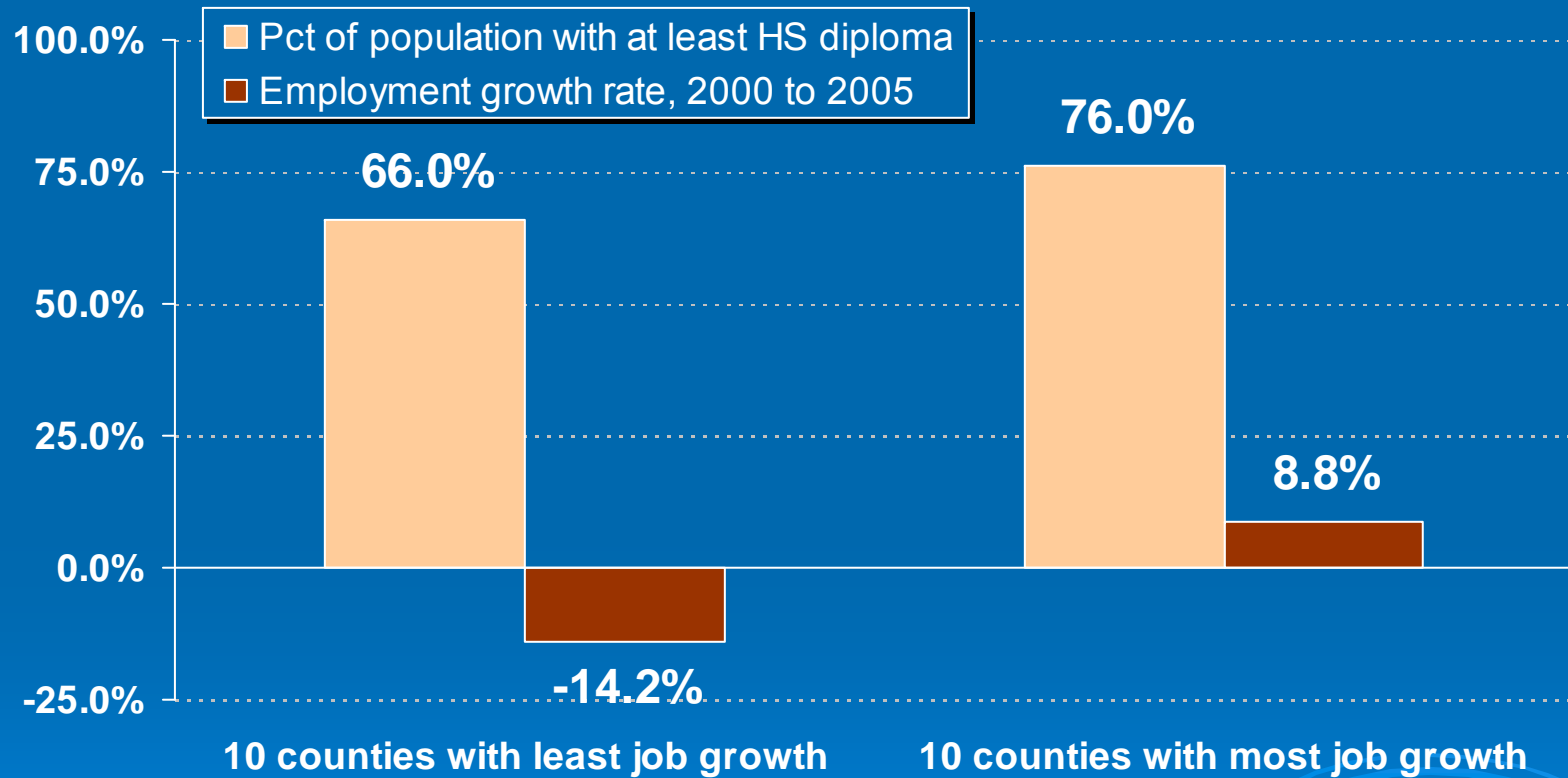
Foundation: An asset assessment

- We lag the nation by most measures of investment and attainment
 - TN per pupil k-12 spending is about 75% of the national average
 - Our per capita income is about 90% of the national average
 - We have invested more over time but our relative position is unchanged since 1994/95

Prosperity: Education and economic performance

- Higher levels of educational attainment strongly linked to regional economic development and wellbeing
 - Higher per capita incomes
 - Lower unemployment rates
 - Lower poverty rates
 - Less reliance on food stamps

A better educated workforce means greater community prosperity



Source: CBER and TN Dept. of Labor & Workforce Development.

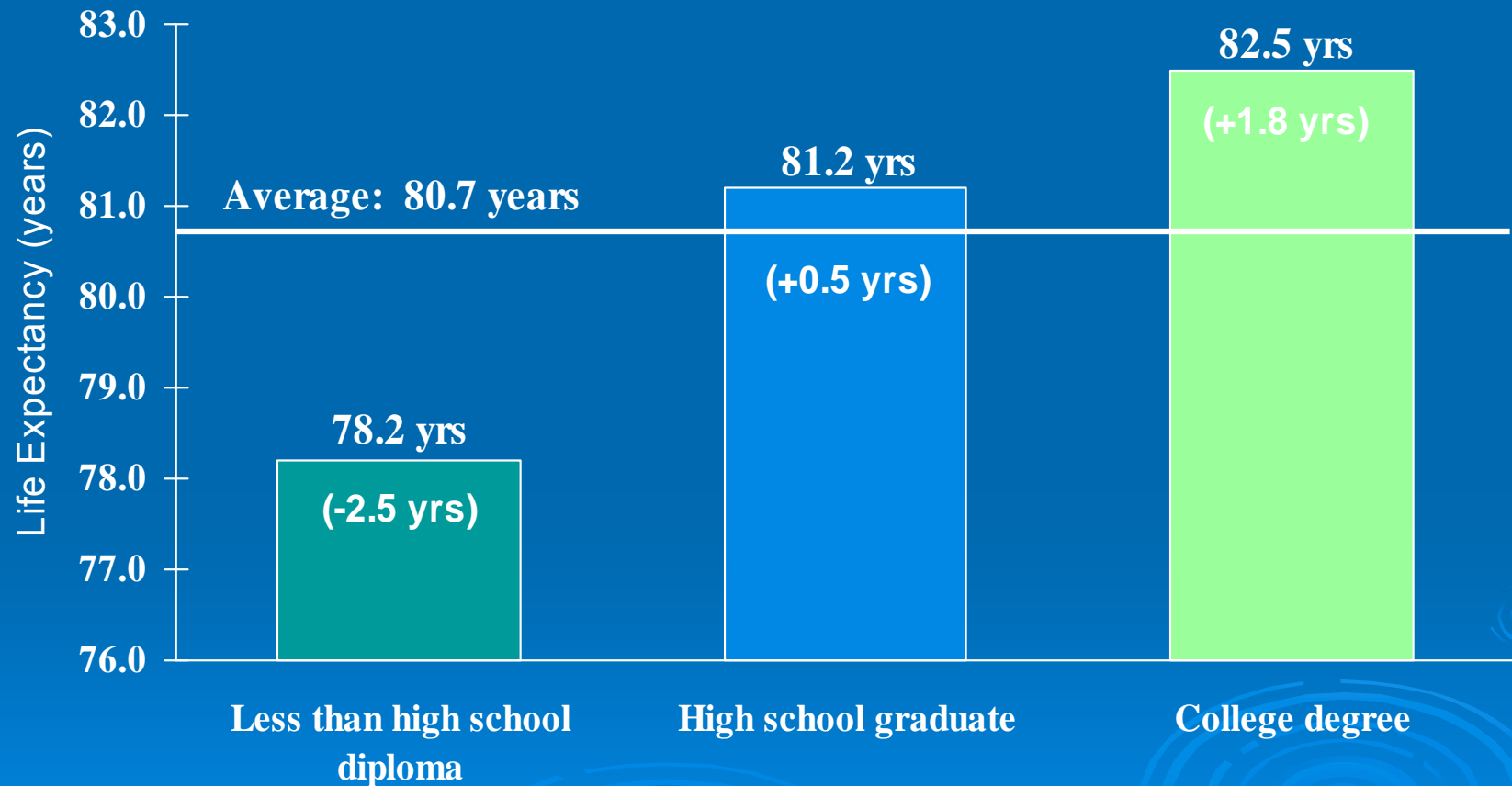
Do perceptions affect economic development?

Source	Rank
Development Report Card, Human Resource Development Capacity, 2007	44th
Camelot Index, Educated Population, 2006	40th
Smartest State Award, 2006–2007	41st
Beacon Hill Institute Competitiveness Report, Human Resources, 2006	42nd

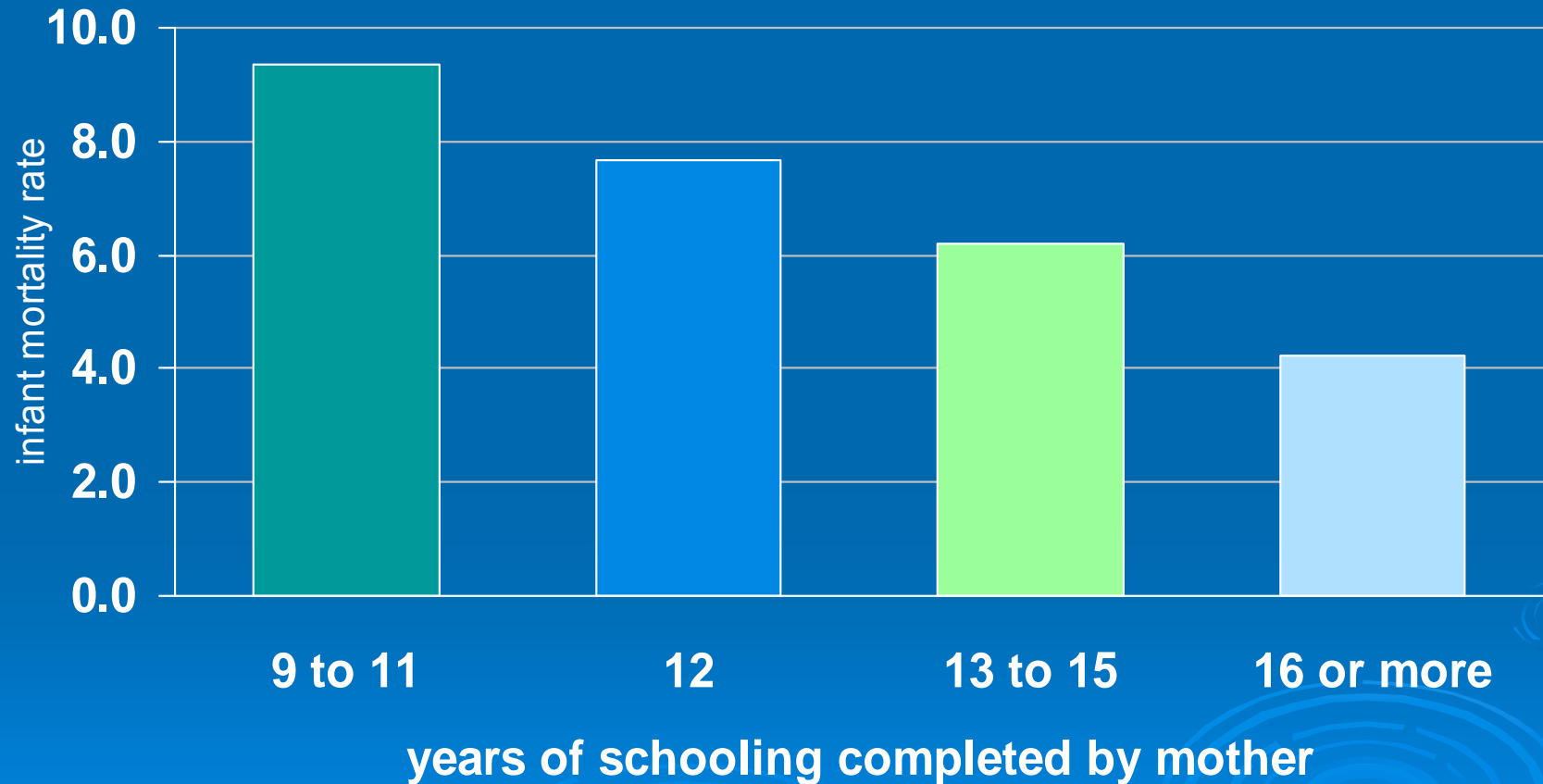
Family: Education and wellbeing in the home

- Parental education and income
 - Individual quality of life and health status
 - Family economic security, eg, homeownership
 - Child wellbeing, including access to insurance
 - The child's education

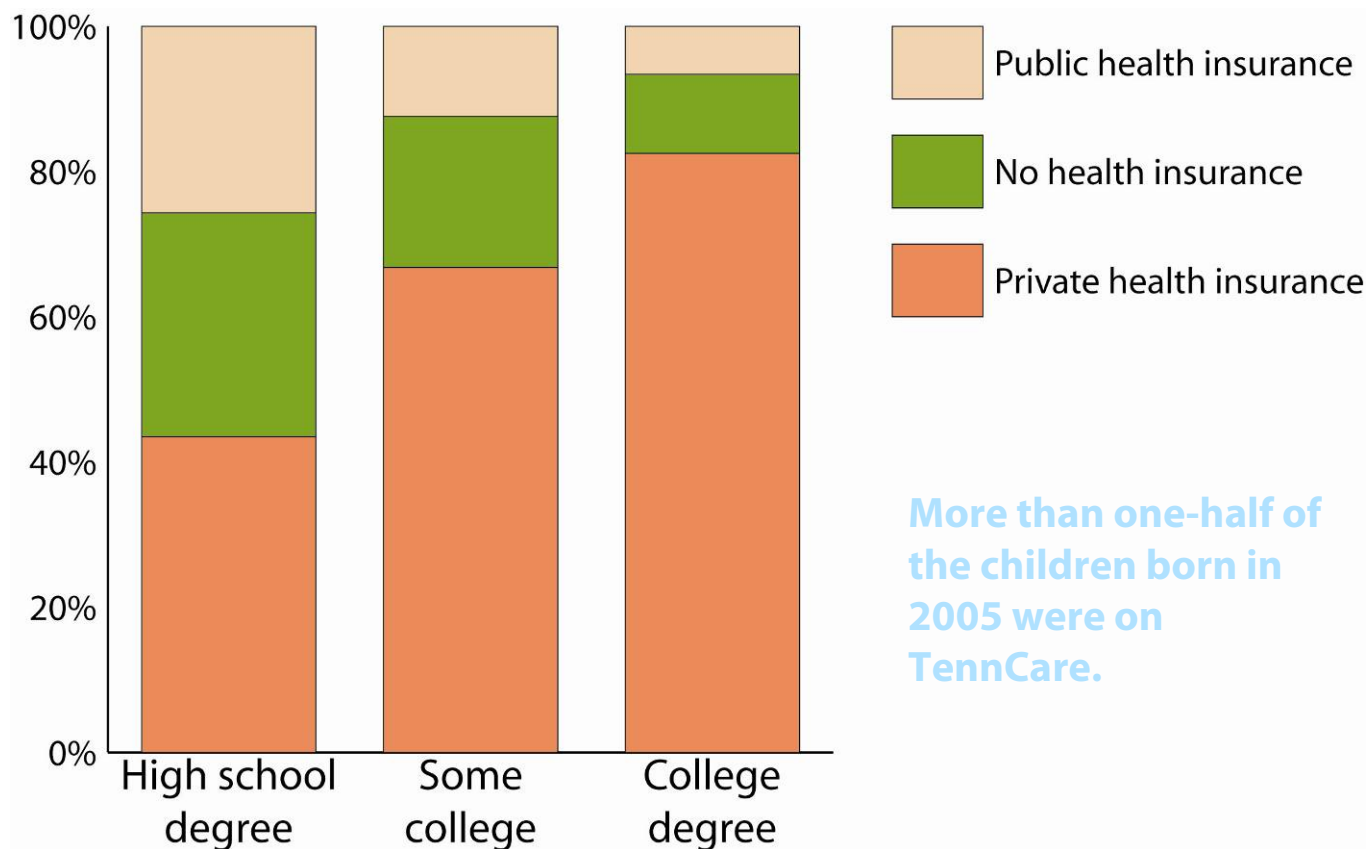
A Person Without a High School Diploma has a Shorter Life Expectancy



Infant mortality rates fall as maternal educational attainment rises



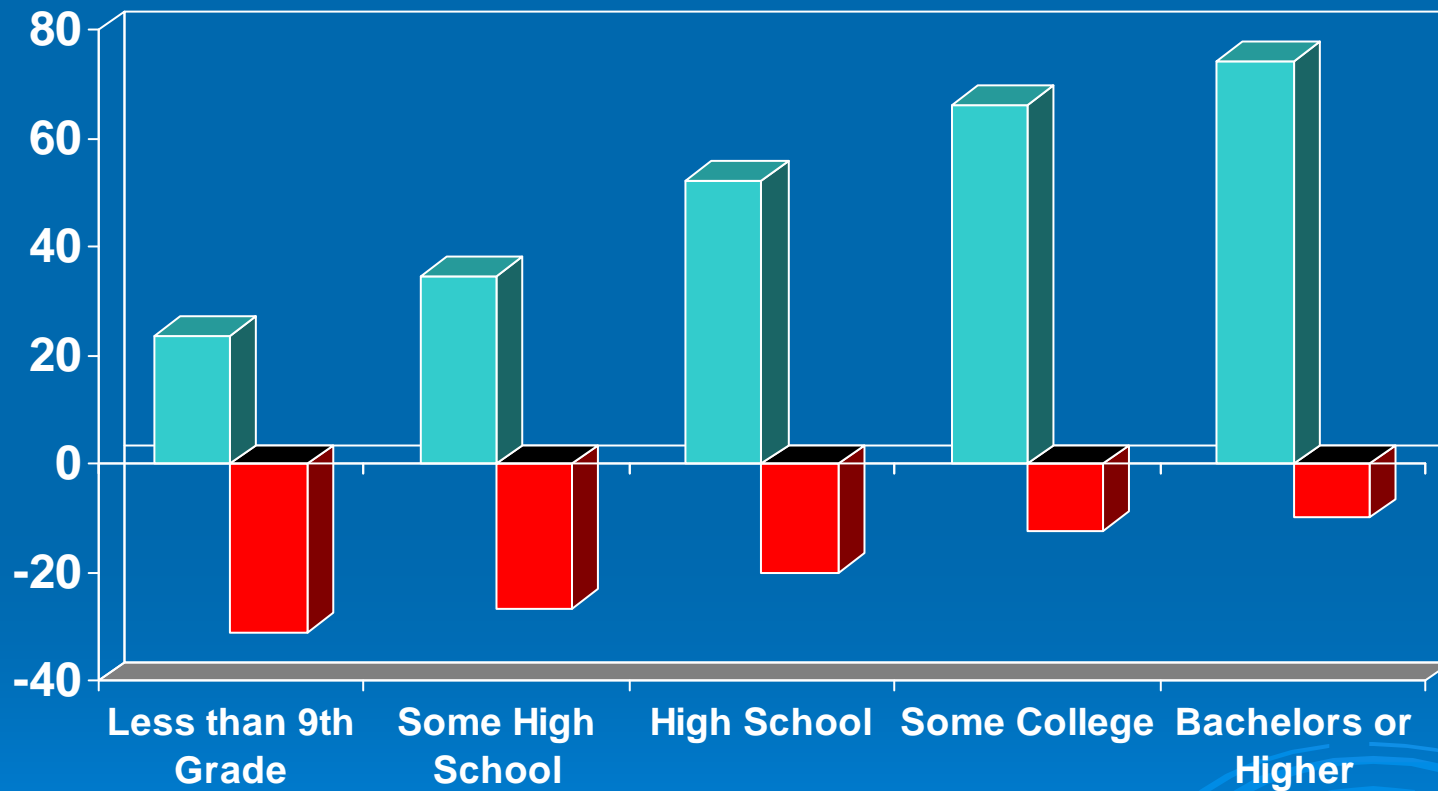
Private insurance linked to educational attainment



Citizenship: Education provides spillovers to society

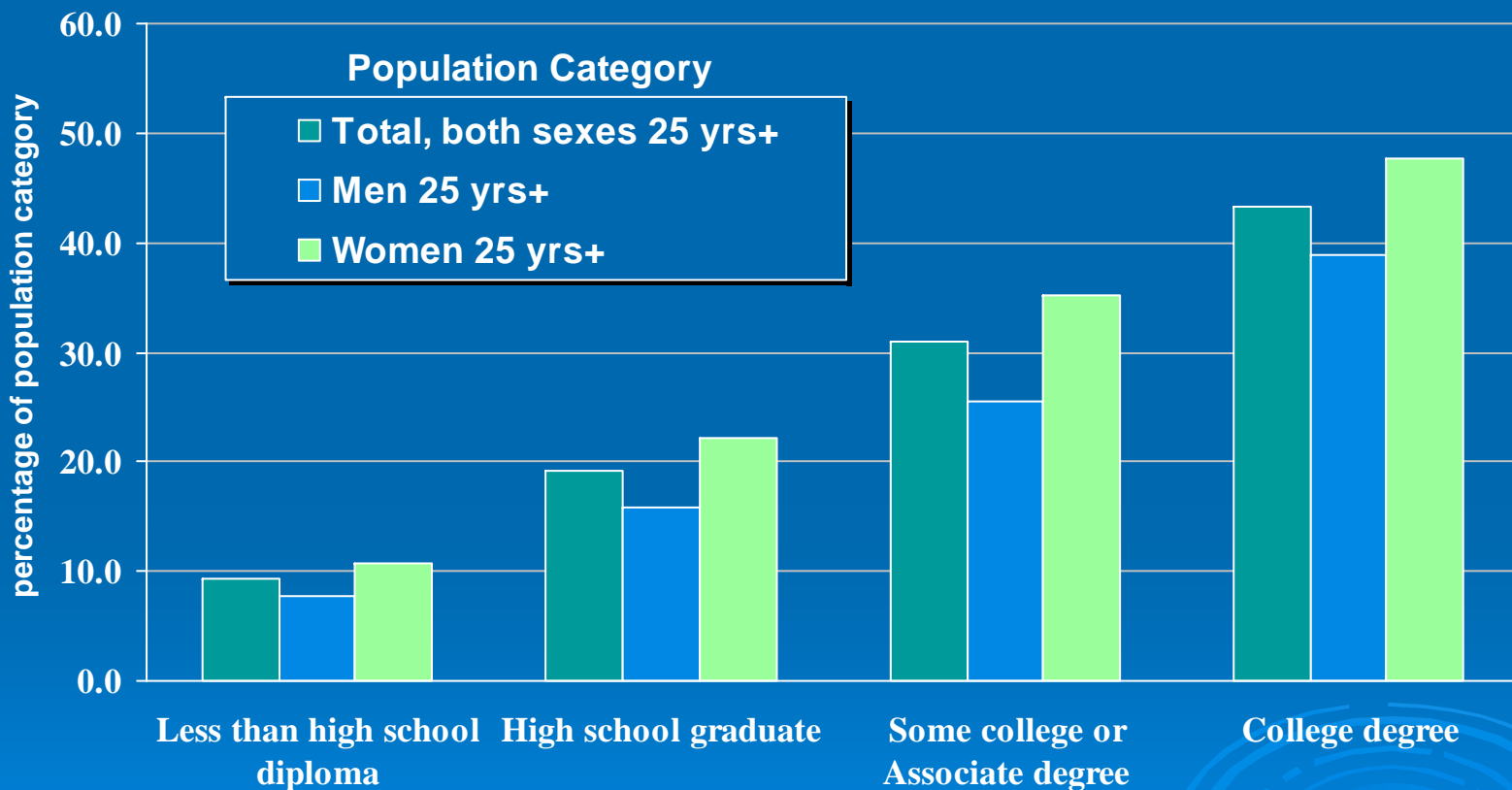
- Participation in the democratic process
- Blood donations
- Smoking and high social costs
 - Direct health care costs, lost productivity & income for the family
- Immunizations

Educated People are More Likely to Participate (and Continue Participating) in Democratic Process



■ Voting Rates in 2004 Presidential Election ■ Change in Voting Rates from 1968-2004

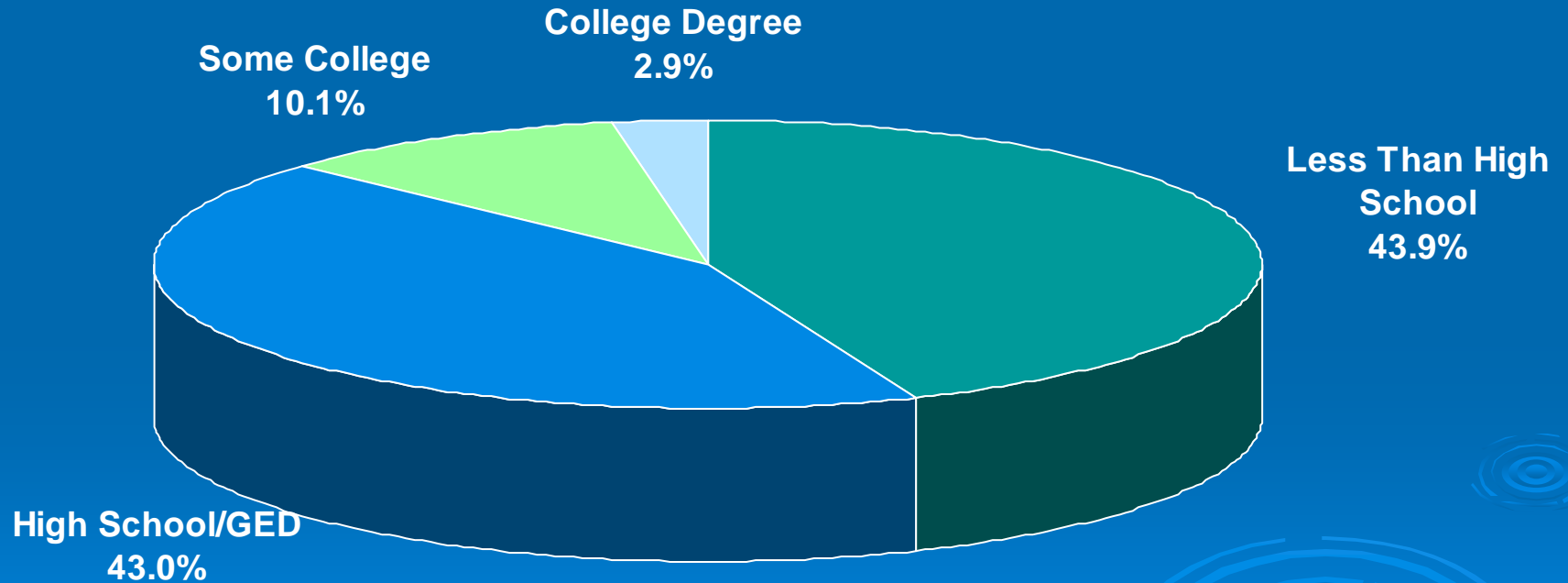
Volunteerism in the U.S., September 2006



Source: Bureau of Labor Statistics.

Educated Persons are Less Likely to be Incarcerated

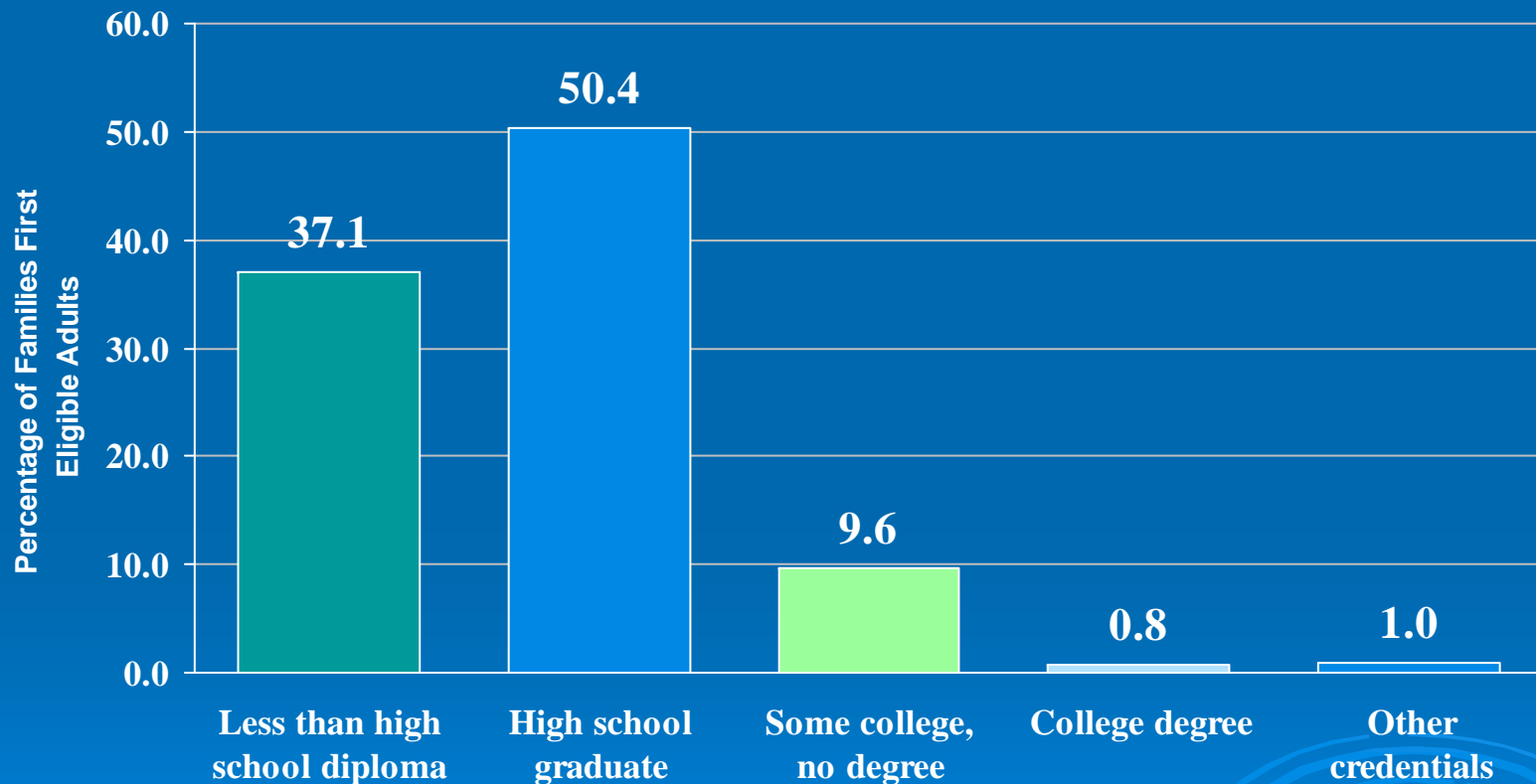
Prison Population by Education Attainment, 2004



Public sector: The double dividend...or burden

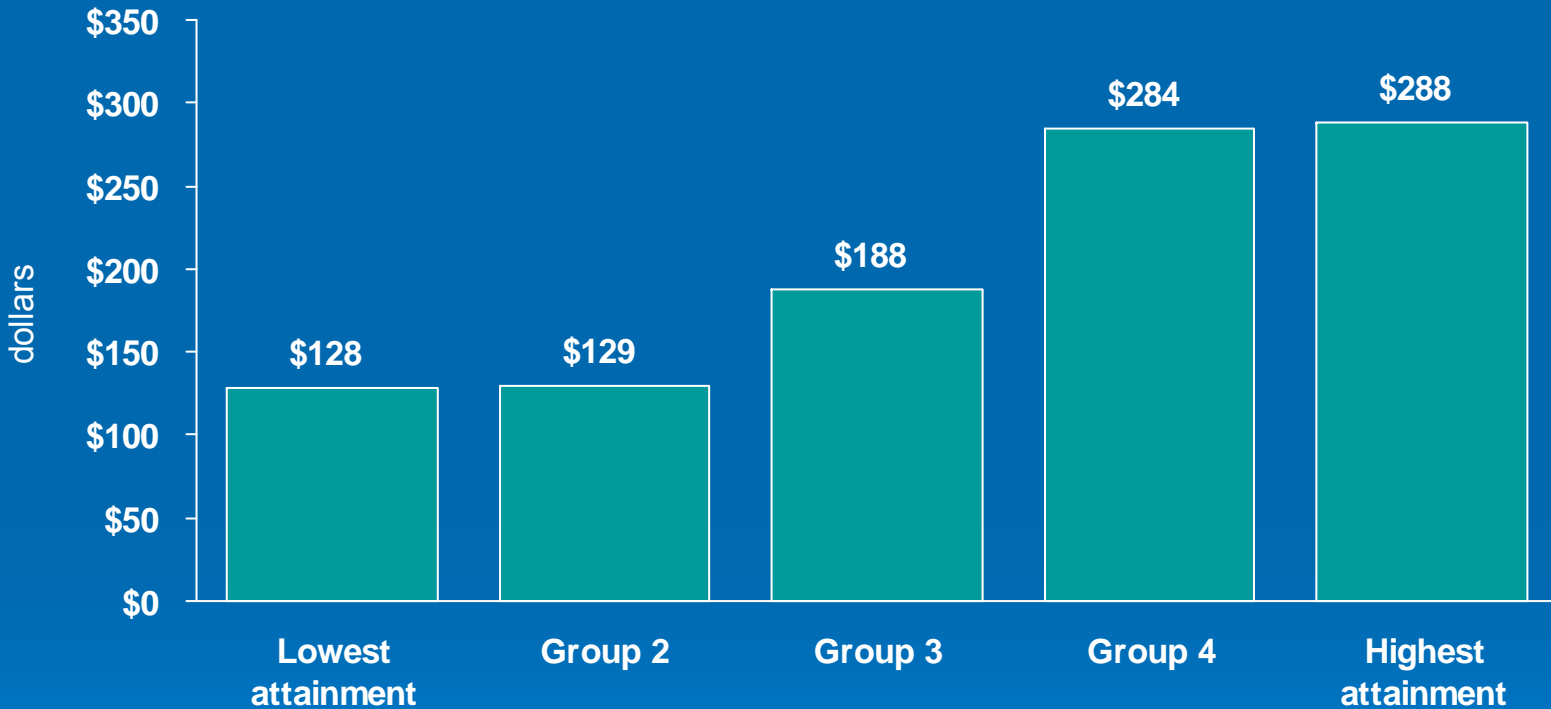
- The dropout problem is costly
 - The average low-skill household created a federal deficit of \$22,449 in 2004; the deficit exceeded household income!
- One-half of all children born in 2005 were on TennCare
- 90 percent of the prison population has no more than a high school degree or GED
 - *On the other hand...*
- Better educated people
 - Own more highly valued property and pay more in property taxes
 - Spend more on sales taxable items

Highest grade of schooling, Families First eligible adults



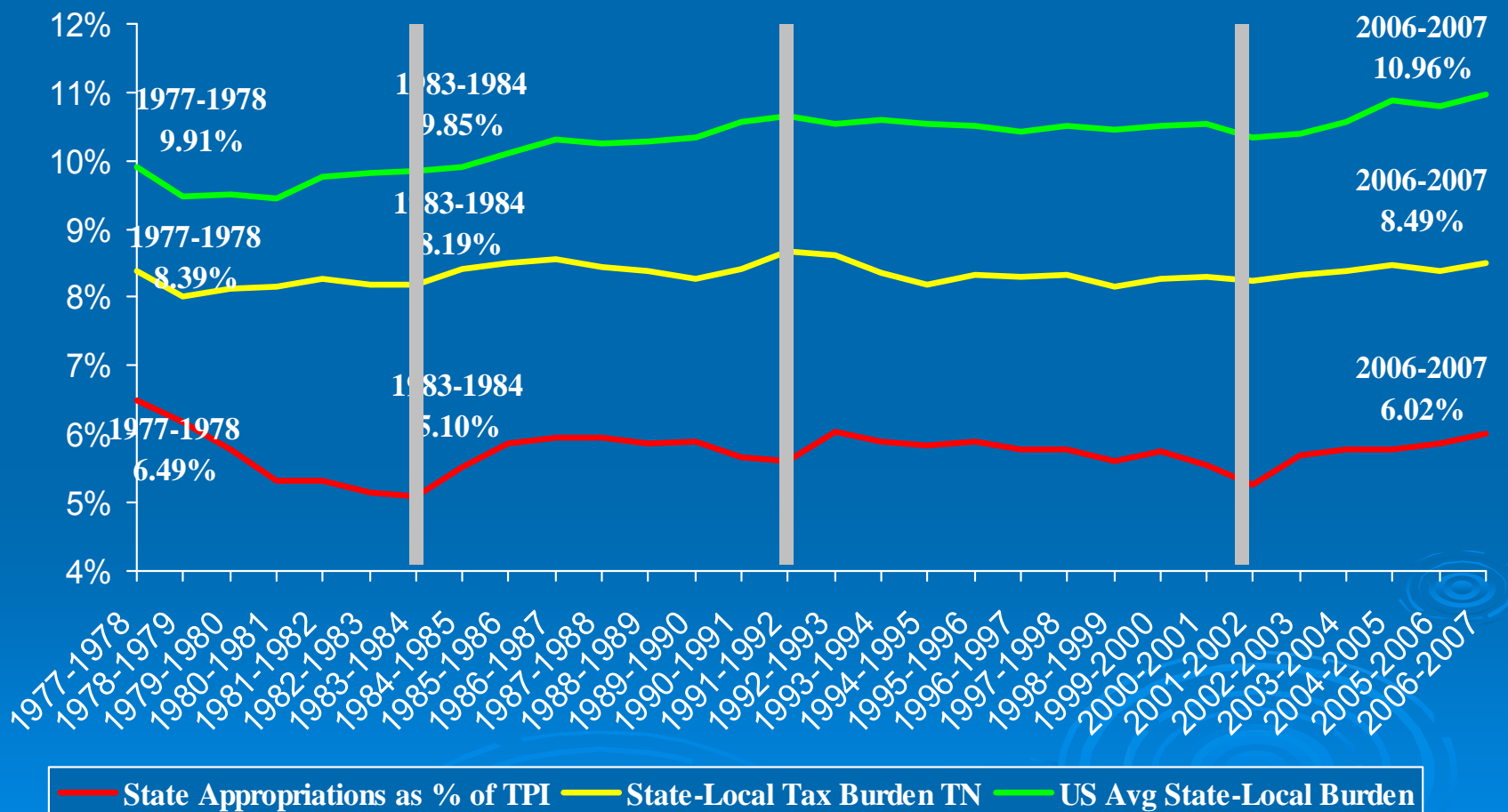
Source: Center for Business & Economic Research, University of Tennessee, Families First 2005 Case Characteristics Study.

Average local sales tax revenue per capita, Tennessee counties grouped by educational attainment

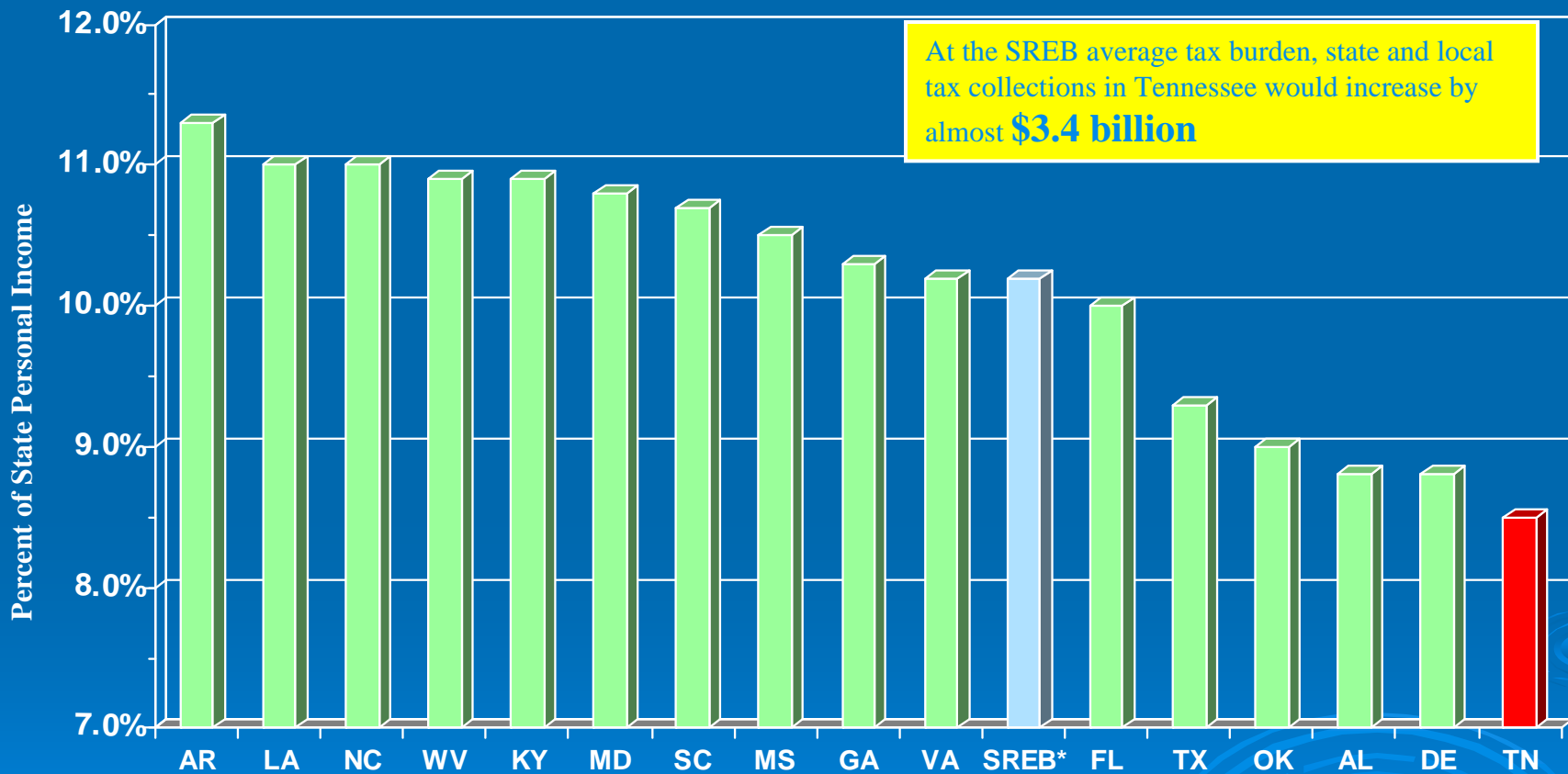


Source: Center for Business and Economic Research.

Various Tax Burden Measures as a Percent of Personal Income



2007 State and Local Tax Burden as Share of Personal Income in the SREB States



*Average of SREB states excluding Tennessee. The SREB average including Tennessee is 10.1%

What can we do?

- Visit and promote Education Crossroads website (www.educationcrossroads.com)
 - Participate in the online Forum
 - Download and distribute the information
 - Raise local awareness of the value of education.
- “1 of 100” Movement:
 - Created in Knoxville as grass roots attempt to get word out.
 - One hundred people volunteer to give 10 presentations on this message.
 - Agree to spread the word.

The Student Pipeline - Tennessee, 2004

