

Workforce + Education = Future

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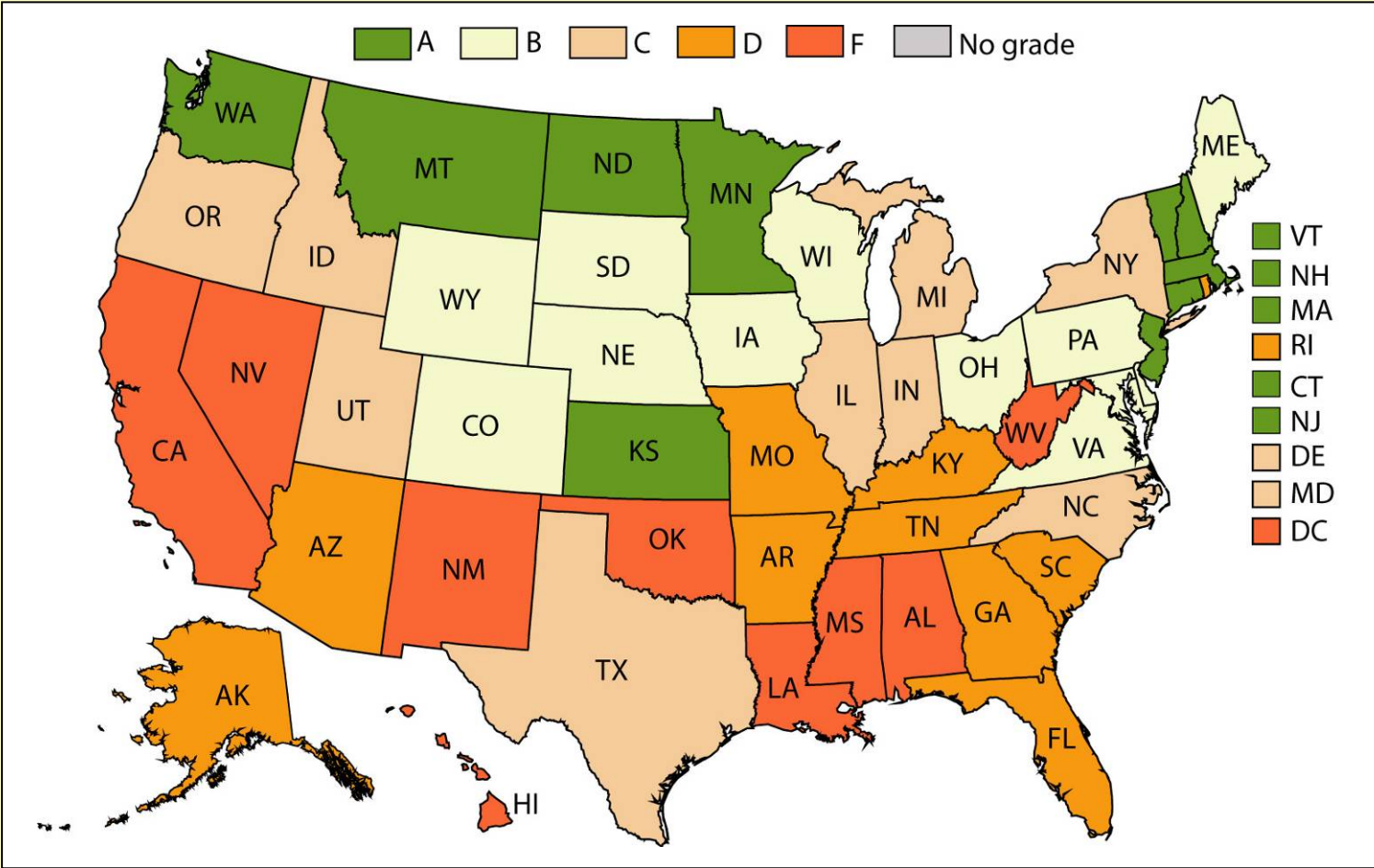
Taking inventory: Today's workforce

- **Tennessee lags the nation by most measures.**
 - Perceptions that may hamper recruitment
 - K-12 spending well below the national norm
 - Cracks in the college pipeline
 - Attainment of the adult population

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

Tennessee earns a D in academic achievement: U.S. Chamber of Commerce 2007



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

Source: CBER-UT, *Tennessee Business Leaders' Survey*, 2007, unpublished survey results.

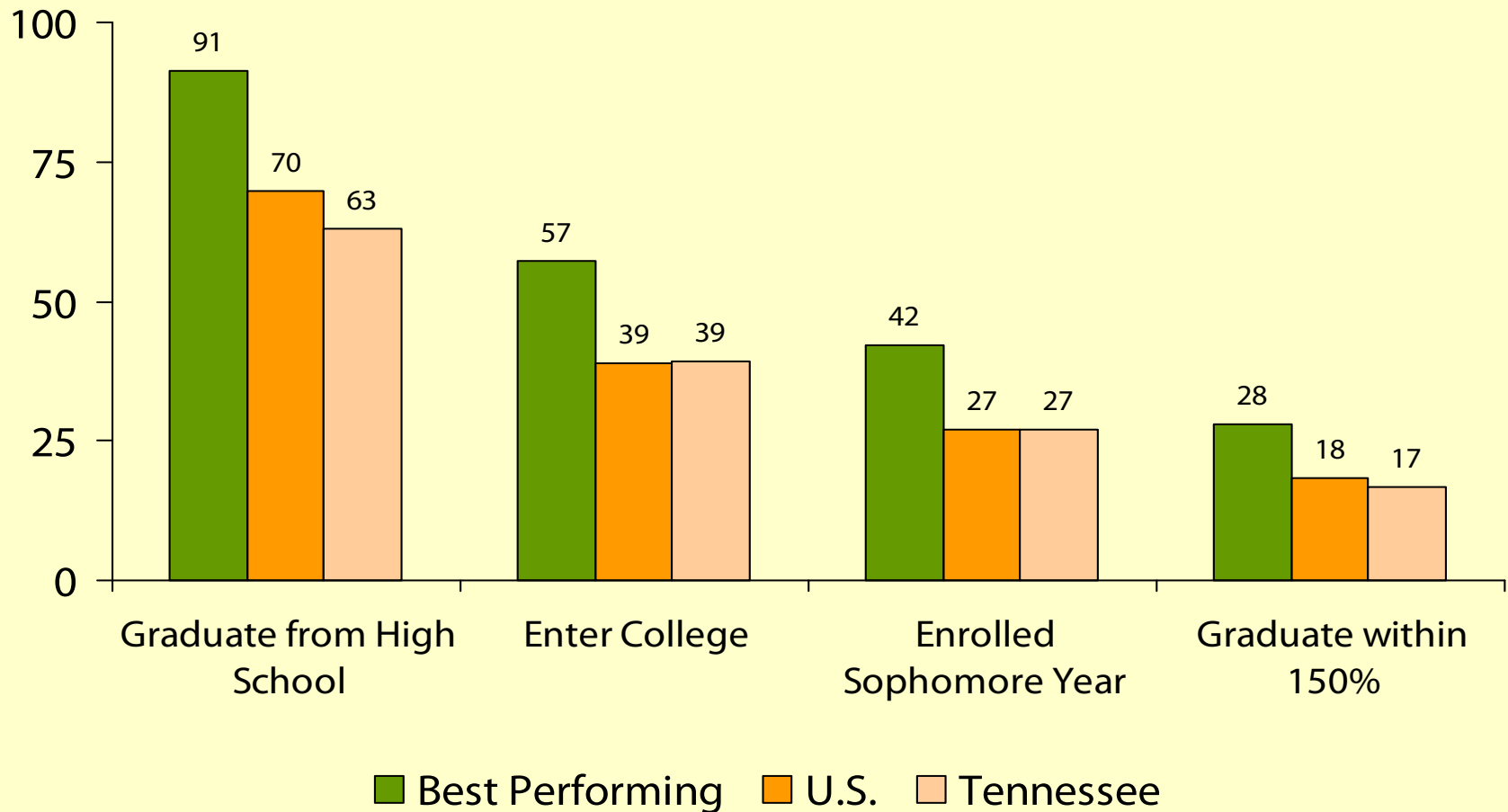
Strength of state proficiency standards: 2005

	Overall grade	4th grade		8th 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.

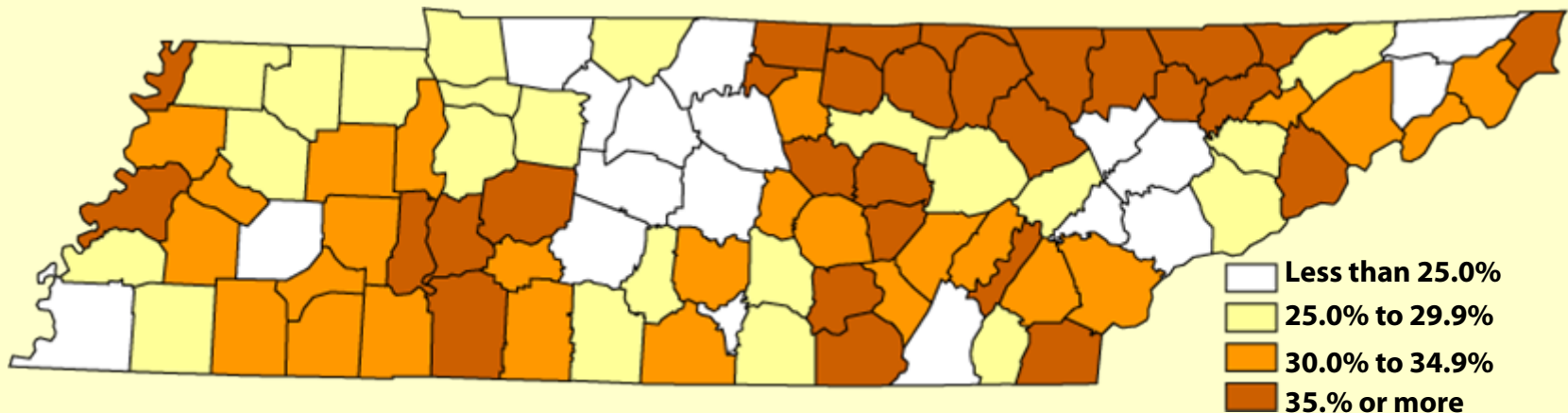
The student pipeline - Tennessee, 2004



Educational attainment: Share of adult population without a high school diploma, 2000

Tennessee Average: 24.1%

29 Counties with over 35 percent of adults w/o HS



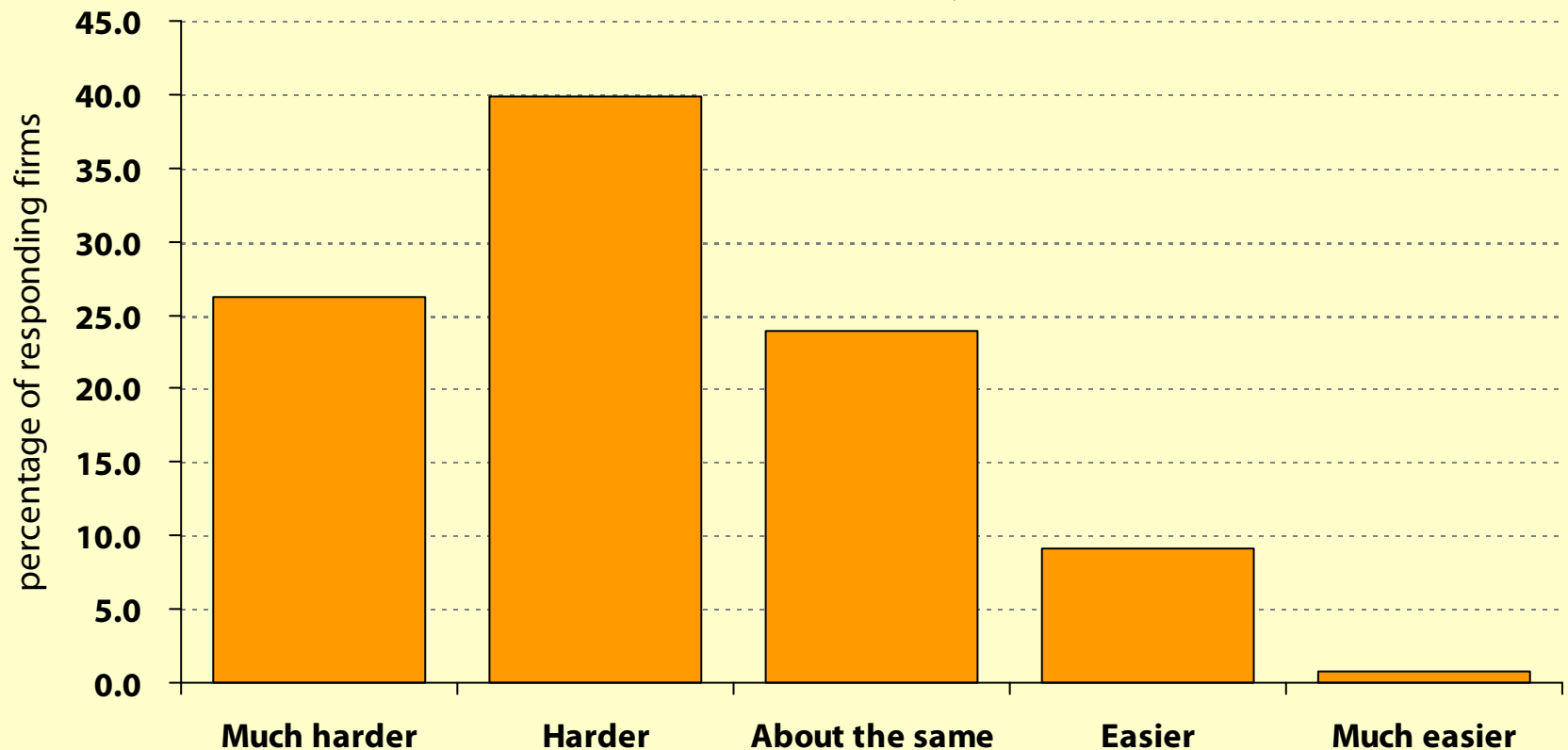
Source: U.S. Census Bureau, Census 2000.

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.

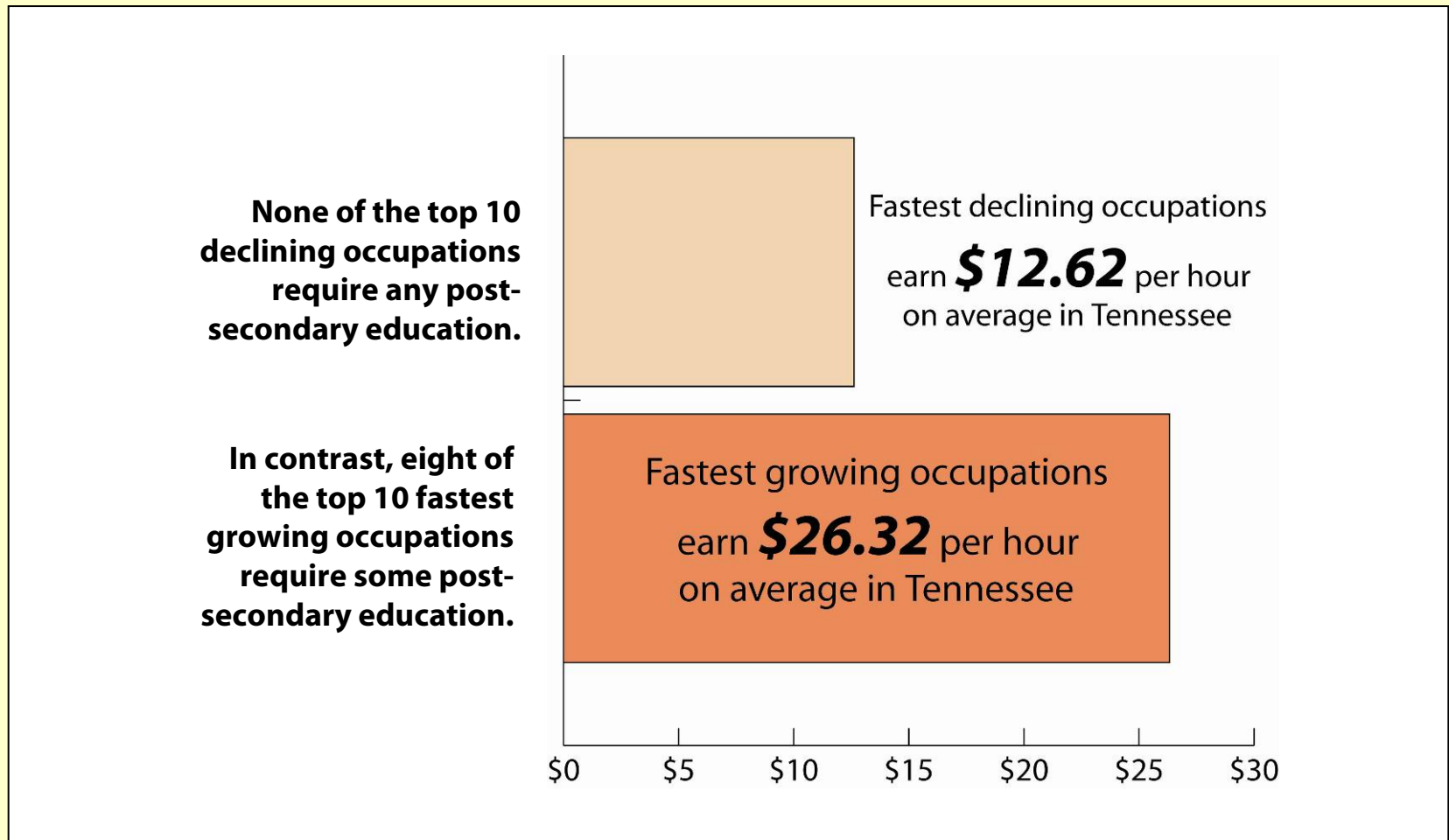
Expectations of the future Tennessee workforce

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



Source: CBER-UT, *Tennessee Business Leaders' Survey*, 2007, unpublished survey results.

Growing occupations in Tennessee pay more than twice that of declining occupations



NAEP scores are highest for those who complete higher-level mathematics and science courses

Mathematics — Advanced

89% took calculus
85% had a top 25% mathematics GPA
86% took an AP/IB** mathematics course

Science — Advanced

95% took a science class beyond chemistry
81% had a top 25% science GPA
61% took an AP/IB** science course

Mathematics — Below Basic

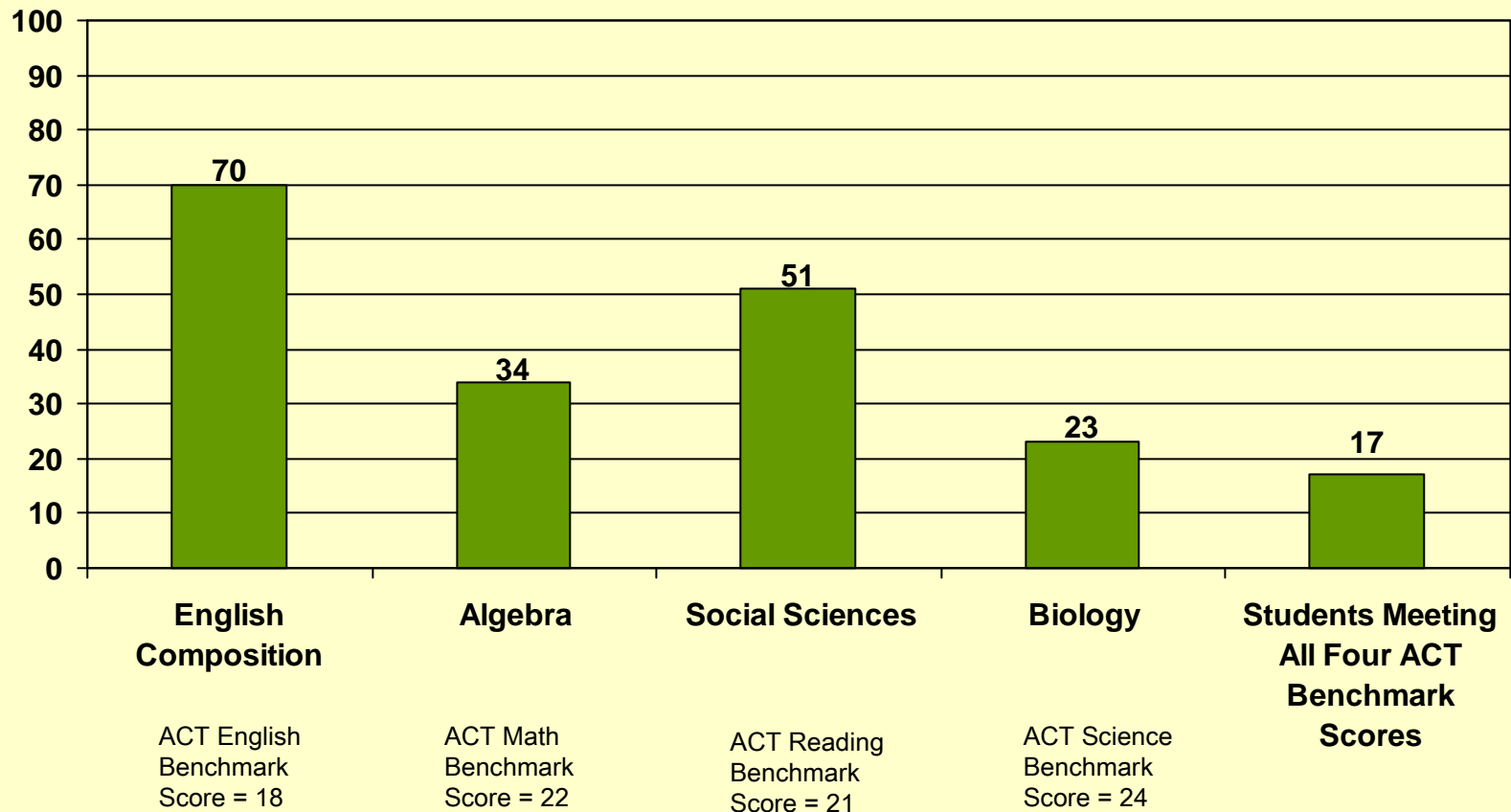
1% took calculus
7% had a top 25% mathematics GPA
1% an AP/IB** mathematics course

Science — Below Basic

26% took a science class beyond
9% had a top 25% science GPA
3% took an AP/IB** science course

**IB=International Baccalaureate

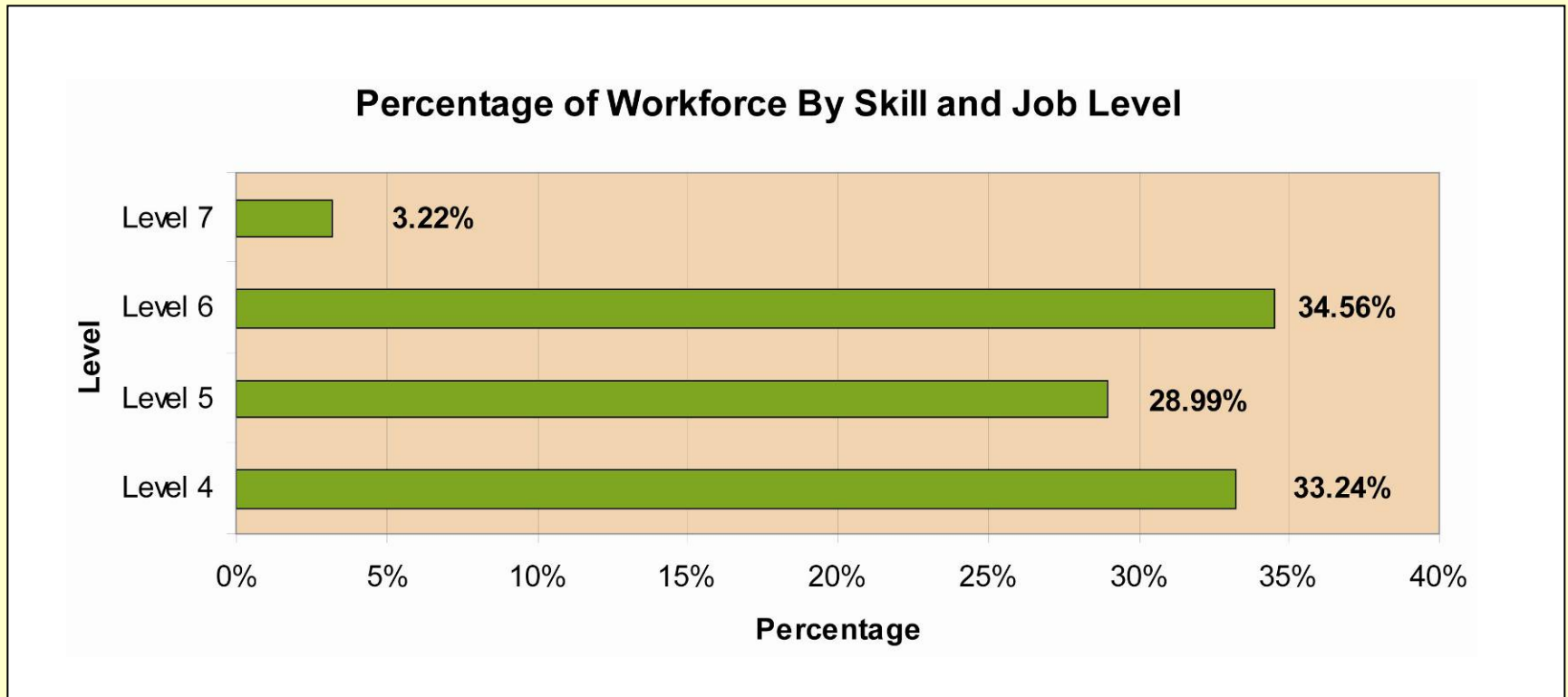
2006 Tennessee ACT-tested graduates likely to be ready for college-level work (in percent)



Our future workforce demands

Level 4		Level 5	
<u>Skills</u> Add fractions, decimals and percentages Apply instructions to a simple situation Use reading material to figure out words	<u>Jobs</u> Account collectors bus drivers child care workers building cleaning workers retail salesperson	<u>Skills</u> Calculate mixed unites, divide negative numbers Apply complex instructions to known situations	<u>Jobs</u> Engineering technicians Registered nurse Paralegal Computer support specialist Tax preparers
Level 6		Level 7	
<u>Skills</u> Rearrange a formula to solve a problem. Apply complicated instructions to new situations. Draw conclusions from graphs and maps.	<u>Jobs</u> Accountant Computer programmer Industrial, civil, chemical, or mechanical engineer Airline pilot Social worker	<u>Skills</u> Calculate mixed unites, divide negative numbers Apply complex instructions to known situations	<u>Jobs</u> Microbiologist Chiropractor Lawyer Pharmacist Statistician Veterinarian

Workforce skills: 2017

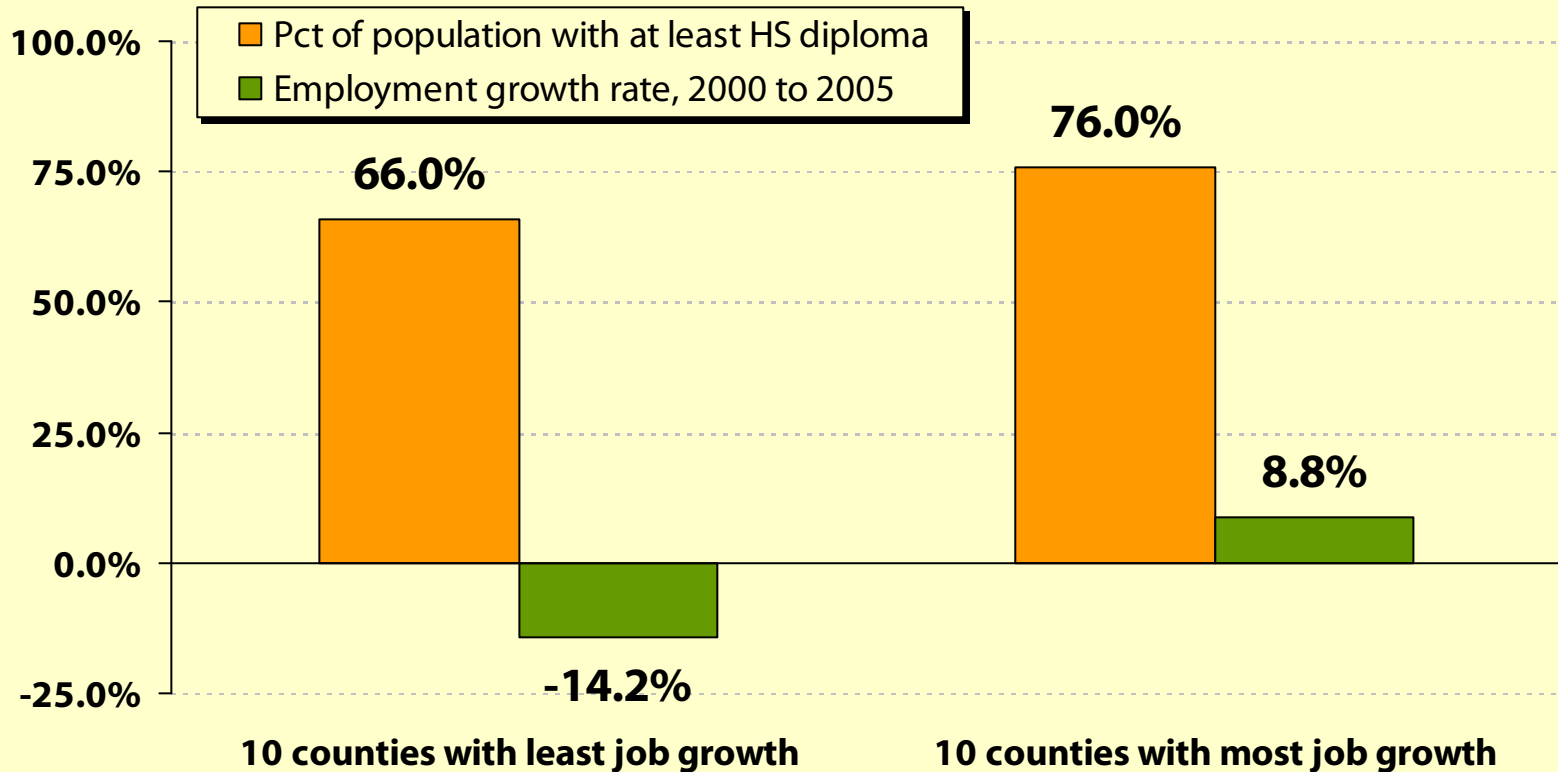


Beyond workforce: Education and quality of life

- Our community
- Our economic security
- Our health
- Our children
- Our society
- Our government's budget

See www.educationcrossroads.com

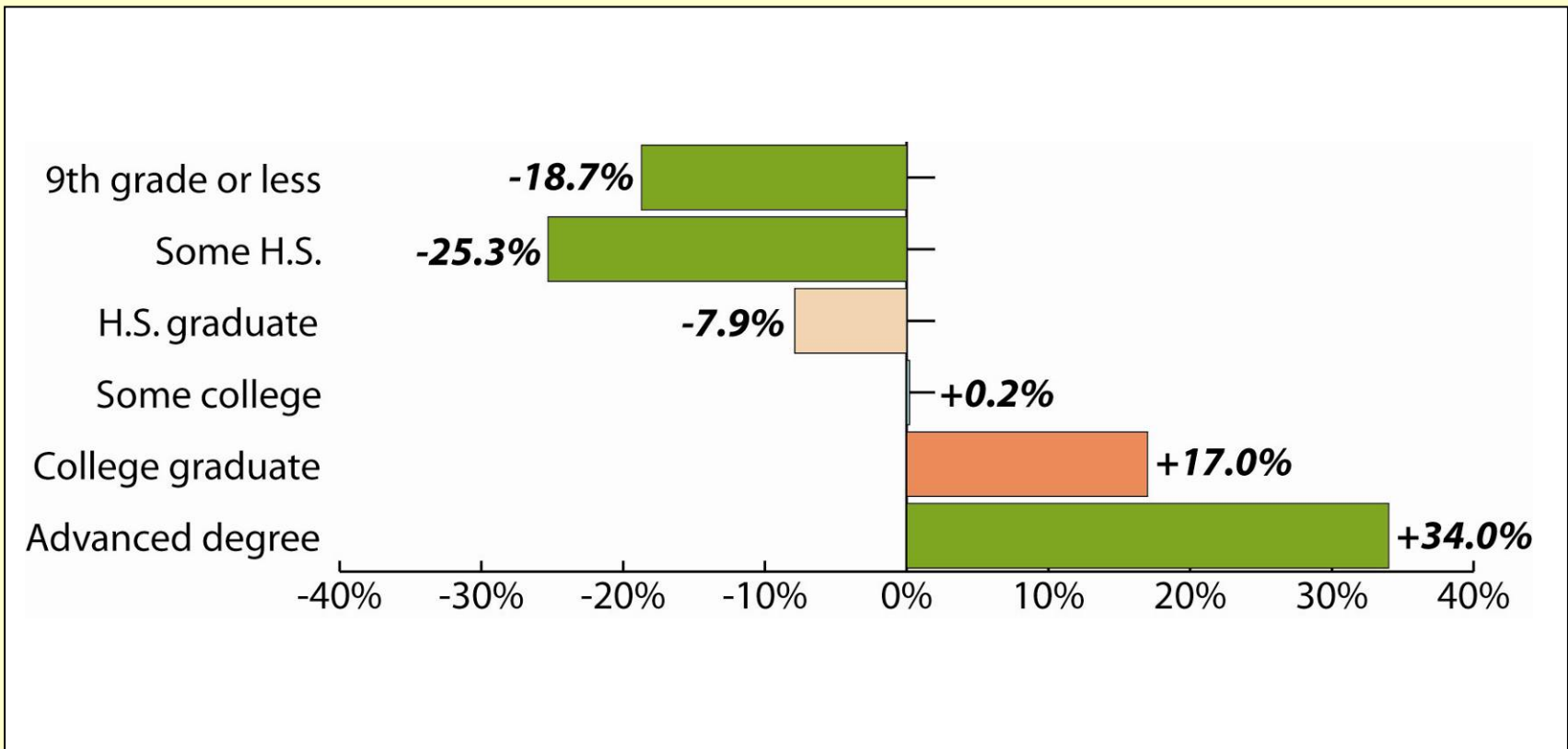
A better educated workforce means greater regional prosperity



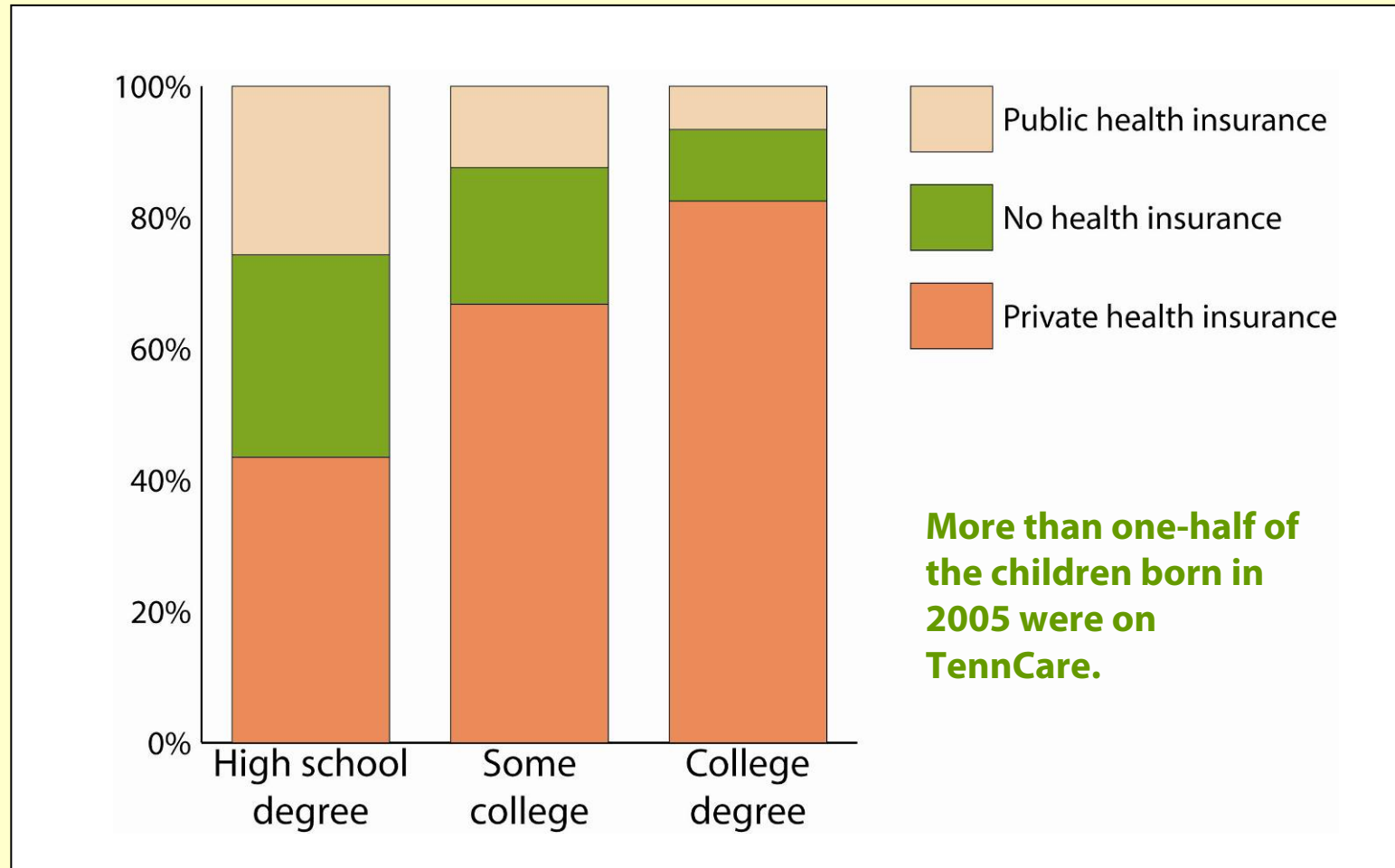
Source: CBER and TN Dept. of Labor & Workforce Development.

Losing ground?

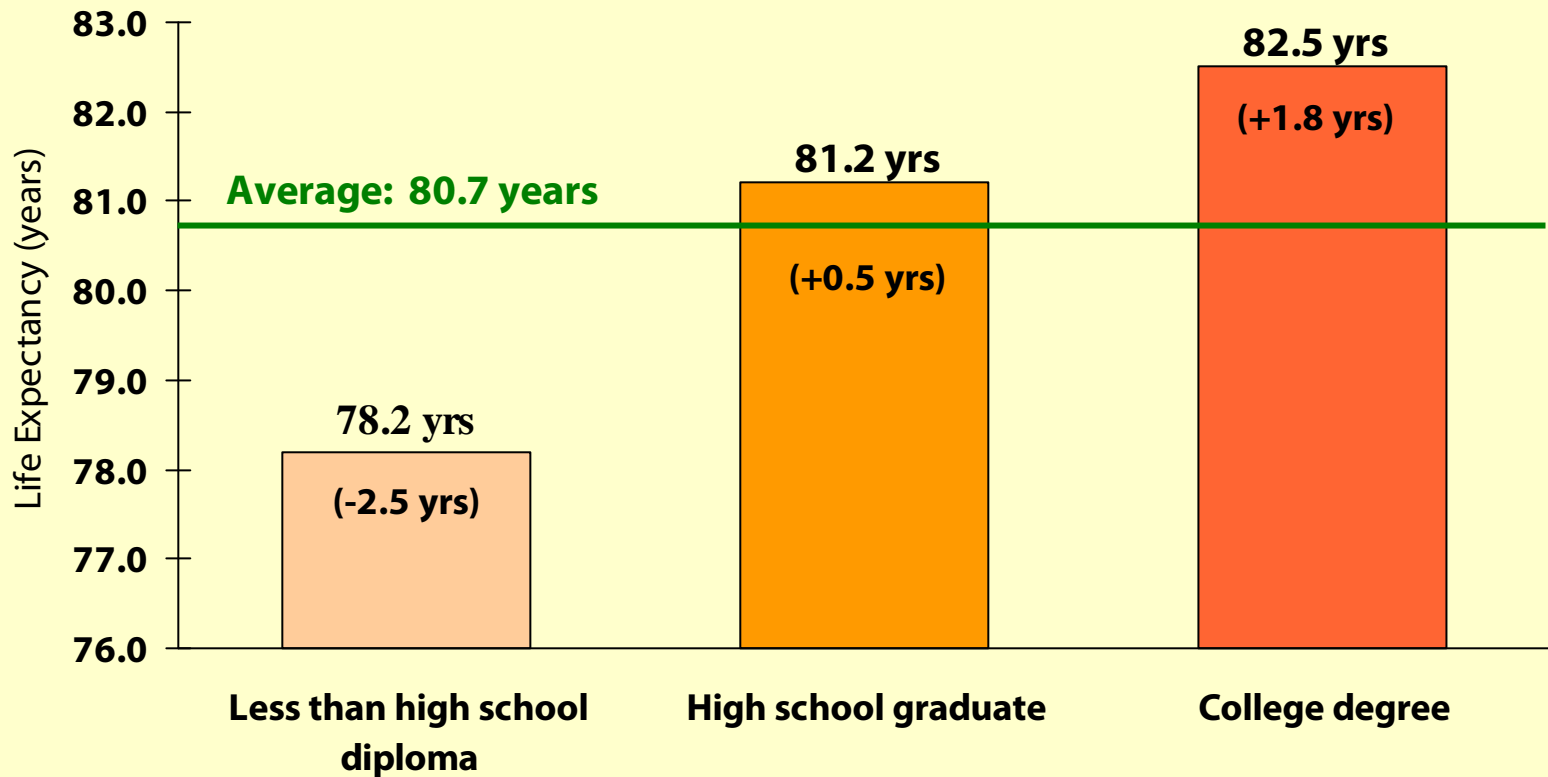
Change in average annual income, 1967–2004



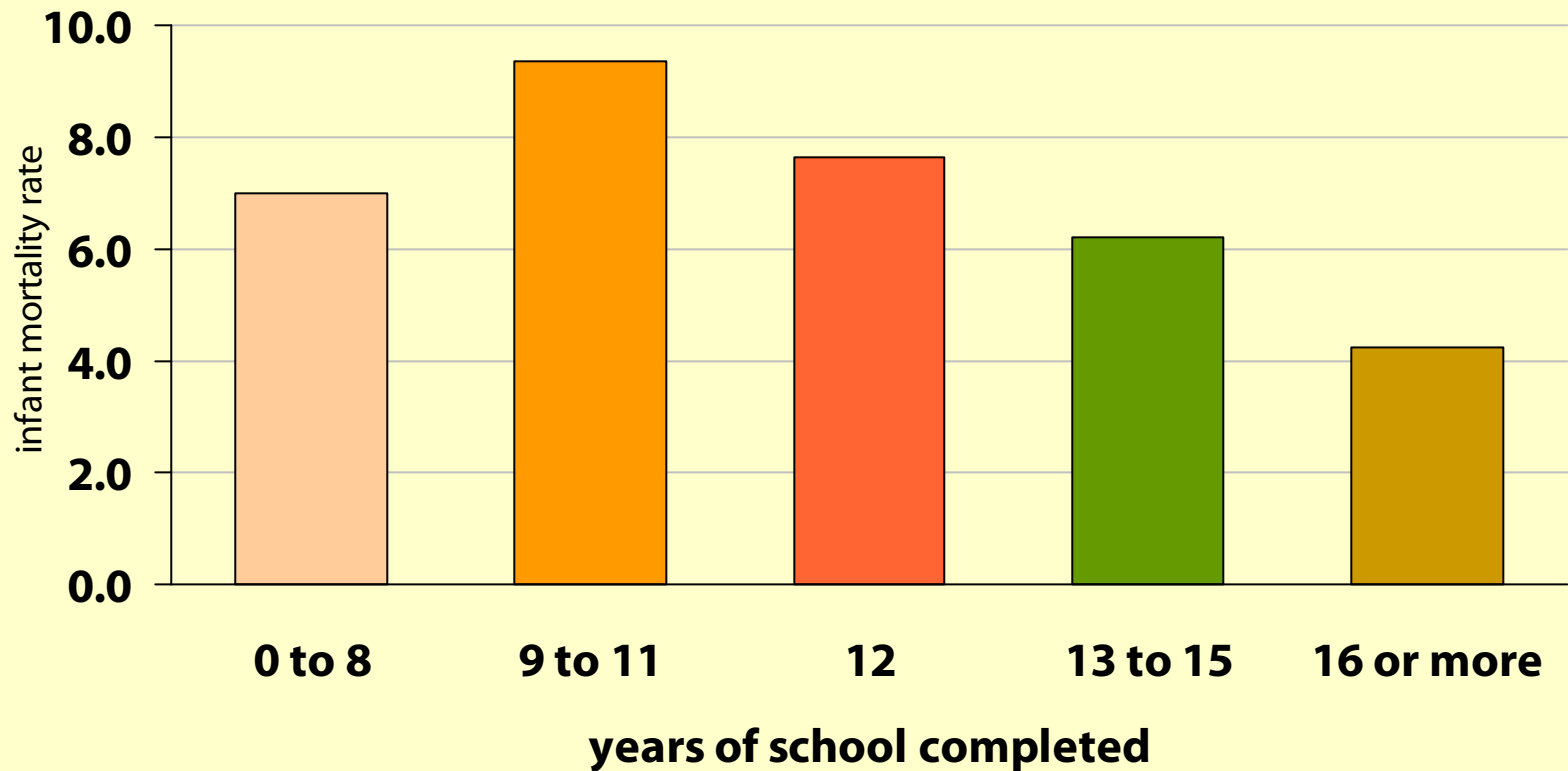
Private insurance and educational attainment



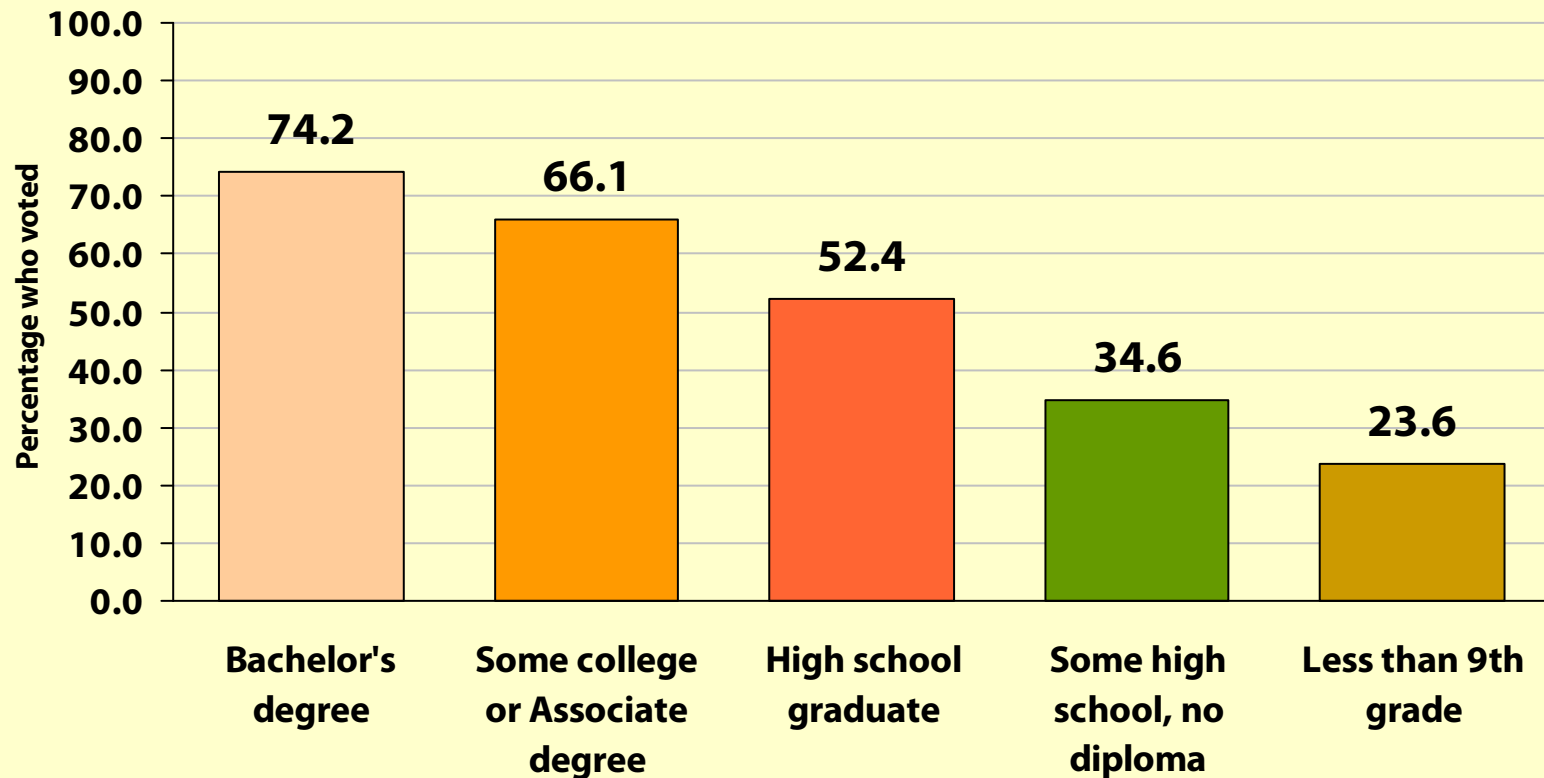
A person without a high school diploma has a shorter life expectancy



Infant mortality rate by maternal educational attainment

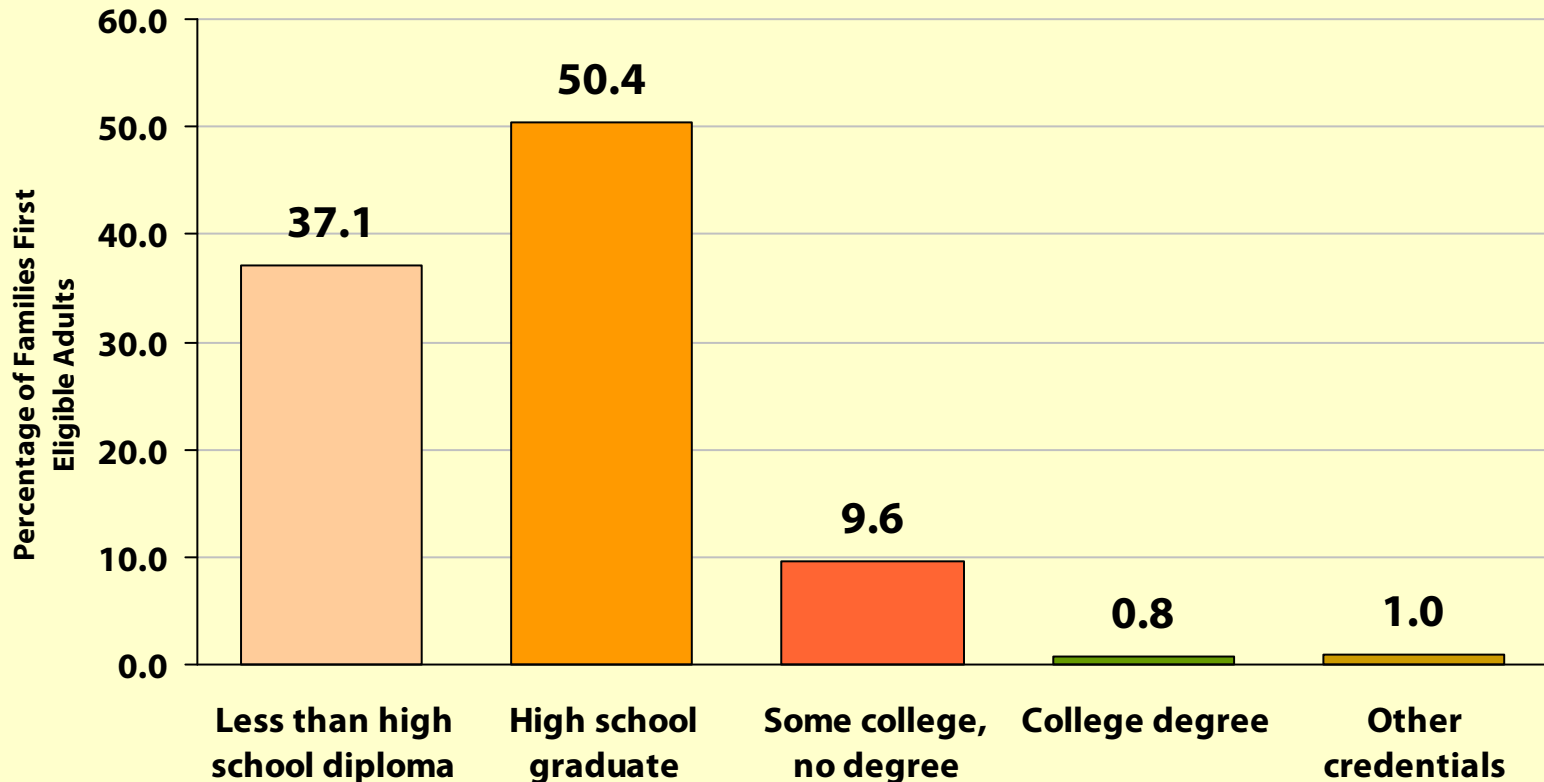


Voting rates for persons aged 18 years & older by educational attainment in 2004: U.S.



Source: U.S. Census Bureau.

Highest grade of school completed by a Families First eligible adult



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

Next Steps?

- Education and skills upgrading is essential to tomorrow's workforce, economy-wide growth and quality of life for all of us
- Standards and metrics will be required to track performance and success
- Partnering with all stakeholders in our community will be critical--together we can make a difference