LIFE COURSE II AND HEALTH BEHAVIORS
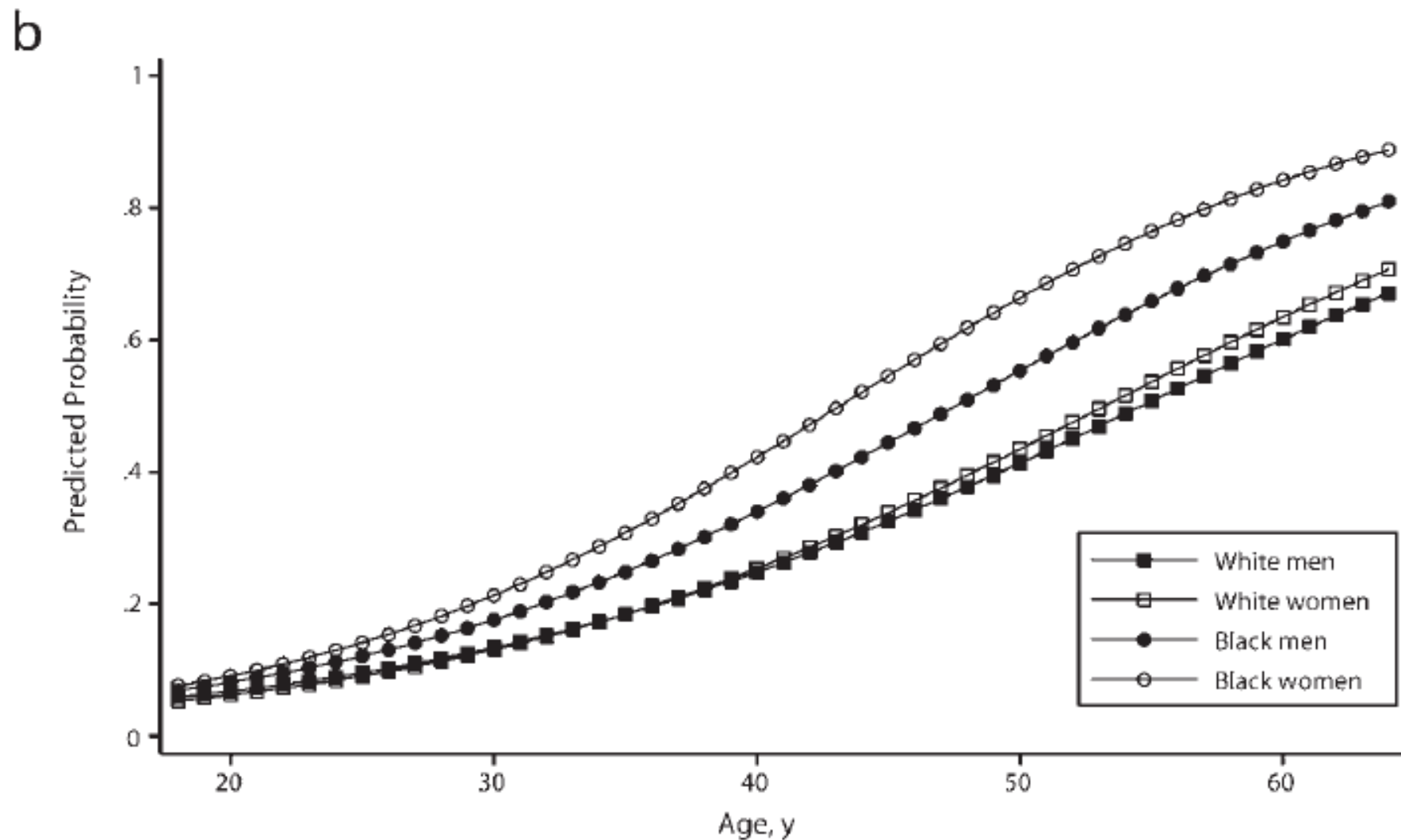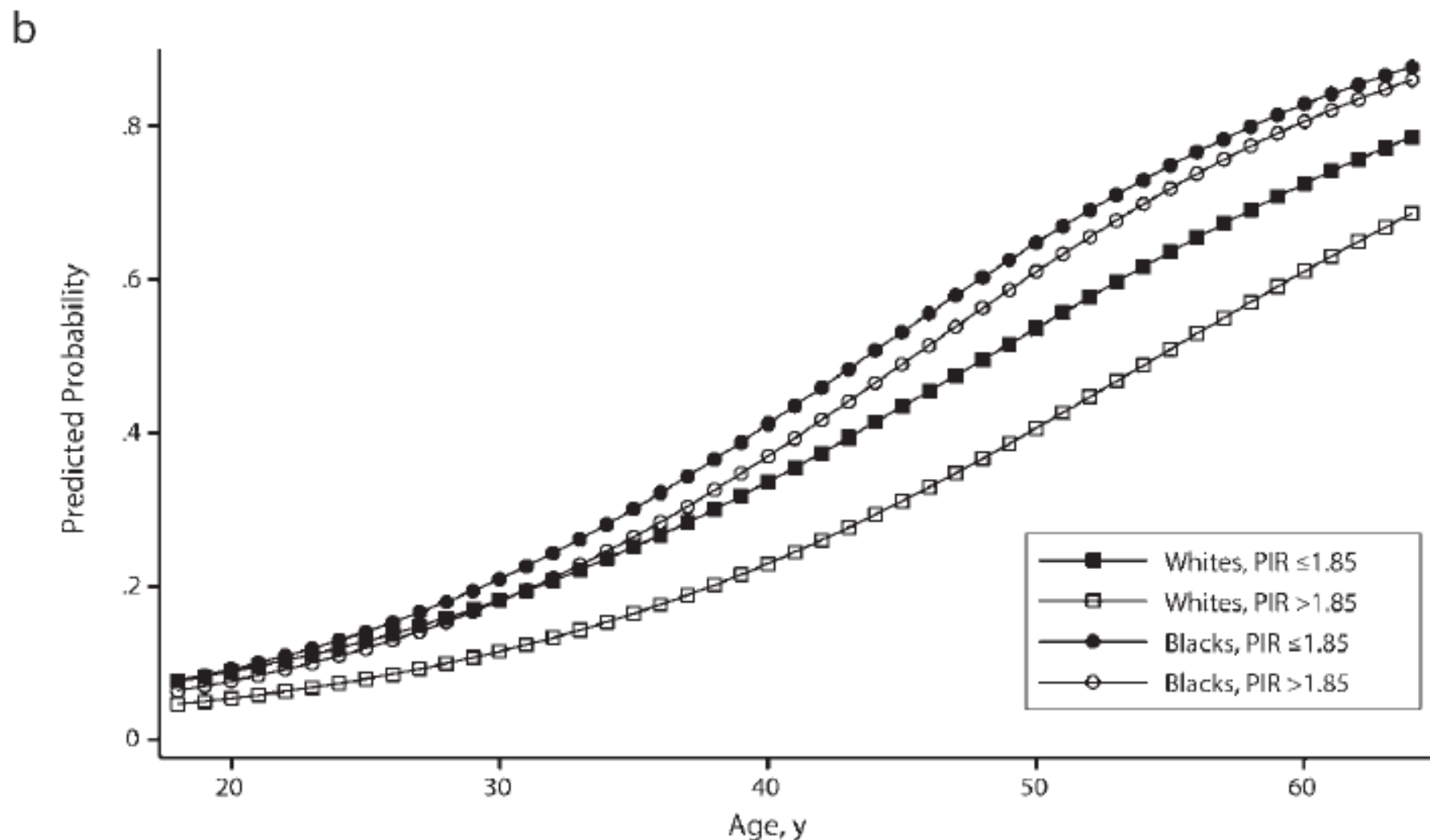
WEATHERING (GERONIMUS ET AL. 2006)

FIGURE 1—Probability of having an allostatic load of 4 or higher, as predicted by race (a) and race and gender (b).

WEATHERING (GERONIMUS ET AL. 2006)

b

Predicted Probability (y-axis: 0, .2, .4, .6, .8)

Legend:
- Whites, PIR ≤1.85
- Whites, PIR >1.85
- Blacks, PIR ≤1.85
- Blacks, PIR >1.85

Age, y (x-axis: 20, 30, 40, 50, 60)

Note. PIR = poverty income ratio.

FIGURE 2—Probability of having an allostatic load of 4 or higher, as predicted by poverty income ratio (a) and poverty income ratio and race (b).

MATERNAL HEALTH AND CHILDHOOD

THE LONG ARM OF CHILDHOOD

"New perspectives about pediatric origins of adult disease, social determinants of health, and the long-term effects of early exposures and interactions suggest that the poor health of children (reflected in rates of prematurity, obesity, behavioral and developmental problems, etc.) can be a harbinger of poor adult health."

–STOLL ET AL. 2013

MATERNAL AND CHILD STRESS

- Maternal stress affects the epigenetic profile of babies (Mulligan et al. 2012)

  - Ex: Affects methylation of infants' genes that regulate metabolic functioning

    - Leads to low birth weight and impaired development

  - This and other early social-environmental experiences can lead to chronic elevation of the stress response in the child (McEwen 2012)

    - Cumulative wear and tear on the neuroendocrine, autonomic, metabolic, and immune systems

MATERNAL HEALTH: PROFILES OF RISK

1. Low Risk Moms = neither SES or health disadvantaged

2. Unhealthy Moms = high probability of having health problems; not SES disadvantaged

3. Low SES Moms = SES disadvantaged; low probability of reporting health problems

4. Low Coverage/Care Moms = SES disadvantaged and lack of health care; few health problems

5. Smoker Moms = SES disadvantaged; high probability of smoking; limited access to health care; moderate probability of having depression or physical limitations

6. High Risk Moms = SES and health disadvantaged; non-smokers

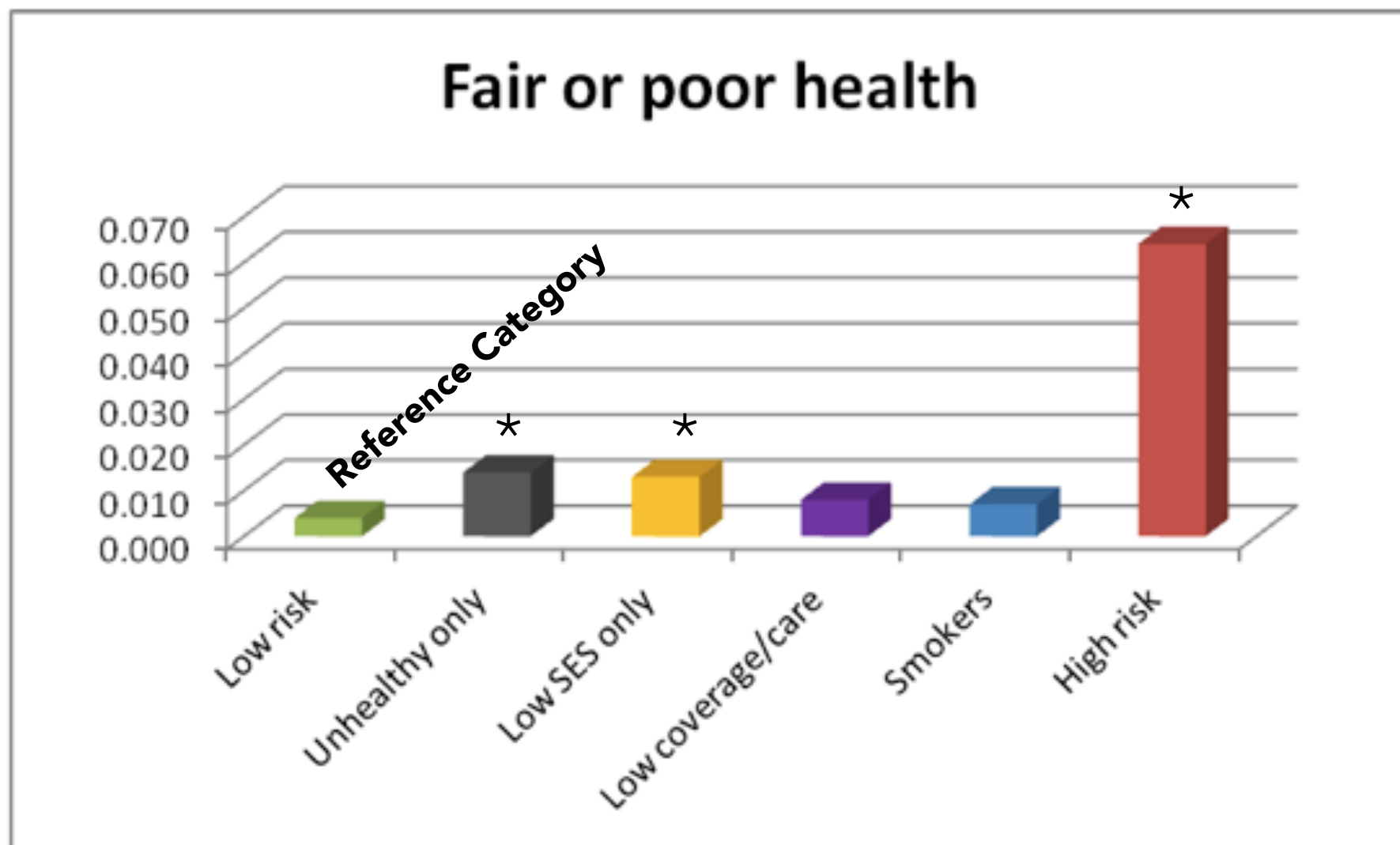FIGURE S1. PREDICTED PROBABILITY OF CHILD HAVING FAIR OR POOR HEALTH BY LATENT CLASS.

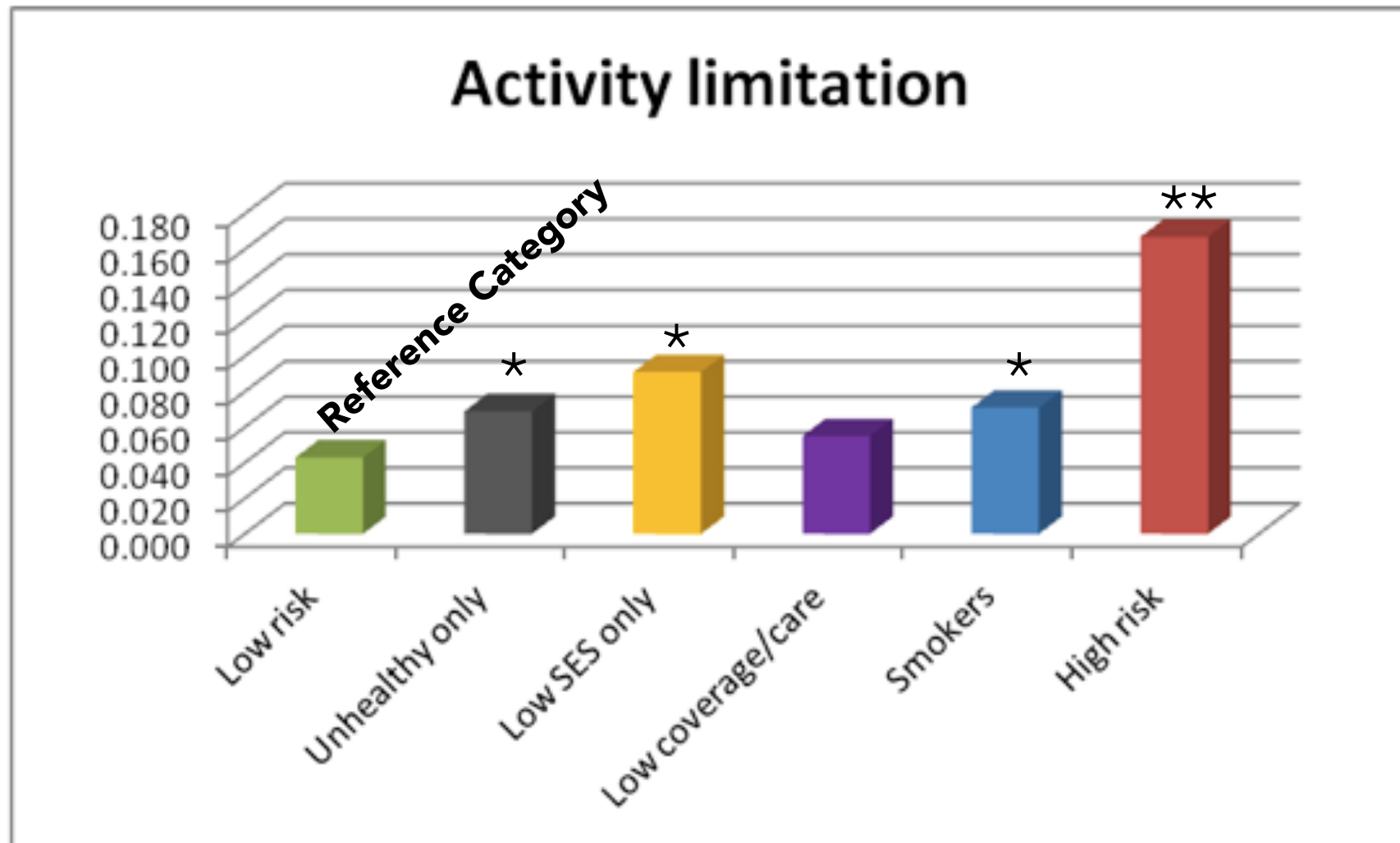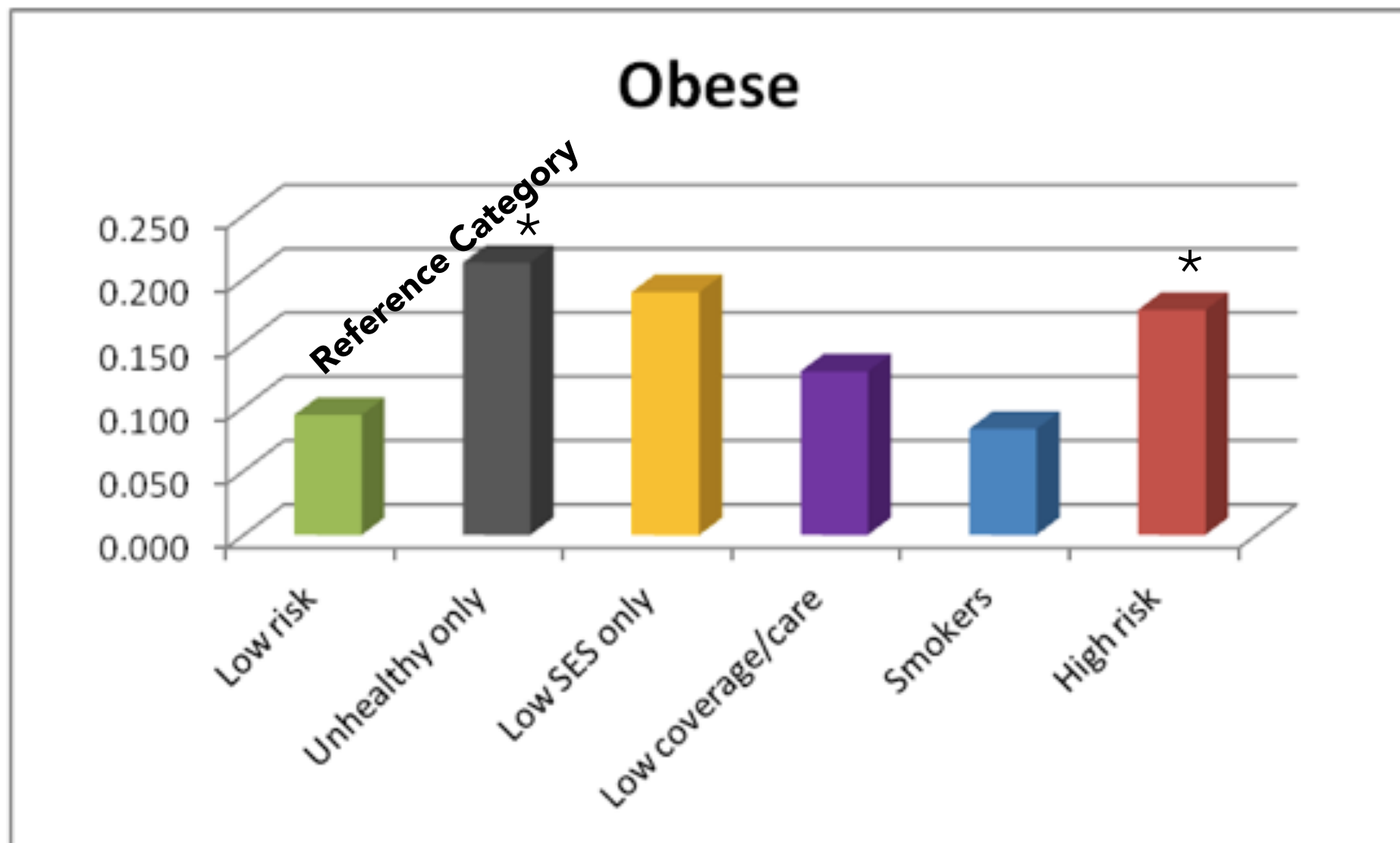FIGURE S4. PREDICTED PROBABILITY OF CHILD HAVING AN ACTIVITY LIMITATION BY LATENT CLASS.

FIGURE S3. PREDICTED PROBABILITY OF CHILD BEING OBESE BY LATENT CLASS.

"There is overwhelming evidence that early childhood adversity - related to parental psychiatric disorder, poverty, abuse, loss, neglect, or trauma - has protean effects on children's physical and mental health and ultimately on their ability to become competent and productive adults....Early child adversity...has been linked to myriad chronic conditions associated with premature mortality: smoking, substance abuse, obesity, cardiovascular disease, depression, and attempted suicide"

–BRENT AND SILVERSTEIN, *JAMA* 2013
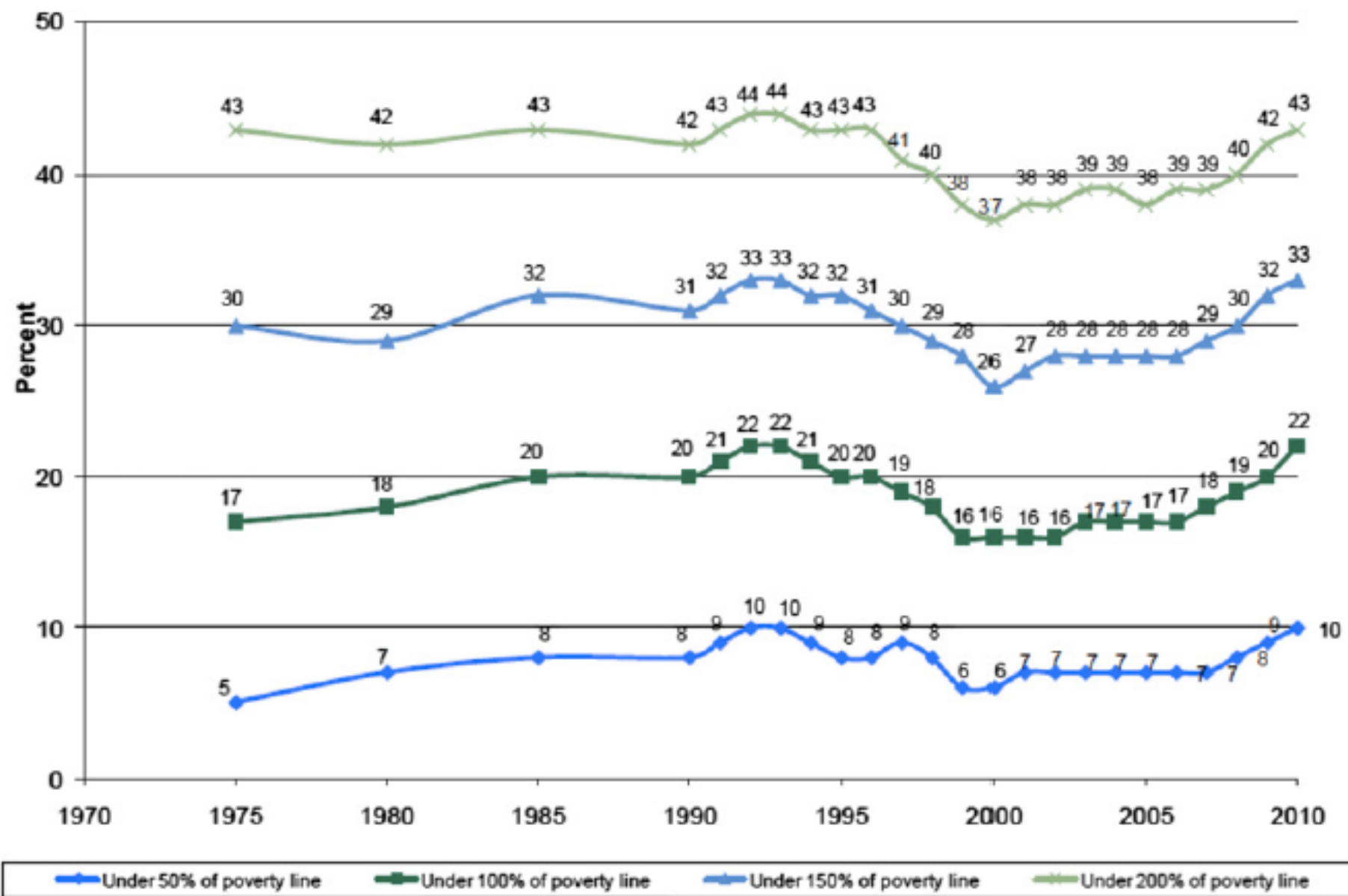
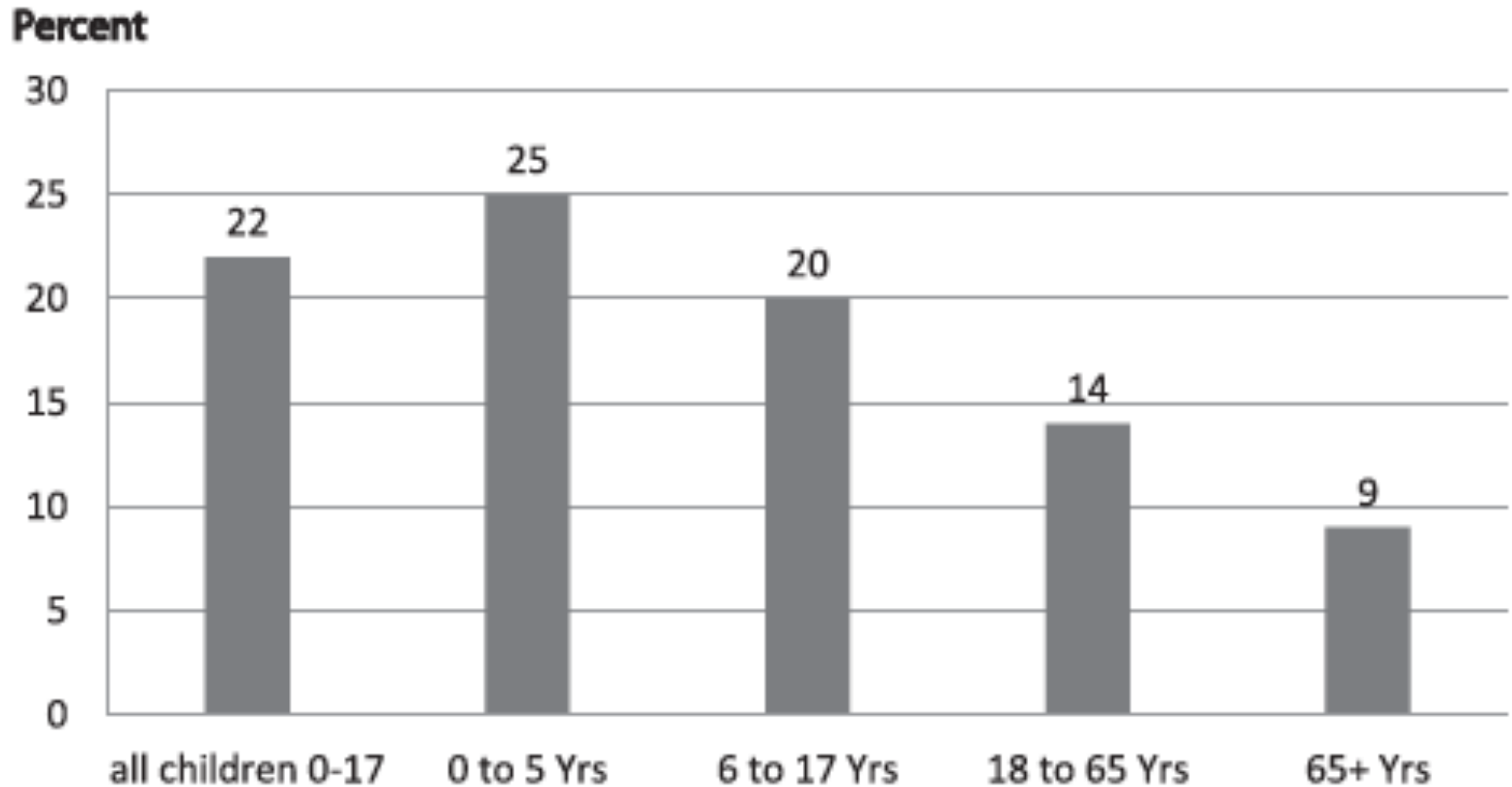*Percentage of children living below selected poverty thresholds, selected years, 1975–2010.[3]*

Figure 2. *Percent living below the federal poverty level by age, 2010.*[4]
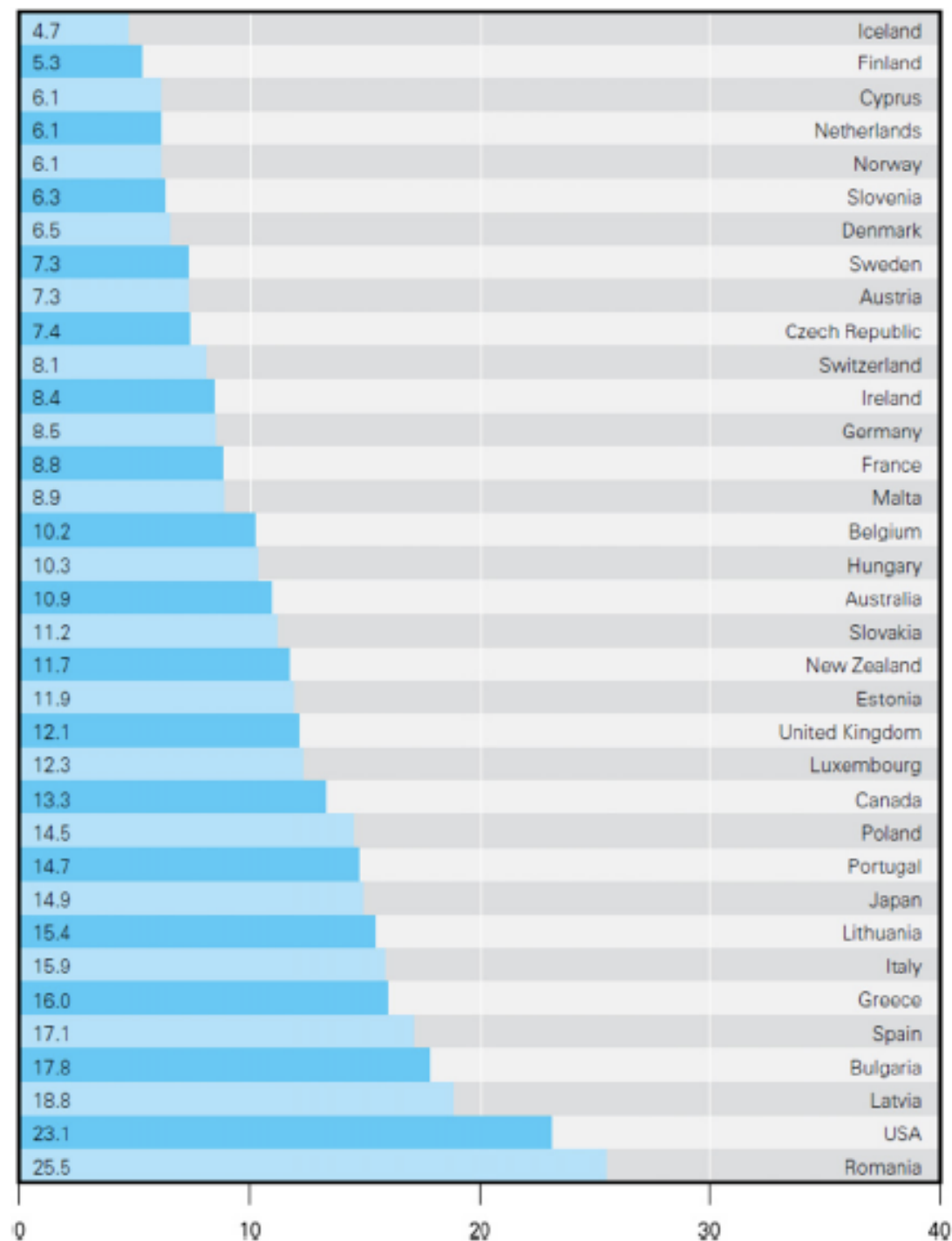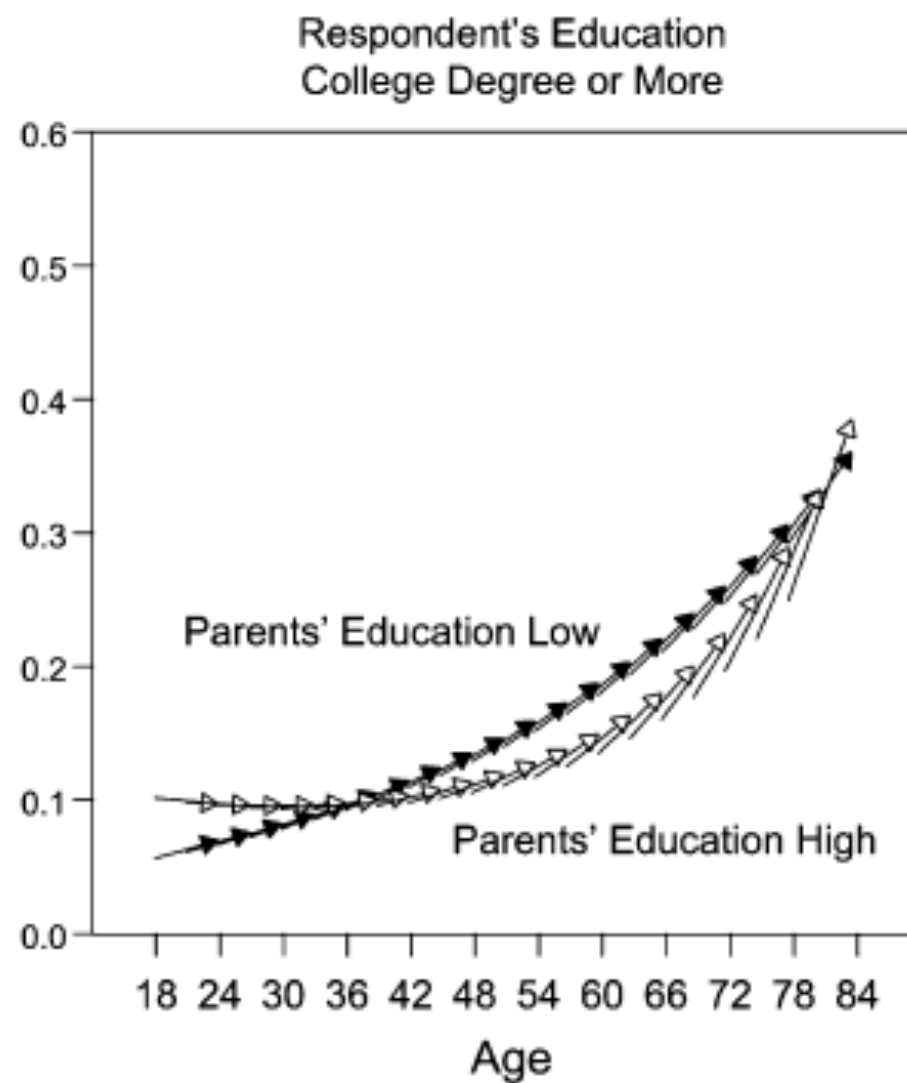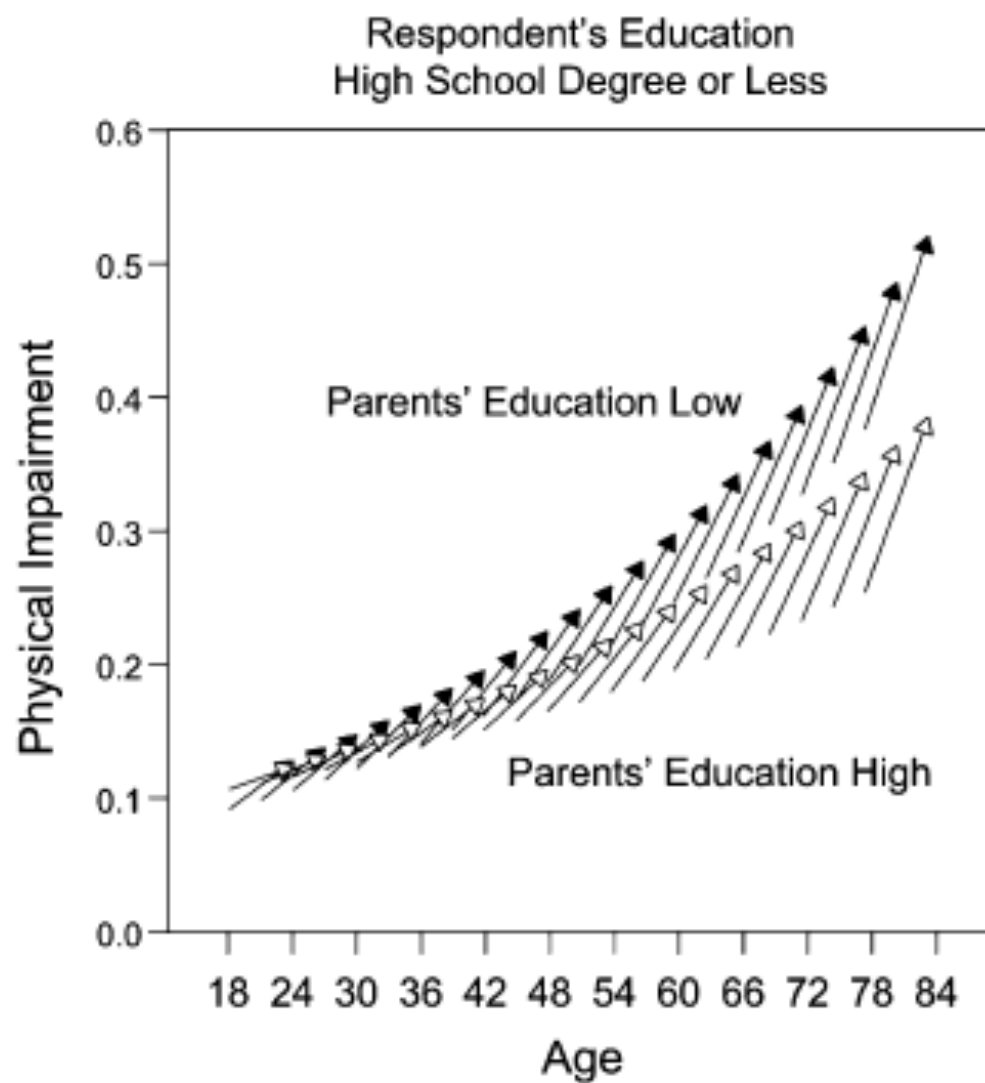
Figure 4. *The United Nations Children's Fund Report Card 10. Relative childhood poverty: percentage of children (0–17 years) in households with equivalent income less than 50% of the national median, in 35 economically advanced countries.*[9]
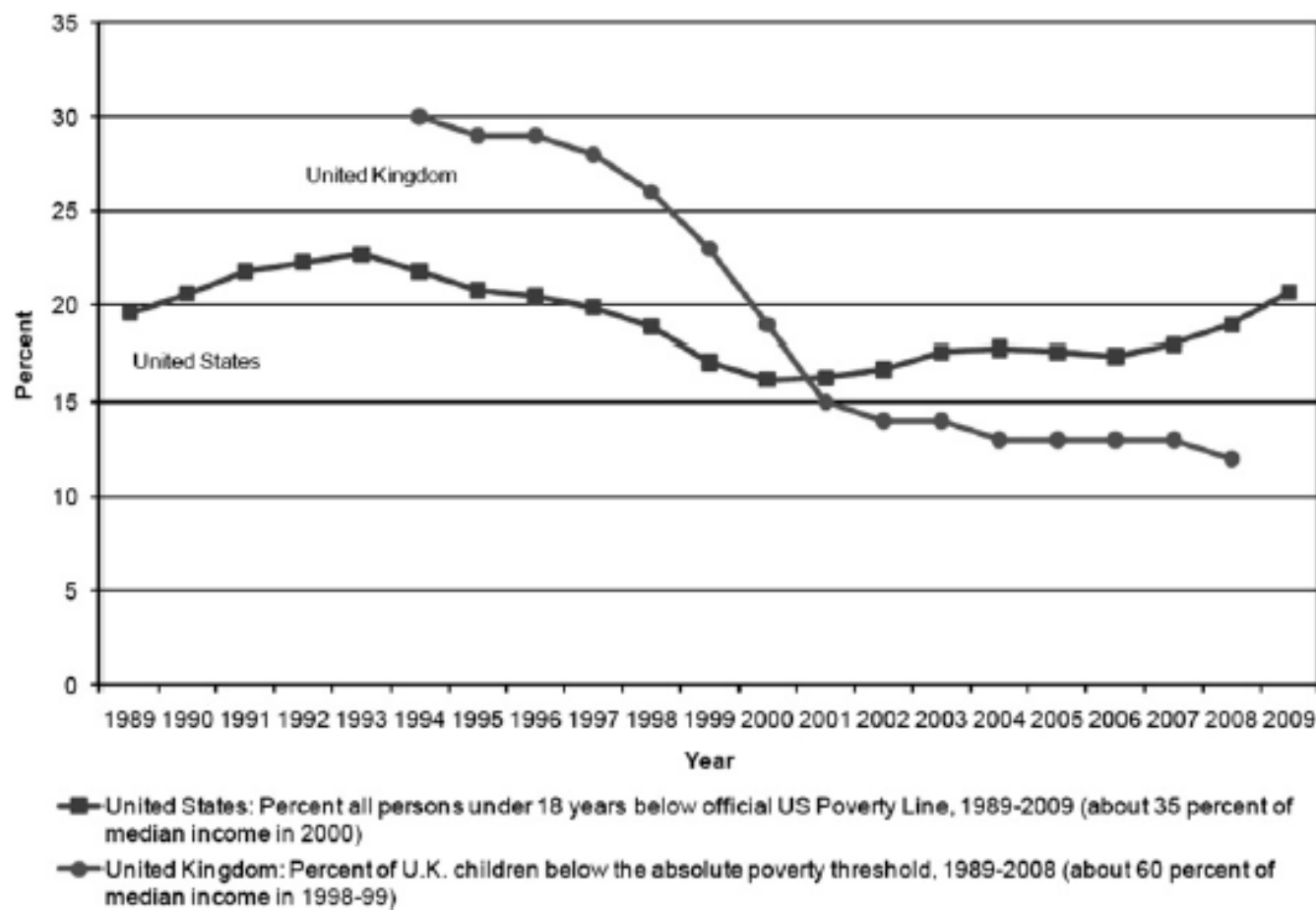
Respondent's Education
High School Degree or Less

Respondent's Education
College Degree or More

Parents' Education Low

Parents' Education High

Physical Impairment

Age

Ross and Mirowsky 2011

Figure 5. *Absolute childhood poverty in the United States and the United Kingdom, 1989–2009.*[16] *Reprinted from Fast Focus, research brief of the Institute for Research on Poverty, 8 (2010) © 2010 by the Regents of the University of Wisconsin. Used with permission.*
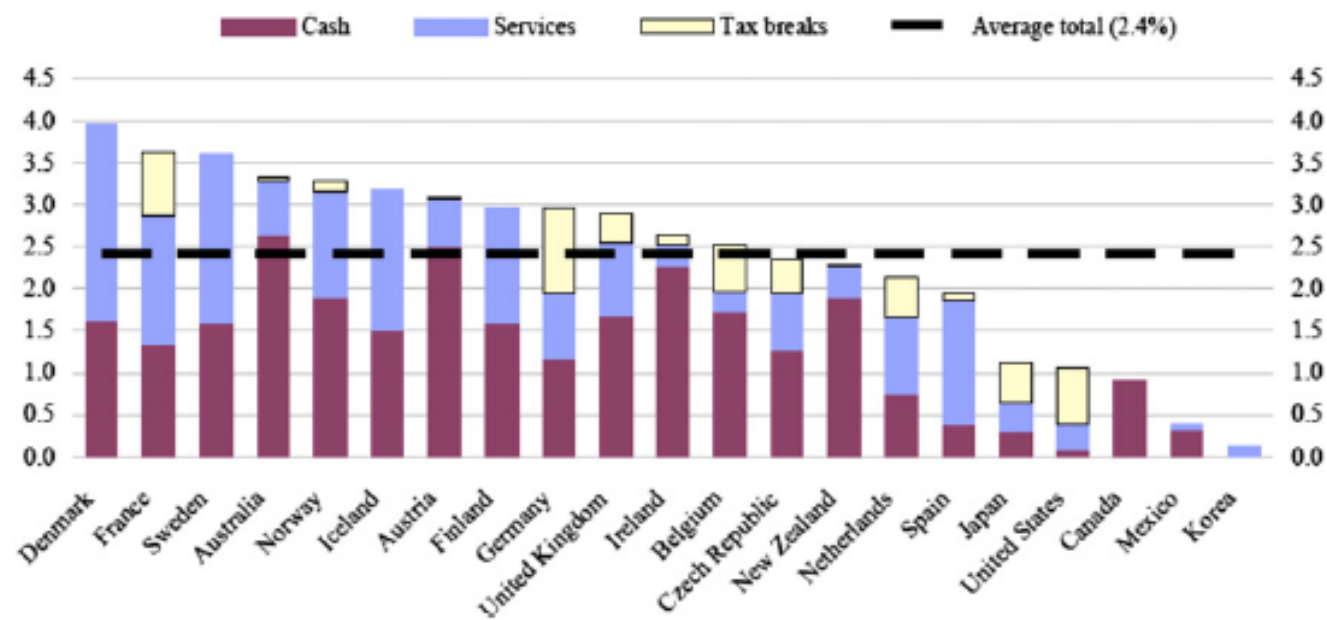
Figure 6. *Public spending among selected developed nations on family benefits in cash, services, and tax breaks as percentage of each nation's GDP, 2003.*[26]

Figure 1
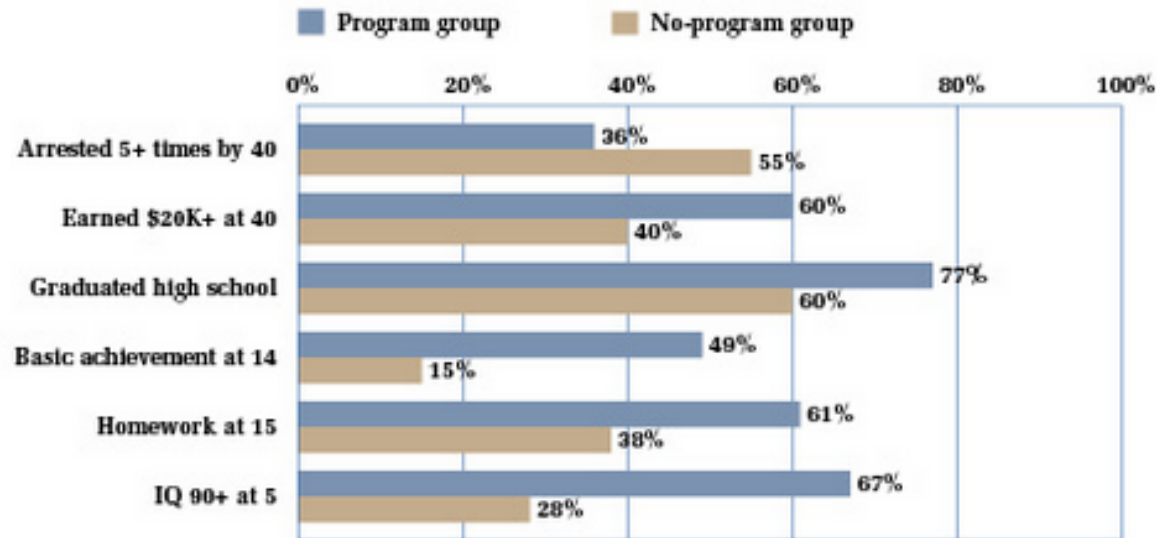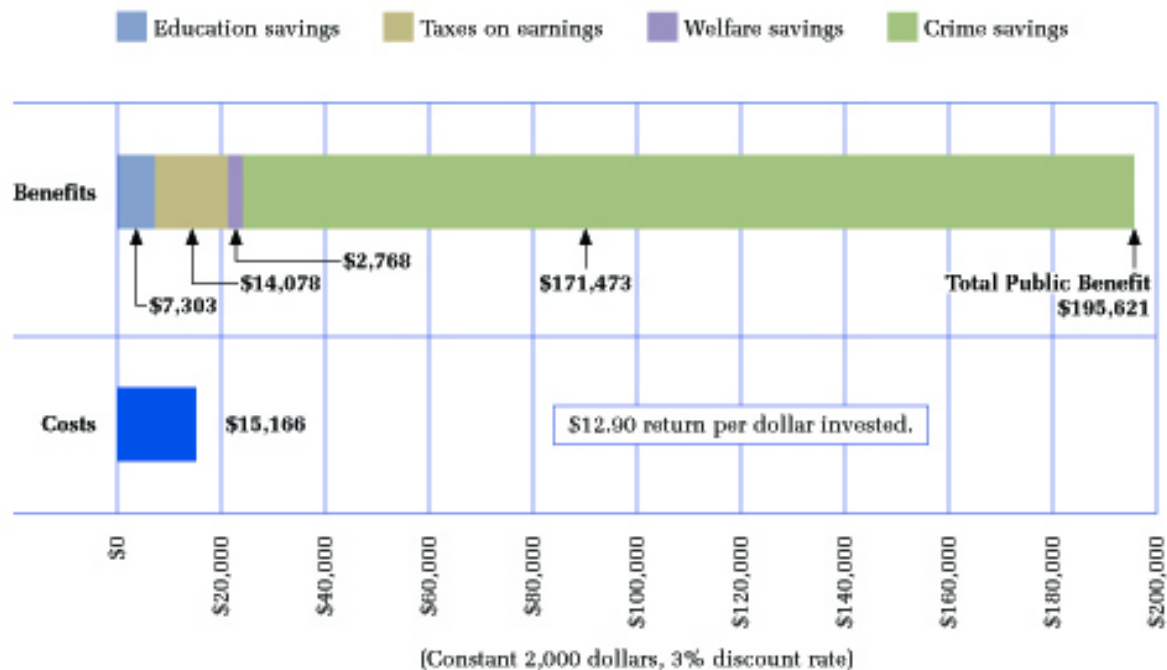## Major Findings: High/Scope Perry Preschool Study at 40

Legend: ■ Program group ■ No-program group

Measure	Program group	No-program group
Arrested 5+ times by 40	36%	55%
Earned $20K+ at 40	60%	40%
Graduated high school	77%	60%
Basic achievement at 14	49%	15%
Homework at 15	61%	38%
IQ 90+ at 5	67%	28%

(Scale: 0% 20% 40% 60% 80% 100%)

Figure 2
High/Scope Perry Preschool Program Public Costs and Benefits

Legend: ■ Education savings ■ Taxes on earnings ■ Welfare savings ■ Crime savings

Benefits
- Education savings: $7,303
- Taxes on earnings: $14,078
- Welfare savings: $2,768
- Crime savings: $171,473
- Total Public Benefit: $195,621

Costs
- $15,166

$12.90 return per dollar invested.

(Scale: $0 $20,000 $40,000 $60,000 $80,000 $100,000 $120,000 $140,000 $160,000 $180,000 $200,000)

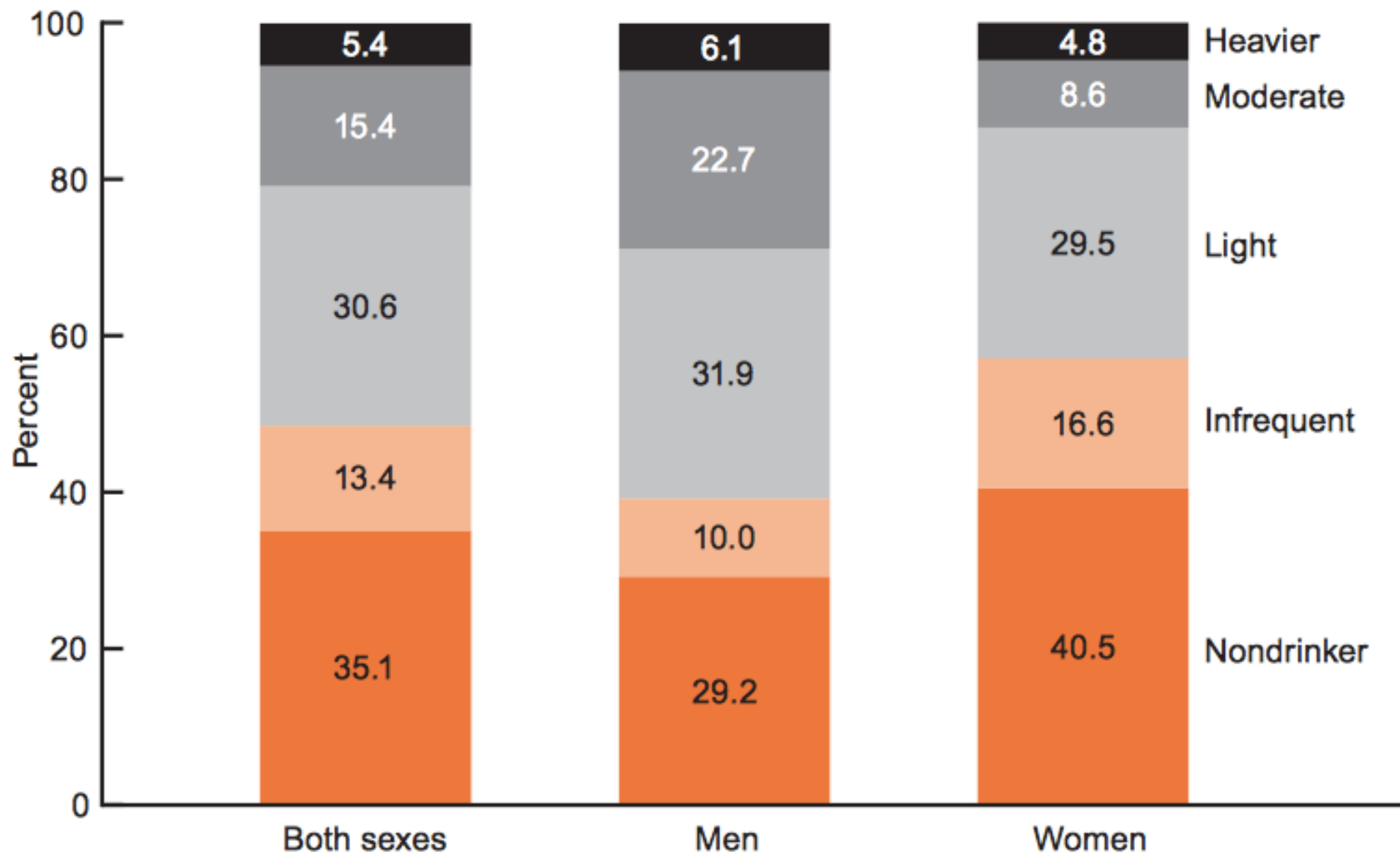(Constant 2,000 dollars, 3% discount rate)

HighScope Preschool Study

HEALTH BEHAVIORS

HEALTH BEHAVIORS
(ALONZO 1993)

1. Prevention - prescription and proscription

2. Detection

3. Promotion

4. Protection

Figure 3.1. Percent distribution of current alcohol drinking status for adults, by sex: United States, annualized, 2008–2010
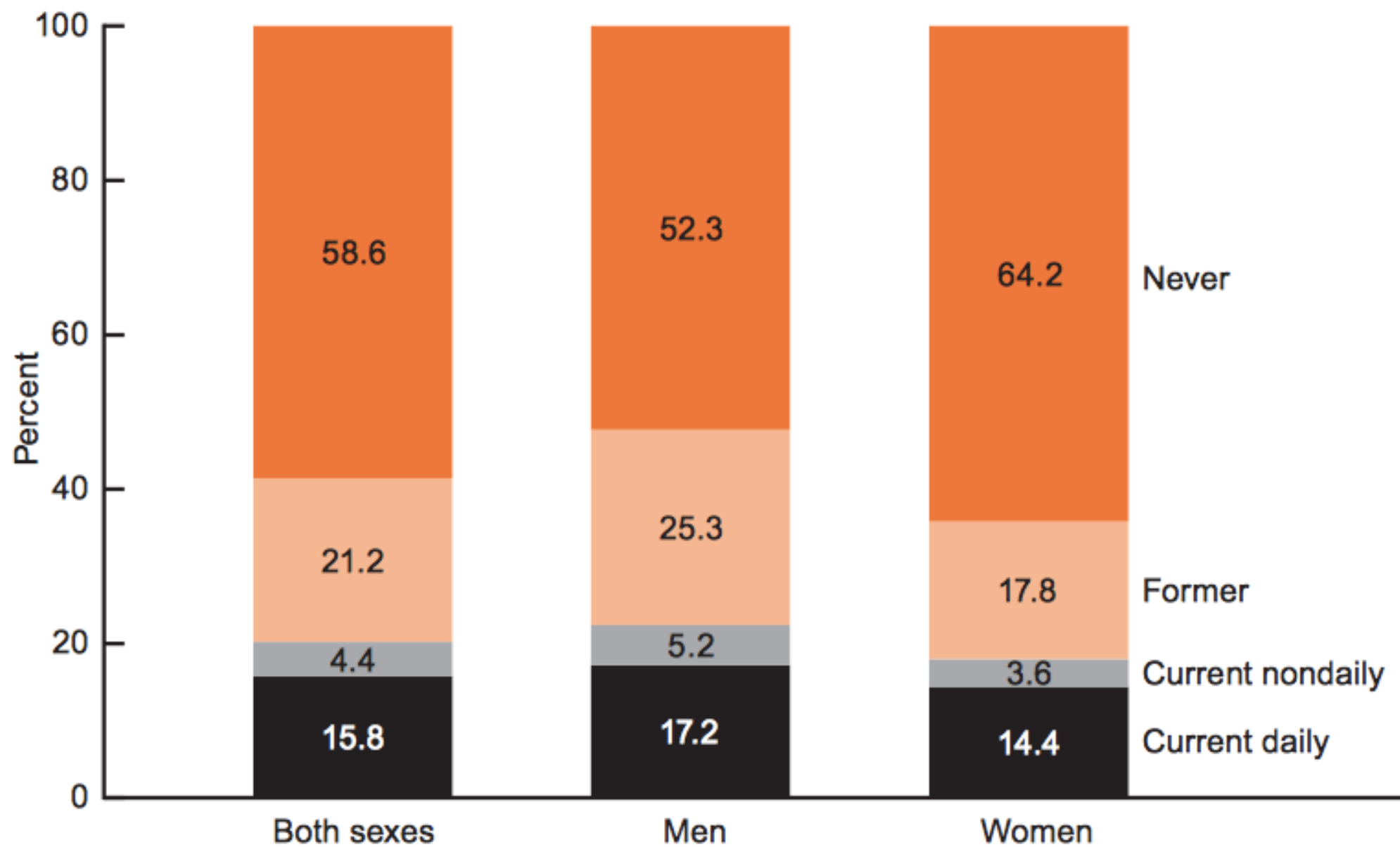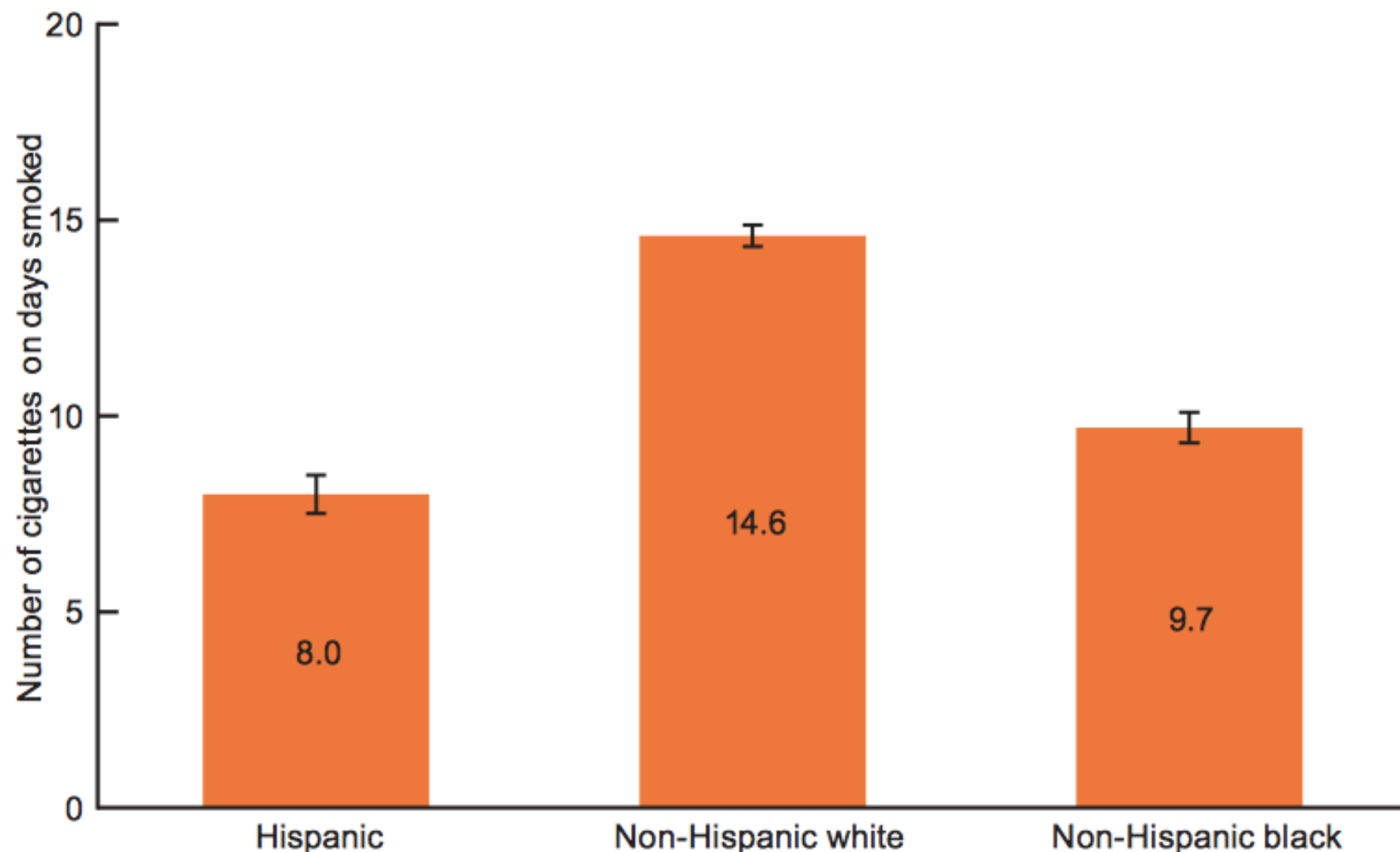
NOTES: Estimates are age adjusted using the projected 2000 U.S. population as the standard population. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. Totals may not add to 100% due to rounding.
SOURCE: CDC/NCHS, National Health Interview Survey, 2008–2010.

Figure 4.1. Percent distribution of current cigarette smoking status of adults, by sex: United States, annualized, 2008–2010

NOTES: Estimates are age adjusted using the projected 2000 U.S. population as the standard population. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. Totals may not add to 100% due to rounding.
SOURCE: CDC/NCHS, National Health Interview Survey, 2008–2010.

Figure 4.6. Mean number of cigarettes on days smoked by adult current smokers, by Hispanic origin and race: United States, annualized, 2008–2010
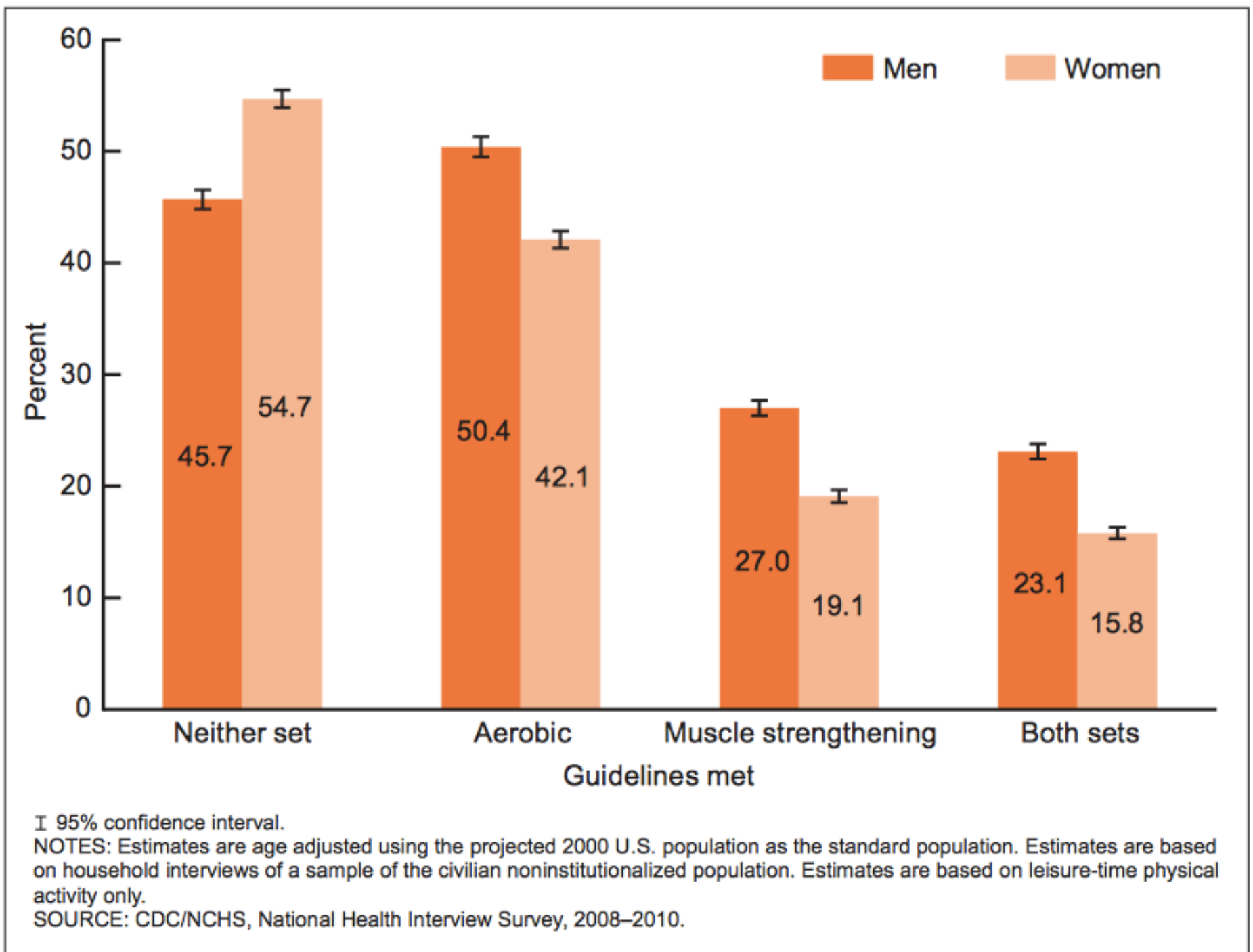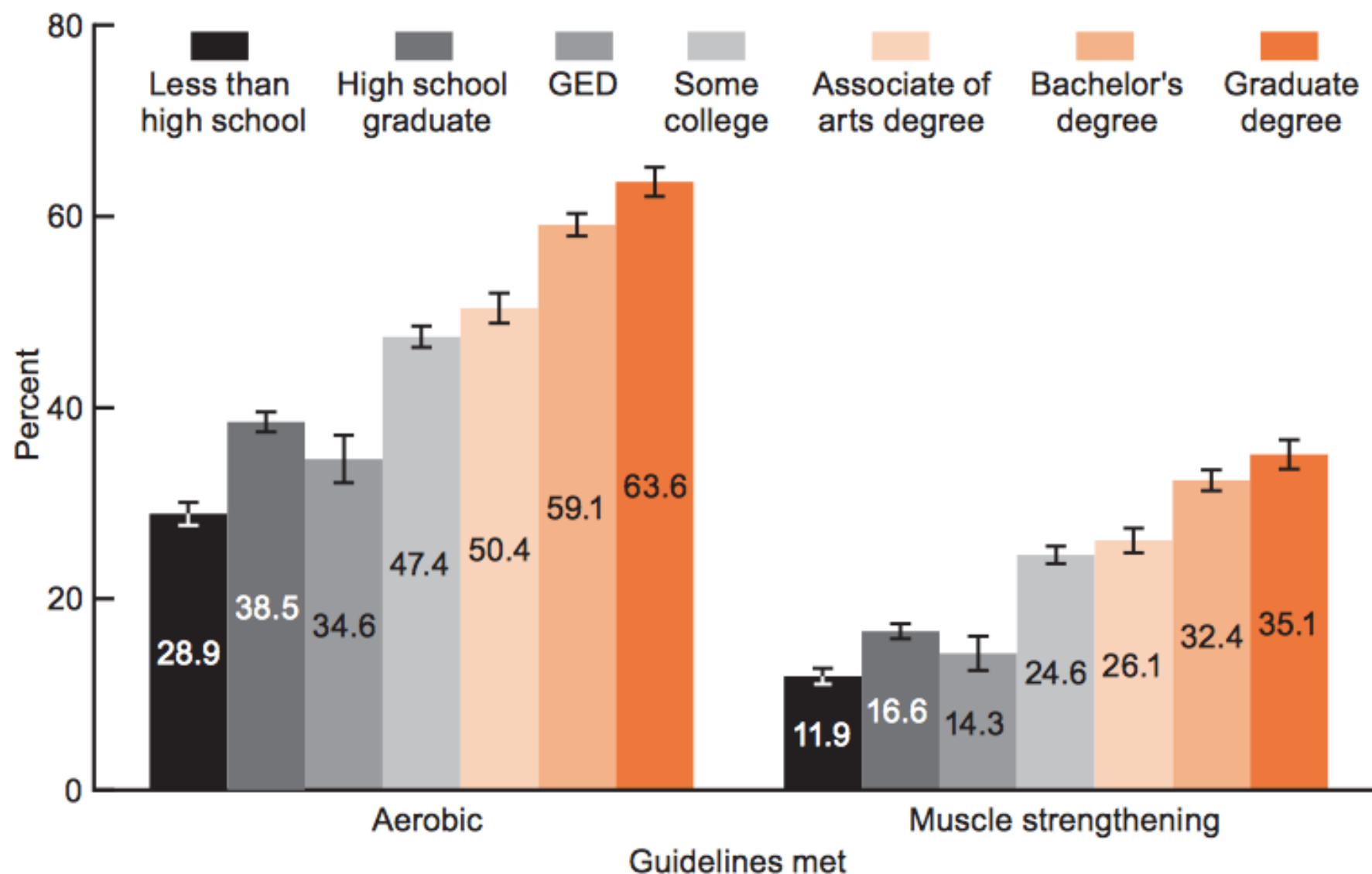
I 95% confidence interval.

NOTES: Estimates are age adjusted using the projected 2000 U.S. population as the standard population. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. Current smokers include daily and nondaily smokers.

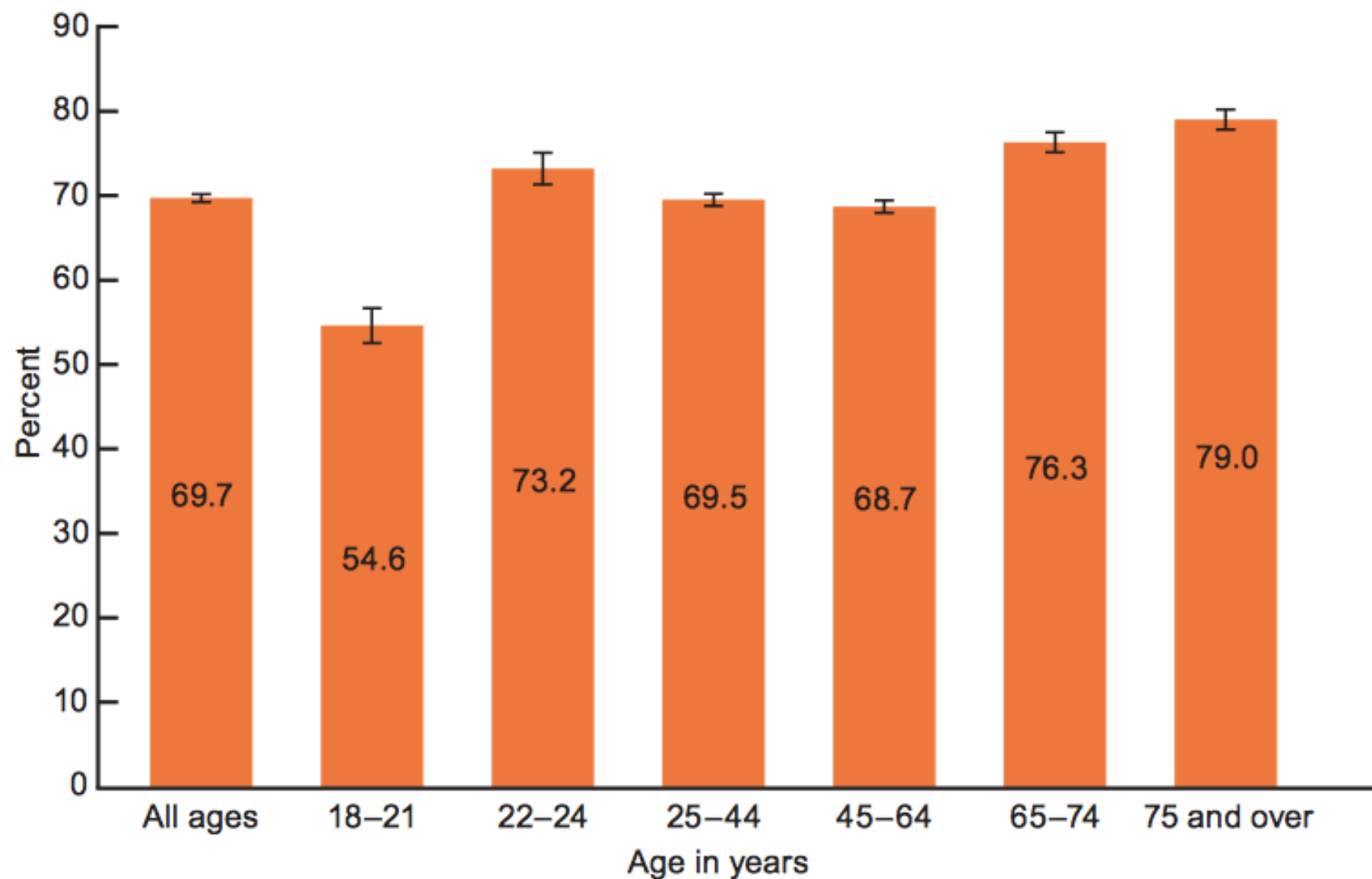SOURCE: CDC/NCHS, National Health Interview Survey, 2008–2010.

I 95% confidence interval.
NOTES: Estimates are age adjusted using the projected 2000 U.S. population as the standard population. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. Estimates are based on leisure-time physical activity only.
SOURCE: CDC/NCHS, National Health Interview Survey, 2008–2010.

Figure 5.1. Percentage of adults who met or did not meet the 2008 federal guidelines for physical activity, by sex: United States, annualized, 2008–2010

Figure 5.4. Percentage of adults who met the 2008 federal guidelines for physical activity, by level of education: United States, annualized, 2008–2010

Figure 7.3. Percentage of adults who met the Healthy People 2020 objective for sufficient sleep, by age: United States, annualized, 2008–2010