



**Congressional Budget Office**

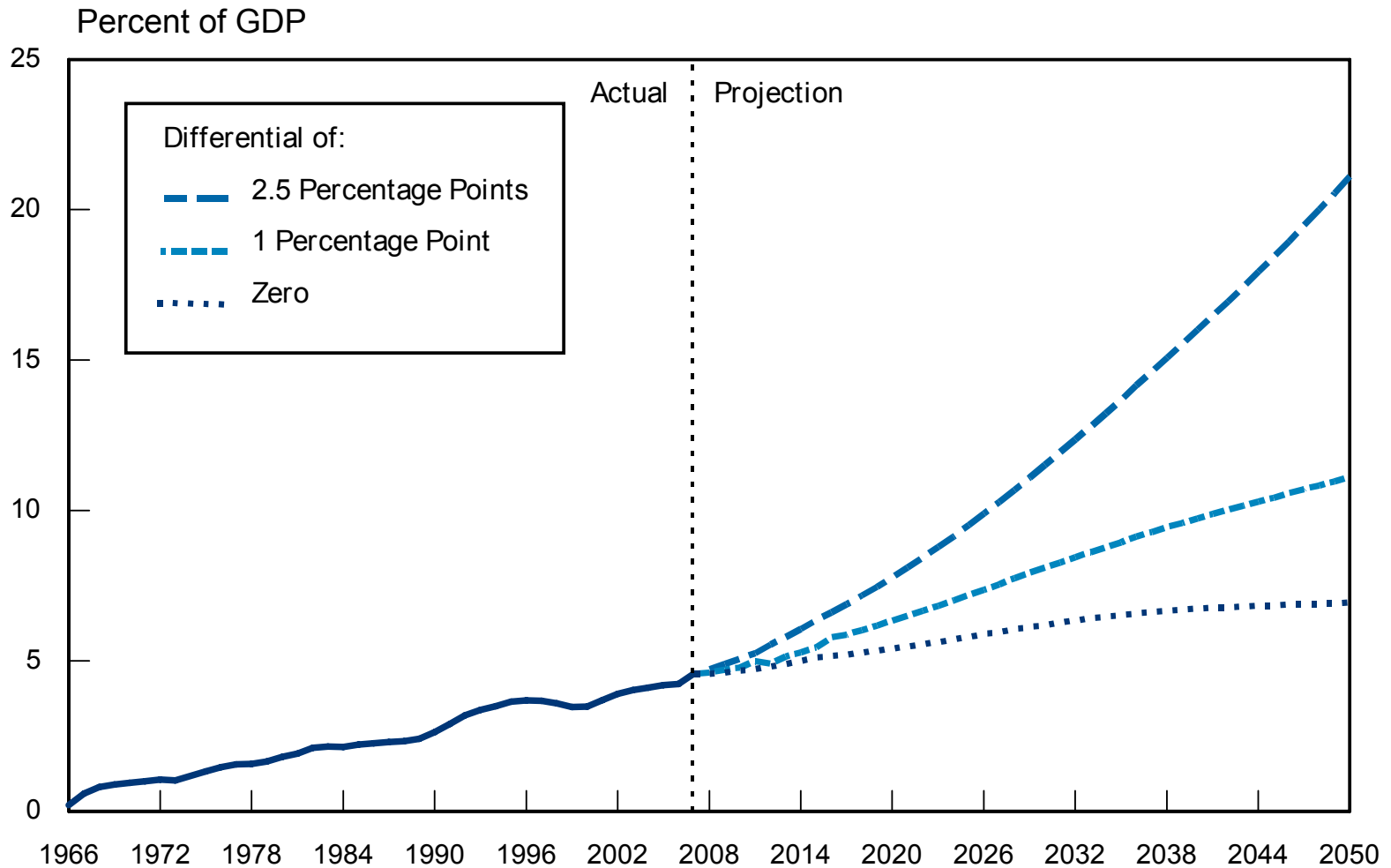
# **Obesity and Health Costs**

**Remarks by  
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Director**

**September 19, 2007**

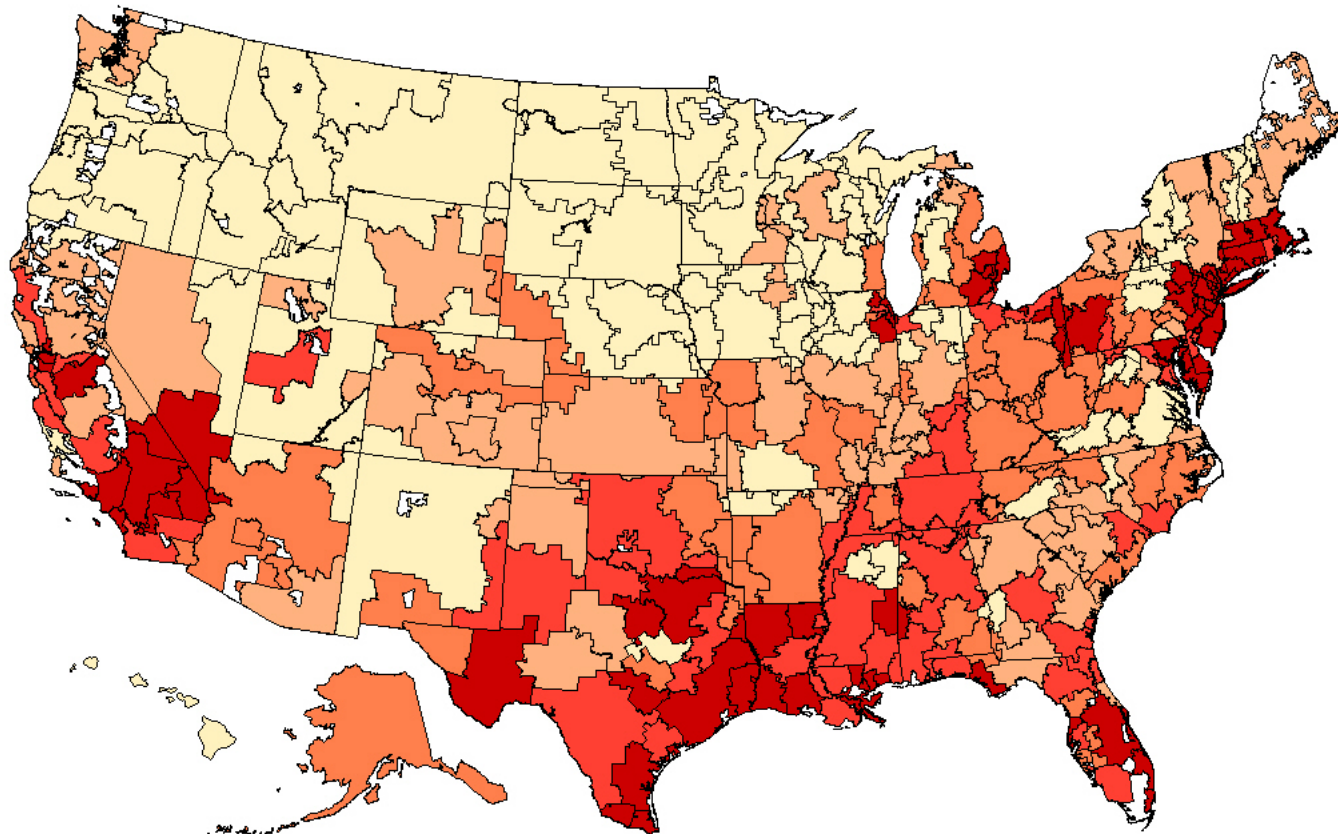


# Total Federal Spending for Medicare and Medicaid Under Assumptions About the Health Cost Growth Differential





# Medicare Spending per Capita in the United States, by Hospital Referral Region, 2003

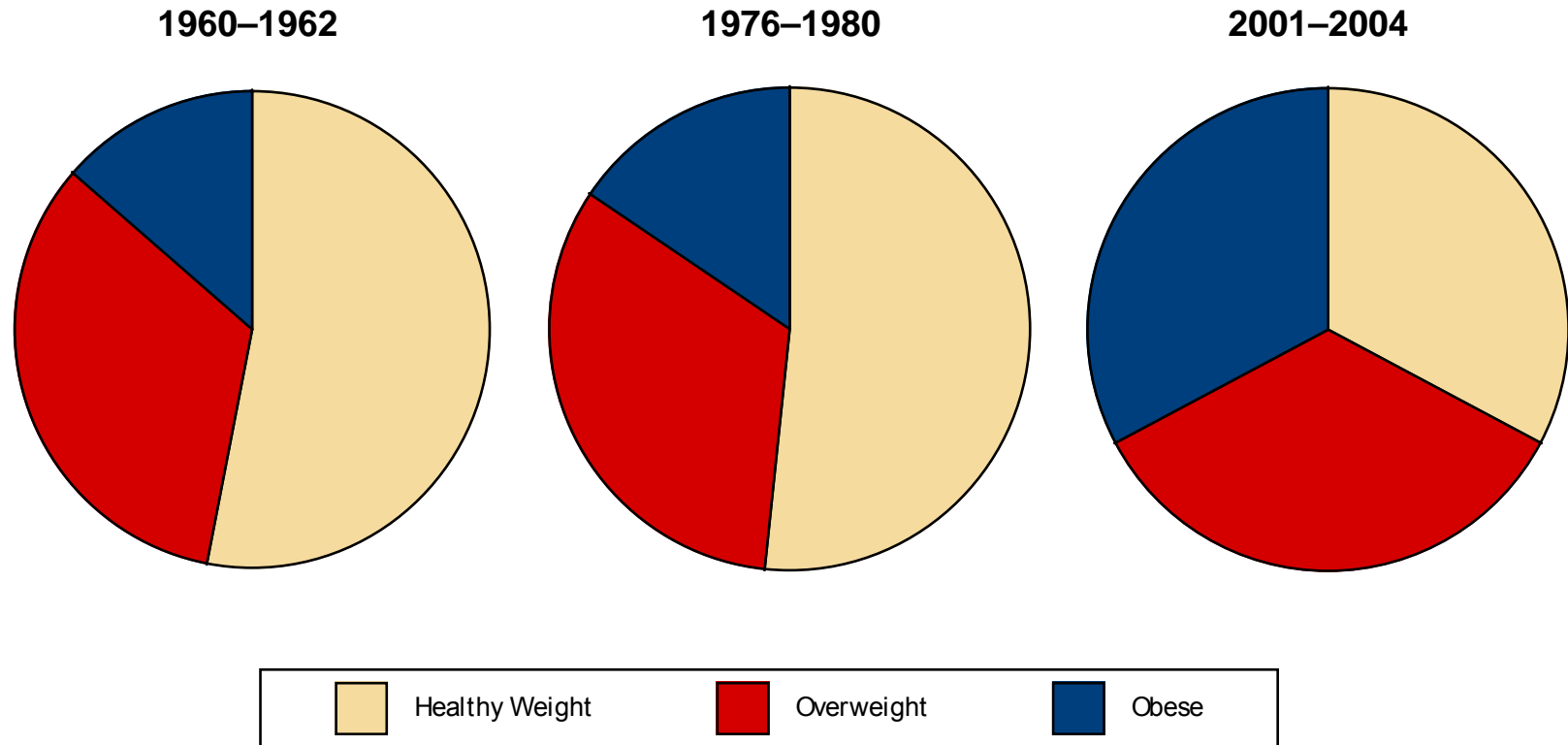


■ \$7,200 to 11,600 (74)	■ 6,300 to <6,800 (55)	■ 4,500 to <5,800 (72)
■ 6,800 to < 7,200 (45)	■ 5,800 to <6,300 (60)	□ Not Populated

Source: [www.dartmouthatlas.org](http://www.dartmouthatlas.org).



## Proportion of Individuals Ages 20 to 74 by Weight Status, 1960 to 2004

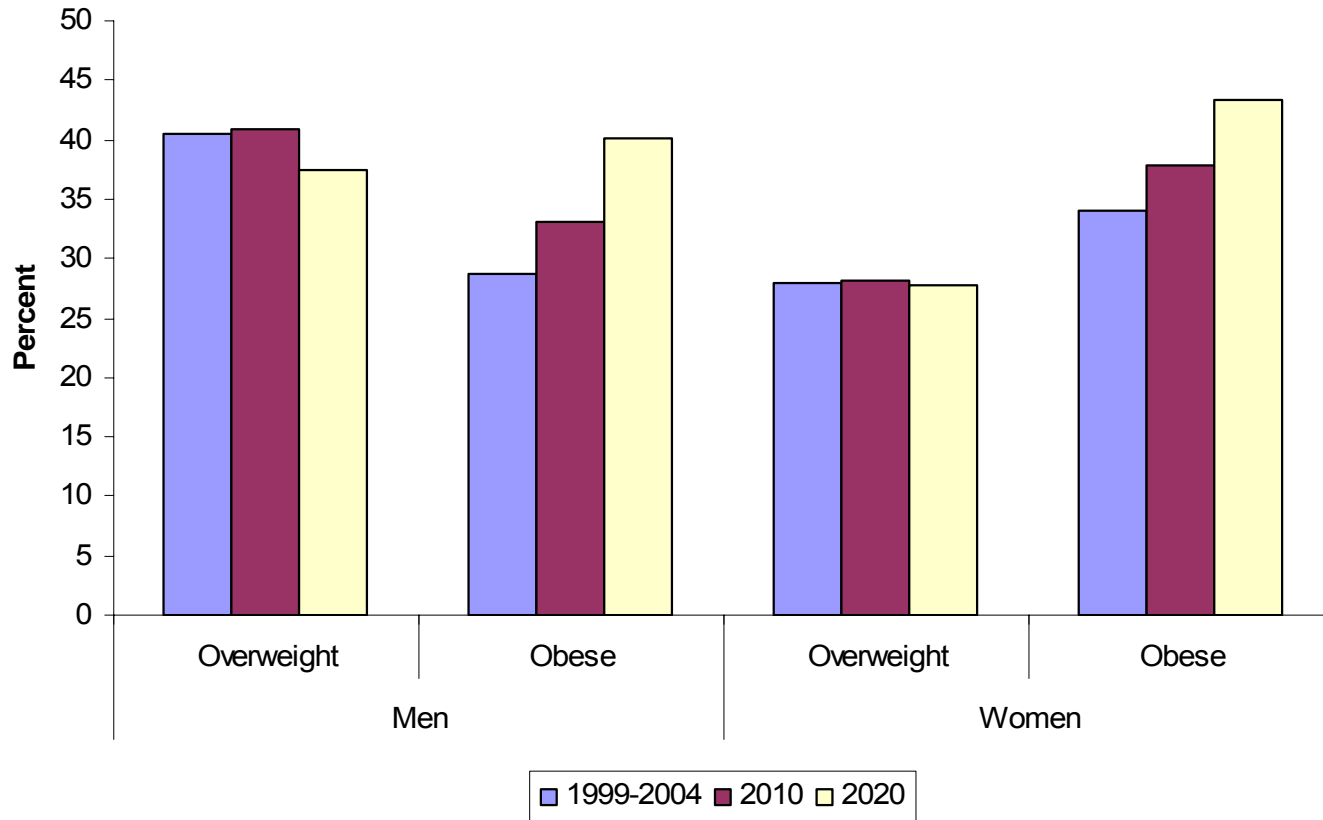


**Source:** Centers for Disease Control and Prevention (2006).

**Note:** Overweight is defined as having  $25 \leq \text{BMI} < 30$ ; obese as  $\text{BMI} \geq 30$ ; and healthy weight as  $18.5 \leq \text{BMI} < 25$ . Underweight individuals ( $\text{BMI} < 18.5$ ) account for less than 5% of the adults ages 20 to 74 and are not included in the charts.



# Proportion of Overweight and Obese Individuals Ages 20 to 74, 1999 to 2020

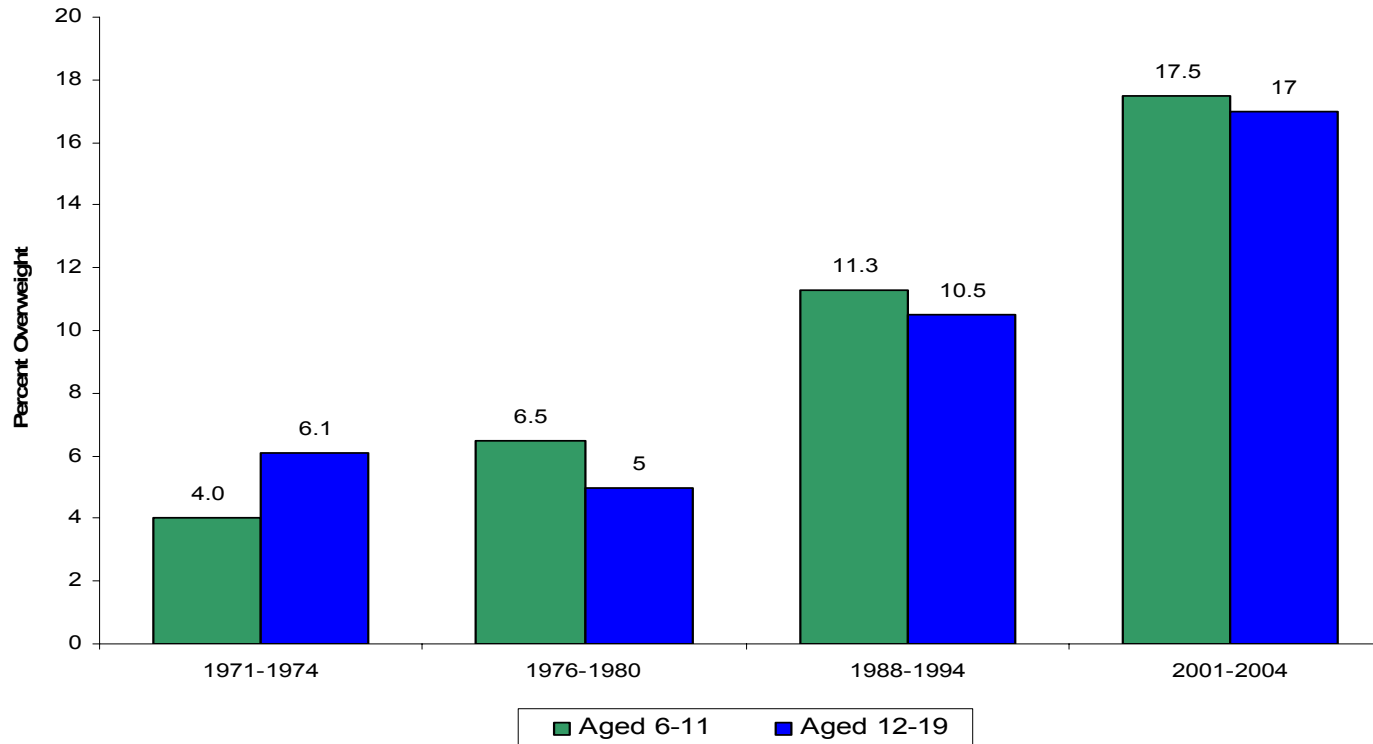


**Source:** Ruhm (2007).

**Note:** Overweight is defined as having  $25 \leq \text{BMI} < 30$ ; obese as  $\text{BMI} \geq 30$ .



# Children and Adolescents Considered Overweight, by Age Group, 1971 to 2004

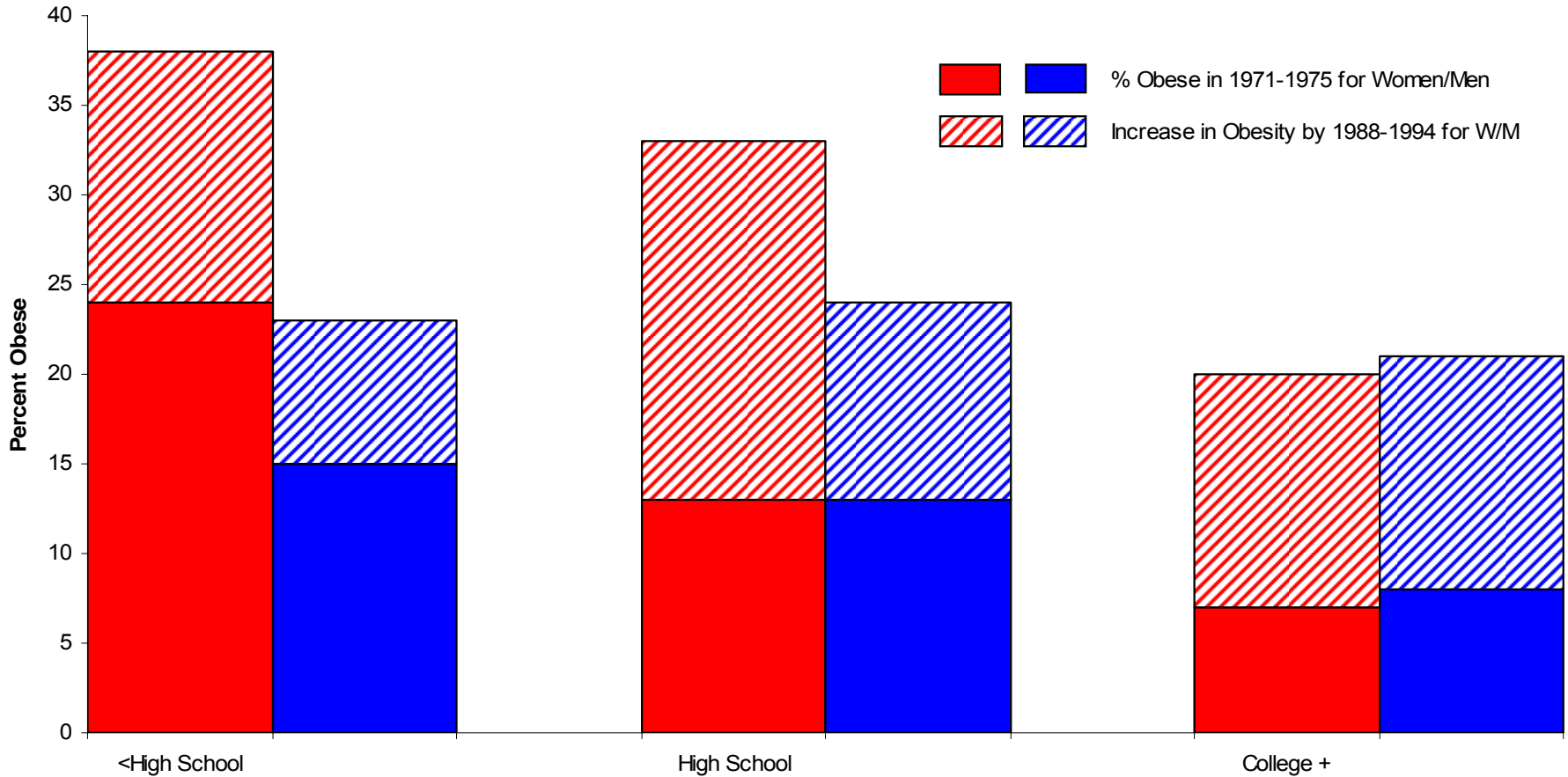


**Source:** Centers for Disease Control and Prevention (2006).

**Note:** Overweight is defined as BMI at or above the sex- and age-specific 95<sup>th</sup> percentile BMI cutoff points from the CDC Growth Charts: United States.



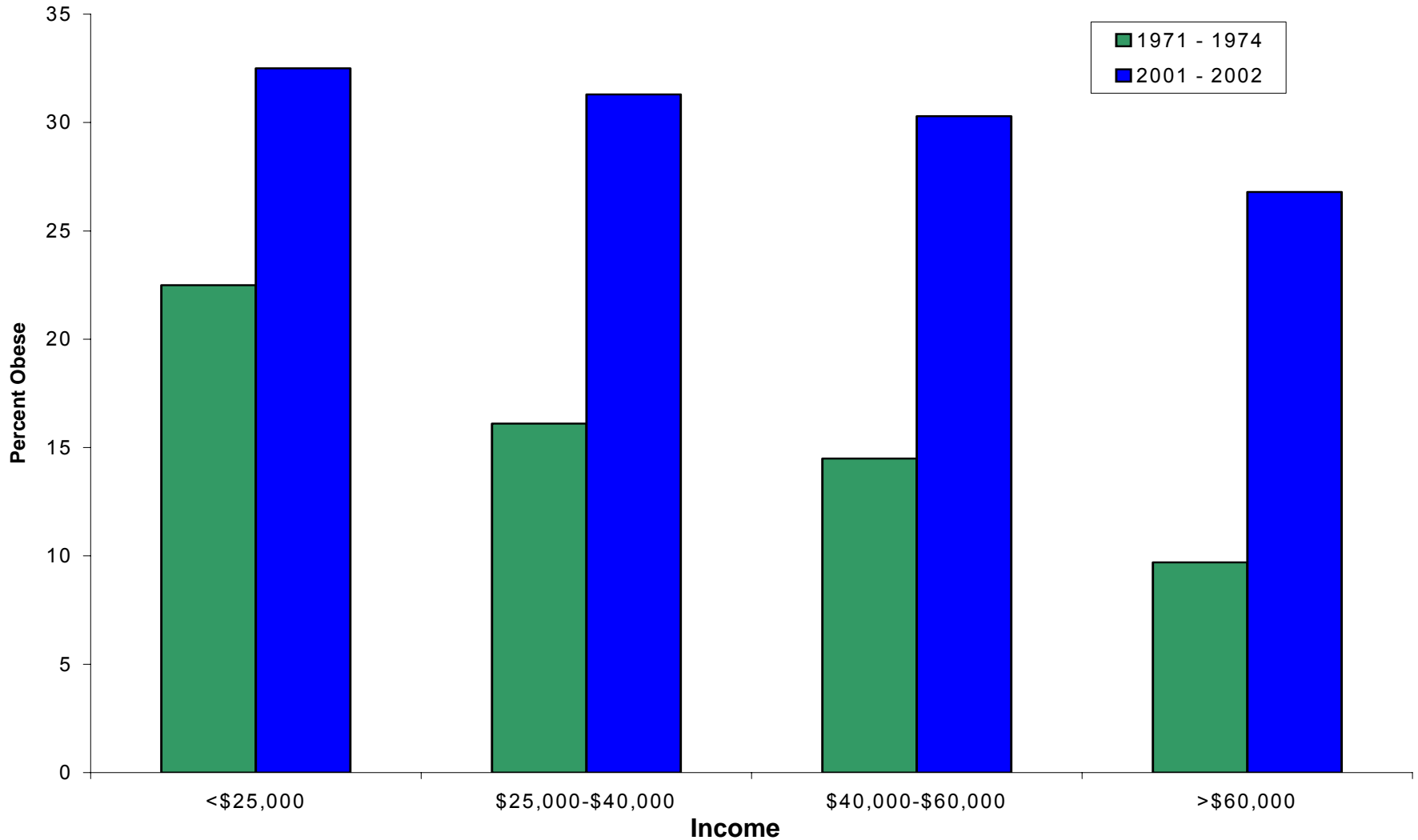
# Change in Percentage Obese, by Educational Attainment and Sex, 1971 to 1994



Source: Cutler (2003).



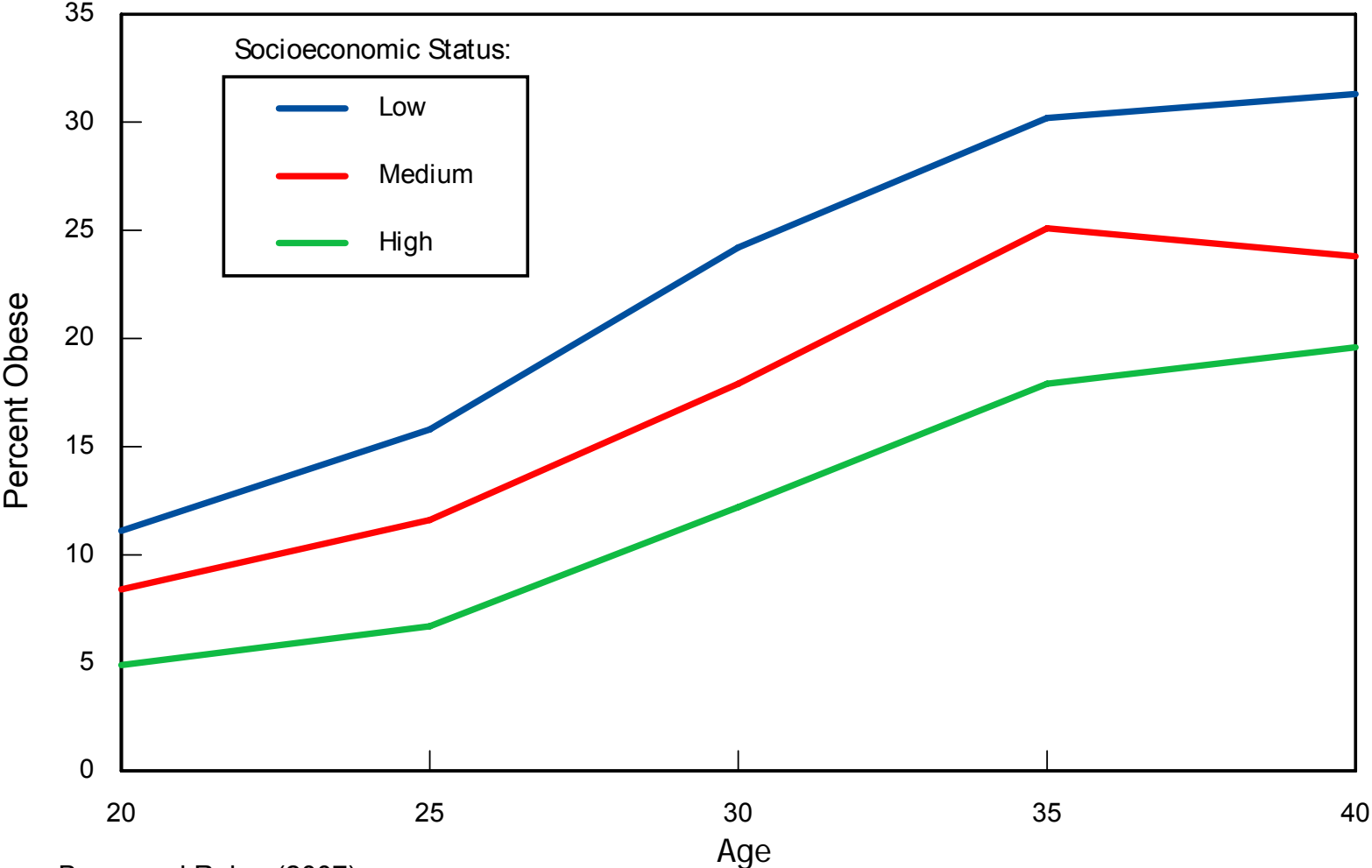
# Obesity by Income Levels, 1971 to 2002



Source: American Heart Association.



# Life Cycle Patterns of Obesity Among Adults Ages 20 to 40, by Socioeconomic Status

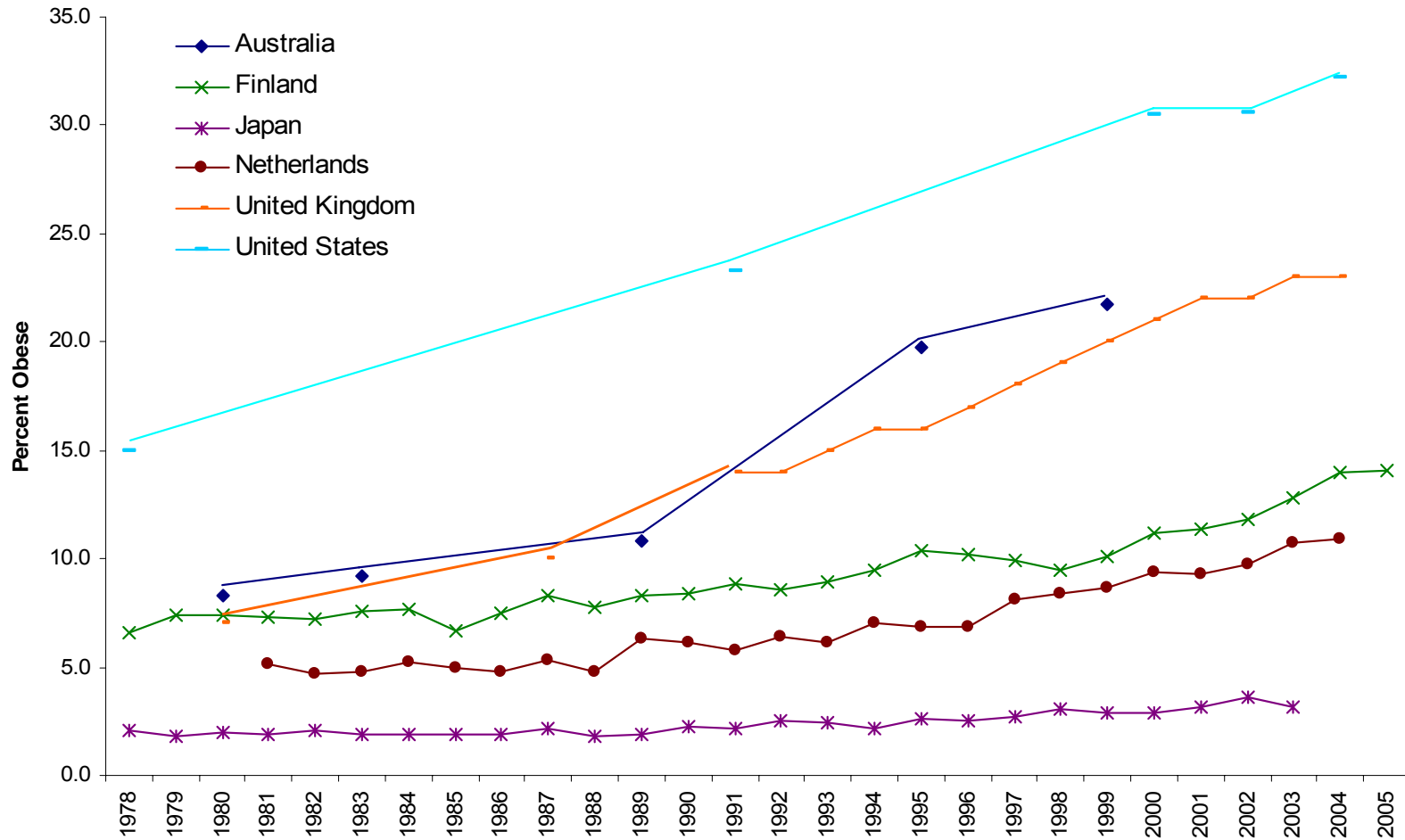


**Source:** Baum and Ruhm (2007).

**Note:** Low, medium, and high socioeconomic status refer to respondents whose mother completed <12, exactly 12, and >12 years of education.



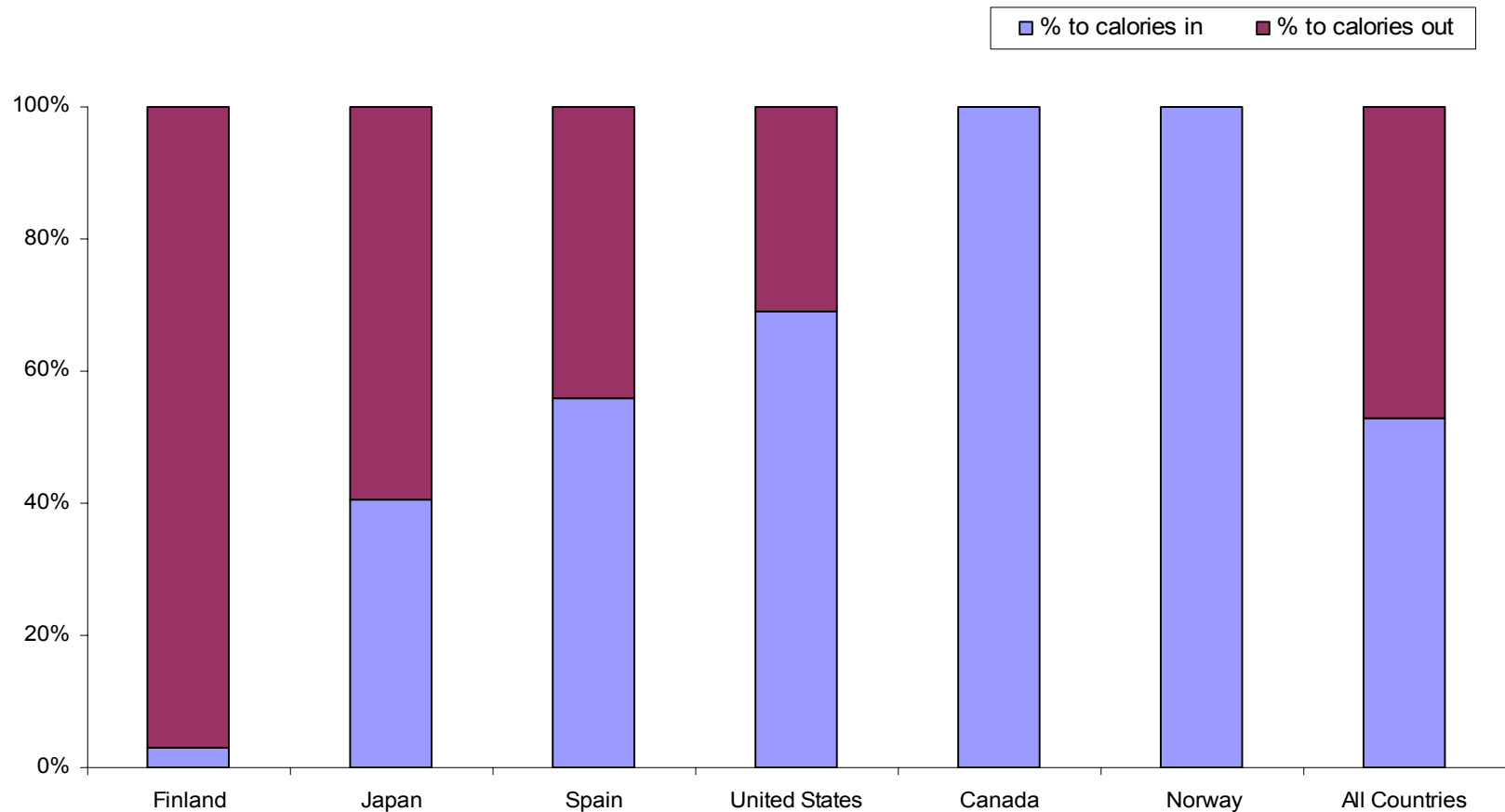
# Level and Trend of Obesity in Selected OECD Countries, 1978 to 2005



Source: FAOSTAT & OECD Health database, as cited in Bleich et al. (2007) "Why is the Developed World Obese?"



# Attributable Fraction of Obesity Due to Calories In and Calories Out, Across Countries



**Source:** FAOSTAT & OECD Health database, as cited in Bleich et al. (2007) "Why is the Developed World Obese?"



## Change in Caloric Intake, 1977 to 1996

	<b>Meal</b>	<b>1977–1978</b>	<b>1994–1996</b>	<b>Change</b>
<b>Male</b>	Meals	1819	1846	27
	Snacks	261	501	241
	Total	2080	2347	268
<b>Female</b>	Meals	1330	1312	-17
	Snacks	186	346	160
	Total	1515	1658	143

**Source:** Continuing Survey of Food Intake 1977-1978 and 1994-1996, as cited in Cutler, Glaeser, Shapiro (2003).



## Obesity and Food Technology

- Increase in obesity may be the result of the technological changes in food processing.
- Increased technology has cut down the time for food preparation, making food more available and cheaper.
- This argument is supported by the demographic trends, which show that obesity has grown most among women since the 1970s.
- The increase in caloric intake comes mainly from snacks, the foods with the greatest amount of processing.



## What food can you buy with a \$1?

- To get 2,400 calories, need less than \$1 if getting them in oils and sugars
- Cheap, unhealthy food:
  - \$1 can buy 2,400 calories worth of white pasta
  - \$1 can buy 500 calories worth of potatoes
  - \$1 can buy 500 calories worth of cereal
- Expensive, healthy food:
  - \$1 can buy 30 calories of fish
  - \$1 can buy 2.4 calories of raspberries
  - \$1 can buy 8 calories worth of arugula



## Incentives and Behavior

- Some studies show that consumption is influenced by availability of food rather than taste or hunger:
  - Stale Popcorn
  - Vending Machines in Schools
  
- Possible to help people make healthier decisions

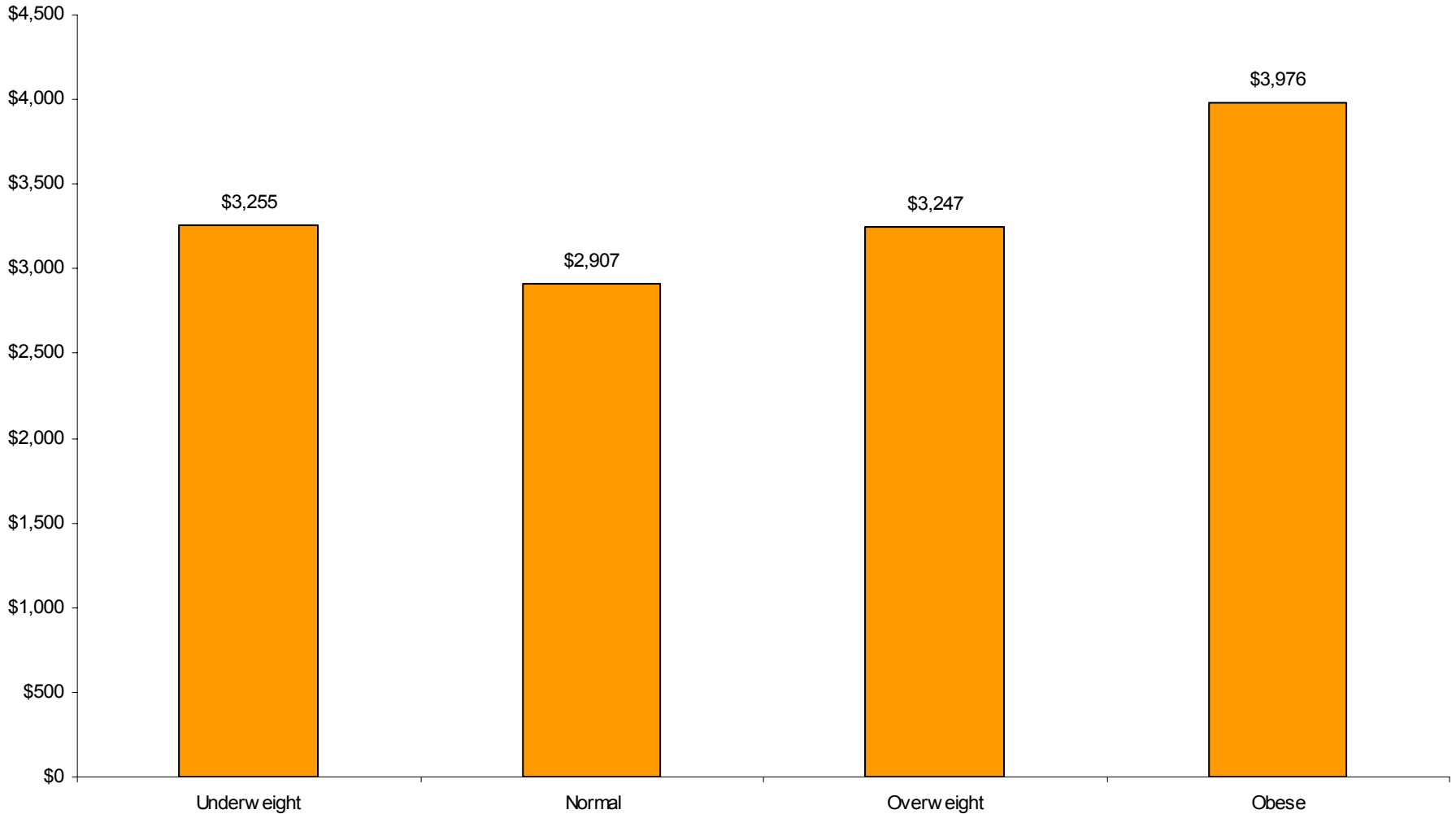


## Diseases Associated with Obesity

- Type 2 Diabetes
- Cardiovascular Disease
- Cancer (Endometrial, postmenopausal breast, kidney, and colon)
- Musculoskeletal Disorders
- Sleep Apnea
- Gallbladder Disease



# Mean per Capita Spending by Weight Status, 2001



**Source:** Thorpe (2004).



## Possible Tools to Curb Obesity

- Education
- Increasing Food Prices
  - Several states have extra taxes on soft drinks
  - Recent proposals:
    - Detroit: Mayor proposing 2% fast-food tax
    - British Medical Association: 17.5% tax on high-fat foods
  - Could also subsidize healthy foods
- Regulation