



Economics of Food Choice: Income, Price and Availability

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Why are we getting fatter?

- Because we are eating more than we used to and we are not as active
 - How do we know we're eating more?

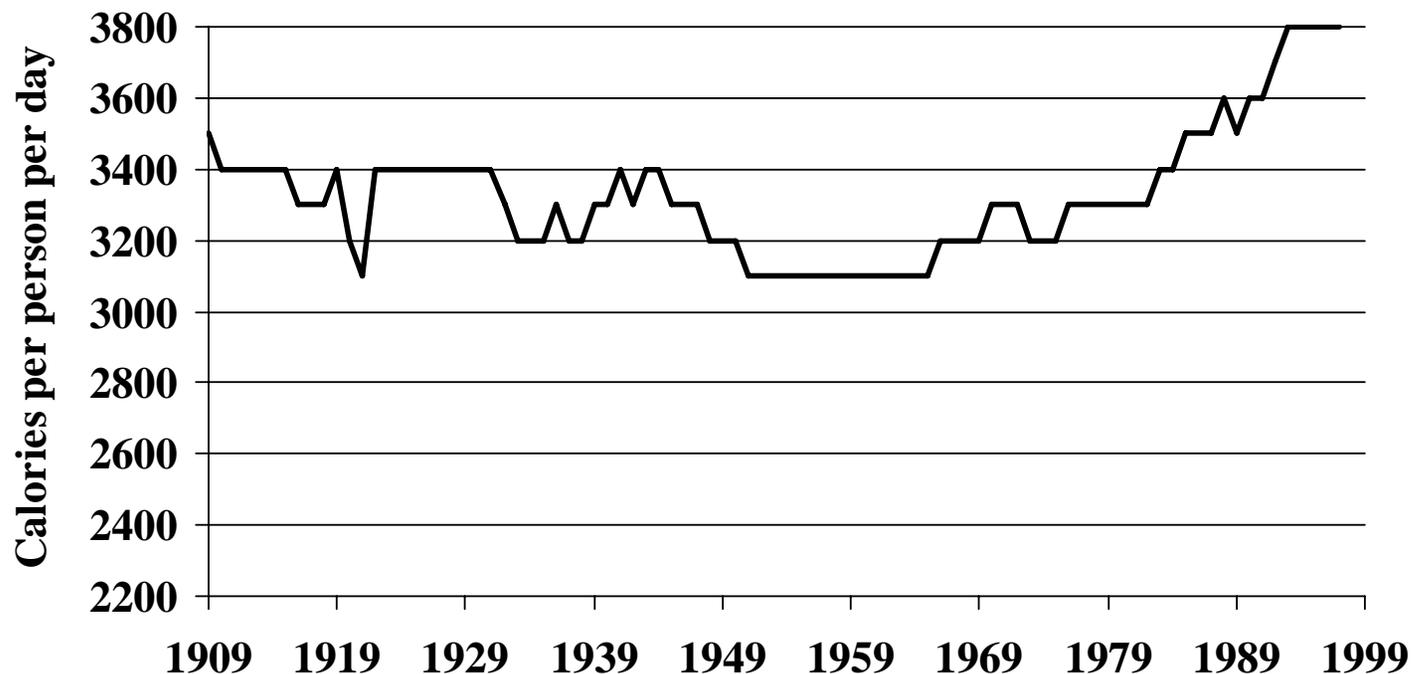


Has per capita food consumption increased?

- Three primary data sources
 - Food Availability Data
 - Recall Data
 - Scanner Data

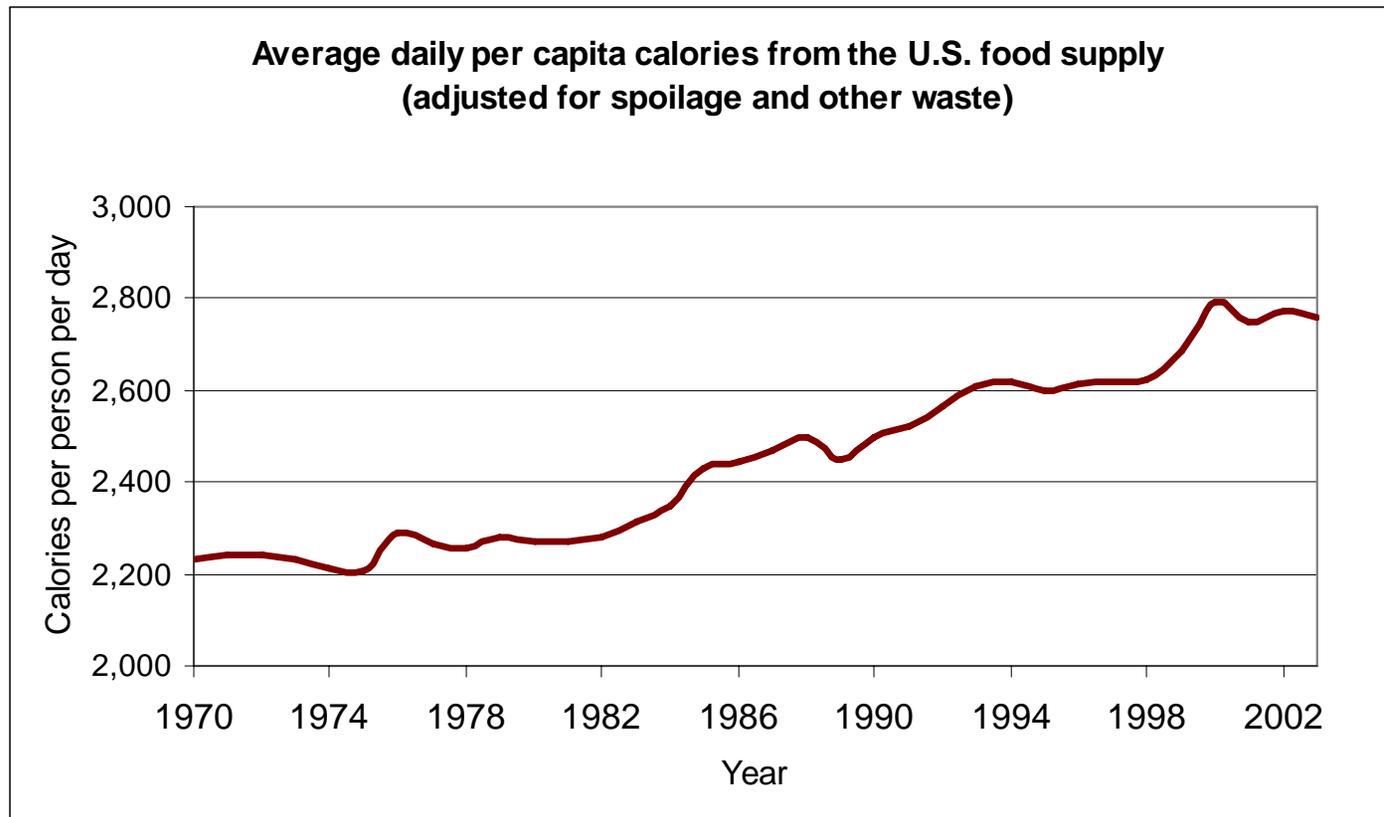
Yes, we are eating more than our grandparents....

- Per capita food supply provided 300 more calories per person per day in 1997 than in 1909



...and our parents

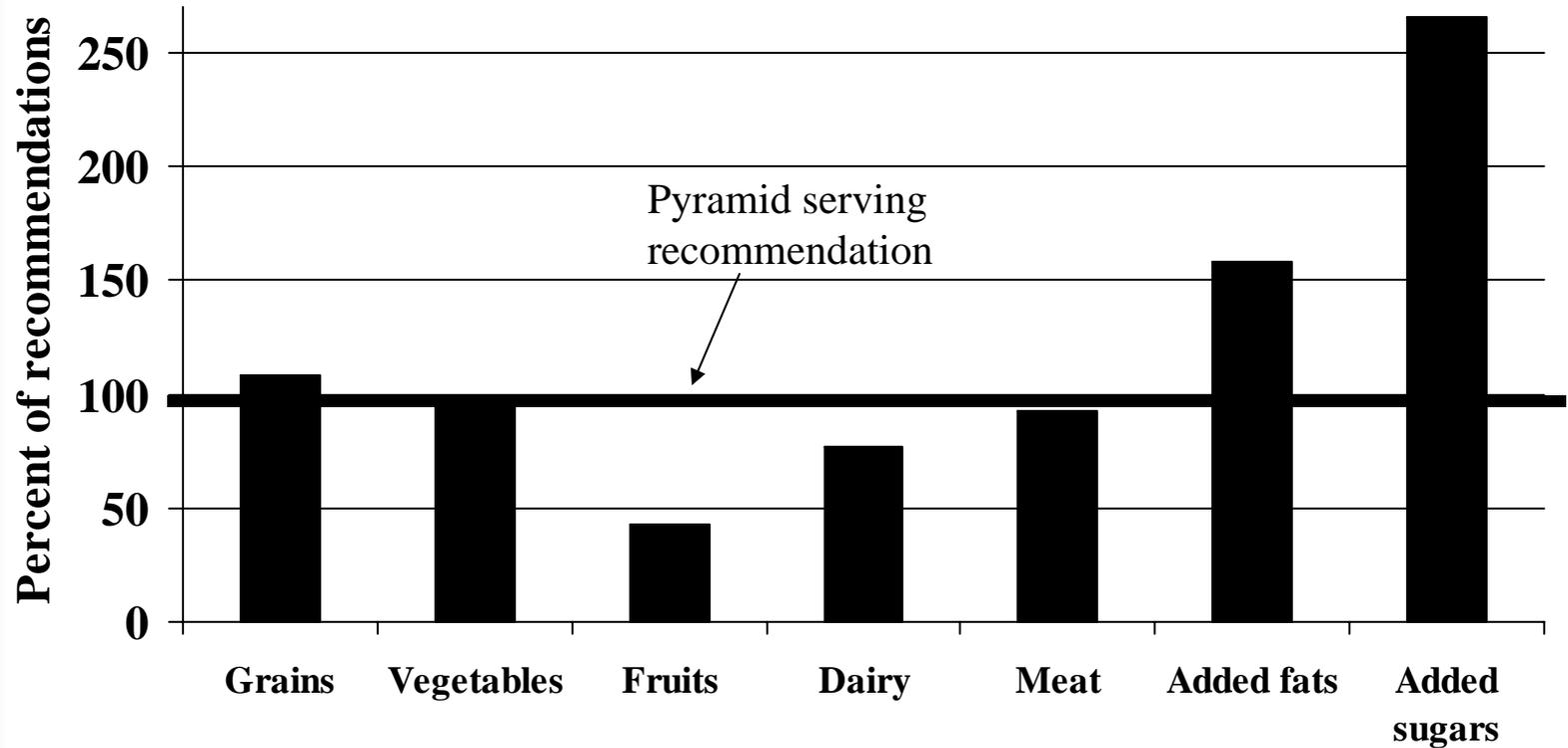
- From 1970 to 2003, per capita calorie intake rose by 523 calories (from an average of 2,234 to 2,757)



We are eating more of just about everything...but mostly fats and grains

| Commodity group | Per capita consumption | | | Average number of added calories per capita per day between 1970 and 2003 |
|--------------------|------------------------|---------------|----------------------------------------|---------------------------------------------------------------------------|
| | 1970 | 2003 | Percent increase between 1970 and 2003 | |
| | <i>Pounds</i> | <i>Pounds</i> | <i>Percent</i> | <i>Number</i> |
| Fats & Oils | 53 | 86 | 63 | 216 |
| Grains | 136 | 194 | 43 | 188 |
| Sugar & sweeteners | 119 | 142 | 19 | 76 |
| Meat, eggs, & nuts | 226 | 242 | 7 | 24 |
| Vegetables | 337 | 418 | 24 | 16 |
| Fruits | 242 | 275 | 12 | 14 |
| Dairy | 564 | 594 | 5 | -11 |
| Total | 1675 | 1950 | 16 | 523 |

More is too much when it comes to added fats and sugars





Why are we eating like this?

- Economic explanations for poor food choices?
 - Is a healthy diet too expensive?
 - Is healthy food difficult to find – particularly in low-income neighborhoods?
 - Market failure?



Is a healthy diet too expensive?

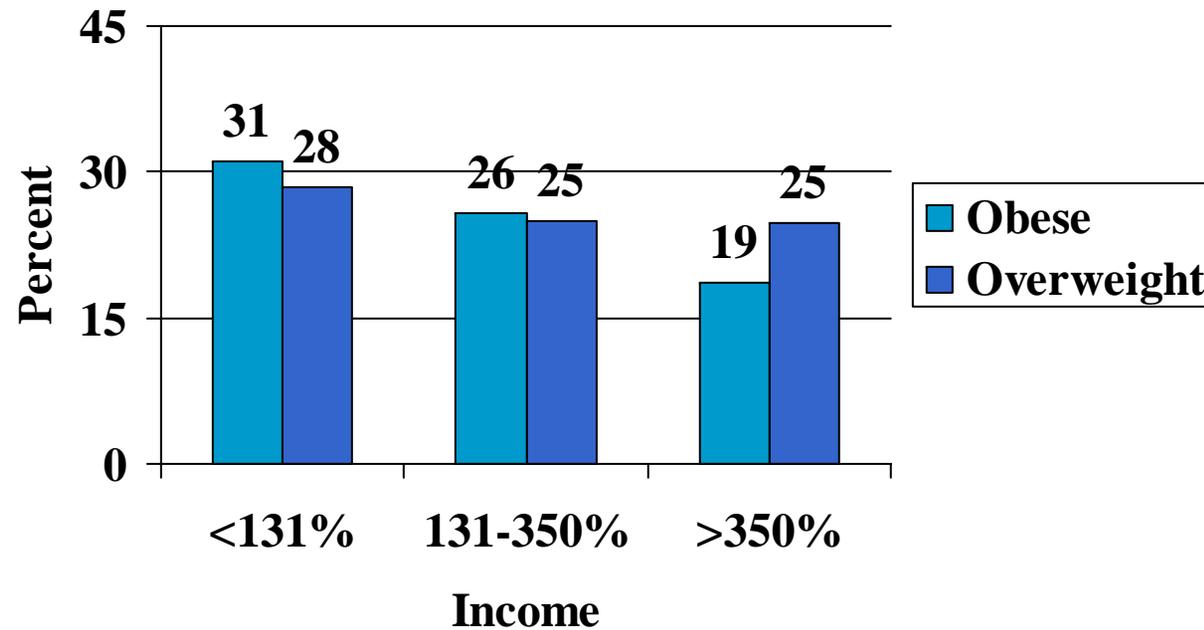
What evidence supports this claim?

- Inverse relationship between income and overweight and obesity

Overweight and obesity declines with income

Income & Obesity: Women

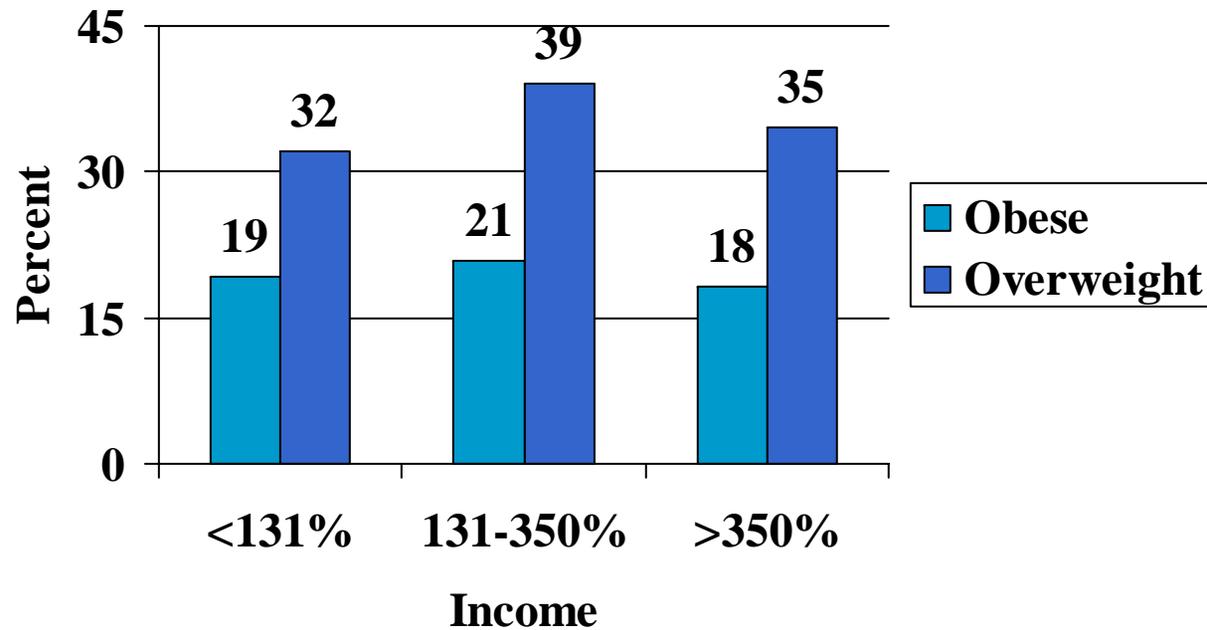
NHANES III



Overweight and obesity declines with income?

Income & Obesity: Men

NHANES III

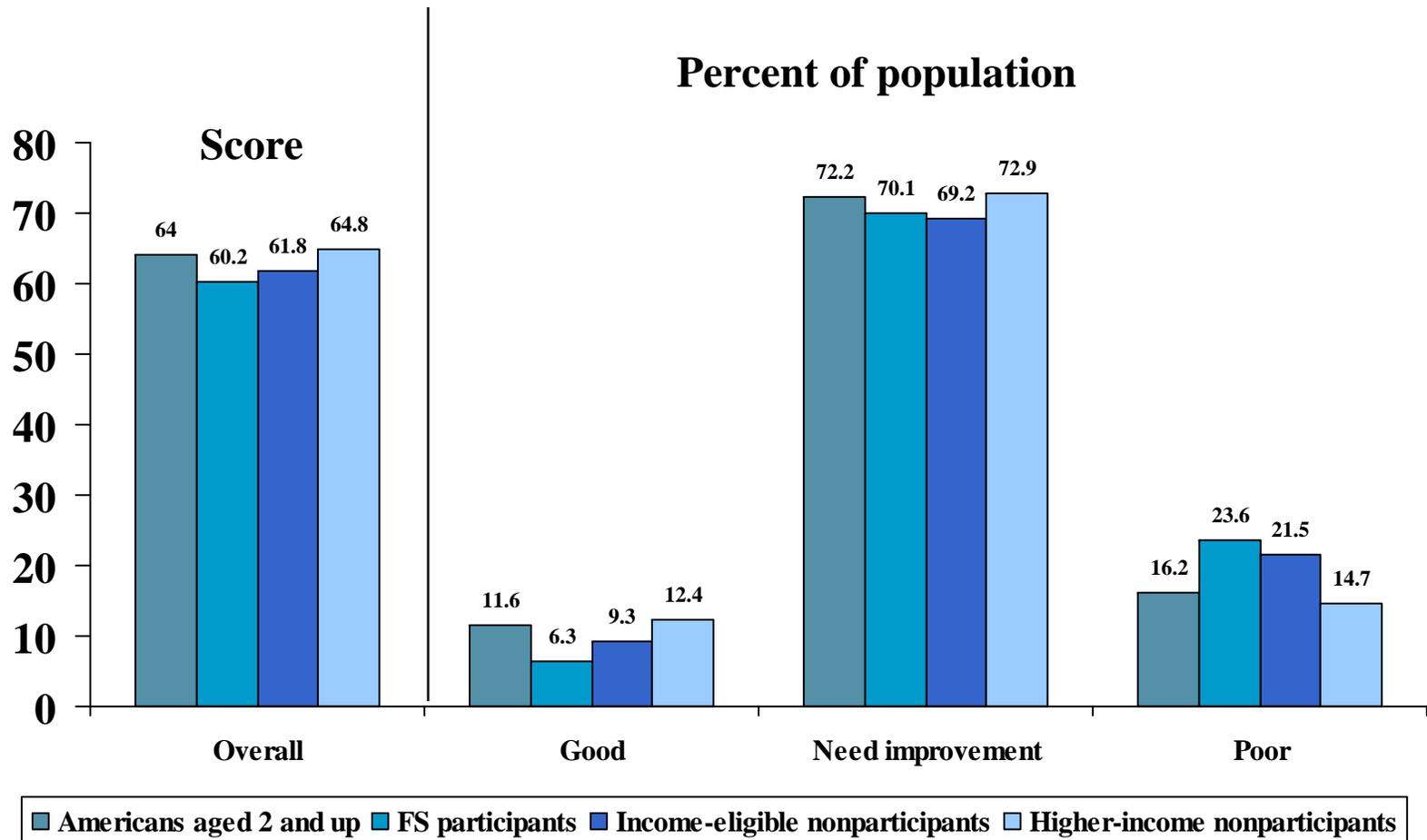




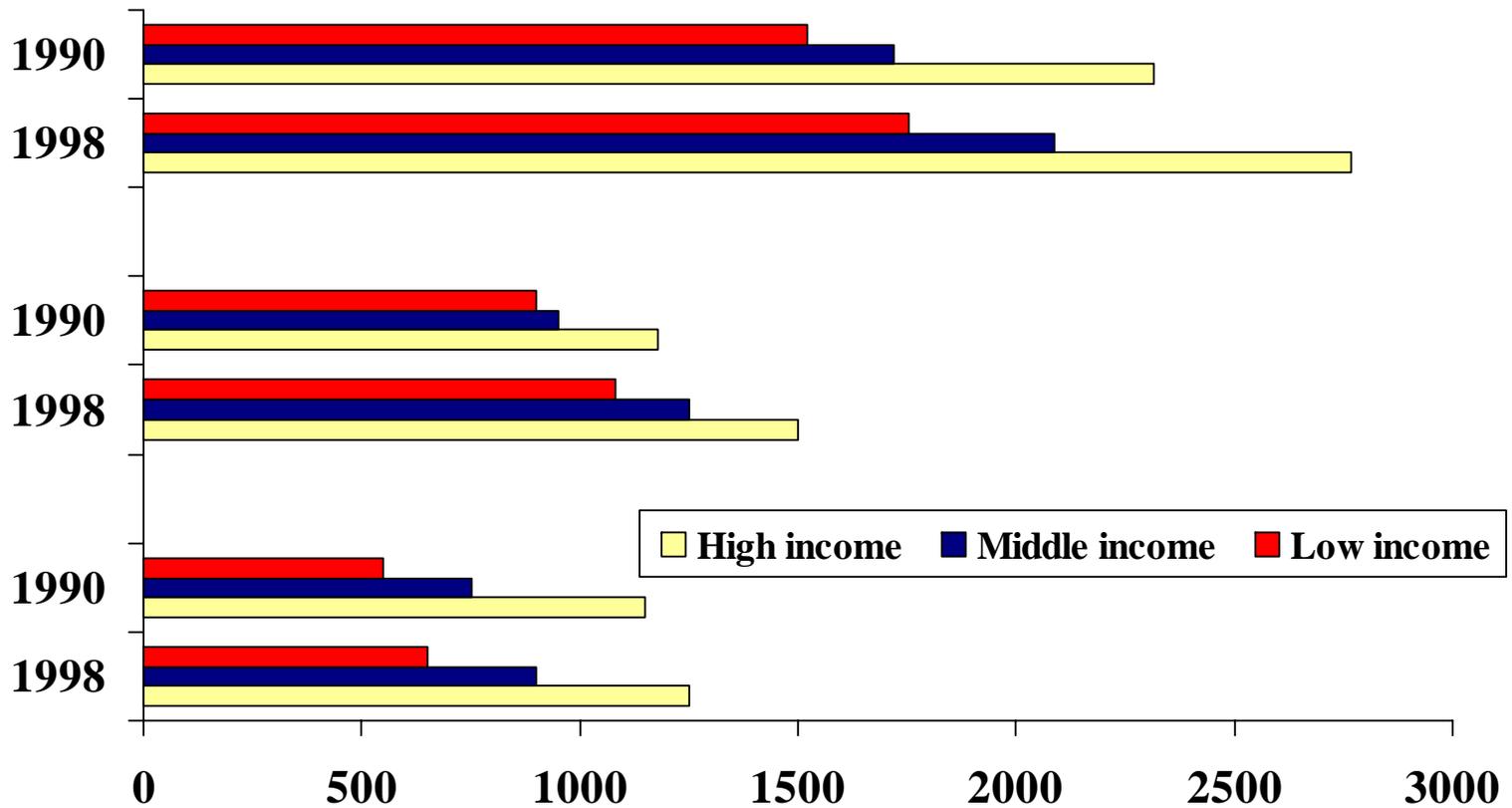
Is a healthy diet too expensive?

- What evidence supports this claim?
 - Inverse relationship between income and overweight and obesity – **not necessarily**
 - Diet quality rises with income

Healthy Eating Index scores rise with income



Per capita food spending increases with income





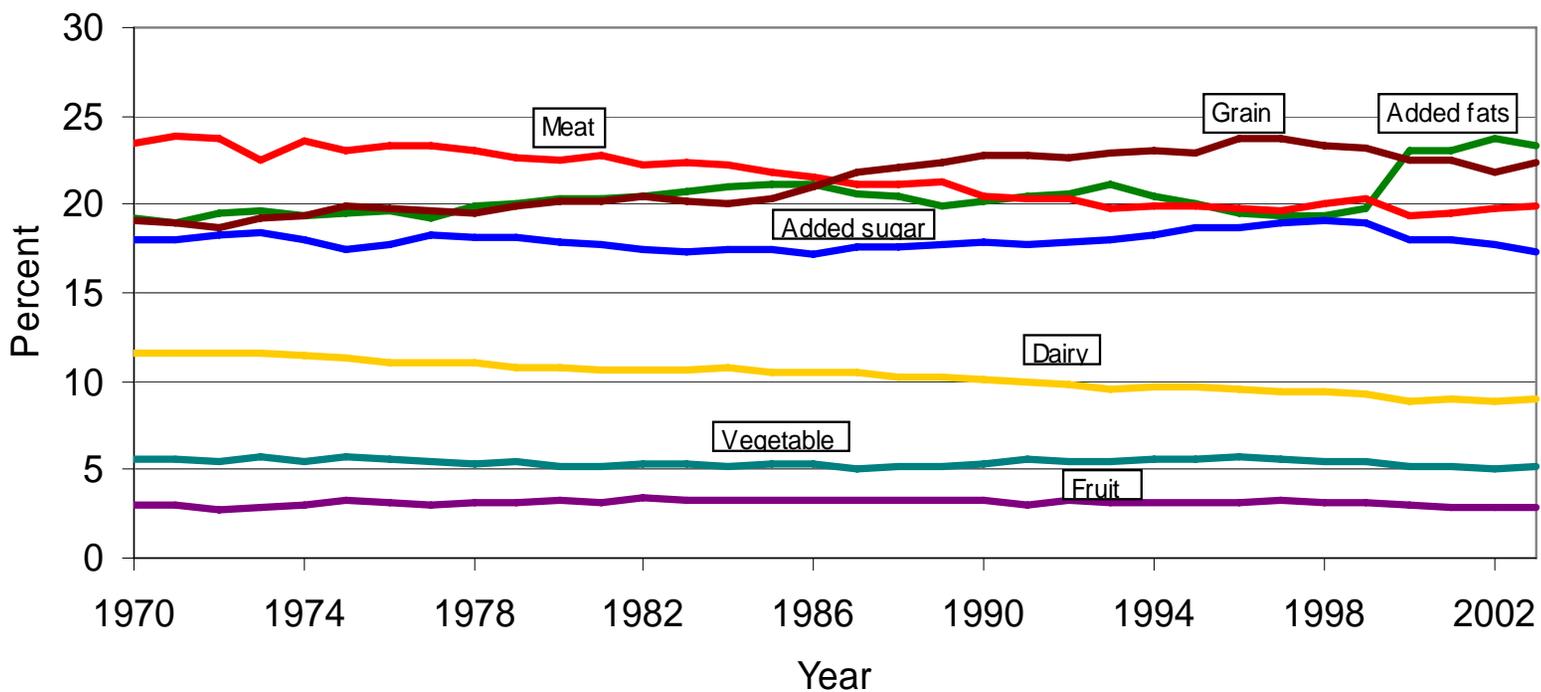
Is a healthy diet too expensive?

What evidence supports this claim?

- Inverse relationship between income and overweight and obesity – **not always**
- Diet quality rises with income – **but not by much**
- Calorie-dense foods are less expensive (per calorie) than other foods

Largest calorie gain from added fats

Percent of total daily per capita calories from the U.S. food supply
(adjusted for spoilage and other waste)





Is a healthy diet too expensive?

- What evidence supports this claim?
 - Inverse relationship between income and overweight and obesity – **not always**
 - Healthy Eating Index rises with income – **maybe not by much**
 - Calorie-dense foods are less expensive (per calorie) than other foods – **irrelevant**
 - Time costs are high for healthy diets - **maybe**



Is a healthy diet too expensive?

- What evidence refutes this claim?
 - Food assistance programs
 - Healthy diets are not necessarily more expensive than unhealthy ones
 - Income and price elasticities suggest that, at the margin, expense is not the deciding factor
 - Everyone can afford to eat less



Is a healthy diet too expensive?

■ Yes

- Inverse relationship between income and overweight and obesity – **not always**
- Diet quality rises with income – **maybe not by much**
- Calorie-dense foods are less expensive (per calorie) than other foods – **irrelevant**
- Time costs are as or more important than monetary costs

■ No

- Low income households that receive Food Stamps can afford the Thrifty Food Plan
- Healthy diets are not necessarily more expensive than unhealthy ones
- Income and price elasticities suggest that, at the margin, expense is not the deciding factor
- Everyone can afford to eat less



Is healthy food difficult to find – particularly in low-income neighborhoods?

- Evidence supporting this claim
 - Fewer grocery stores in low-income neighborhoods
- Evidence refuting this claim
 - Even low-income households are not restricted to neighborhood grocery stores
 - Growth of ethnic grocery stores
 - Farmers' markets and community food security programs



Is market failure an explanation for poor diets?

- Manufacturers/retailers do not supply what consumers want
- Consumers do not have enough information to make informed choices
- Externality costs

Does not seem to play major role