

# Consumer and Industry Response to Whole Grain Recommendations



Dietary Guidelines  
for Americans  
2005



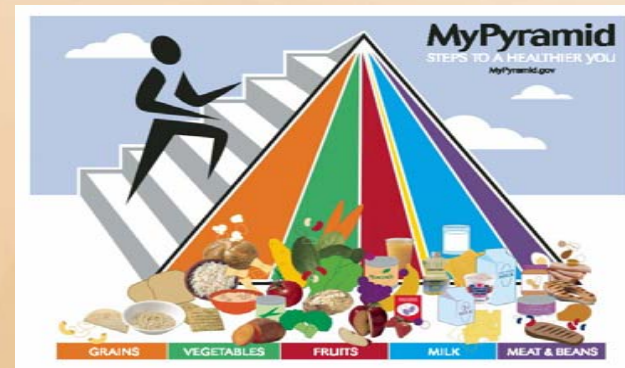
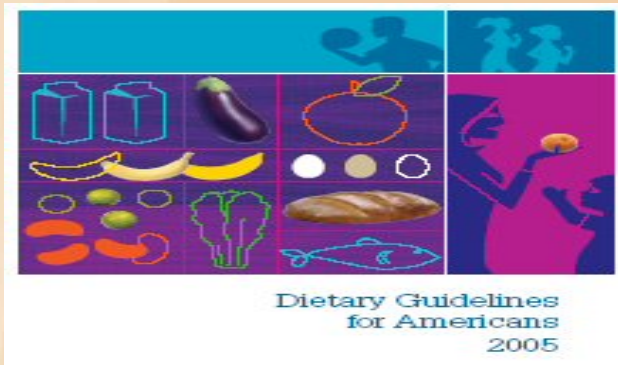
**Lisa Mancino**  
**Economic Research Service**





# 2005 Dietary guidelines

- The United States Department of Agriculture and Department of Health and Human Services make dietary recommendations every 5 years.



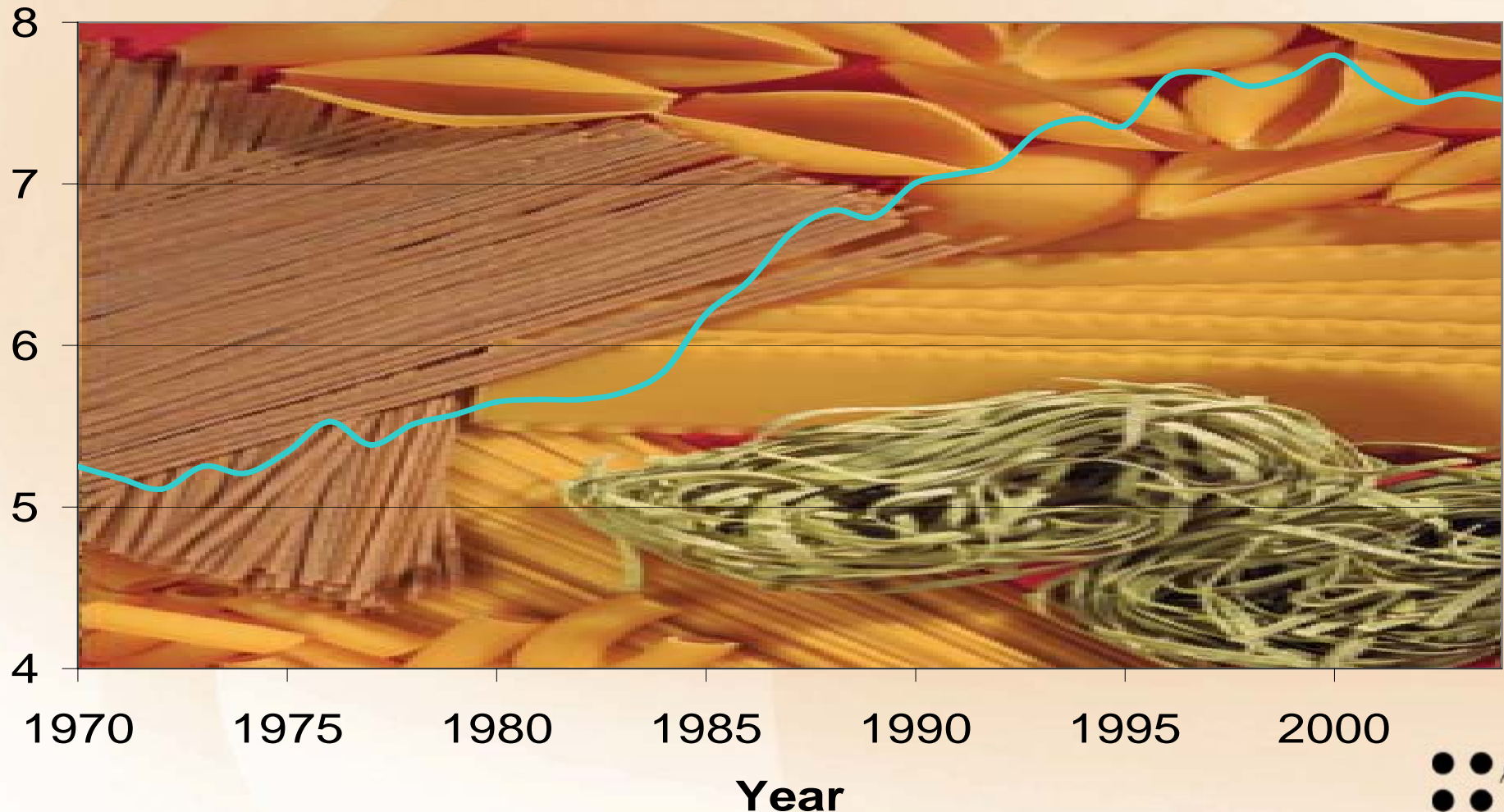
- Specific dietary recommendations for whole grains added in 2005.





# Past choices and grain intake

**Servings (ounces) available daily**



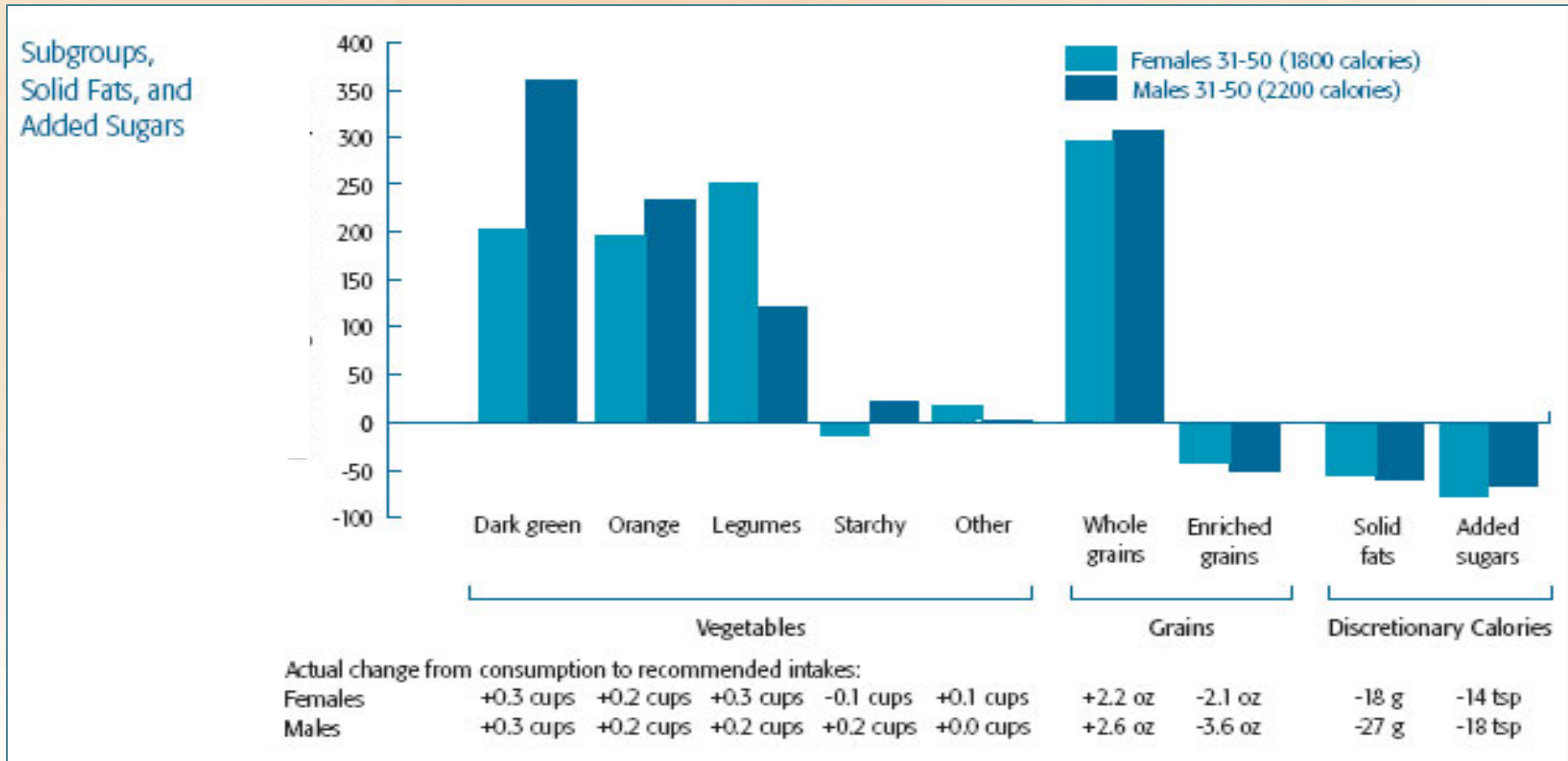
Source: ERS Loss-adjusted food availability data





# 2005 Dietary Guidelines

Percent change from current consumption needed to meet 2005 Guidelines



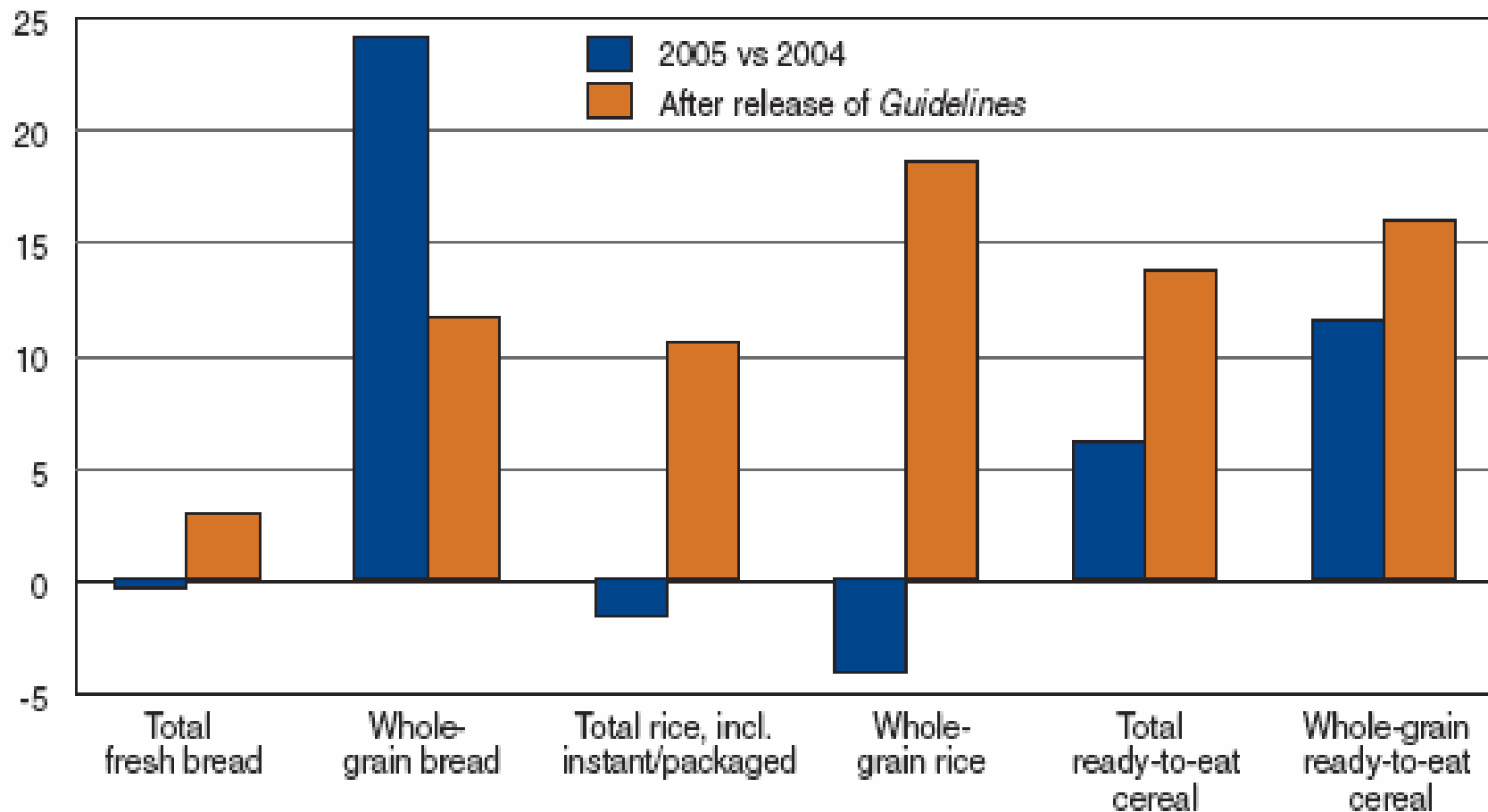
Source: National Health and Nutrition Examination Survey 2001-2002.



# Dietary guidelines- response

## Whole-grain purchases rise following release of new *Dietary Guidelines*

Percent change in pounds purchased

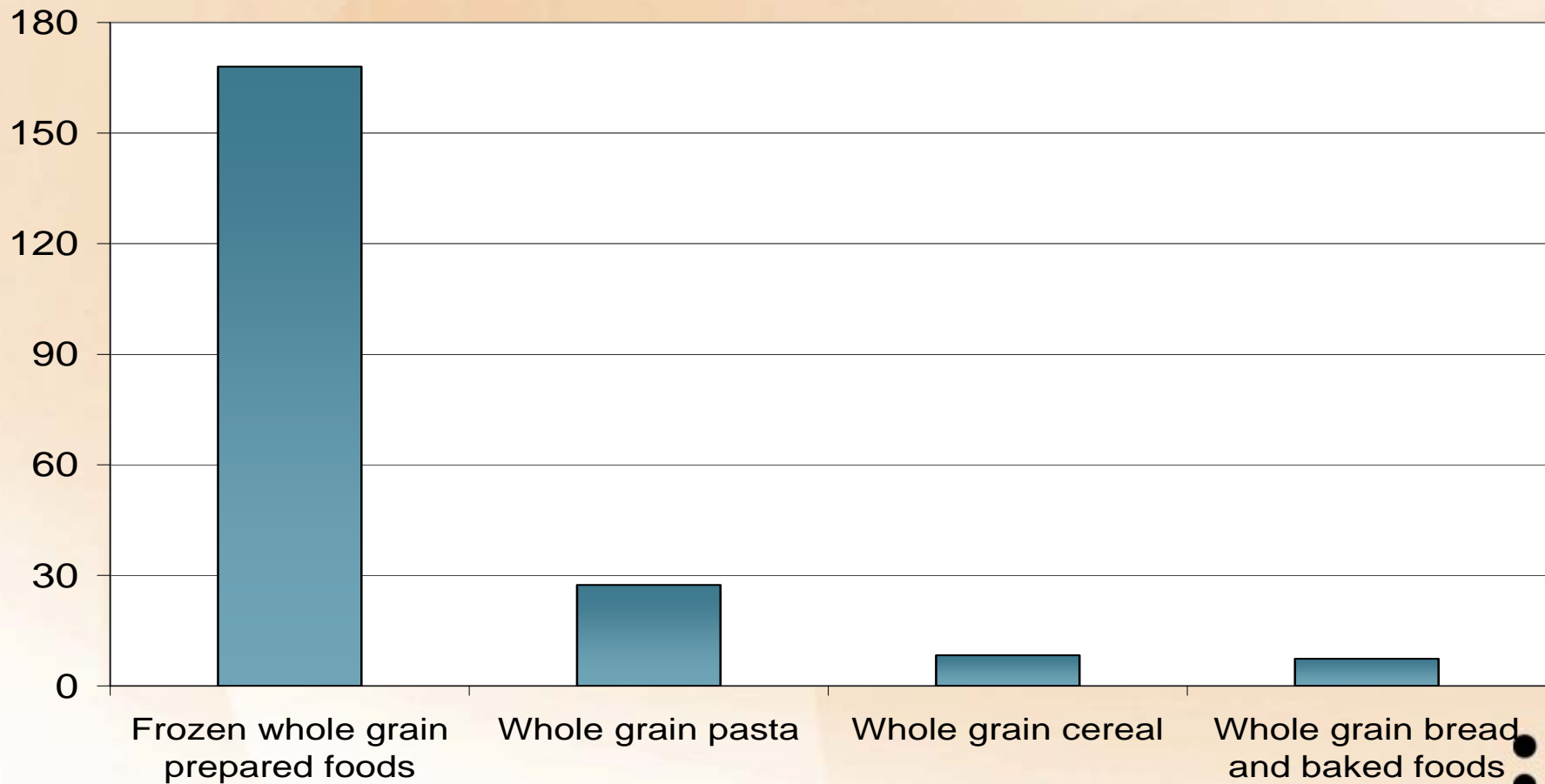


Source: ERS calculations of ACNielsen Scanner Data.

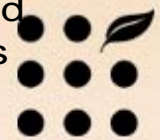


# Dietary guidelines- response

**Percent change in sales from fourth quarter 2004 to first quarter 2005**



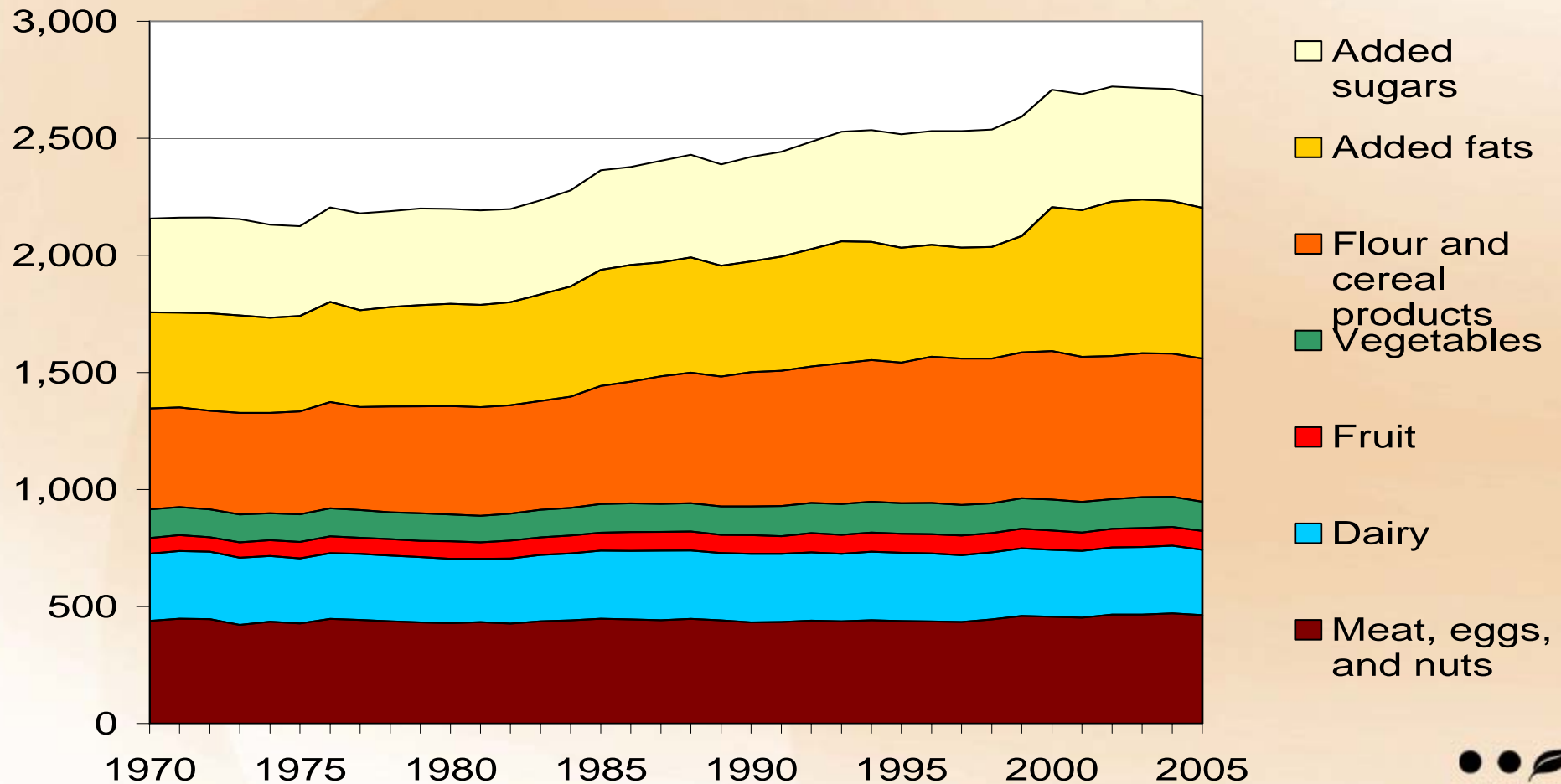
Source: AC Nielsen





# Past choices and guidelines

Average daily per capita calories, adjusted for spoilage and waste



Source: ERS Loss-adjusted food availability data





# Why?

## Strong Scientific Evidence

- High in Fiber:
  - reduced risk of stroke, certain cancers
  - Improved laxation
  - Helps with weight management
- Whole grains also protect against Coronary Heart Disease and Type II Diabetes







# Why?

## Fits well with what we believe

- Sound healthful            whole grains ~ wholesome
- In all cultures, people eat grains—only recently have they been refined
- Waning popularity of low-carb diets
- Focus is on a food, not a nutrient





# Why?

## **Low barriers to consumption (easy to do)**

- Substitutions rather than sacrifices
- Drastic changes not required-familiar foods
  - Many products were reformulated to look the same
  - People may not have even been aware they were eating whole grains
  - Can still enjoy variety and convenience

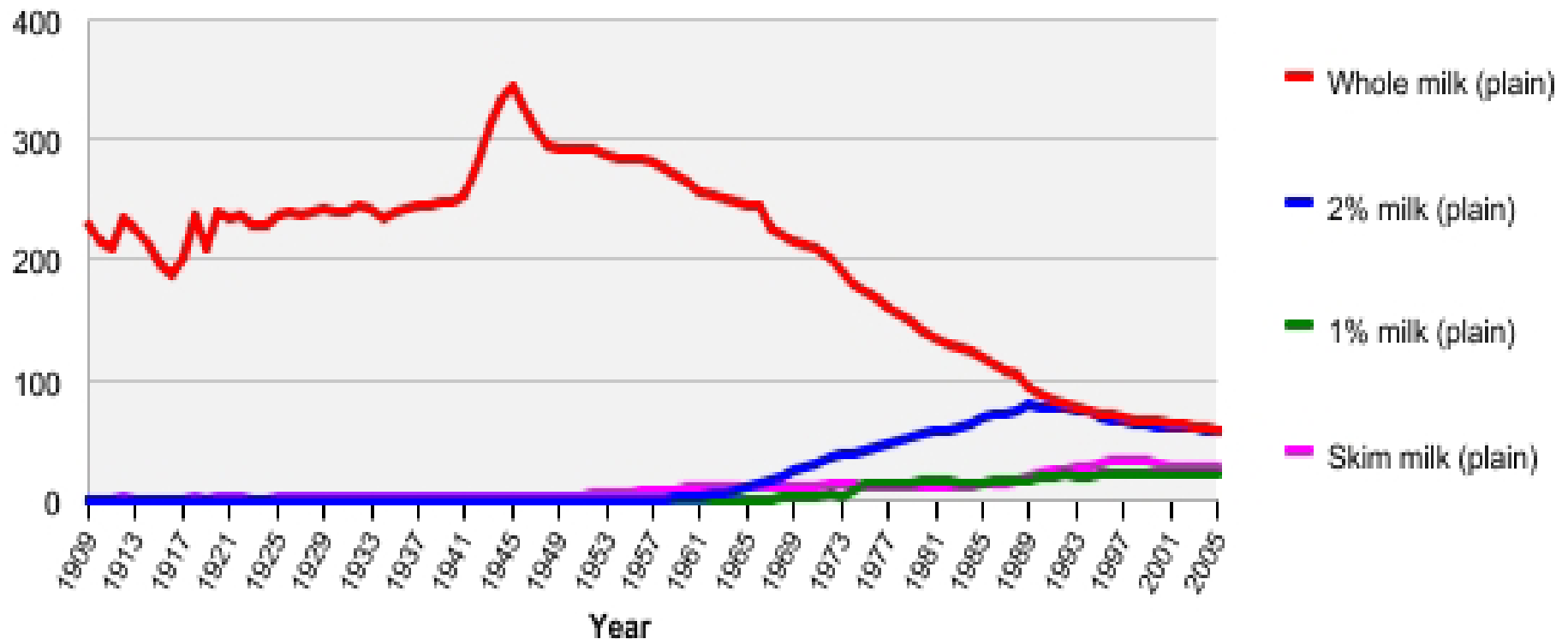




# Past substitutions

## U.S. per capita food availability *Dairy (individual)*

Pounds per capita per year



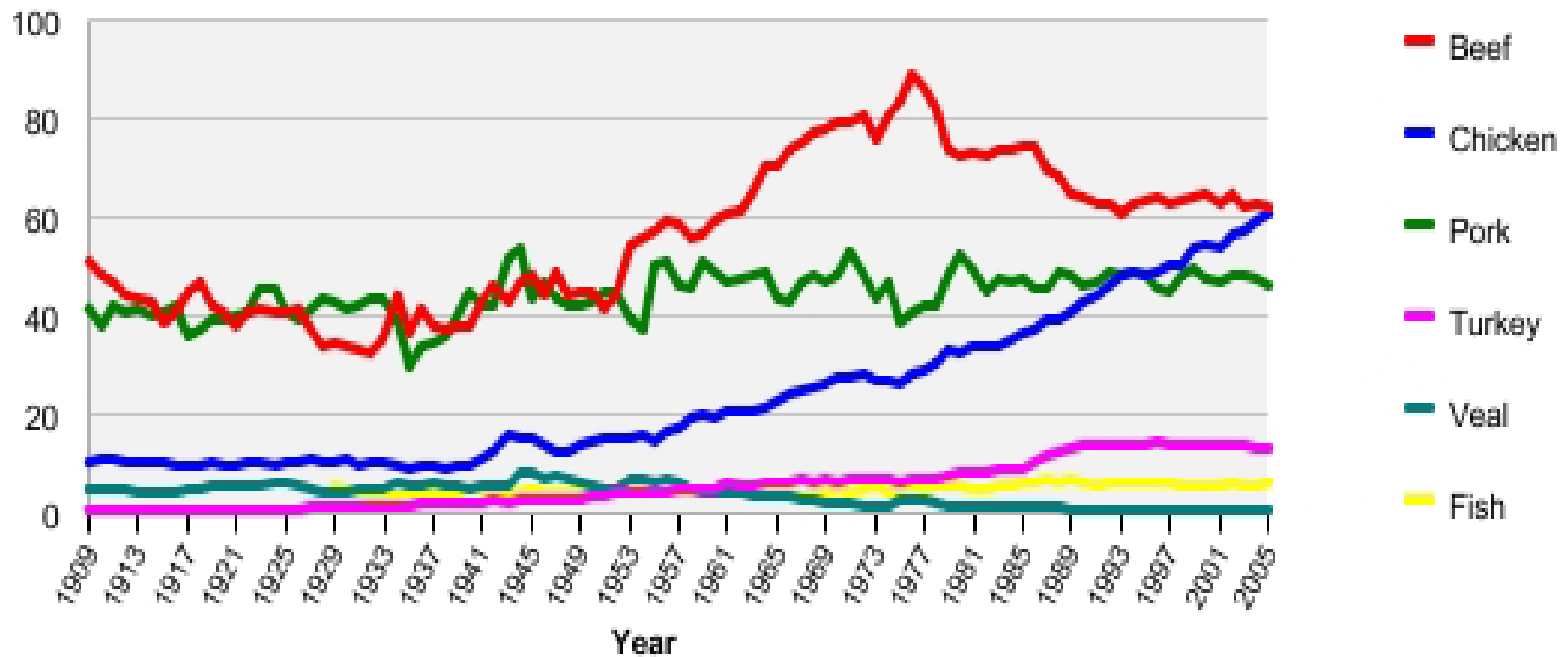
Source: ERS Food availability data



# Past substitutions

## U.S. per capita food availability *Meat (individual)*

Boneless, trimmed (edible) weight, pounds per capita per year



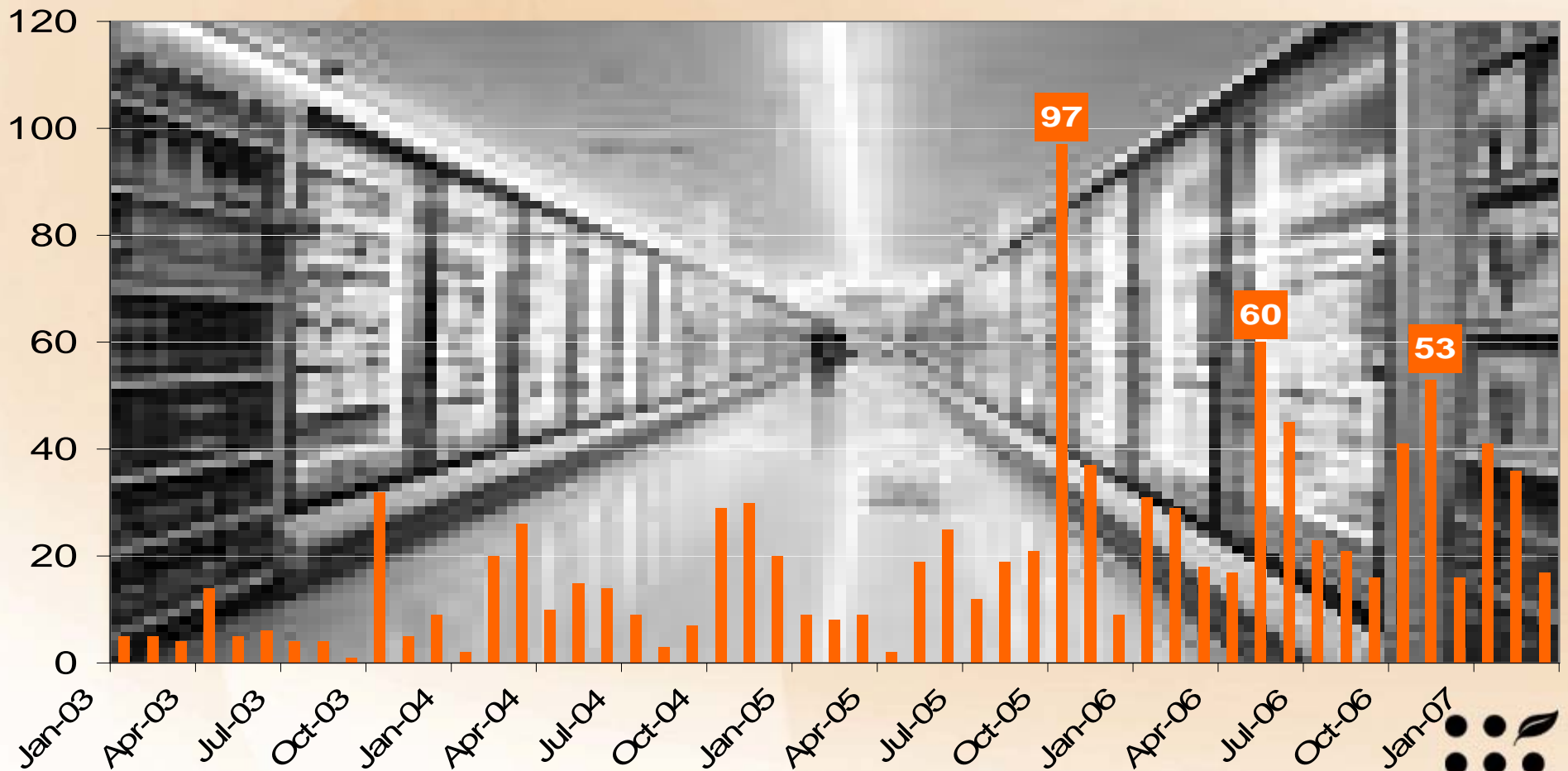
Source: ERS Food availability data



# Variety of new whole grain products

## Introduction of new whole grain foods up after dietary guidelines

Reported introductions



Source: Productscan database



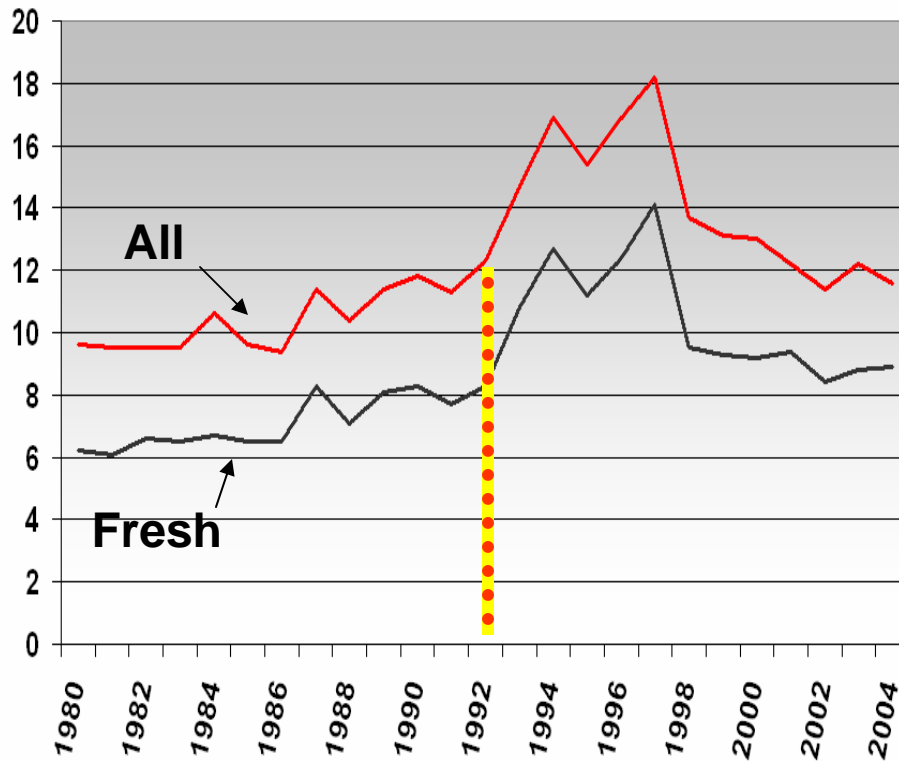


# New products and past changes

**U.S. per capita food consumption**  
*Carrots*

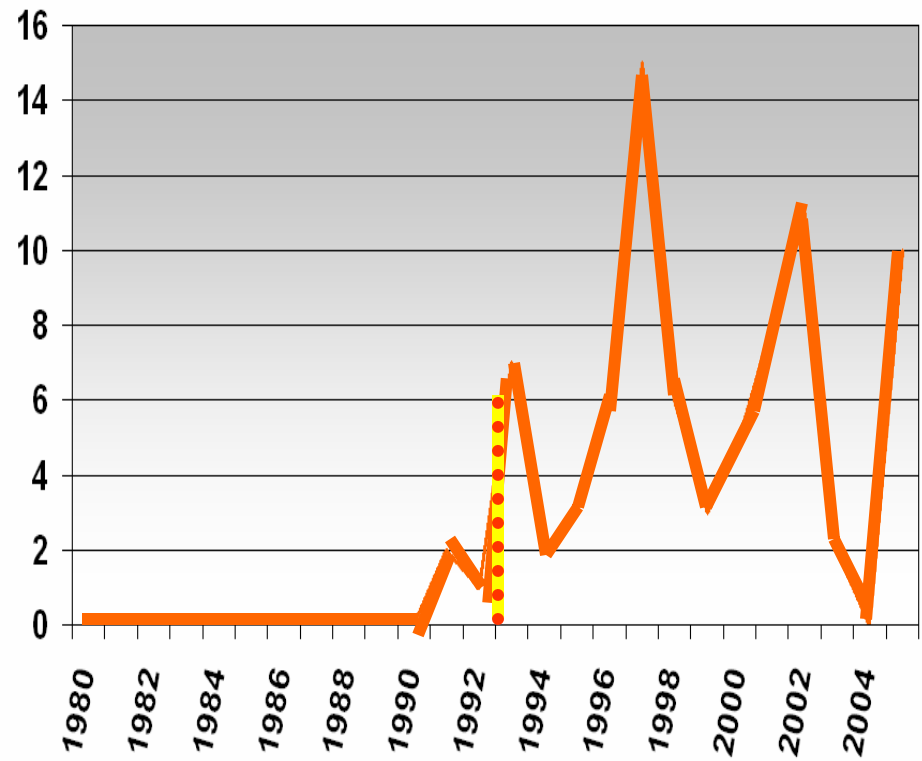
**U.S. new product introductions**  
*Baby Carrots*

**Farm weight, pounds per capita per year**



Source: ERS Food availability data

**Reported Introductions**



Source: Productscan database

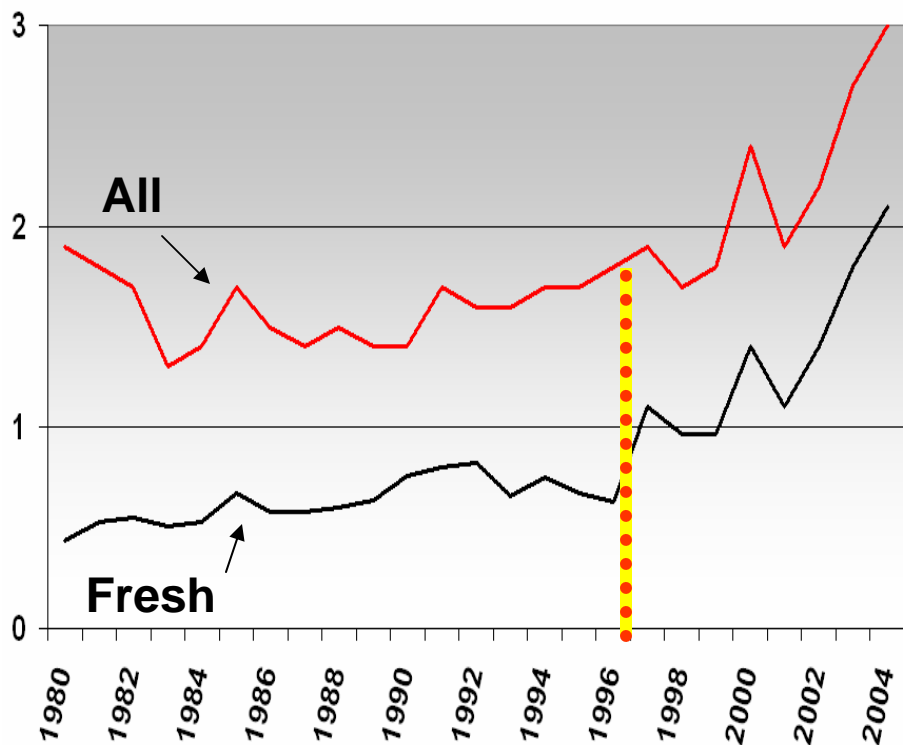


# New products and past changes

**U.S. per capita food consumption**  
*Spinach*

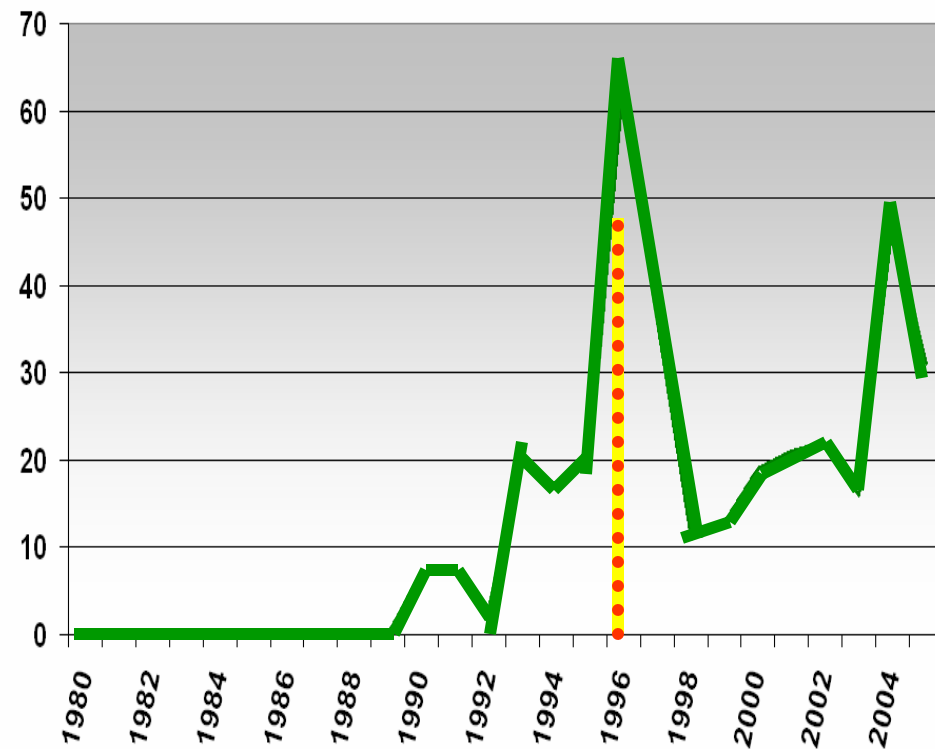
**U.S. new product introductions**  
*Pre-washed spinach*

**Farm weight, pounds per capita per year**



Source: ERS Food availability data

**Reported Introductions**



Source: Productscan database



# Familiar and convenient products

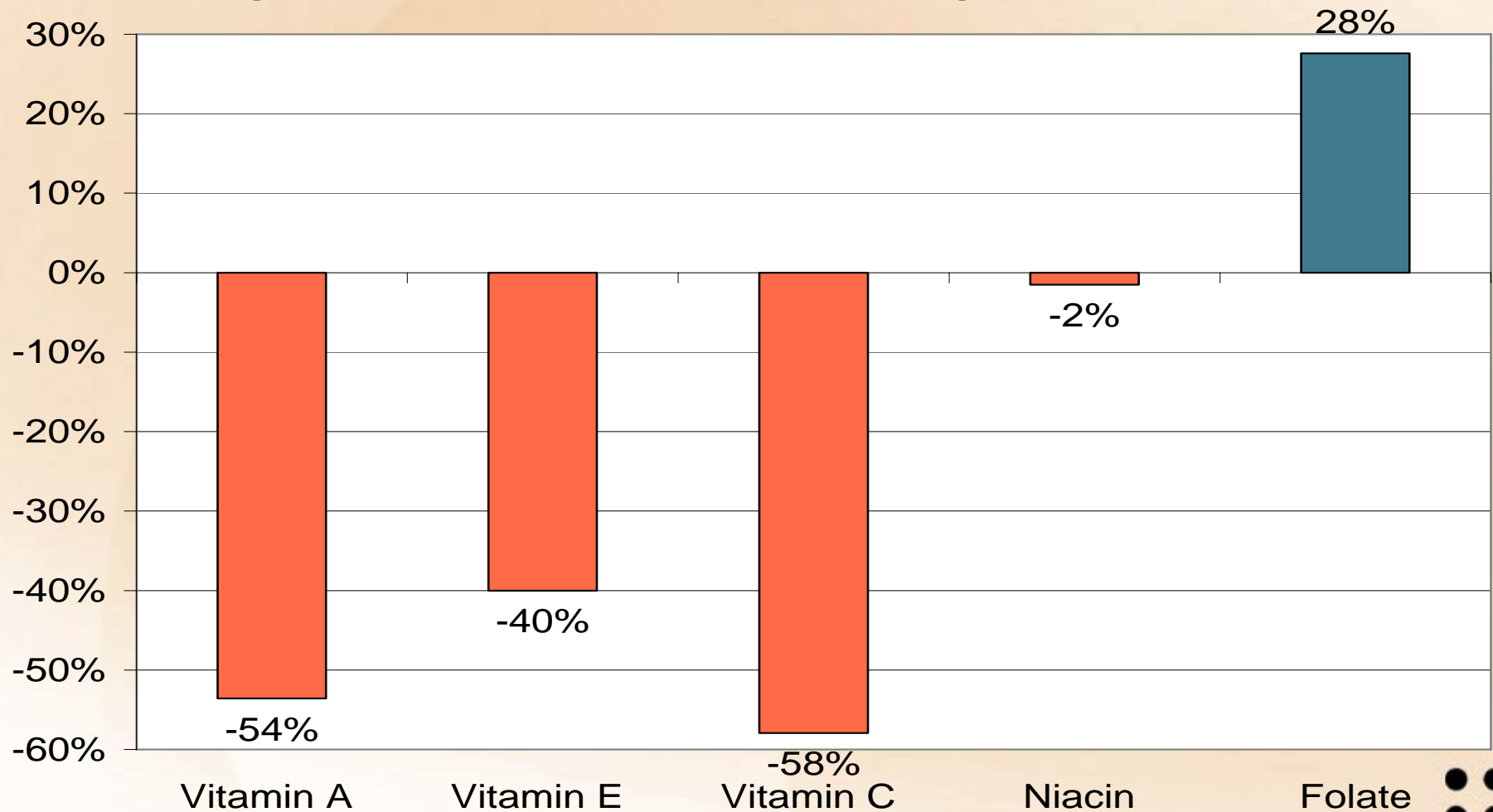






# Product changes and dietary change

Percent change in nutrient content per 1 oz whole-grains, SR11 to SR16-1



Source: CNPP calculations of NHANES data





# Why so many new products?

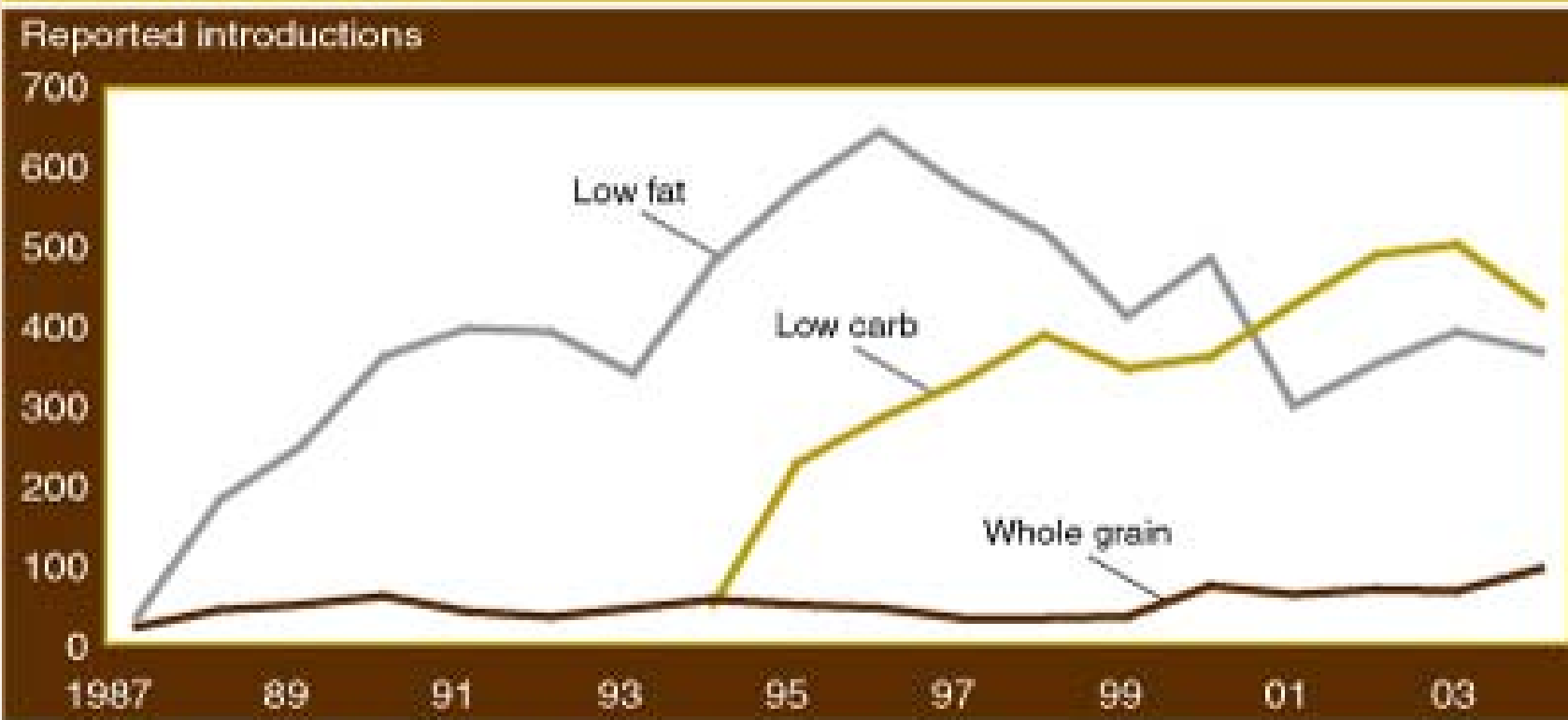
## Why were manufacturers willing to make changes?

- **Better knowledge of effect of dietary trends**
- **Better positioned to anticipate and accommodate changes**
- **How much modification in suppliers, processors or recipes was required?**





# Manufacturers respond to trends



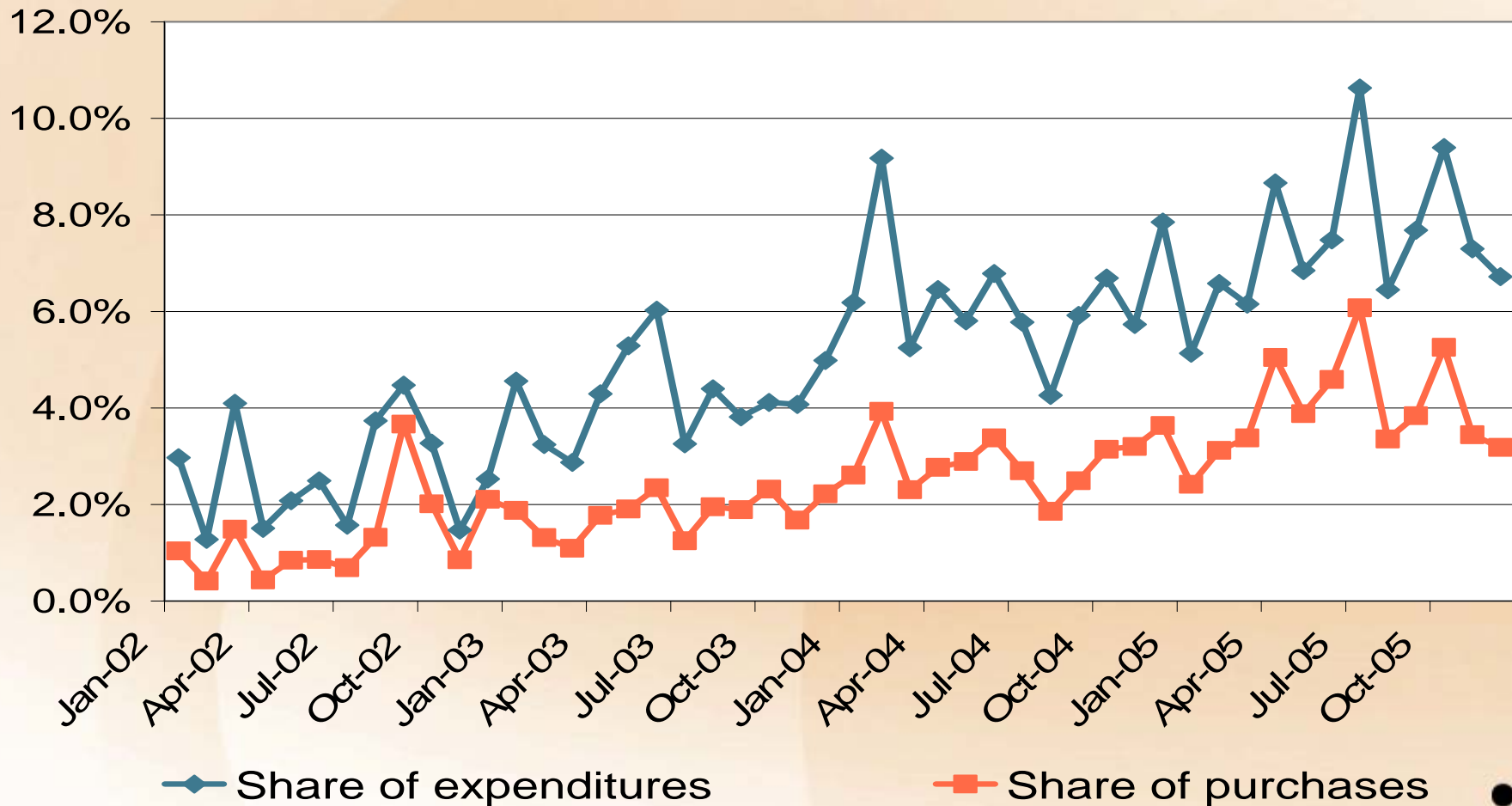
Source: DataMonitor, Productscan database.





# Upward trend before guidelines

Change in purchase of whole grain spaghetti relative to all spaghetti, 2002-2005



Source: ERS calculations of AC Nielsen data

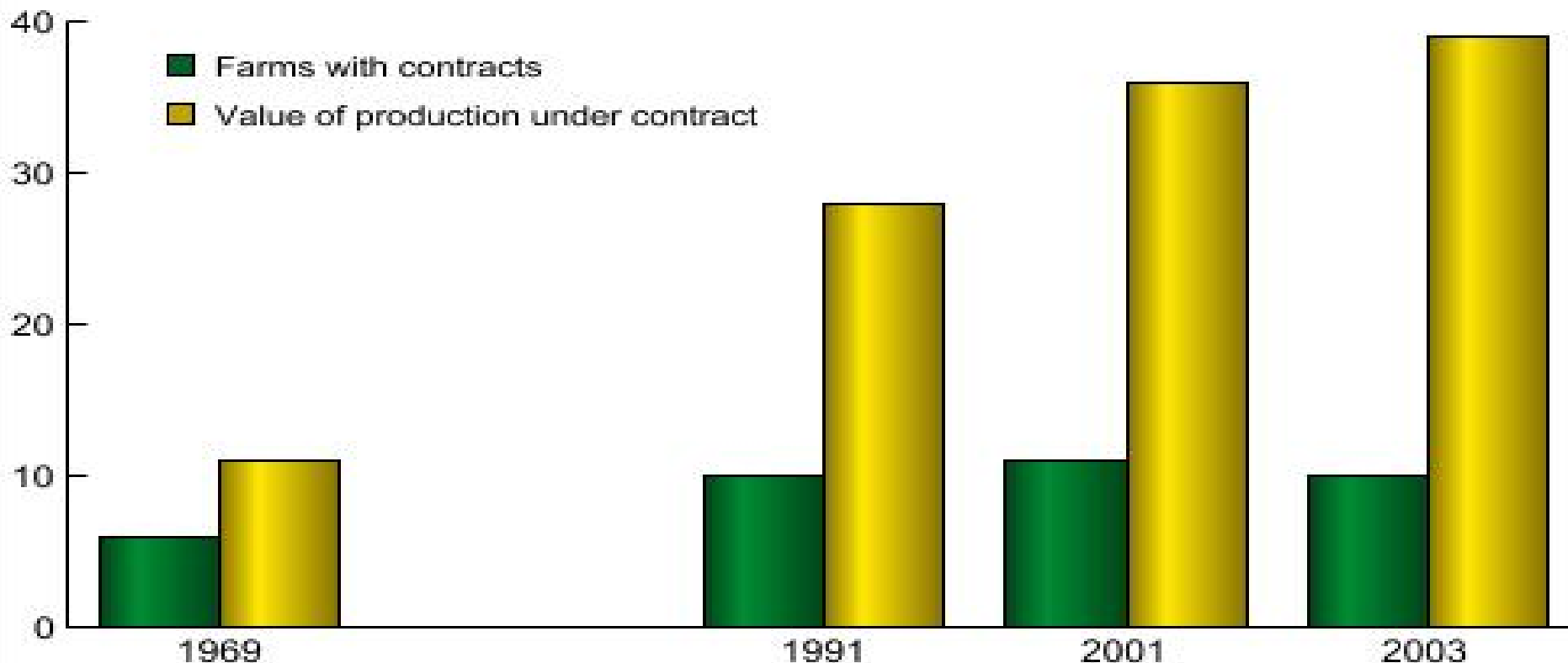




# Growers and processors respond too

**Incidence and share of production under contract, 1969-2003**

Percent



Note: Data for 1969 are drawn from the Census of Agriculture. Data for 1991 are drawn from the predecessor to ARMS, the Farm Costs and Returns Survey. Data for 2001 and 2003 are drawn from USDA's annual Agricultural Resource Management Survey (ARMS).



# Seems good, but....

**How do the guidelines interact with other policies?**

**No Standard definition of 'whole grain'**

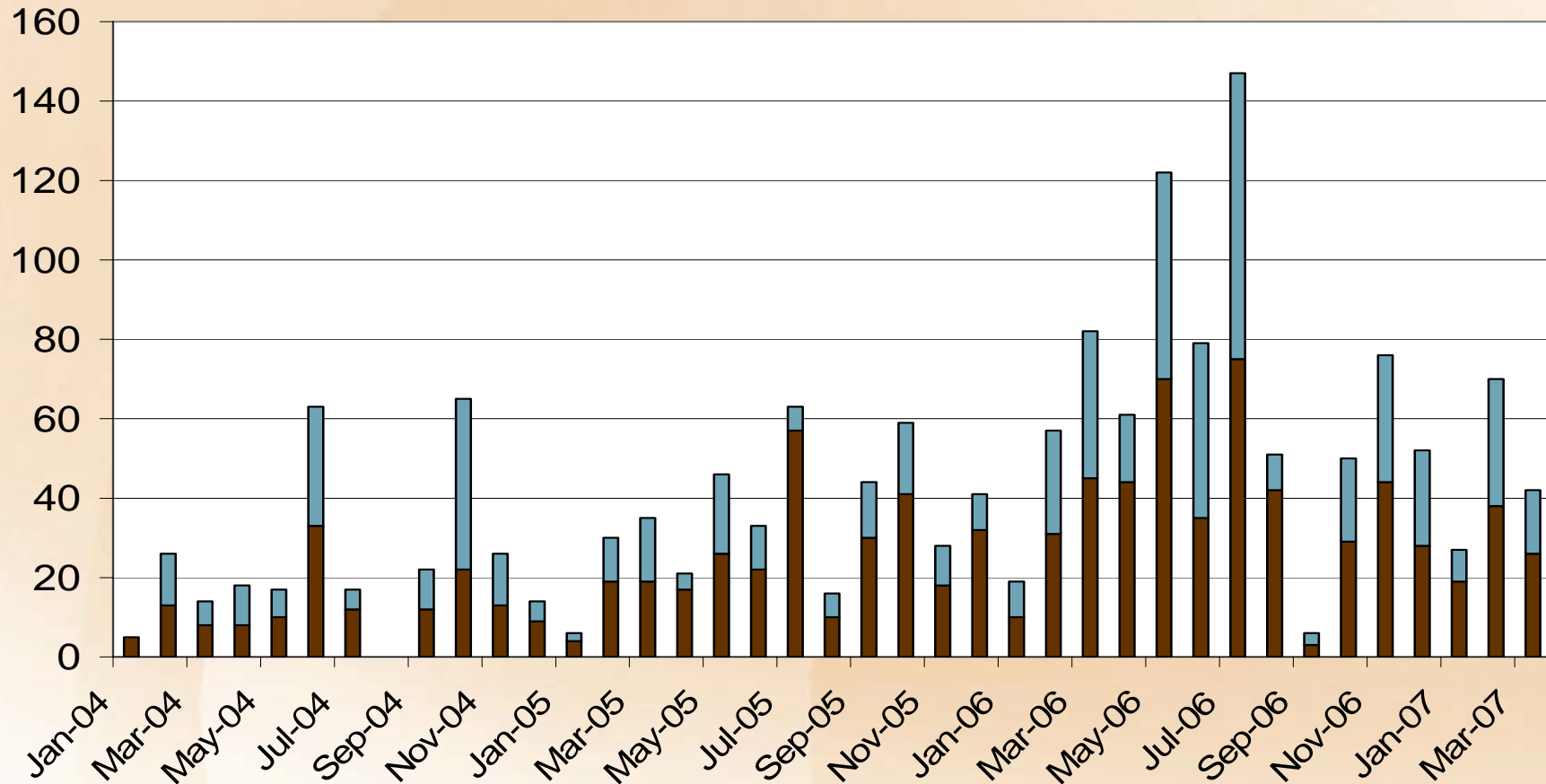
**People may not be fully aware what is or is not a 'whole grain' food**





# Just a whole lot of confusion?

Reported introductions



■ "Whole grain" with no whole ingredient ■ Multigrain, stoneground or 100% wheat

Source: Productscan database





## Seems good, but....

### **Are people eating more healthfully?**

- Possible halo effects
- $\frac{1}{2}$  of all intake? Substitute whole grains for refined grains or maybe just double current intake
- Whole-grain reformulations may require more sugar, salt or fat to be palatable

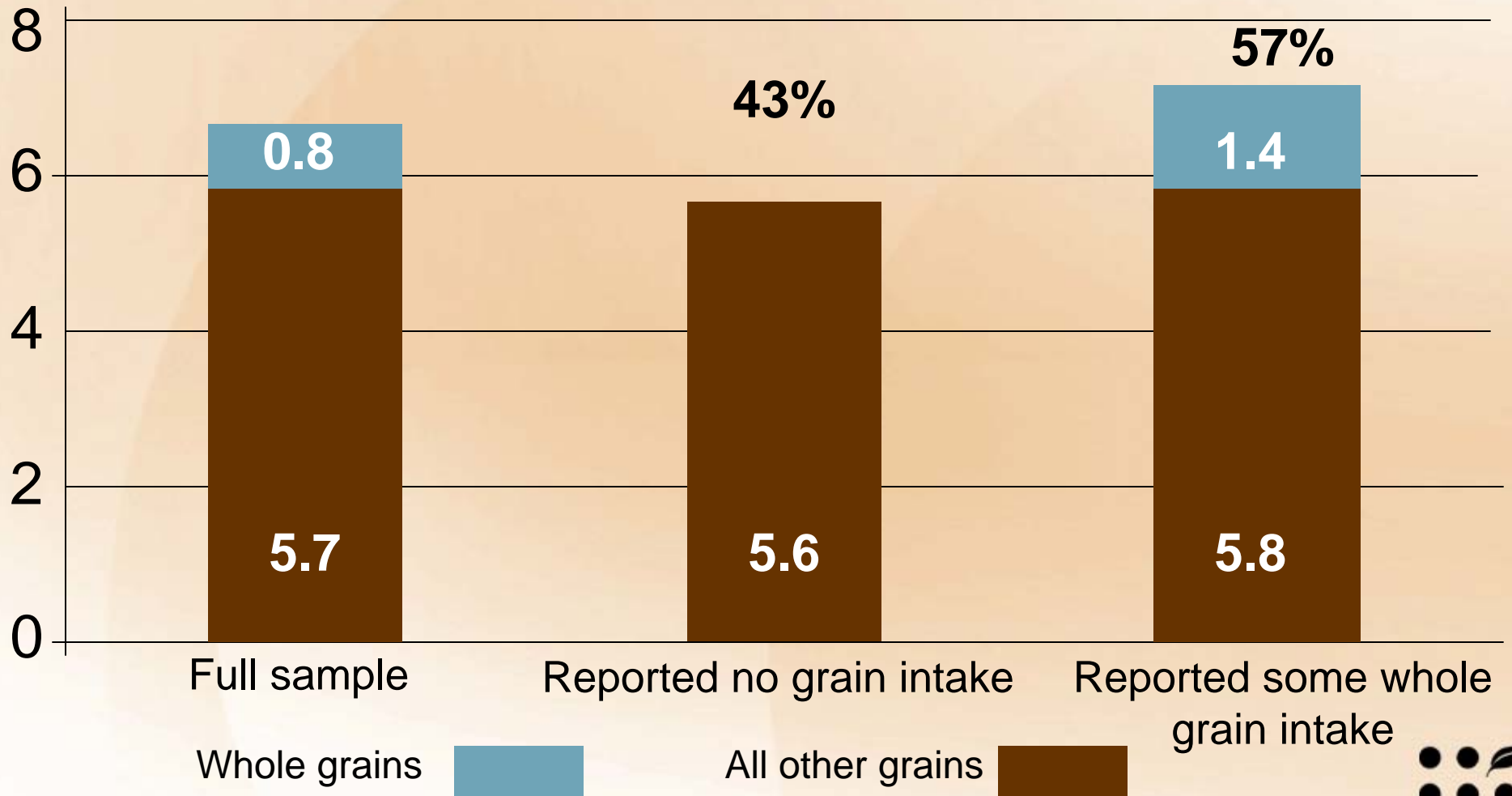






# Just a whole lot more food?

Average grain servings (ounces) per day



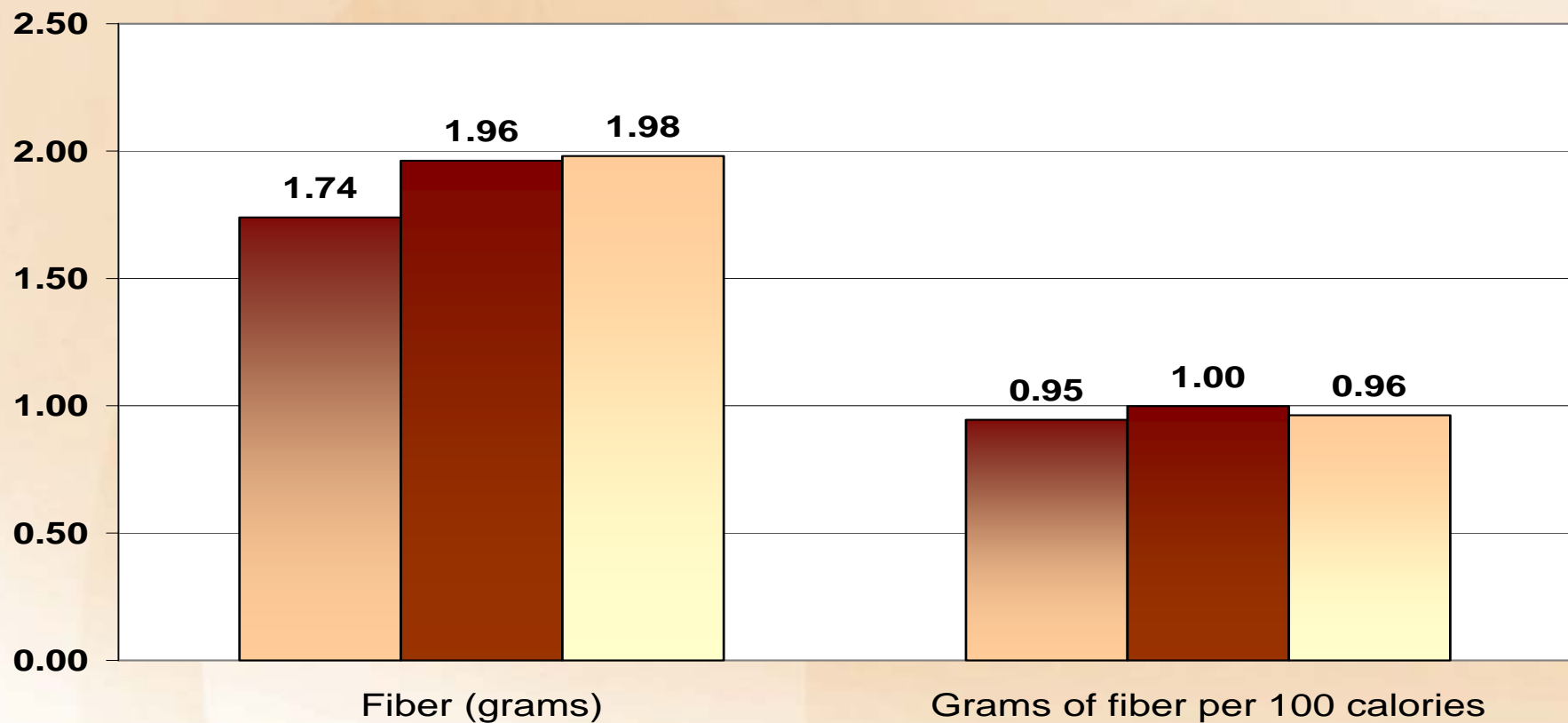
Source: ERS calculations of 1999-2002 NHANES data





# Just a whole lot more food?

## Change in fiber content of grain based foods, 1999-2004 NHANES



■ NHANES 99-00

■ NHANES 01-02

□ NHANES 03-04

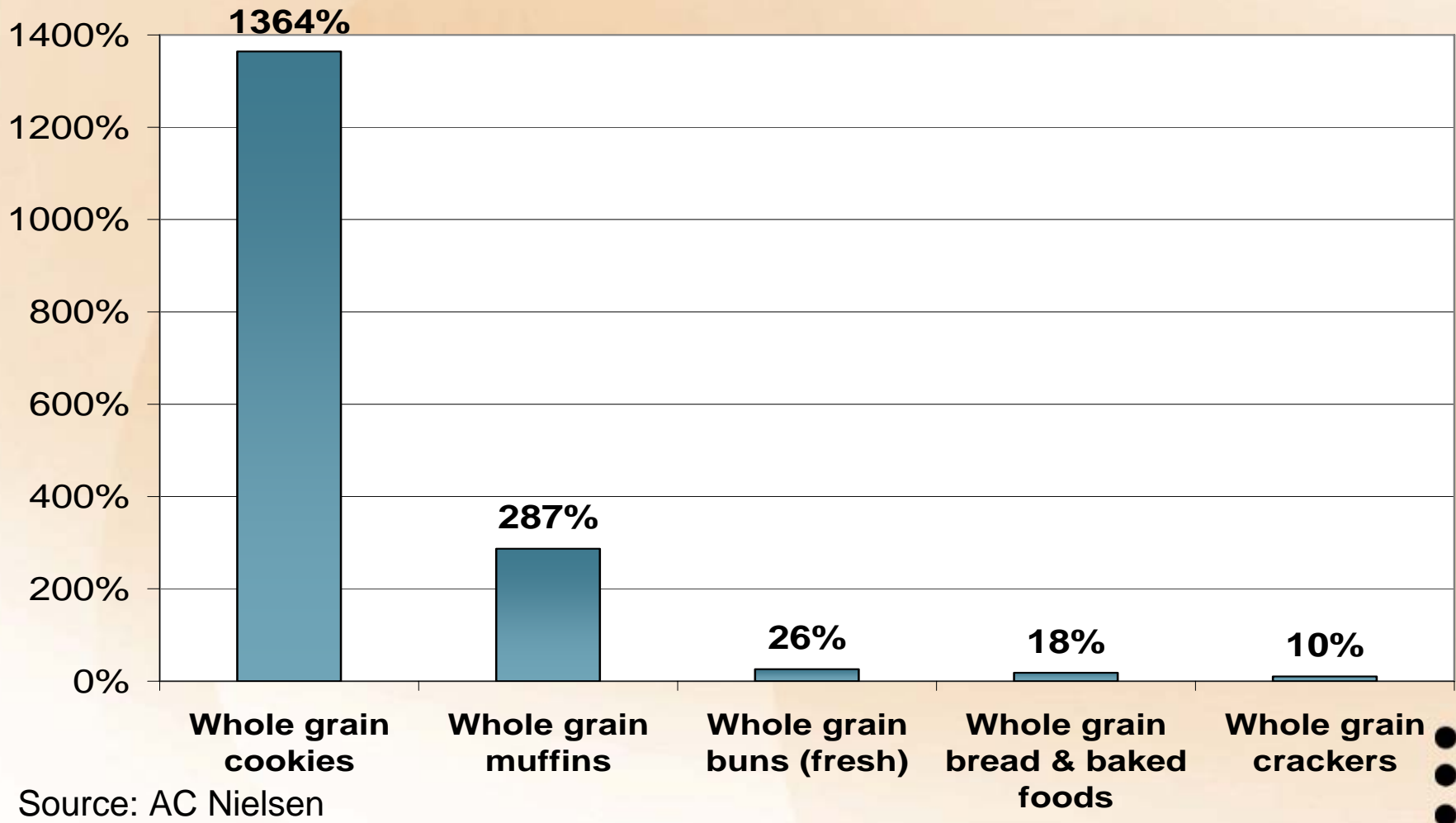
Source: ERS calculations of NHANES data





# Whole grain junk food?

Percent change in sales from 2004 to 2005



Source: AC Nielsen





# Seems good, but....

**How do the guidelines interact with other federal policies?**

**No labeling requirements on food away from home**

**May not matter--no standard definition for foods at home**

**Many restaurants offer some whole-grain menu items**

**Not as much of a credence good as nutrients**





## Seems good, but....

### **How do whole grain recommendations affect producers?**

If we meet 2005 Dietary Guidelines-

Consumers would reduce grain intake by 27%

US wheat harvest would drop by 5.6 million acres per year

(Buzby, Wells, and Vocke-2006)

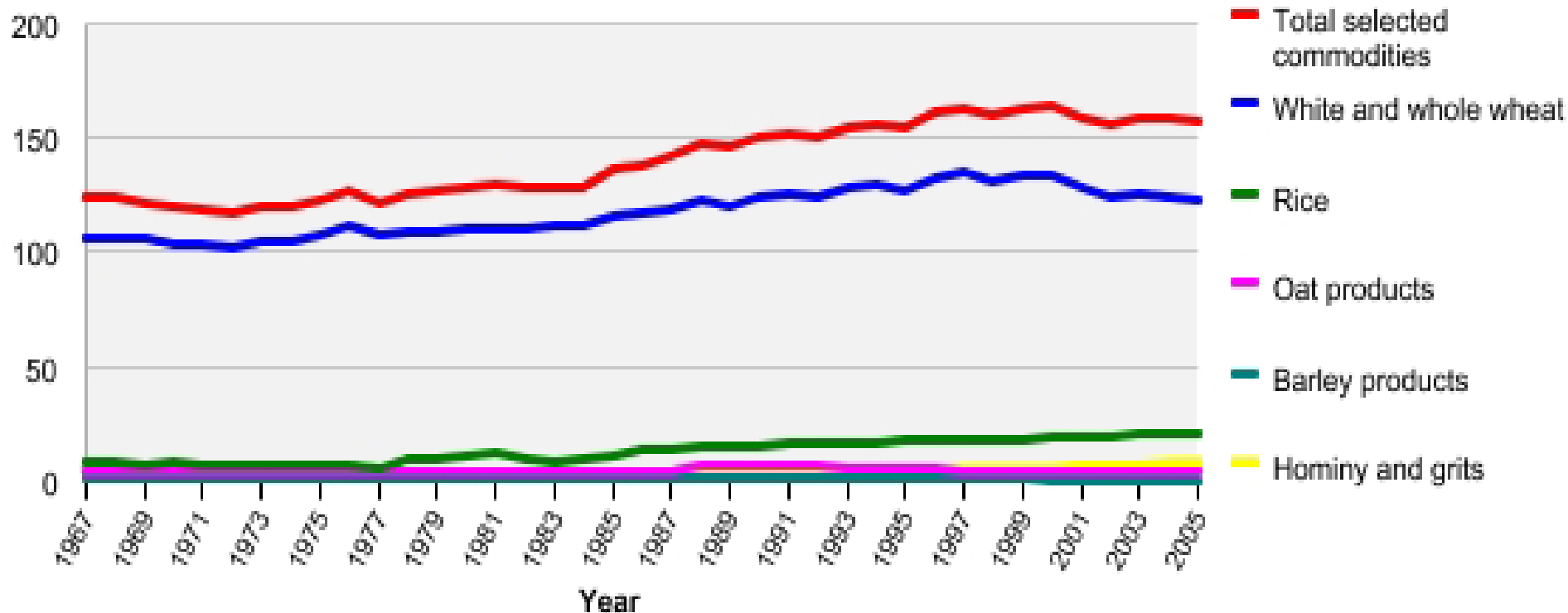




# Wheat makes up bulk of our grain intake

U.S. per capita food availability  
*Grains (individual)*

Pounds per capita per year

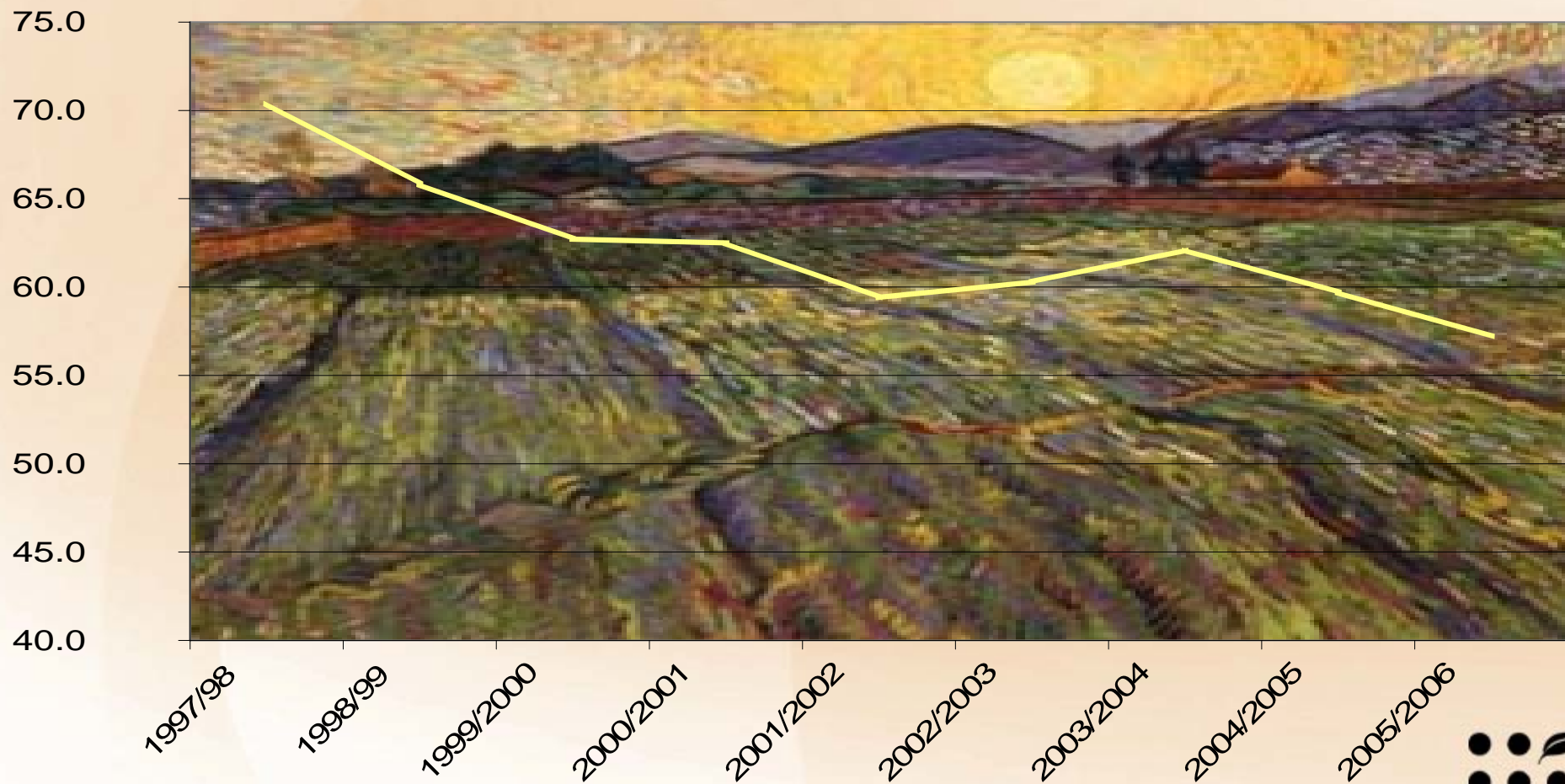


Source: ERS Food availability data



# Wheat acreage trending downward

Planted acreage (Million acres)



Source: *Wheat Outlook*, ERS

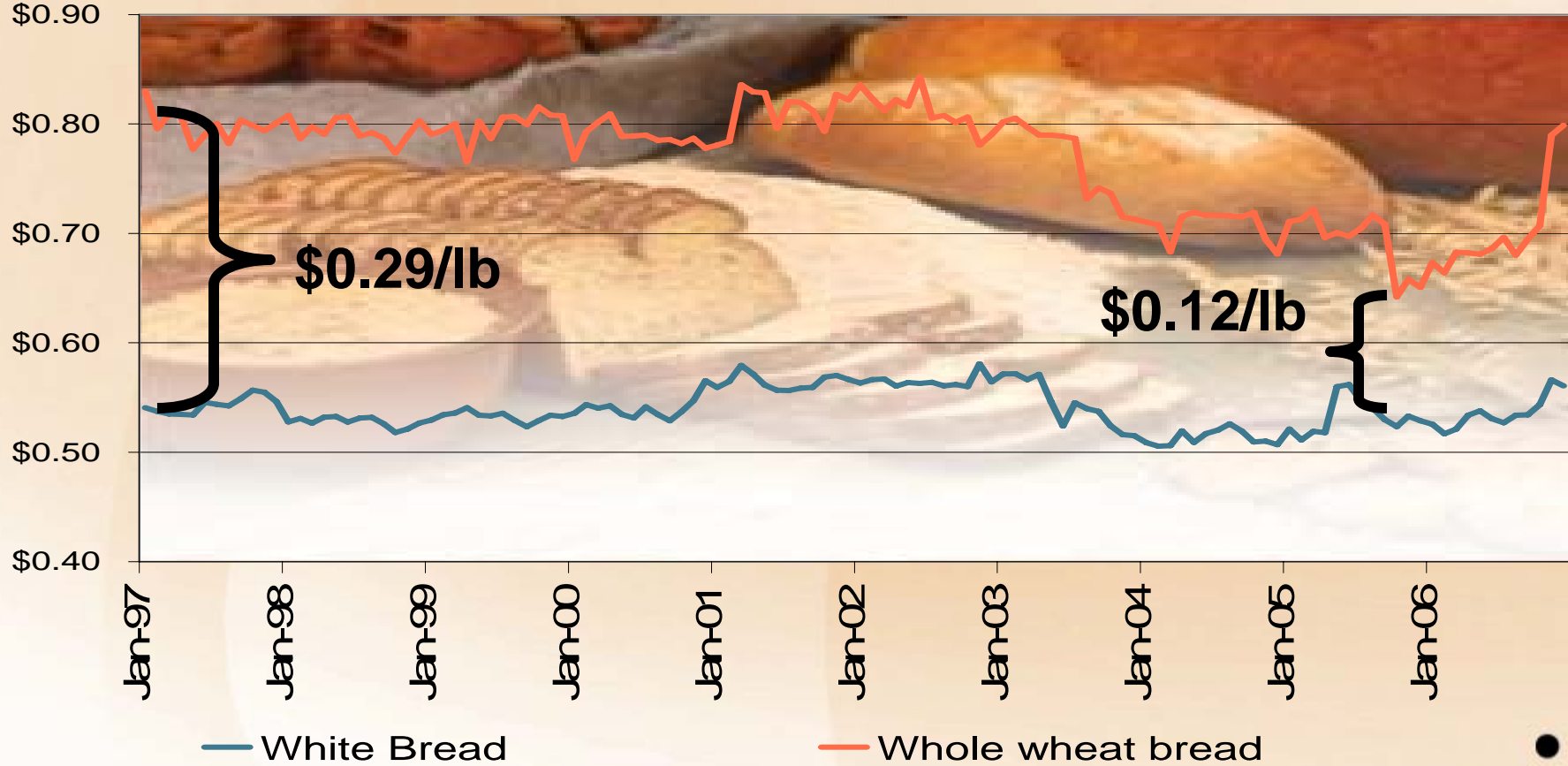




# Price impacts?

## Price difference between whole wheat and nonwhole wheat bread, 1997-2006

Price per pound



Source: ERS calculations of CPI data

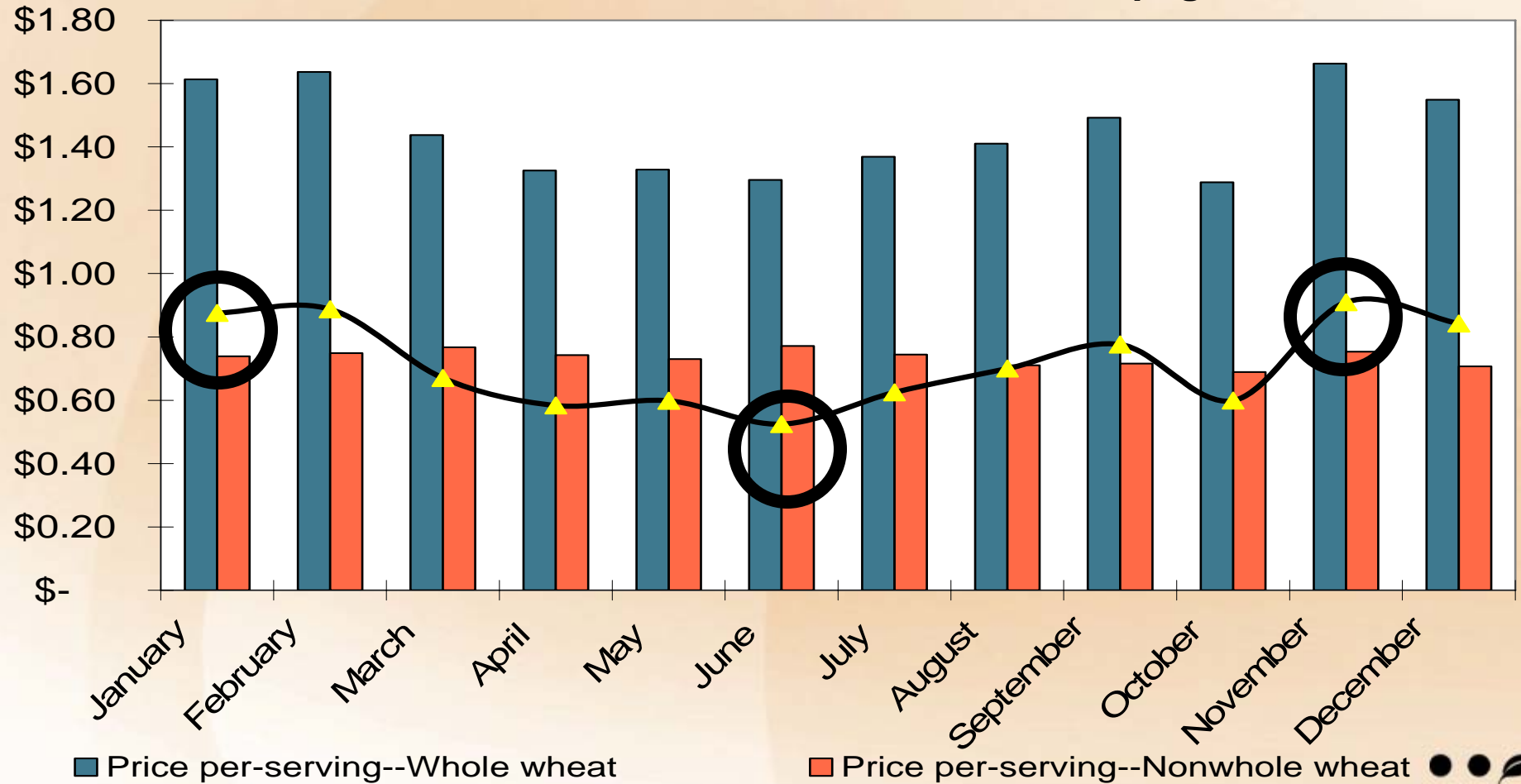






# Price impacts?

Price difference between whole wheat and nonwhole wheat spaghetti, 2005



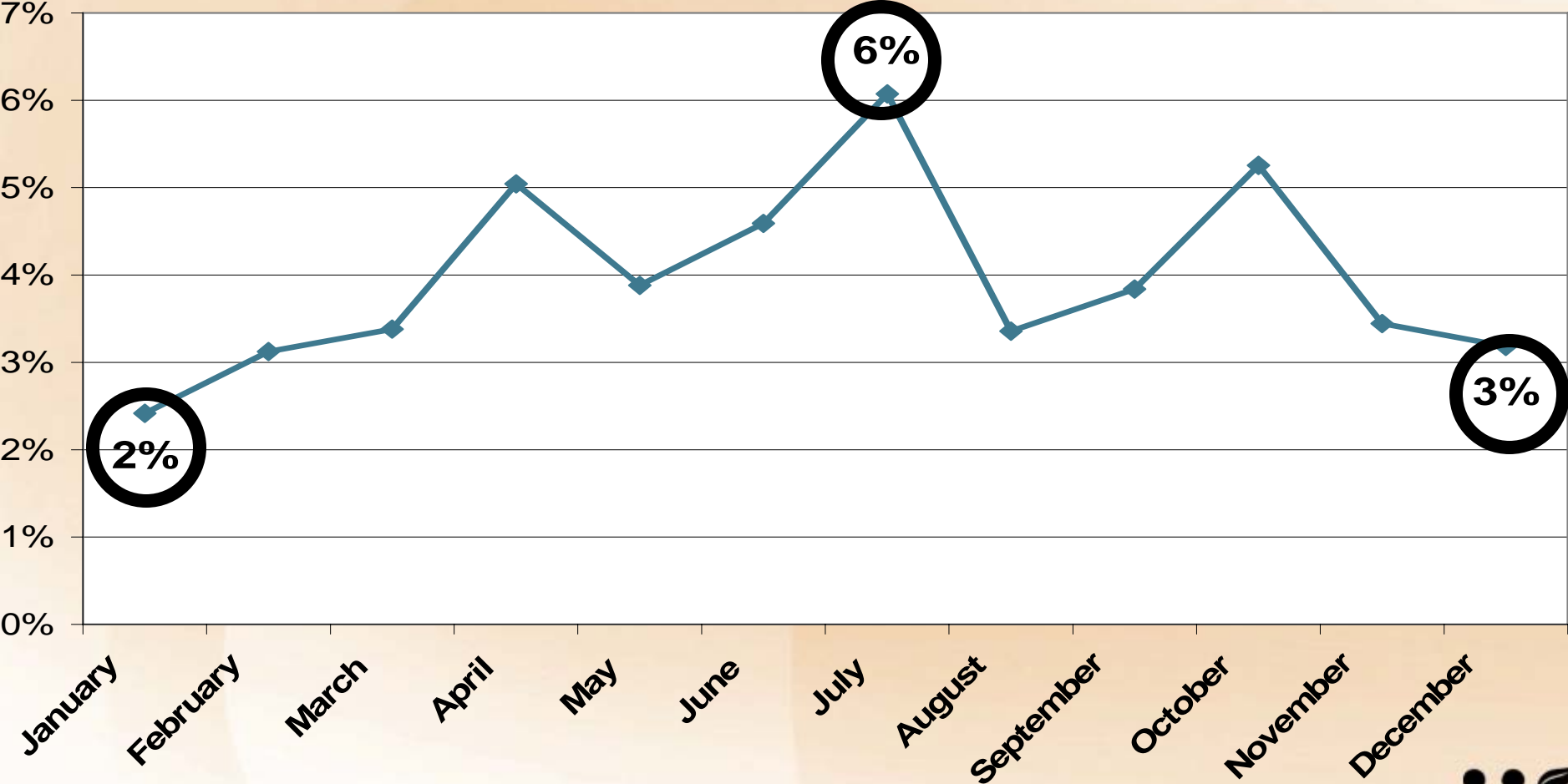
Source: ERS calculations of AC Nielsen data





# Price impacts?

Purchase of whole grain spaghetti up after dietary guidelines



◆ Share of purchases

Source: ERS calculations of AC Nielsen data





# Seems good, but....

**How do the guidelines interact with other federal policies?**

Food and Nutrition Assistance Programs?

TFP/Food Stamps

School Meals





# Things that bode well

**Whole grain trend was on the rise before 2005 Guidelines**

**People believe that whole grain foods are healthful**

**People are more willing to add something healthful to their diet than cut out something they like**

**Manufacturers are willing to provide these foods, as long as doing so is profitable**





# Things that might pose a problem

**Fuzzy claims could lead to customer frustration**

**Fuzzy logic could just cause us to eat more**

**Fuzzy claims could reduce incentives to actually increase whole-grain content**

**Reductions in domestic supply might impact prices**

**Price changes might make it difficult for some populations to access whole grain foods**

