

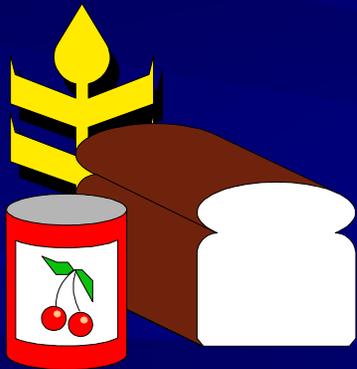


# *2006 Retail Food Price Outlook*

**Ephraim Leibtag**

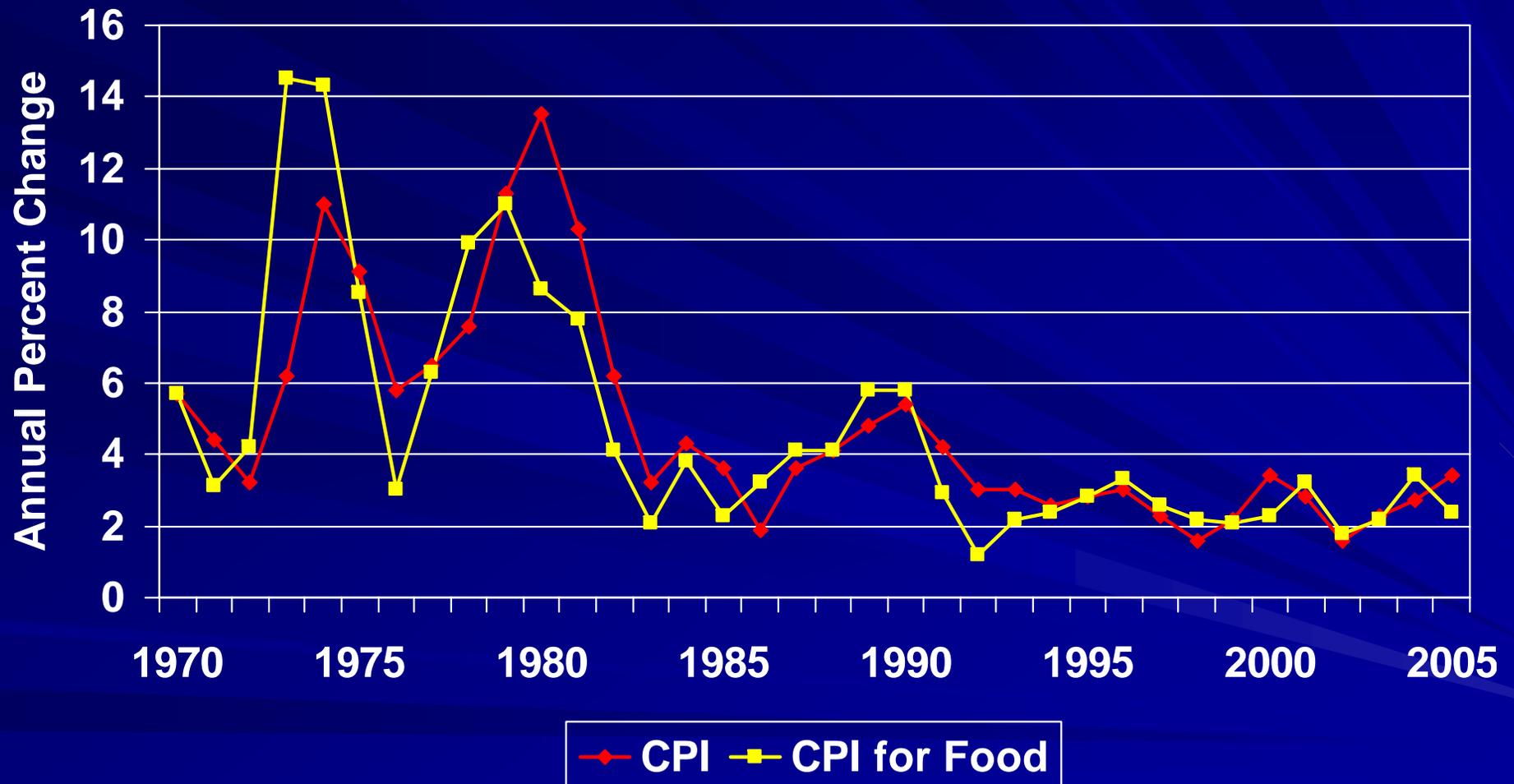
*Food Markets Branch*

*Food Economics Division*



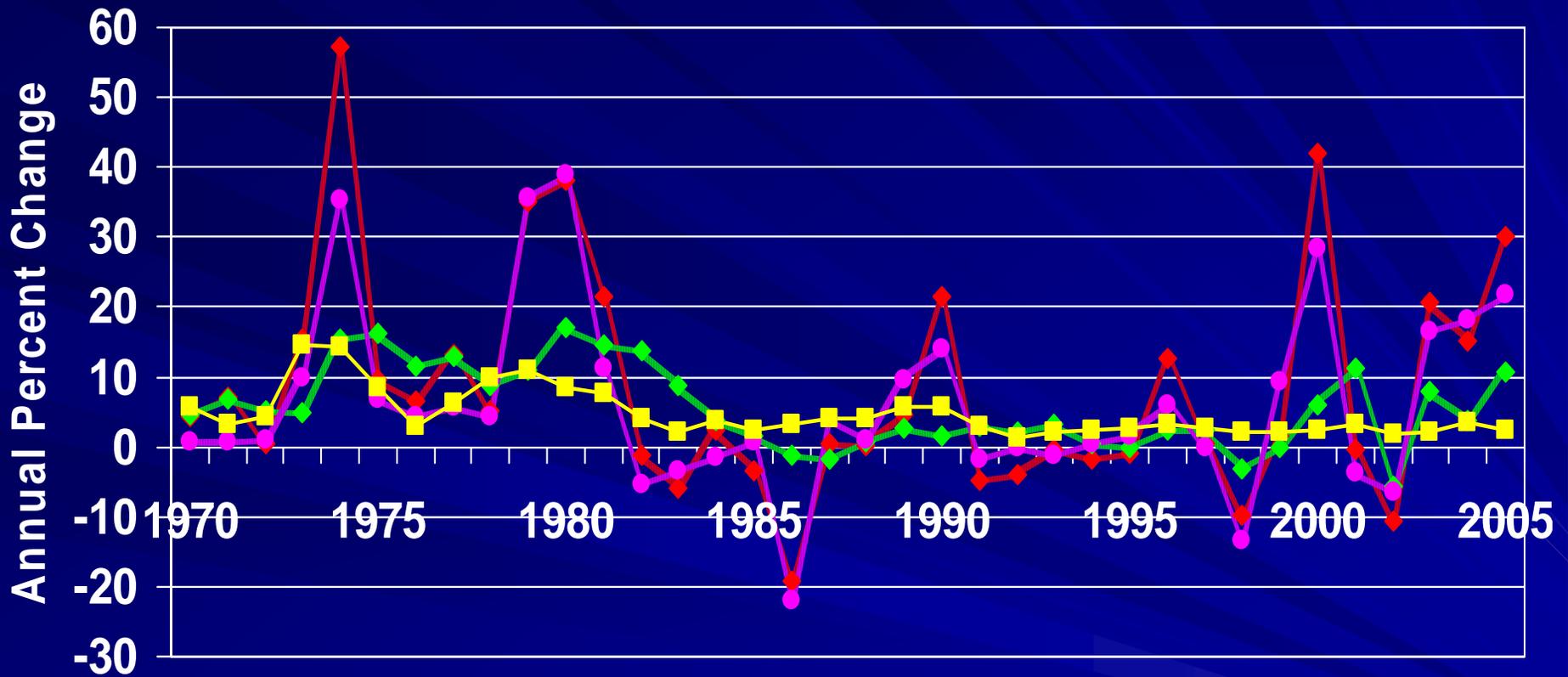
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# CPI vs CPI for Food 1970-2005



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# Food vs Energy 1970-2005

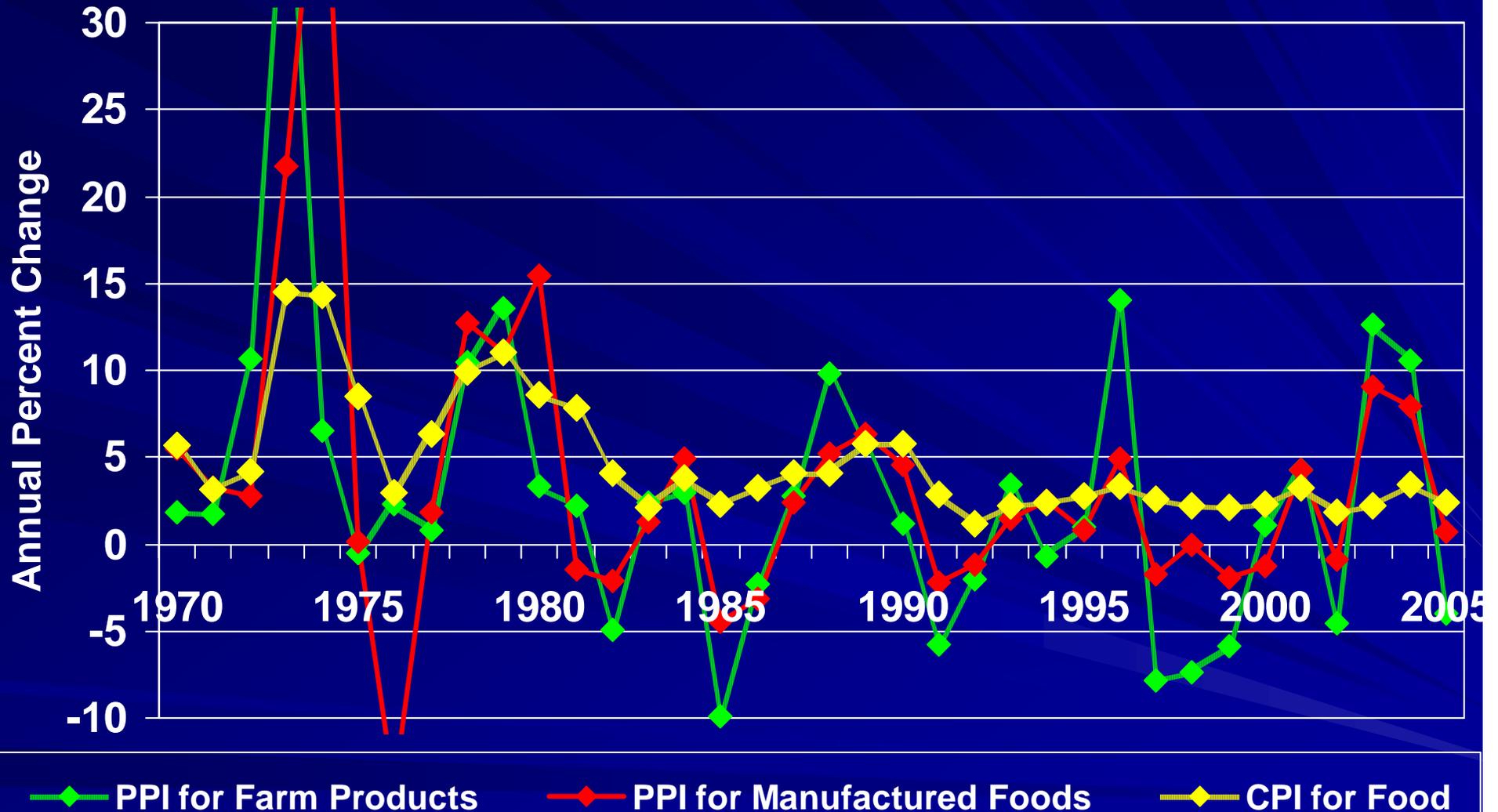


◆ CPI for Fuel Oil  
● CPI for Gasoline

◆ CPI for Gas and Electricity  
■ CPI for Food

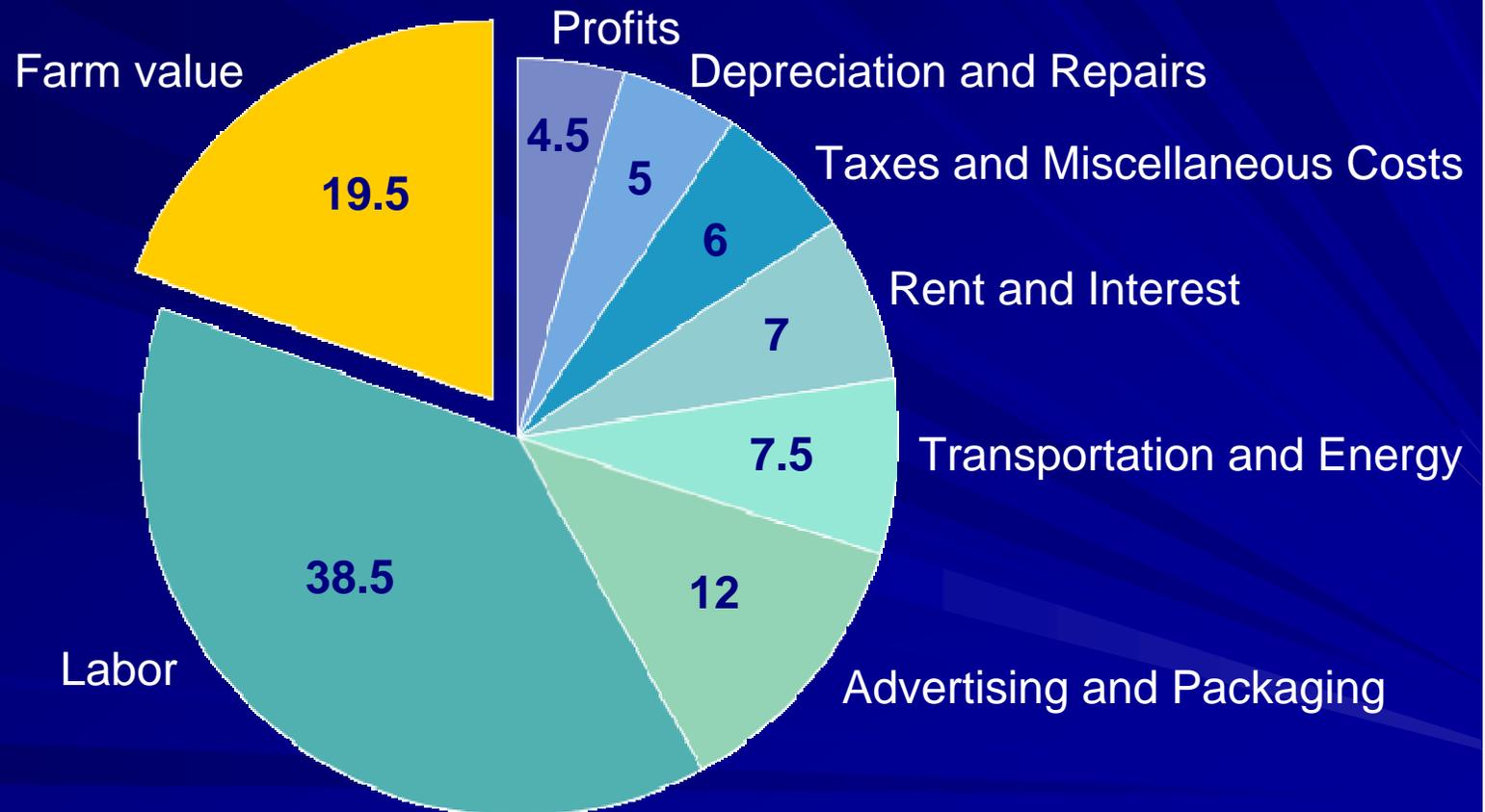
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# CPI vs PPI 1970-2005



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# What a dollar spent on food paid for in 2004



Source: ERS estimate from various data sources.

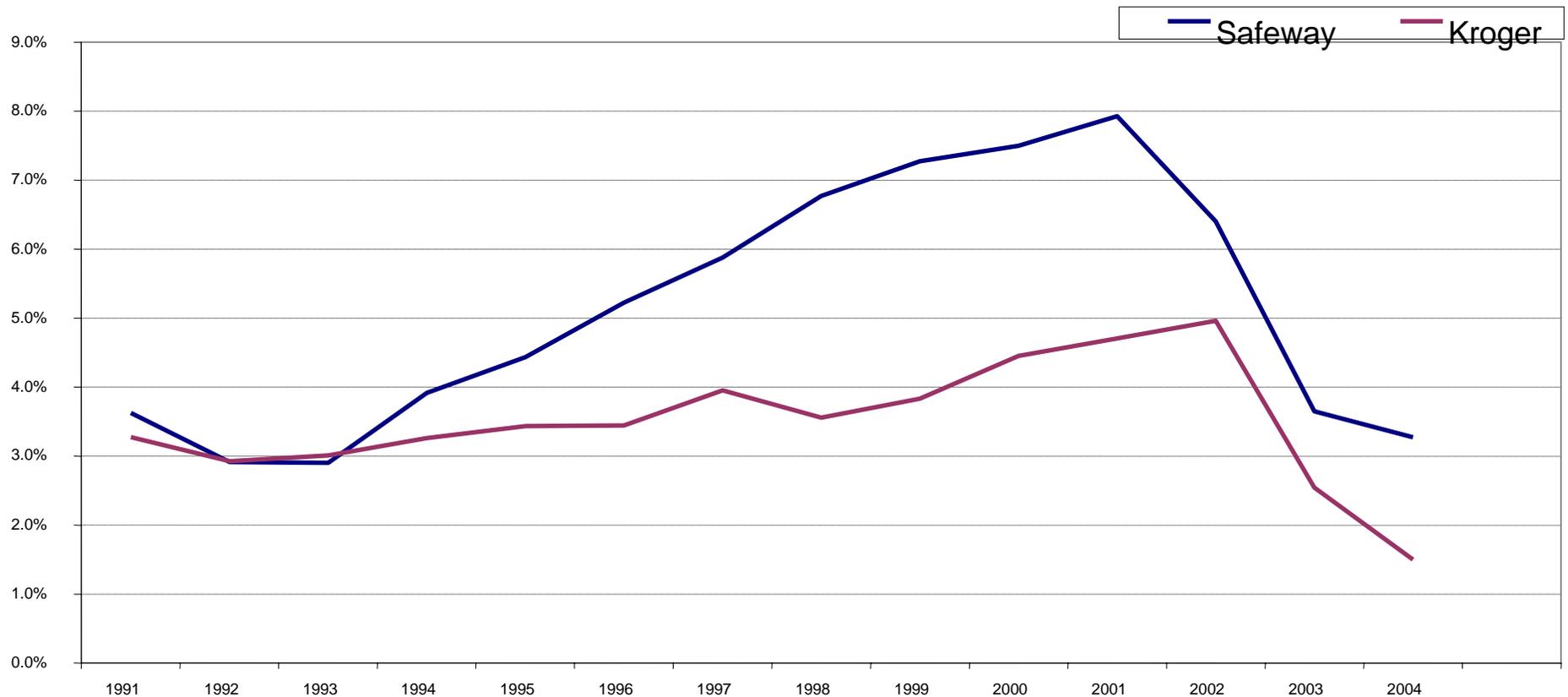
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# Nontraditional Retailers Entry into the Retail Food Market



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# Supermarket Operating Margins on the Decline



Source: SEC 10-K filings. Safeway Operating Profit is defined as Sales less Operating and Administrative Expenses. Kroger Operating profit is defined as Sales less Costs and Expenses, excluding Net Interest Expense. The strike in Southern California also contributed to the decline in Safeway's Operating Profit in 2003 and 2004.

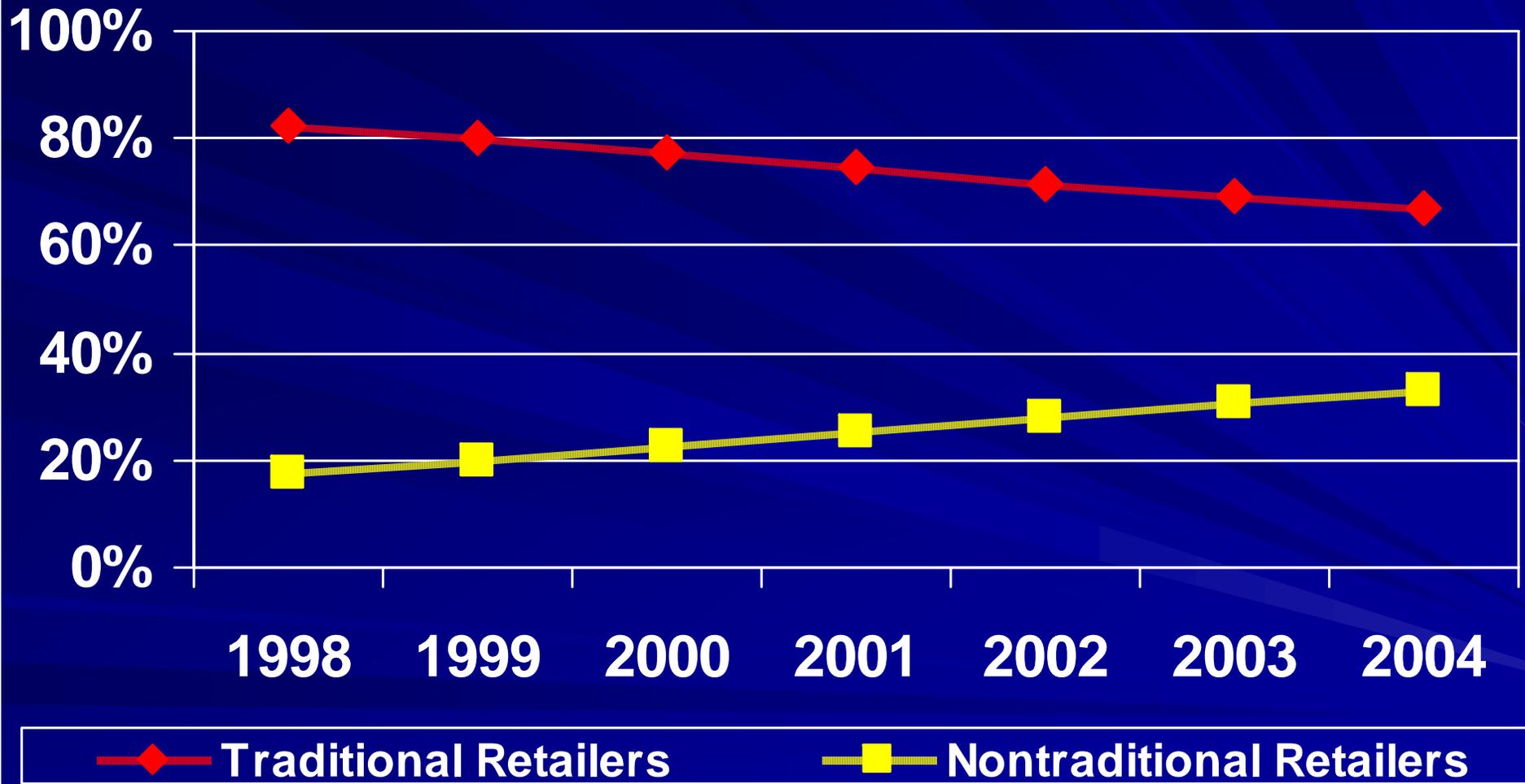
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# Wal-Mart Supercenter Store Count



Source: Wal-Mart Annual Reports 1997-2004  
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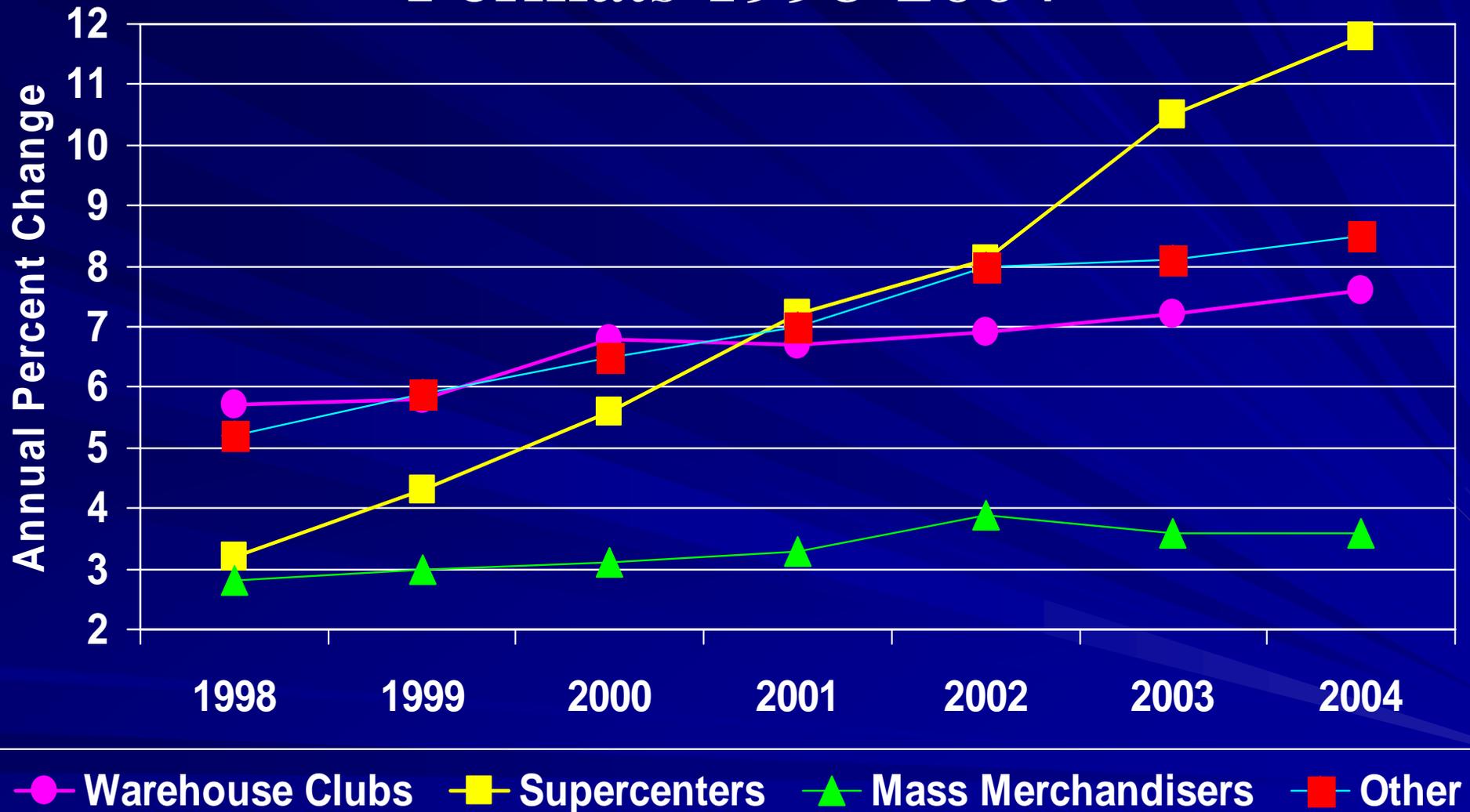
# Expenditure Shares for Nontraditional Food Stores on the Rise



Source: ERS Calculations of ACNielsen Homescan Data

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# Expenditure Shares for Nontraditional Formats 1998-2004



Source: ERS Calculations of ACNielsen Homescan Data

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# Expenditure Shares for Nontraditional Formats 1998-2004

	Warehouse Clubs	Supercenters	Mass Merchandisers	Other
<b>1998</b>	5.7%	3.2%	2.8%	5.2%
<b>1999</b>	5.8%	4.3%	3.0%	5.9%
<b>2000</b>	6.8%	5.6%	3.1%	6.5%
<b>2001</b>	6.7%	7.2%	3.3%	7.0%
<b>2002</b>	6.9%	8.1%	3.9%	8.0%
<b>2003</b>	7.2%	10.5%	3.6%	8.1%
<b>2004</b>	7.6%	11.8%	3.6%	8.5%

Source: ERS Calculations of ACNielsen Homescan Data

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# Price Comparisons

- Investigate the effect of supercenters, mass merchandisers, and club stores on retail food prices.
  - Direct effect: Nontraditional retailers have lower average prices.
  - Indirect Effect: Existing supermarkets lower their prices in response to nontraditional retailer entry into the market.

# Data

- ACNielsen Homescan market-level data with 48 monthly observations for 34 U.S. markets during the years 1998 to 2001.
- 20 food products each with over 12,000 transactions per year.

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# Traditional vs. Nontraditional Retailers

Product	Percent above nontraditional	Product	Percent above nontraditional
Apples	55	Eggs	31
Apple Juice	59	Ground Beef	37
Bananas	38	Ham	97
Bread	11	Ice Cream	32
Butter/Margarine	10	Milk	21
Cereal	17	Potatoes	41
Cheese	12	Soda	-11
Chicken Breast	41	Tomatoes	36
Coffee	20	Bottled Water	6
Cookies	22	Yogurt	20

Source: ERS Calculations of ACNielsen Homescan Data

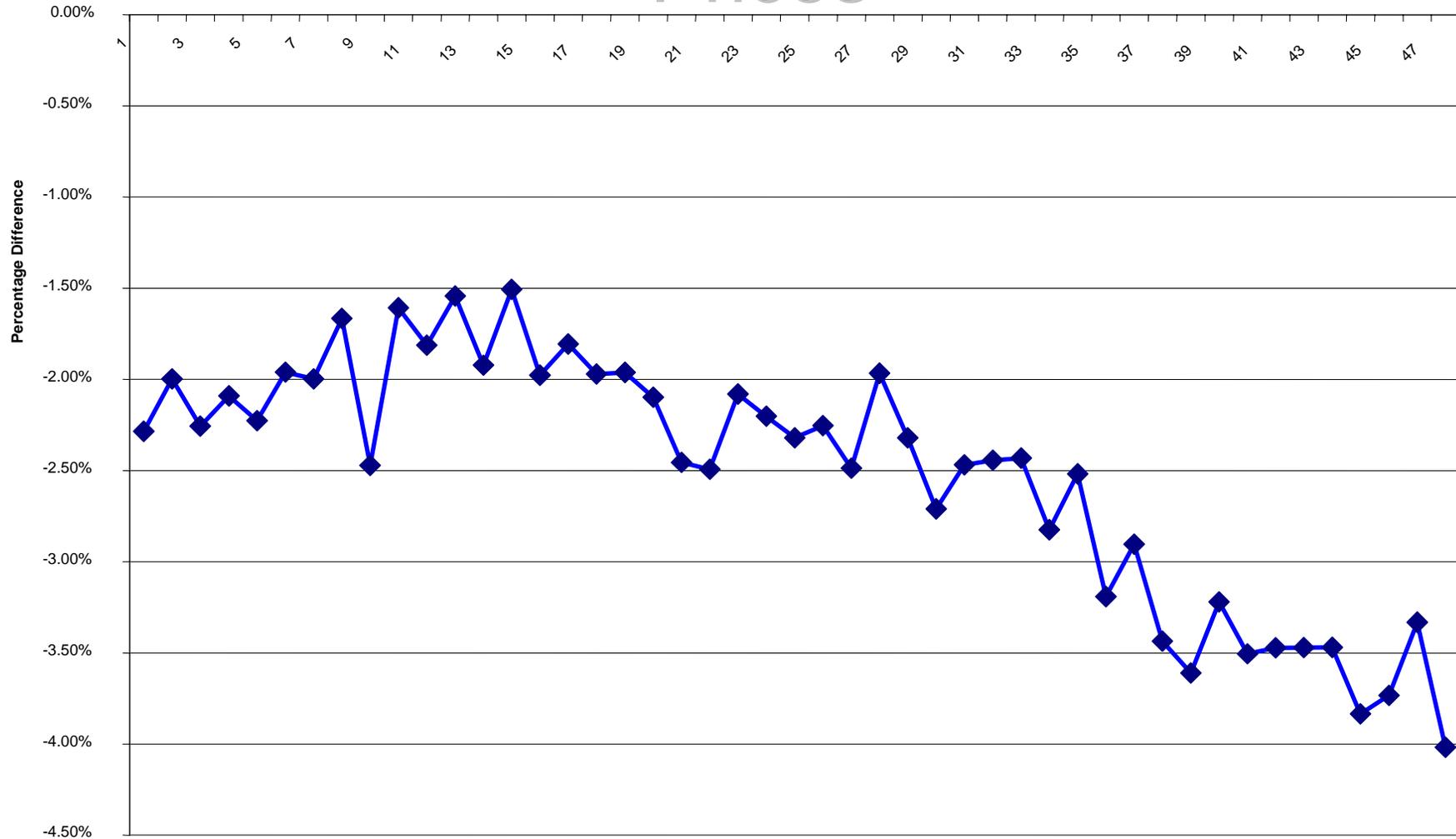
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**ERS** ECONOMIC RESEARCH SERVICE  
United States Department of Agriculture

*The Economics of Food, Farming, Natural Resources, and Rural America*

# Nontraditional Retailers Impact on Food Prices



# Price Comparison Results (a)

- On average, nontraditional retailers have 27% lower food prices than traditional food stores.
- During this time period the expenditure share of nontraditional retailers stores increased 11.6% per year, on average.
- Increasing effect on average food prices as nontraditional retailers become more available and households increase their expenditures at these retail outlets.
- Food prices are 3.0% lower, or an about 0.75% lower per year.

# Price Comparison Results (b)

- The spread of nontraditional retailers leads to lower prices from both:
  - Households shifting their food shopping from supermarkets to nontraditional stores.
  - Households who continue to shop at traditional supermarkets paying lower prices caused by the increased nontraditional retailer competition.

# Consumer Welfare Effects

- Households choose where to shop by trading off prices and other shopping costs with quality and convenience.
- Some consumers find the new choice to be superior while others continue to shop at conventional supermarkets.
- The arrival of a nontraditional retailer in a given geographic market is similar to the introduction of a new differentiated good into the geographic market.
  - Consumers now have increased choice in their shopping trip destinations.

# Results of Welfare Analysis

- Consumers who have the choice to shop at nontraditional retailers save about 20% of average food-at-home expenditures.
- About \$500 per year saved when given increased shopping options.

Source: Hausman and Leibtag (2005)

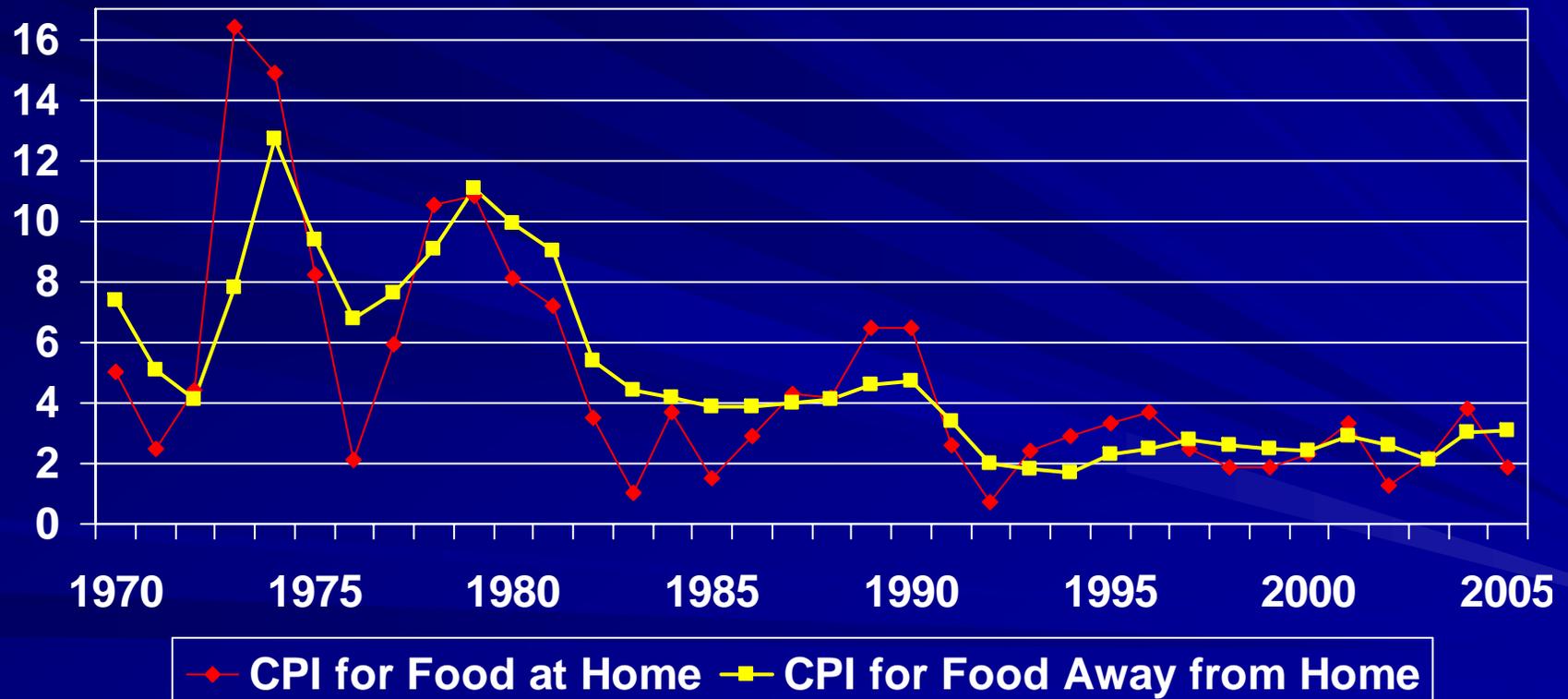
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# Findings

- Entry of a nontraditional retailer into a new geographic market creates:
  - **Direct and Indirect price effects.**
- Nontraditional retailer food prices are 15% to 30% lower than traditional supermarkets.
  - Consumers save about \$500 of food expenditures per year with the introduction of a nontraditional retailer into their market.

# Food at Home vs Food Away from Home 1970-2005

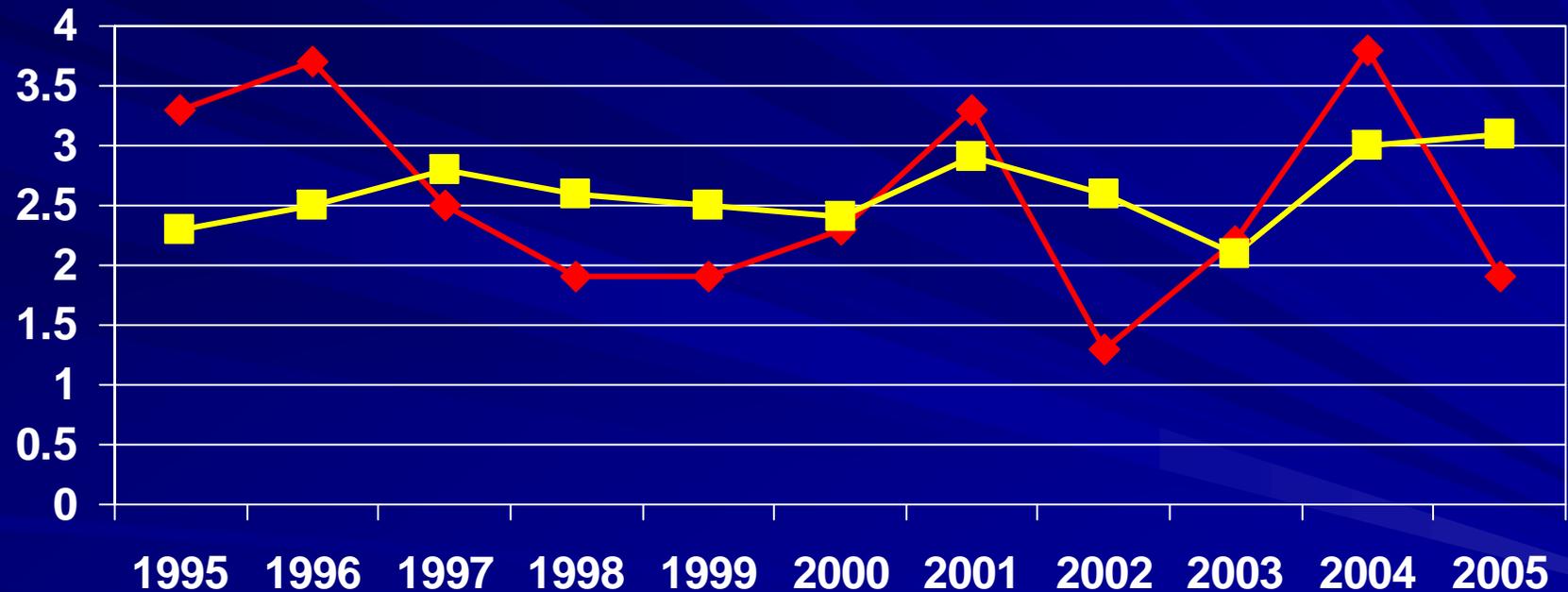
## Annual Percent Change



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# Food at Home vs Food Away from Home 1995-2005

## Annual Percent Change

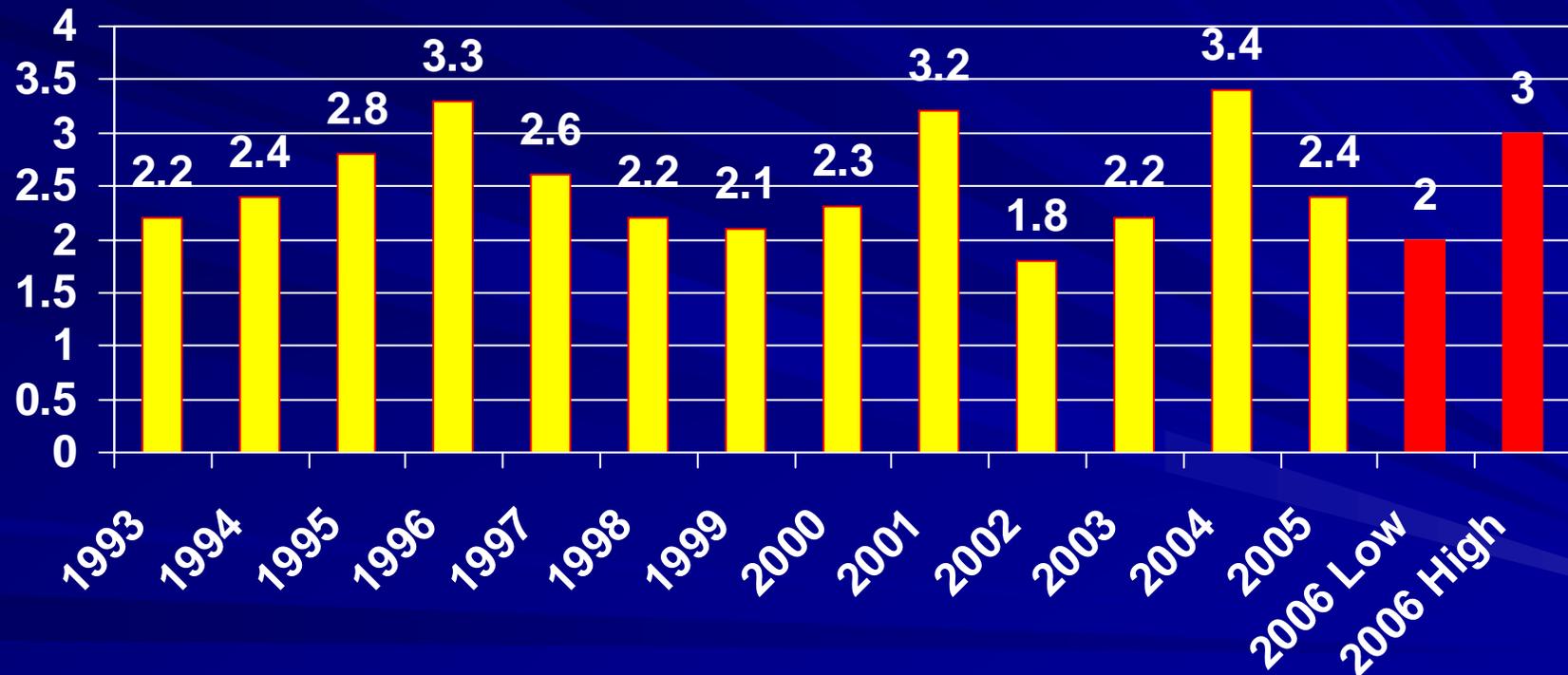


◆ CPI for Food at Home ■ CPI for Food Away from Home

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# CPI for Food Expected to Stabilize by mid-2006

## Annual Percent Change in CPI for Food



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# Why?

## ■ Upward Pull on Retail Food Prices:

- Higher Energy and Transportation Costs
- Rising Labor Costs
- Uncertainty in Commodity Prices

## ■ Stabilizing Forces:

- Increased Competition from nontraditional retail formats.
- Better Inventory Management/Cost Saving Technologies
- Globalized Trade: Year-round availability
- Food away from home continues upward trend in share of food bill.
- Increased demand by consumers for convenience, quality, *and* low prices.

# Percent Change in Food CPI 2003-2006 (a)

Items	2003	2004	2005	Forecast 2006
All Food	2.2	3.4	2.4	2.0 to 3.0
FAFH	2.1	3.0	3.1	2.5 to 3.5
Food at Home	2.2	3.8	1.9	2.0 to 3.0
Beef	9.0	11.6	2.6	-1.0 to 0.0
Pork	1.9	5.6	2.0	0.5 to 1.5
Other Meats	2.5	4.5	2.4	0.5 to 1.5
Poultry	1.3	7.5	2.0	0.0 to 1.0

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# Percent Change in Food CPI 2003-2006 (b)

Items	2003	2004	2005	Forecast 2006
All Food	2.2	3.4	2.4	2.0 to 3.0
Food at Home	2.2	3.8	1.9	2.0 to 3.0
Fish and Seafood	1.0	2.3	3.0	2.5 to 3.5
Dairy	-0.1	7.3	1.2	1.0 to 2.0
Fats and Oils	1.3	6.6	-0.1	1.5 to 2.5
Sugar + Sweets	1.9	0.7	1.2	2.0 to 3.0
Eggs	13.8	6.2	-13.7	2.0 to 3.0

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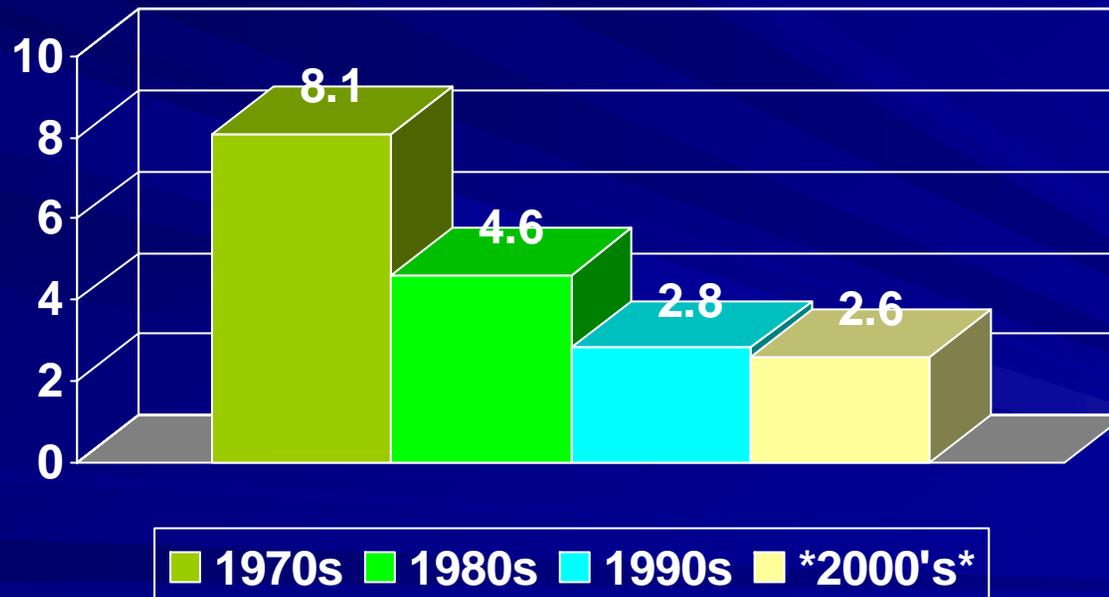
# Percent Change in Food CPI 2003-2006 (c)

Items	2003	2004	2005	Forecast 2006
All Food	2.2	3.4	2.4	2.0 to 3.0
Food at Home	2.2	3.8	1.9	2.0 to 3.0
Fresh Fruits	3.3	2.8	3.7	2.5 to 3.5
Fresh Vegetables	2.1	4.3	4.0	3.5 to 4.5
Processed F + V	0.9	1.3	3.3	2.5 to 3.5
Cereals + Bakery	2.4	1.6	1.5	2.0 to 3.0
Nonalcoholic Bev.	0.4	0.4	2.9	2.0 to 3.0

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# Food Price Inflation Stabilizing

Average Annual Percent Change in  
Food Price Inflation by Decade



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# Questions



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# Contact Information

Ephraim Leibtag

[eleibtag@ers.usda.gov](mailto:eleibtag@ers.usda.gov)

202-694-5349

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# Sources

- Summary article of nontraditional retailer impact:
  - <http://www.ers.usda.gov/AmberWaves/November05/Features/WhereYouShop.htm>
- Monthly CPI for food forecast updates:
  - <http://www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/>
- Consumer welfare analysis paper:
  - [http://econ-www.mit.edu/faculty/download\\_pdf.php?id=1243](http://econ-www.mit.edu/faculty/download_pdf.php?id=1243)
- Price comparisons and CPI bias paper:
  - [http://econ-www.mit.edu/faculty/download\\_pdf.php?id=1192](http://econ-www.mit.edu/faculty/download_pdf.php?id=1192)