

# Valuing Your Diet – An Economic Perspective

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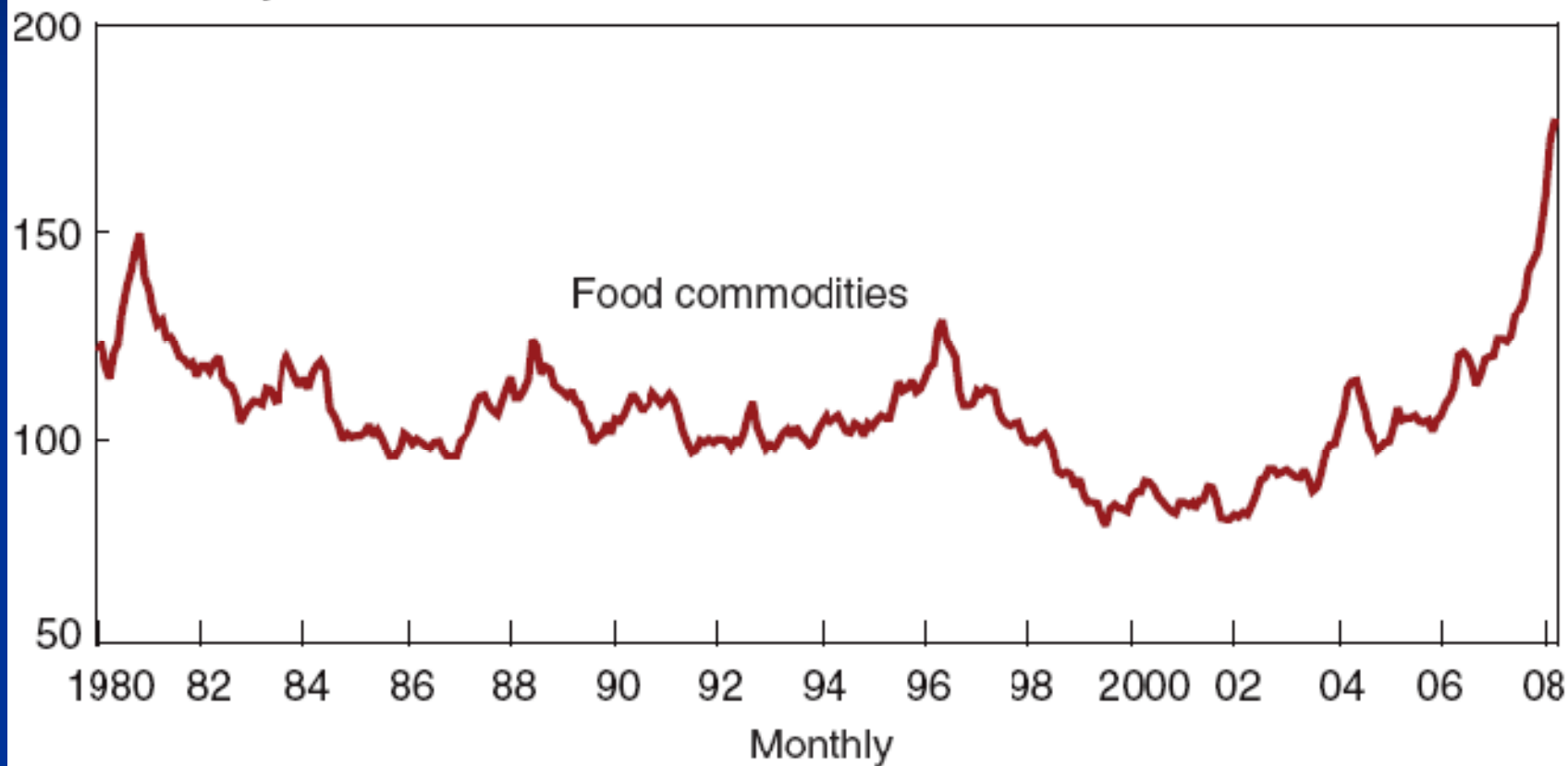


Agricultural commodity prices have risen rapidly.



## Food commodity prices rose more than 60 percent in the last 2 years

Index: January 1992 = 100



Source: Trostle, USDA/ERS, 2008. Data: International Monetary Fund.

# The commodity price increase is caused by ...

## Short-term factors:

- Weather
- Low carryover stocks
- Export restrictions provoked by fear of shortages

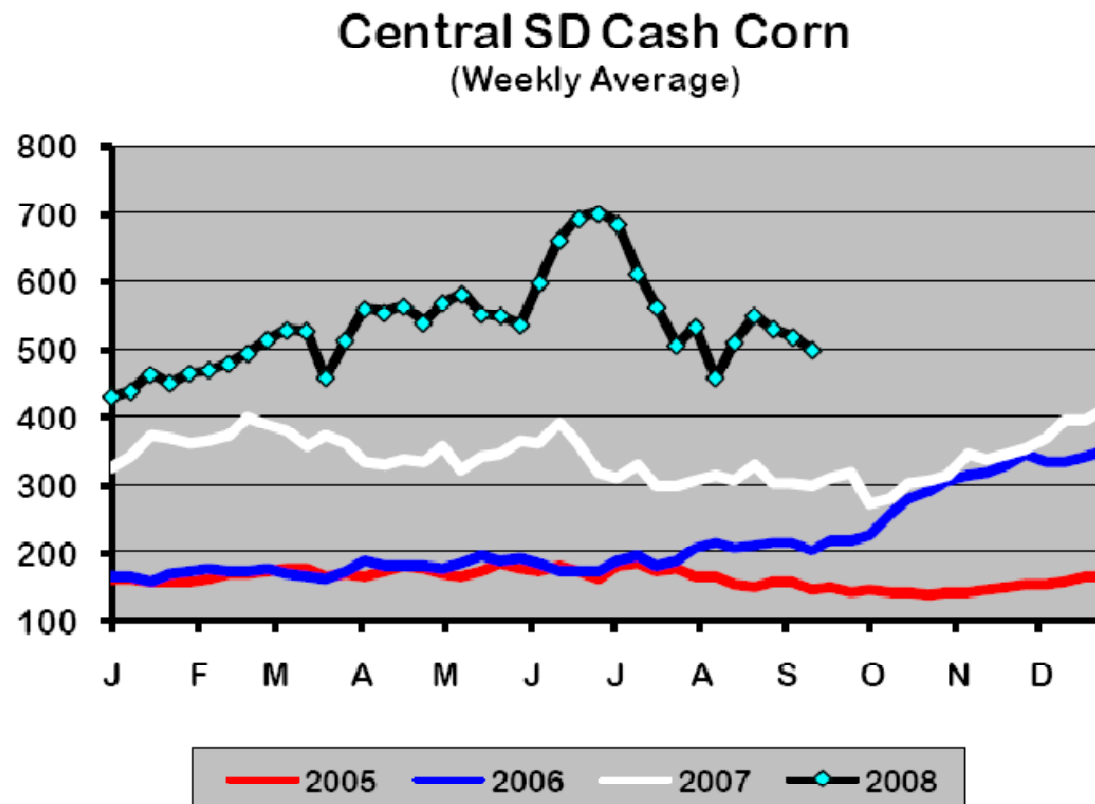


## Long-term factors:

- Rising global food demand
- Higher input costs for fuel
- Biofuels demand

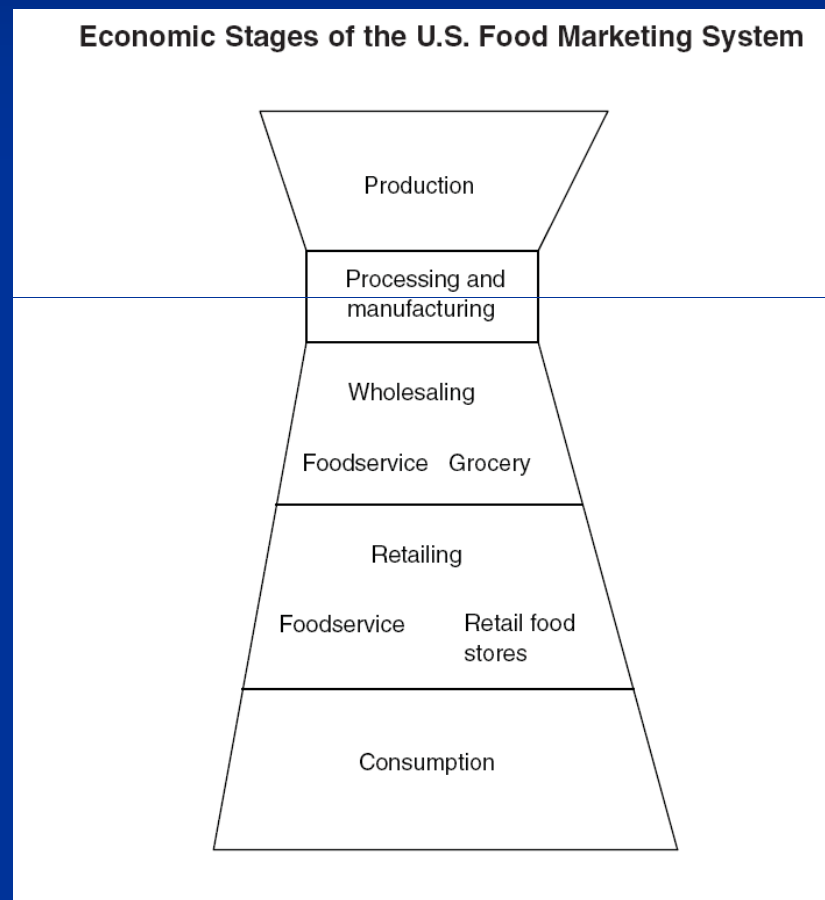


For some commodities, the peak may have passed, but prices remain very high.



Data Compiled by SDSU Extension Economics - <http://econ.sdstate.edu>

# The consumer food price depends on many factors beyond farm commodity prices.



Source: Martinez, USDA/ERS, 2006.

U.S. consumer food prices are rising along with other prices in the economy.



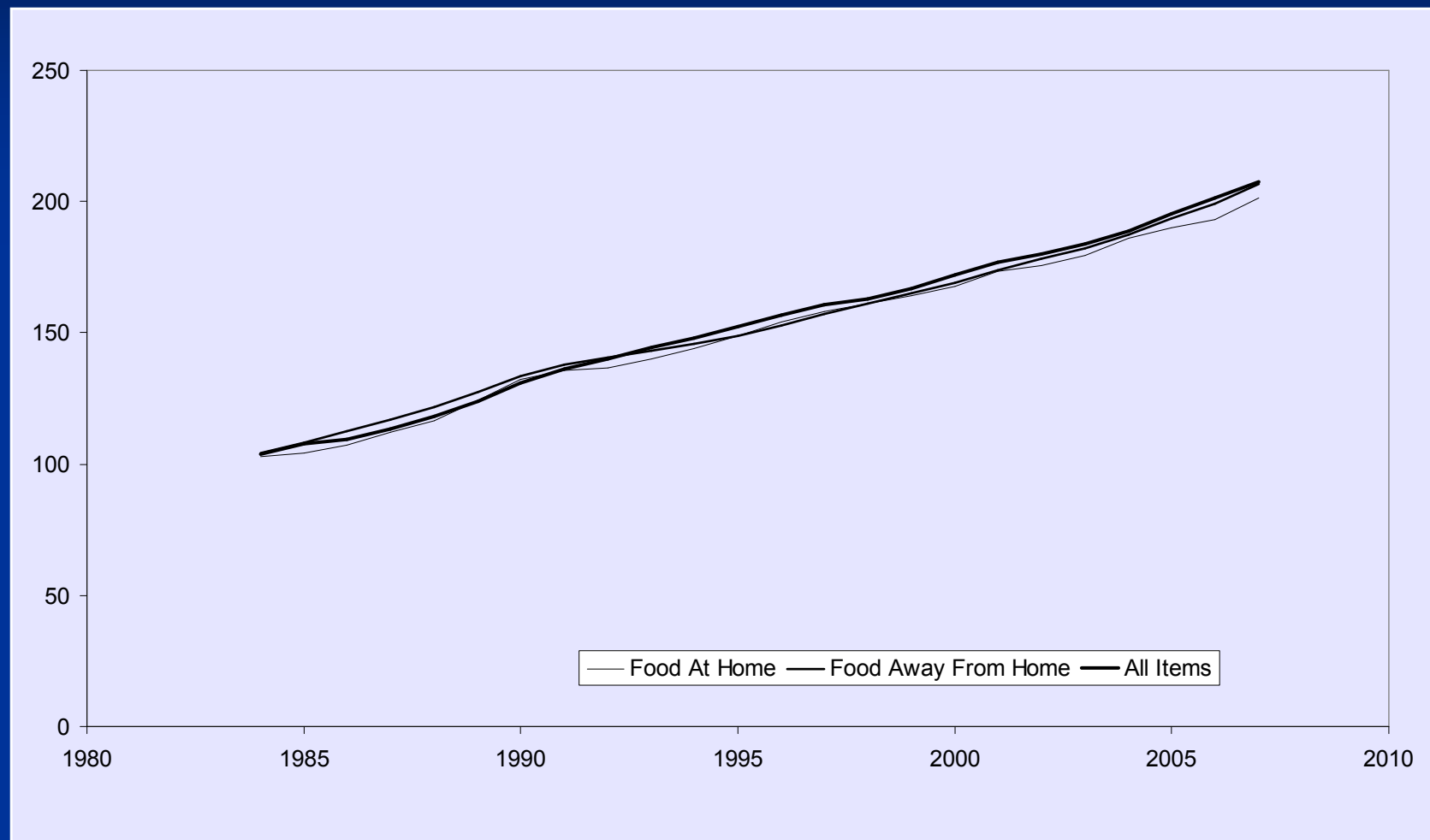
# Consumer Price Index for Food

From Aug 2006 to Aug 2007 + 4.3%

From Aug 2007 to Aug 2008 + 6.1%



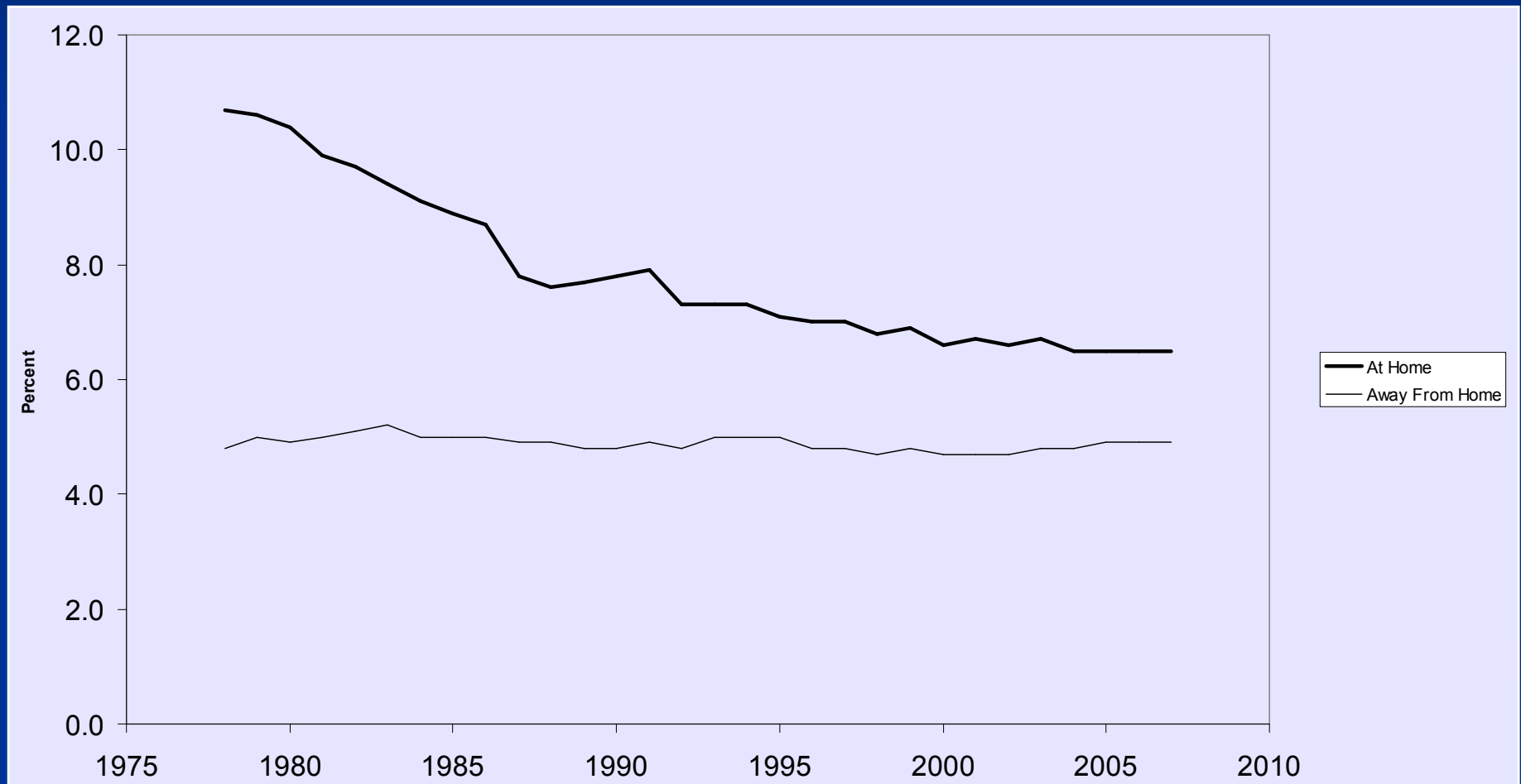
# The U.S. consumer price index (CPI) for food and for all items



Note: 1982-84 base.

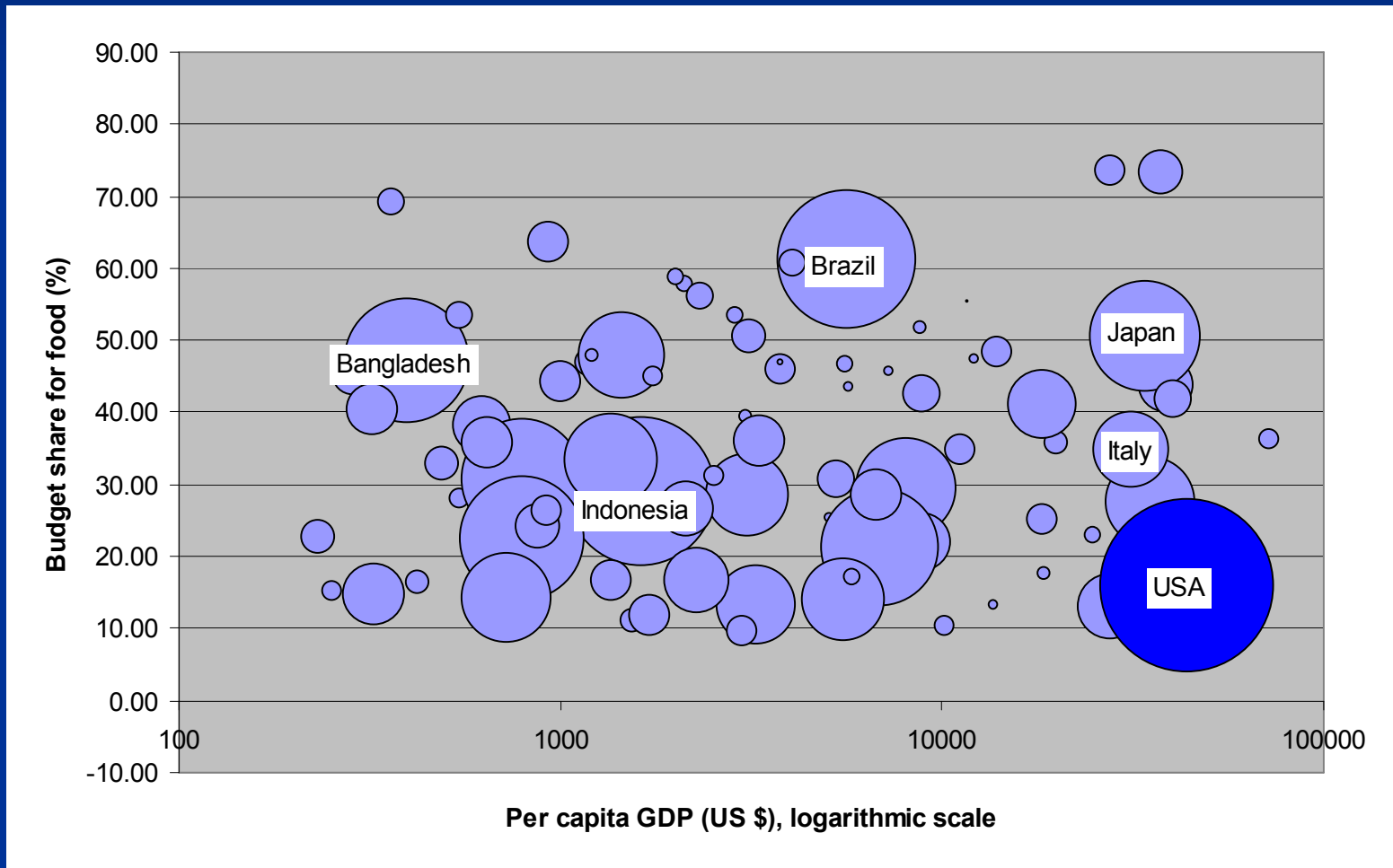
Source: BLS.

From an historical perspective ...  
the percentage of disposable personal money income  
spent on food remained low through 2007



Source: USDA/ERS.

From an international perspective ...  
the budget share for food remained low  
in the U.S. through 2006



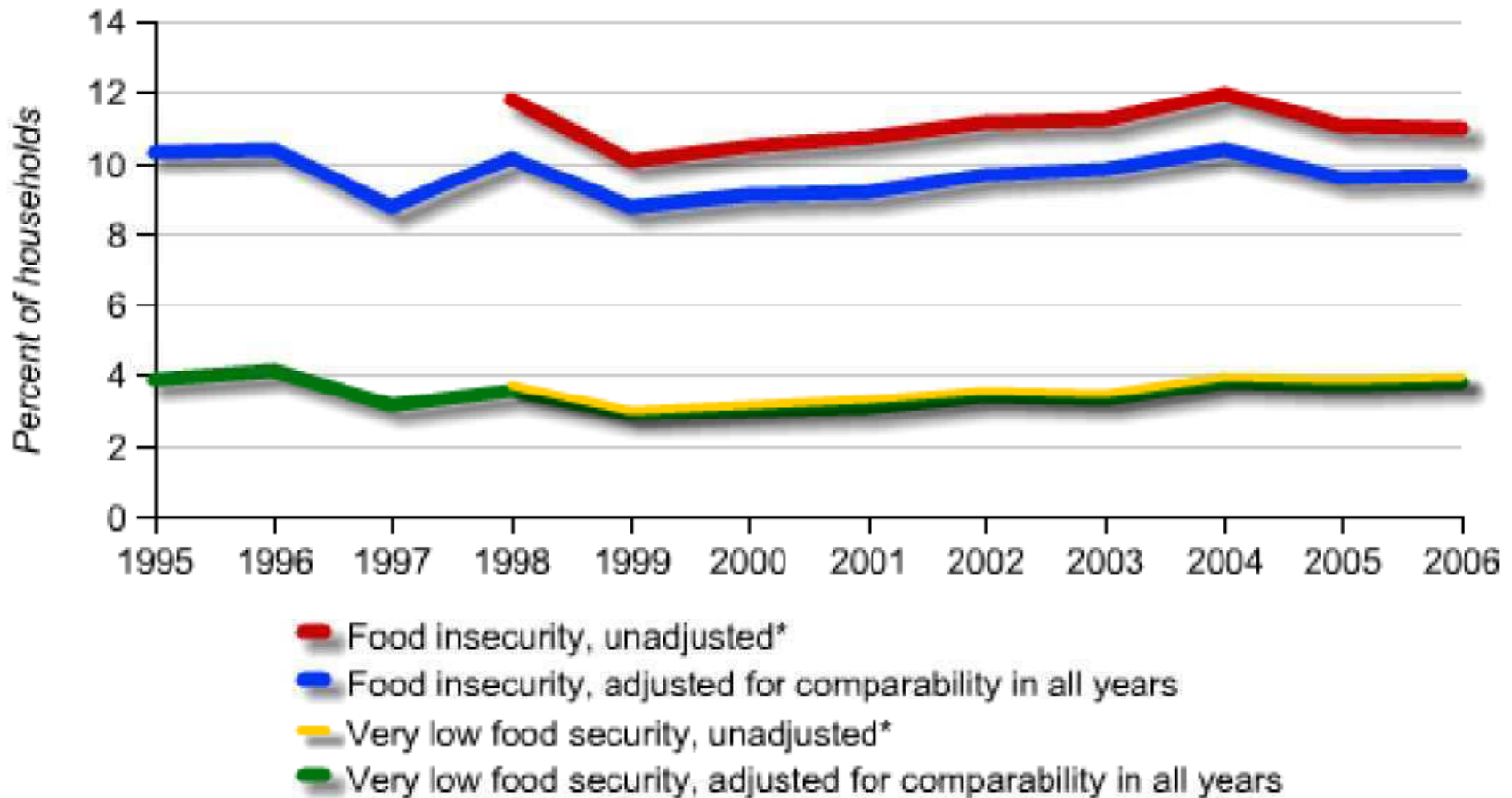
Data source: USDA/ERS, World Bank.

# Beyond overall U.S. price inflation, two concerns are:

- Food insecurity and hunger
- The cost of healthy food

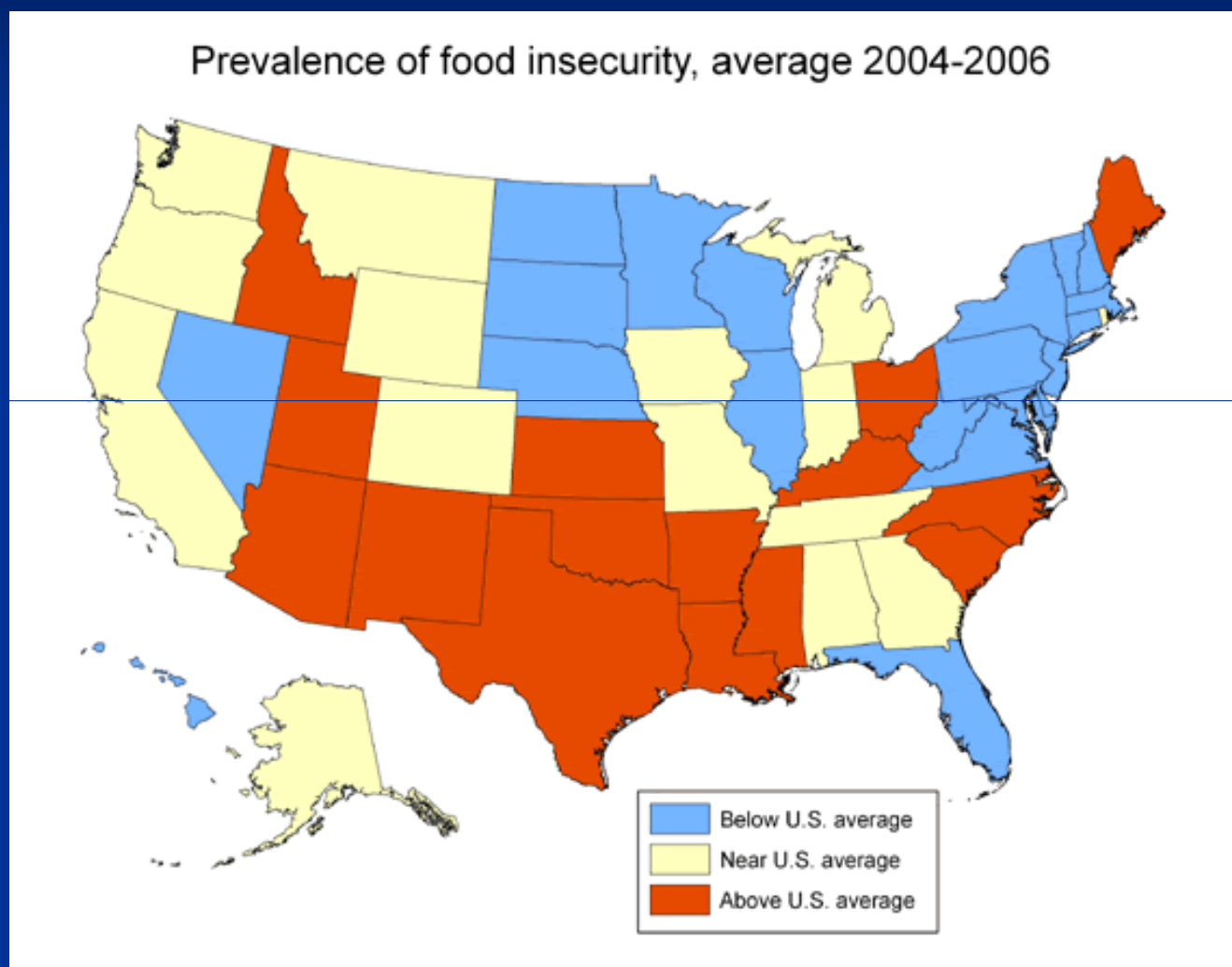


## Household food insecurity remained steady through 2006



Source: Nord, USDA/ERS, 2007.

# Geographical variation in household food insecurity is not mainly due to price variation.



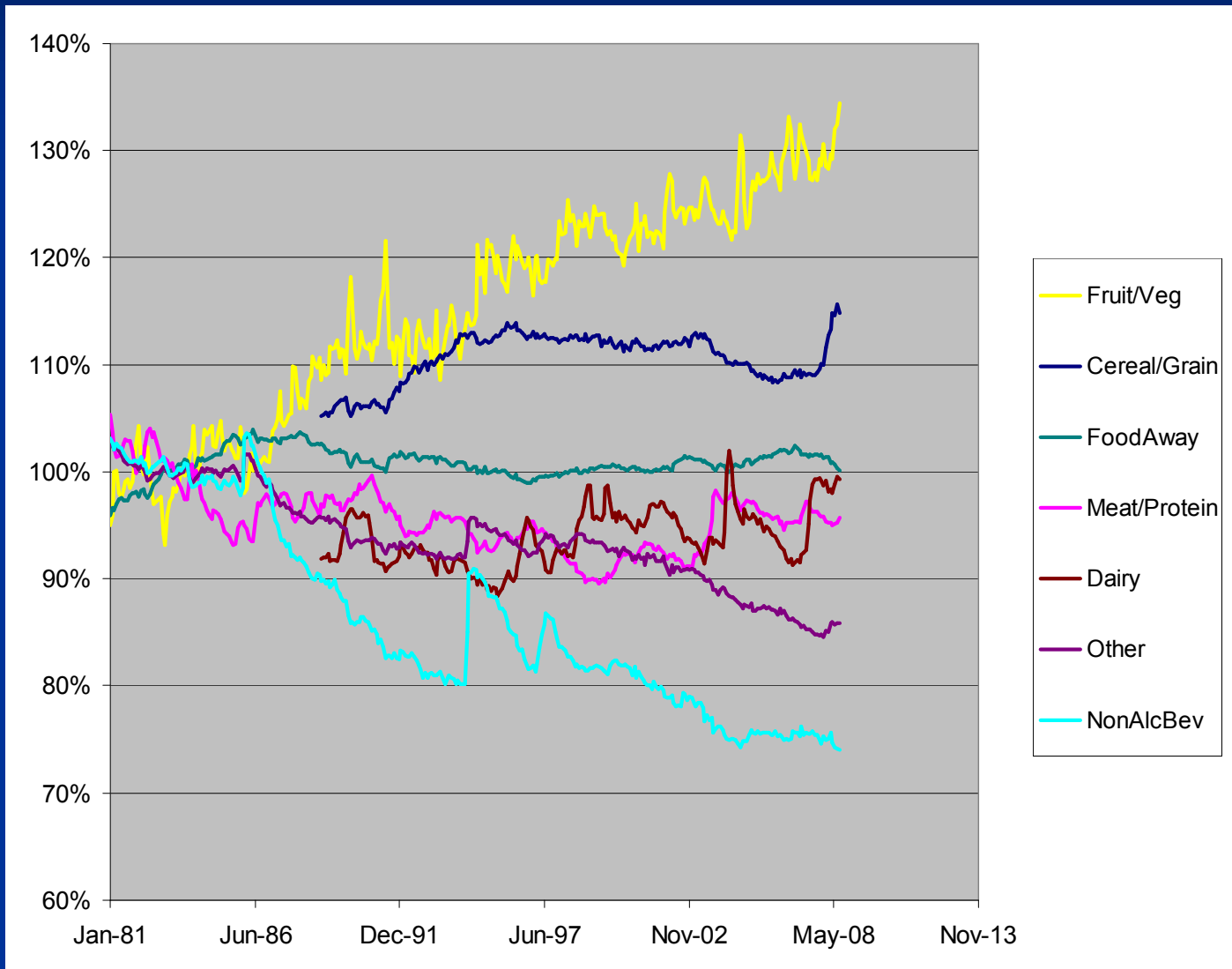
Source: Nord, USDA/ERS, 2007.

# U.S. food assistance programs already are indexed for price inflation.

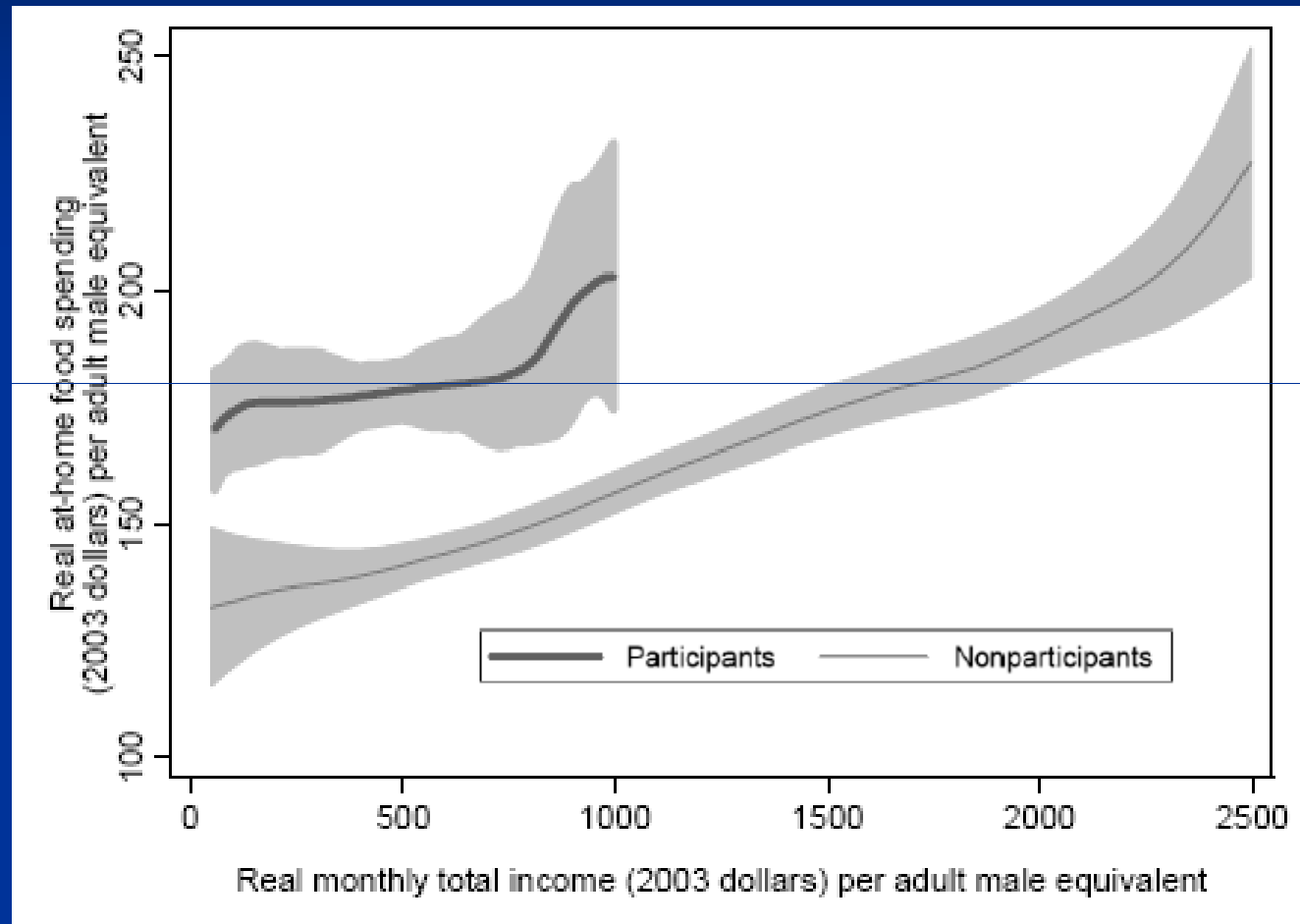
- U.S. Food Stamp Program: maximum benefit is adjusted each October, based on increases in the cost of the Thrifty Food Plan through the previous June.
- WIC: food package is defined in terms of quantities, not expenditures.
- National School Lunch Program: for each school year, from July 1 through June 30, reimbursement rates are updated using the CPI for food away from home.



# Relative prices have risen for fruits and vegetables, in the long term, according to the CPI.



# Food stamp participation and grocery food spending.



Source: Wilde, Troy, and Rogers (2008), forthcoming, *American Journal of Agricultural Economics*.

# Thrifty Food Plan Calculator

## Thrifty Food Plan calculator

Parke Wilde, Joseph Llobrera, and Flannery Campbell, Friedman School of Nutrition Science and Policy, Tufts University

This calculator is based on the same official data that USDA used to create the 2006 Thrifty Food Plan (TFP). **Your goal** is to choose monthly spending levels for 58 food groups. Create a **nutritious, affordable, and tasty** food plan.

### STEP 1

Choose a gender and age range (such as female 20-50 years old). There are different recommended nutrition standards, cost targets, and starting values based on your gender and age selection.

### STEP 2

Choose monthly spending levels for the 58 food groups.

The RESULTS column at right evaluates your plan in terms of:

- Spending.** Compare your monthly spending to the official TFP cost target.
- Broad food categories.** Daily servings of dairy, meats, grains, fruits, and vegetables.
- Distance from current consumption.** A bigger number means greater deviations from the foods that low-income Americans currently choose.
- Energy.** Compare your daily calories to the recommendation for maintaining healthy weight.
- Macronutrients.** Daily grams of carbohydrates, fats, and protein.
- Micronutrients.** Compare your calcium or sodium to the recommendations.

To **get started**, you may begin with the default monthly spending values, which come from USDA's official TFP. Alternatively, you may copy and paste from the worksheet named **Starting Values**. If you want to **save your work** be sure to save the file under a different name. To reset the original starting values, close this file and reopen the original unchanged Excel worksheet.

## ENTER YOUR SPENDING

**STEP 1:** Click on the cell below to select your group from the menu:  
• Female, 20-50 yrs

**STEP 2:** Enter monthly spending for each food group:

Food Groups	Monthly spending	% of total spending	Daily calories	% of total calories
1 Milk	\$0.01	0.0%	0	0.0%
2 Low fat milk	\$17.98	15.2%	372	15.4%
3 Cheese	\$0.01	0.0%	0	0.0%
4 Milk-based desserts	\$0.00	0.0%	0	0.0%
5 Low fat milk-based desserts	\$0.00	0.0%	0	0.0%
6 Low cost red meat	\$0.00	0.0%	0	0.0%
7 Regular cost red meat	\$0.01	0.0%	0	0.0%
8 Low cost lean red meat	\$4.08	3.4%	52	2.2%
9 Regular cost lean red meat	\$0.02	0.0%	0	0.0%
10 Low cost fish	\$1.92	1.6%	25	1.0%
11 Regular cost fish	\$0.03	0.0%	0	0.0%
12 Low cost lean fish	\$1.88	1.6%	19	0.8%
13 Regular cost lean fish	\$0.05	0.0%	0	0.0%

## RESULTS

### a) Spending

	Your total	Percent of TFP budget	TFP budget
Total monthly spending	\$118.34	100%	\$118.34

### b) Broad Food Categories

	Monthly spending per group	Percent of spending	Average daily number of servings
Milk	\$18.00	15%	3.4
Meat and Beans	\$29.34	25%	6.9
Grains	\$19.68	17%	7.4
Whole grains	\$10.61	9%	3.3
Fruits	\$20.60	17%	2.2
Vegetables	\$25.86	22%	3.5
Leafy green vegetables	\$7.59	6%	0.4
Orange vegetables	\$3.38	3%	0.5
Other	\$4.86	4%	--

Source: Wilde, Llobrera, and Campbell (2008), <http://nutrition.tufts.edu/fpan/calculator>.

# Conclusions

- Agricultural commodity prices have spiked, causing hardship especially in poor countries.
- U.S. consumer food prices have increased at higher rates than usual, along with general price inflation.
- Like any price increase, a rise in food prices without a commensurate rise in income harms consumers.
- Food insecurity and hunger are strongly associated with poverty and low real incomes.

## Conclusions (continued)

- For dietary quality, the food price increase:
  - may make grains, fruits and vegetables relatively more expensive
  - may encourage food at home at the expense of restaurant meals
  - may make locally grown and less packaged foods comparatively more affordable
  - may have a mixed effect on meat consumption (price effect and income effect)

# Agencies Sponsoring Research



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