

# **Summary of Current Livestock Industry Issues: Animal Welfare, Traceability, Food Safety, & Consumer Demand**

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Thumb Cattlemen's Meeting  
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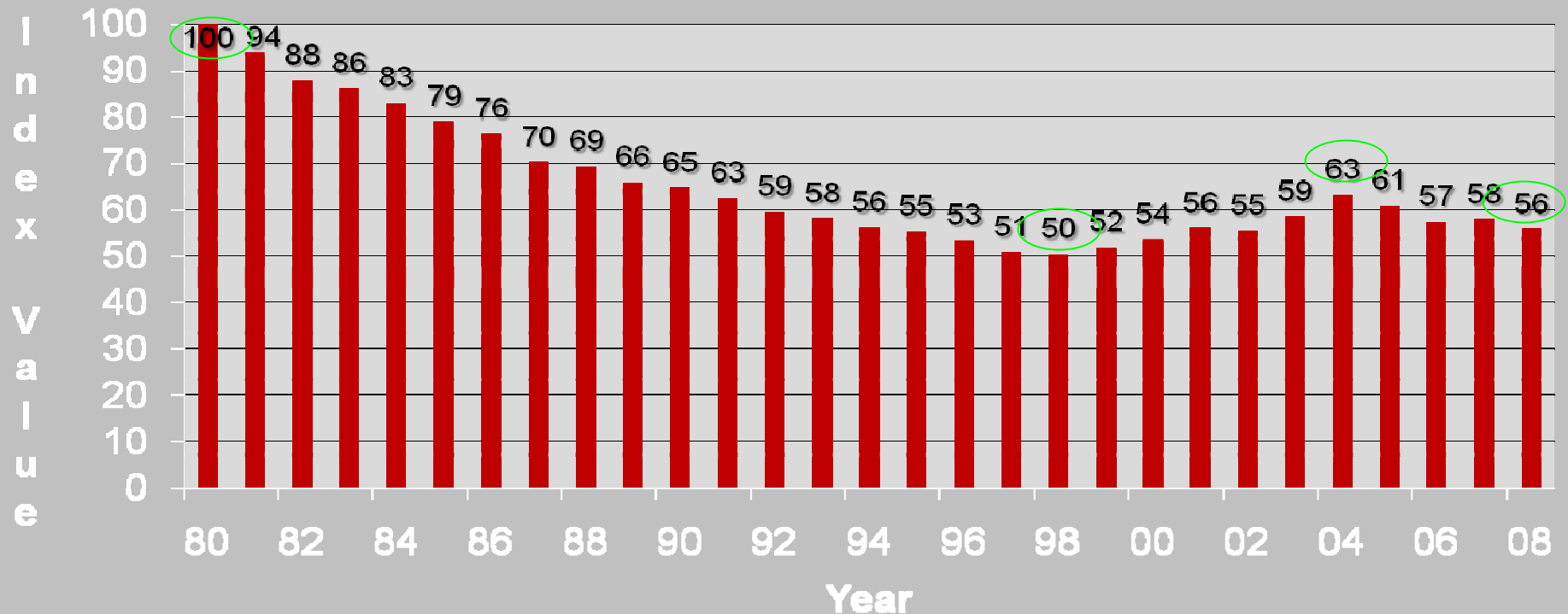
# MEAT DEMAND

# Meat Demand

## ■ Beef Board Study (Jan. 2009)

- <https://www.msu.edu/~gtonsor/BeefCattle.html>

**Retail Choice Domestic Beef Demand Index**  
Annual, 1980-2008



# Meat Demand Study Results

- 10% increase in:
  - Expenditures: +9% qu. beef demanded
    - Weak U.S. economy ...
  - Beef Prices: -4% qu. beef demanded
    - Rather insensitive to competing meat prices
  - Beef recalls: -0.2% qu. beef demanded
    - 18 in 2006 to 38 in 2007 = 2.6% impact
  - Female Employment:
    - - 6% qu. beef demanded (+6% for poultry)
  - FAFH Expenditures:
    - -16% qu. beef demanded (+18% & 19% for pork & poultry)

# Meat Demand Study Results

- Health information impacts:
  - Cholesterol, heart disease, arteriosclerosis:
    - Articles quadrupled from 1982-2004 = 9% decline in beef demand (1/3<sup>rd</sup> of 28% decline experienced)
  - net Positive Atkins:
    - 1998-2003 increase of 245% = +2% impact
    - Decline after 2003 = -0.8% impact
  - Zinc, Iron, or Protein:
    - 268% increase (1982-2007) = 7% increase in beef demand (13% increase for poultry)

# Meat Demand Study Conclusions

- Beef has benefited from rising incomes/expenditures
  - Per capita consumption likely will decline in 2009
- Non-price factors are substantial
  - Cholesterol media = 1/3<sup>rd</sup> of decline
  - Recalls doubled from 06' to 07'
  - Convenience matters
    - *Convenient, Microwaveable, Ease of Use* : 3,579 new beef products; 5,633 new poultry products (Mintel, 1997-2008)

# ANIMAL WELFARE/HANDLING

# Animal Welfare Research:

## 3 Surveys Conducted

(Drs. Glynn Tonsor and Christopher Wolf)

- Nov. 2007; 1,000 surveys in MI
    - 205 completes available for analysis
  - June 2008; 1,001 surveys across U.S.
    - Focused on pork; gestation crate use
  - Oct./Nov. 2008; 2,000 surveys across U.S.
    - Focused on gestation crates, laying hen cages, dairy pasture access
- Several projects/grant proposals underway



*Please rank the following species in order of concern you have regarding current animal welfare/handling practices (1 being most concerned):*

	Mean rankings
■ Beef cattle	2.47
■ Dairy cattle	3.01
■ Swine/hogs	3.28
■ Broilers	2.99
■ Laying hens	3.25
<ul style="list-style-type: none"><li>• Beef cattle have highest mean concern<ul style="list-style-type: none"><li>■ Hallmark (Chino, CA) perceptions may underlie this...</li></ul></li><li>• Interesting difference from ballot initiatives...</li></ul>	

## *CA's Proposition 2 Question:*

*Law would require farmers nationally to confine calves raised for veal, egg-laying hens, and pregnant pigs only in ways that allow these animals to lie down, stand up, fully extend their limbs, and turn around freely.*

- CA actual vote: 63% FOR
- Survey national question:
  - National support: 70% FOR
  - CA residents: 70% FOR
  - MI residents: 69% FOR
  - IA residents: 57% FOR
  - Weakest support in SD: 33% FOR

# Perceived Animal Welfare Information Accuracy (1=Very Inaccurate, ..., 7=Very Accurate)

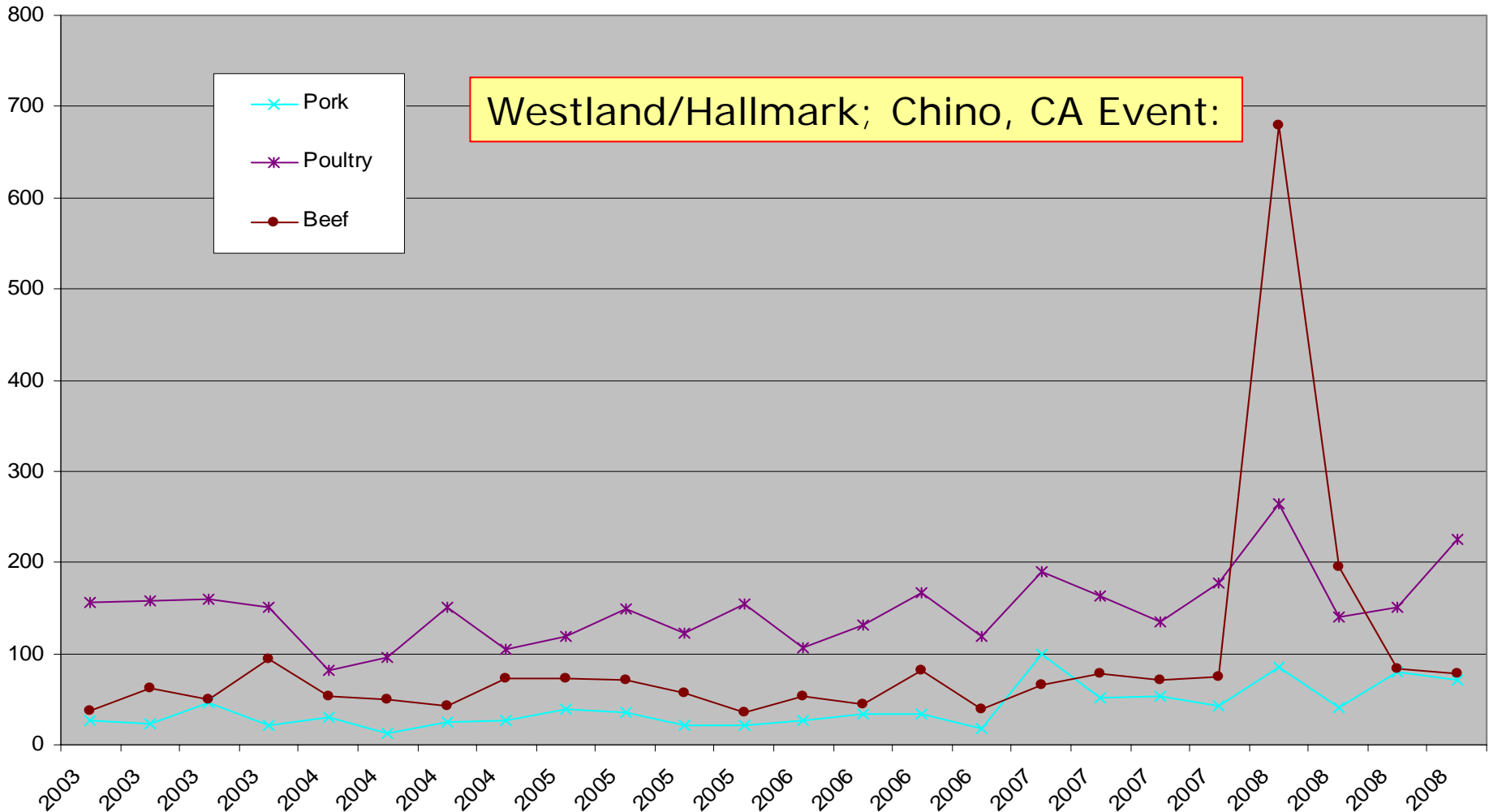
The Humane Society of the U.S. (HSUS)	4.93
University Scientists/Researchers	4.47
People for the Ethical Treatment of Animals (PETA)	4.22
National Milk Producers Federation (NMPF)	4.20
U.S. Poultry & Egg Association	4.18
National Cattlemen's Beef Association (NCBA)	4.11
United Egg Producers (UEP)	4.10
National Pork Producers Council (NPPC)	4.07
State Governmental Agencies	4.00
Federal Governmental Agencies	4.00

# Perceived Ability to Influence and Assure Animal Welfare (1=Very Low Ability, ..., 7=Very High Ability)

Famer/Grower	5.33
Government Inspectors/Regulators	5.16
The Humane Society of the U.S. (HSUS)	5.00
Meat or Milk Processor	4.68
Animal Industry Representative Groups	4.58
People for the Ethical Treatment of Animals (PETA)	4.44
Consumer – Food Purchaser	4.38
Retail Grocer	3.71
Food Service Restaurant	3.59

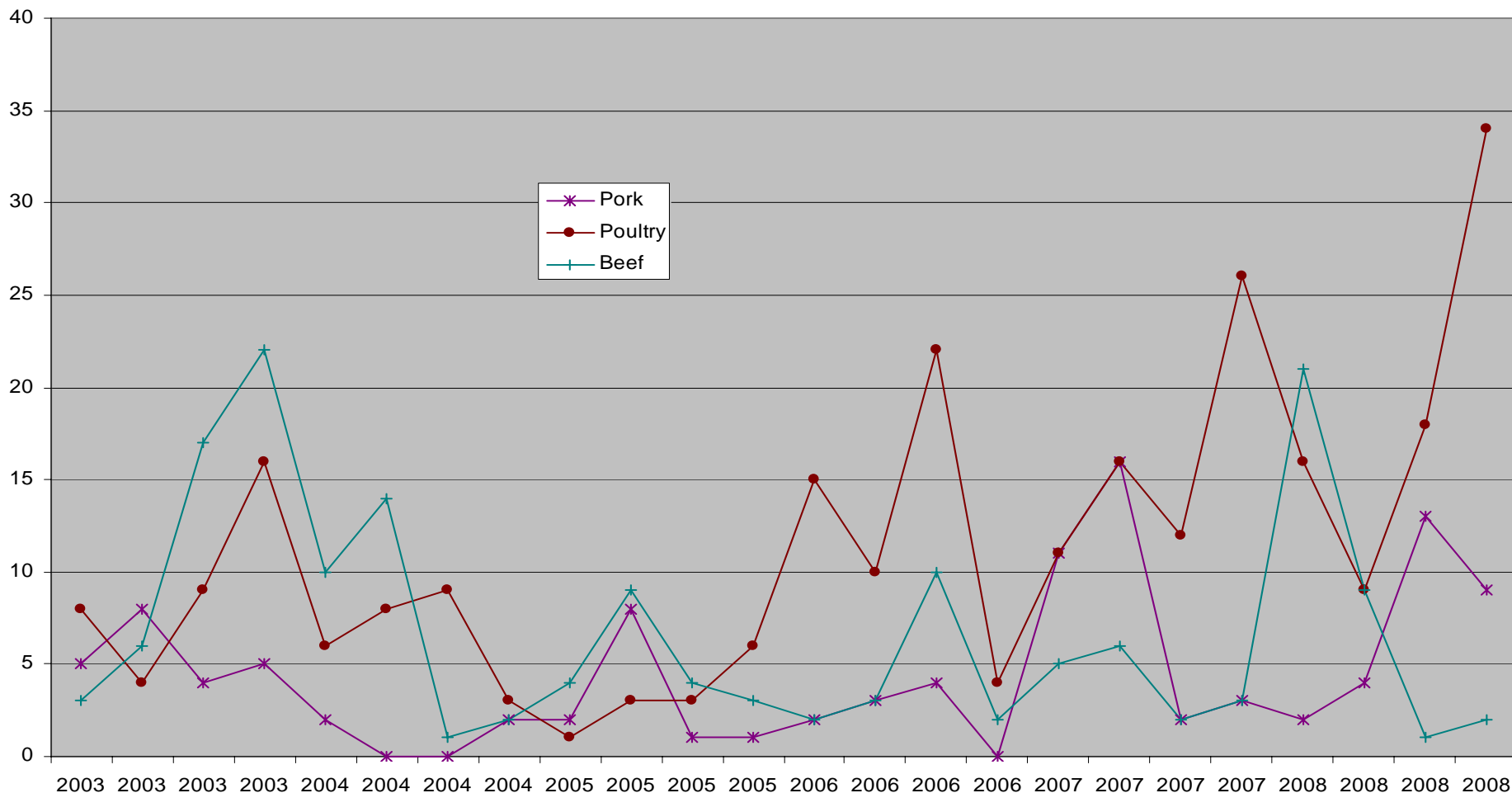
# Lexis-Nexis Media Indices: Consumer Group Sourced Articles

Consumer Group - LN-Media Indices (2003-2008)



# Lexis-Nexis Media Indices: Industry Sourced Articles

Industry Source (2003-2008)



# Summary AW Points

- Consumer desires regularly drive change
  - “Accurate knowledge” is NOT necessary to be influential (perception drives decisions)
- Consumers associate “good AW practices” with smaller farms, higher food safety
- Voting behavior & regulation impacts all
- Little is known about true desires
  - Is group indoor housing sufficient or outdoor pasture necessary???
- “True demand effects” are uncertain; not necessary to drive substantial industry change

# TRACEABILITY & ANIMAL IDENTIFICATION



# Changing International Meat Market and Associated Traceability Drivers

- Drastic changes:
  - Rising demand of Southeast Asia
    - Huge increase in pork exports in 2008
    - “non-US” meat consumption is viewed as the future
  - Traceability’s use in meeting COOL is building ...
  - Example interconnections of industries:
    - USDA Process Verified Programs (PVPs):
      - Uruguay: INAC
        - USDA certifies source, grass fed, no hormone-antibiotics-animal proteins-confinement of cattle raised in URUGUAY
      - Argentina: SENASA
        - USDA certifies Angus breed association of cattle raised in ARGENTINA

# Beef Traceability Systems:

Country	System	Depth	Breadth	Precision
EU & Japan	B	Retail to Farm	Safety & Origin	Individual animals to birth place
Australia	ME	Farm to Abattoir	Safety & Origin	Individual animals to birth place
Brazil, Argentina, Canada	ME	Farm to Abattoir	Safety & Origin	Group of animals to birth place
U.S.	V	P	P	P

M=Mandatory, V=Voluntary, B=Both Man. & Vol., ME=Mand. For Export  
P = Potential characteristic

# Crude Eastern Cornbelt Snapshot (2.08' Cattle Feeding Shortcourse)

What is the minimum premium you would accept to do these 4 things:

- 1) keep unique birth/placed and sale dates,
- 2) ensure all animals are individually and uniquely tagged,
- 3) record prior owner of all animals, and
- 4) keep all records available for audit for at least 3 years.

5.) What is the minimum premium you would accept to do those 4 things?

\$0 / "I already do all 4 things"	21%	16
\$1-\$5/head	17%	13
\$6-\$10/head	27%	21
\$11-\$15/head	18%	14
Over \$15/head	16%	12
"I would never do these 4 things"	1%	1

77

# Highlighted Suggestions for U.S. Beef Industry

- Int'l meat market changes
  - Keep up or get out
    - Cost/benefit analysis of NAIS
    - Example: Australia has benefited in Japan from BSE
- Domestic issues
  - Keep up with poultry/pork or lose demand
    - Quality/consistency issues must be addressed
    - Traceability can improve reward/penalty systems
  - Address consumer concerns
    - Food safety, animal welfare, general production practices all require traceability & verification

# FOOD SAFETY

# Food Safety

- Recent Beef Board Study (Class I and II FSIS recalls):
  - Small but statistically significant impacts
  - Impacts can be large:
    - 18 in 2006 to 38 in 2007 = 2.6% reduction in qu. beef demanded

# Consumer Valuations of Beef Steak Food Safety Enhancement in Canada, Japan, Mexico, and the United States

Glynn Tonsor; Michigan State University

Ted Schroeder; Kansas State University

Joost Pennings; Maastricht Univ., Wageningen Univ., and Univ. of Illinois

James Mintert; Kansas State University

*Canadian Journal of Agricultural Economics*  
Forthcoming

# Conclusions/Implications

- Canada /US= Concave; Japan/Mexico = Convex;
  - Optimal food safety investments will likely differ across and within countries
- If consumers view food safety improvements as marginal:
  - Beef industry should consider investing in improving tenderness
    - US consumers may be better target than Canada, Japan, Mexico
- If consumers view f. s. improvements as significantly reducing risk:
  - F.s. investments targeting Japan or Mexico become more viable
  - US consumers may still prefer enhanced tenderness
- Preference heterogeneity is strong within countries as well
  - Investments that only need a small market share may be viable
    - Even if the average consumer isn't WTP associated premiums.



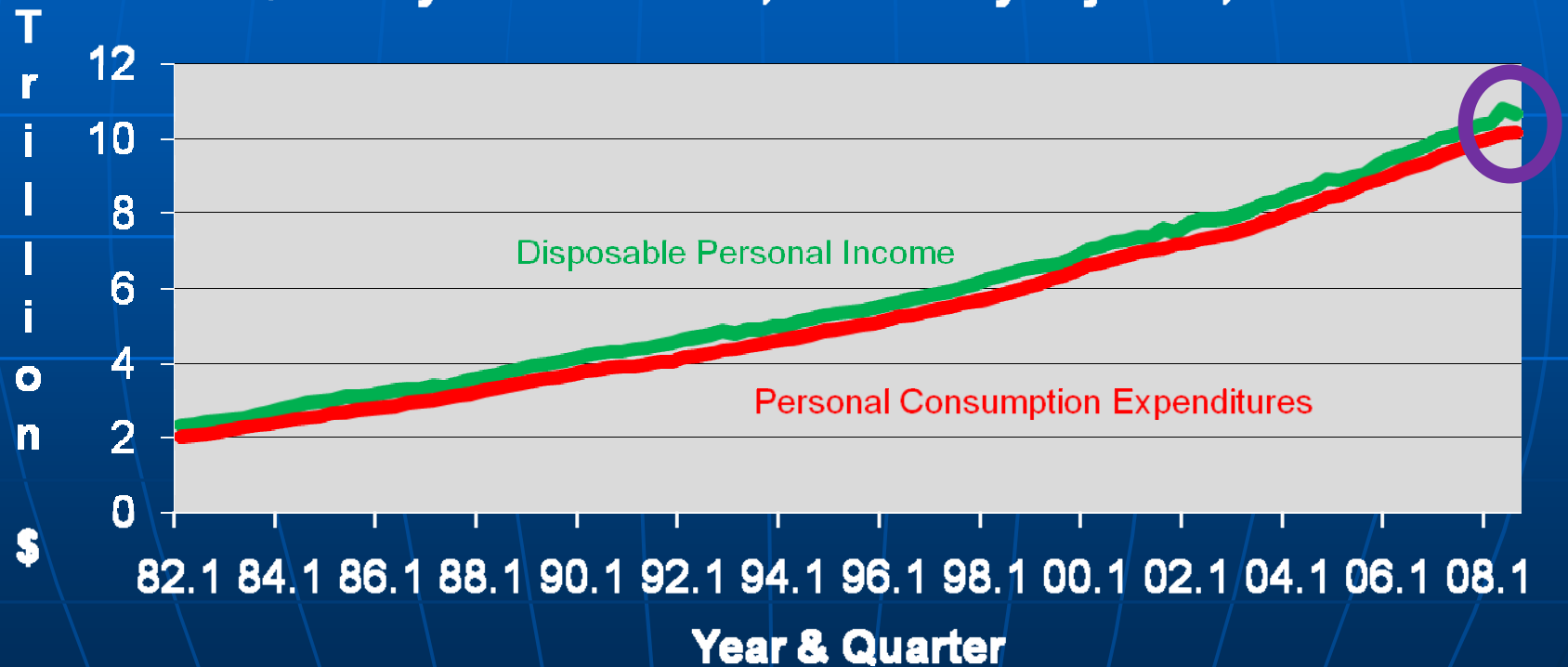
# QUESTIONS

- Tonsor's website (includes presentation):
  - <http://www.msu.edu/user/gtonsor/>

Other charts from meat  
demand study:

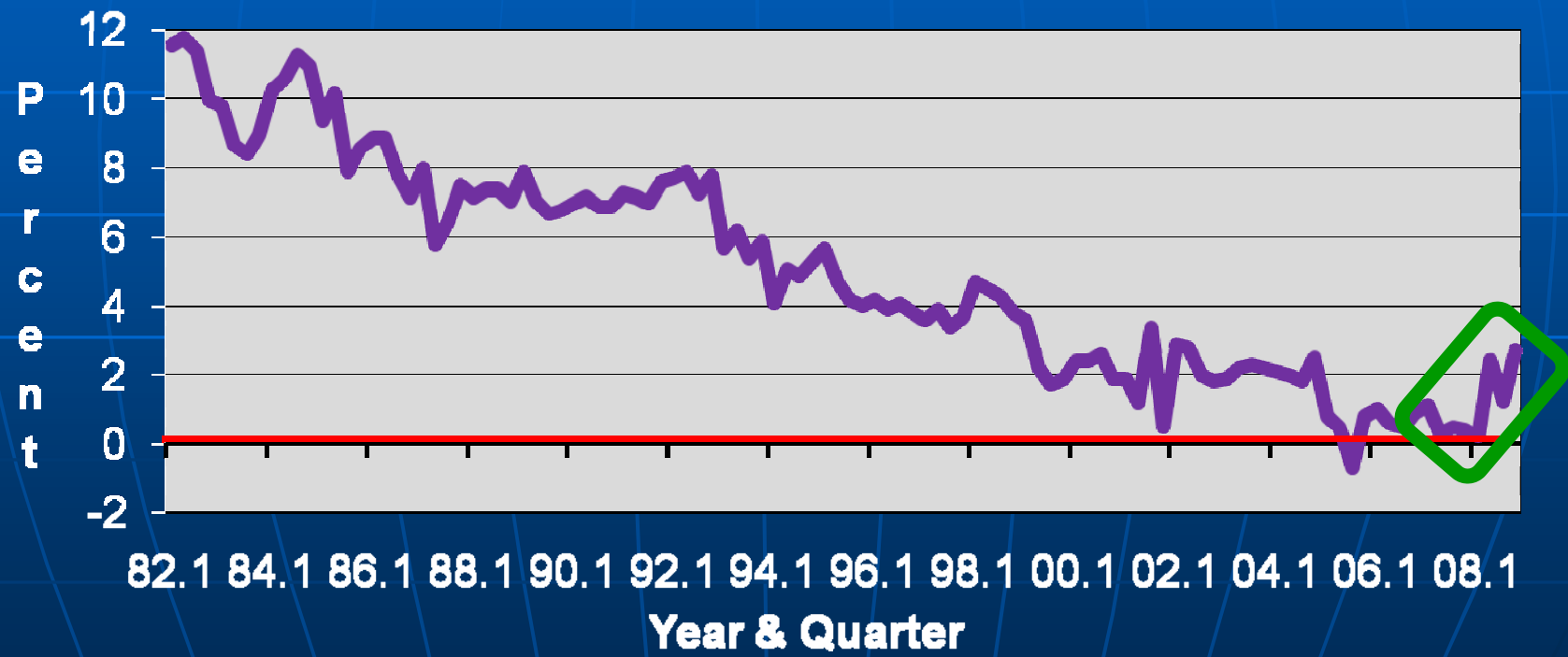
# Weaker Consumer Incomes Means Consumer Spending Will Decline

**Personal Disposable Income vs.  
Personal Consumption Expenditures**  
Quarterly at Annual Rate, Seasonally Adjusted, 1982-2008



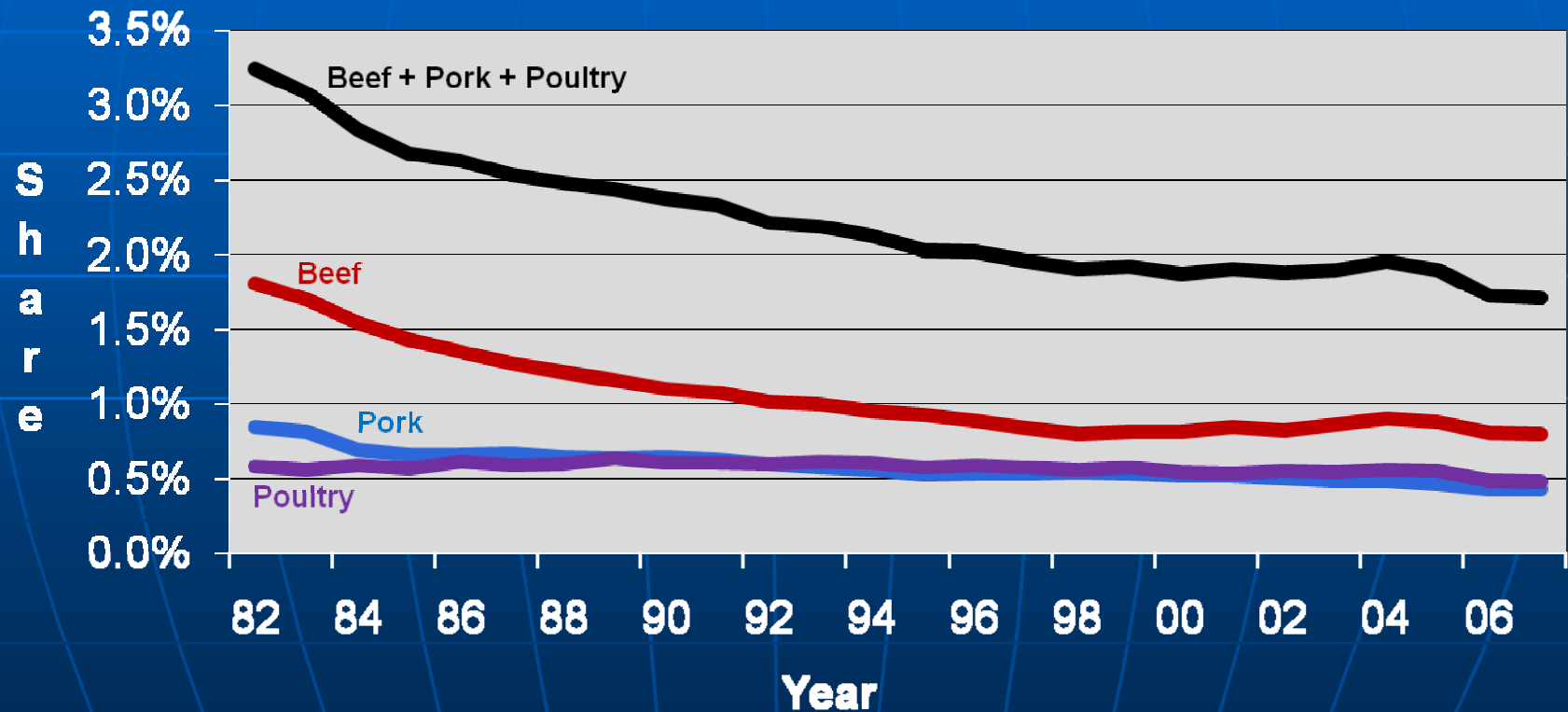
# Consumers Pushing Savings Rate Back Up Which Will Also Hold Down Consumption

**Personal Savings  
% of Disposable Personal Income  
Quarterly, 1982-2008**



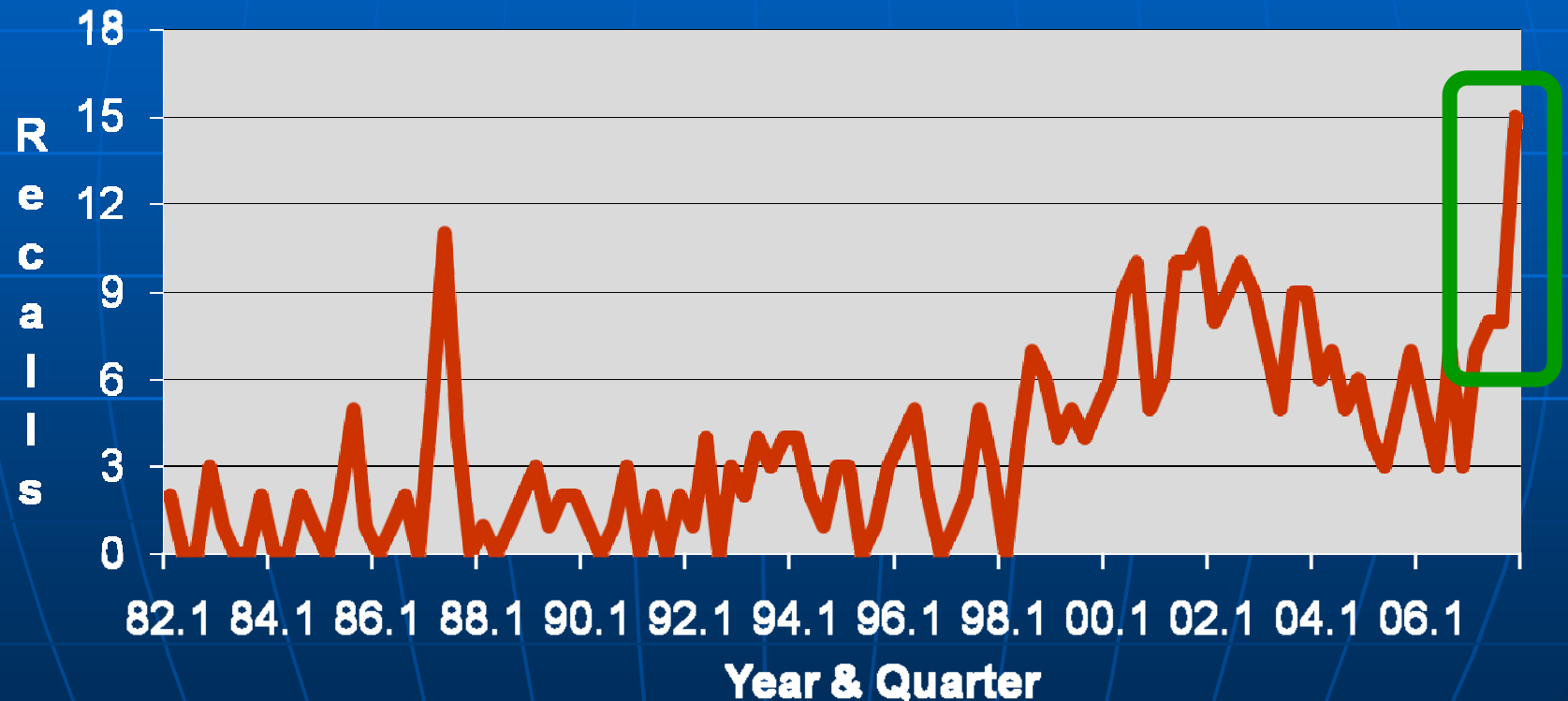
# Beef Expenditures Are Small Relative to Income

**Beef, Pork, and Poultry Expenditures  
As a Percentage of Disposable Personal Income, 1982-2007**



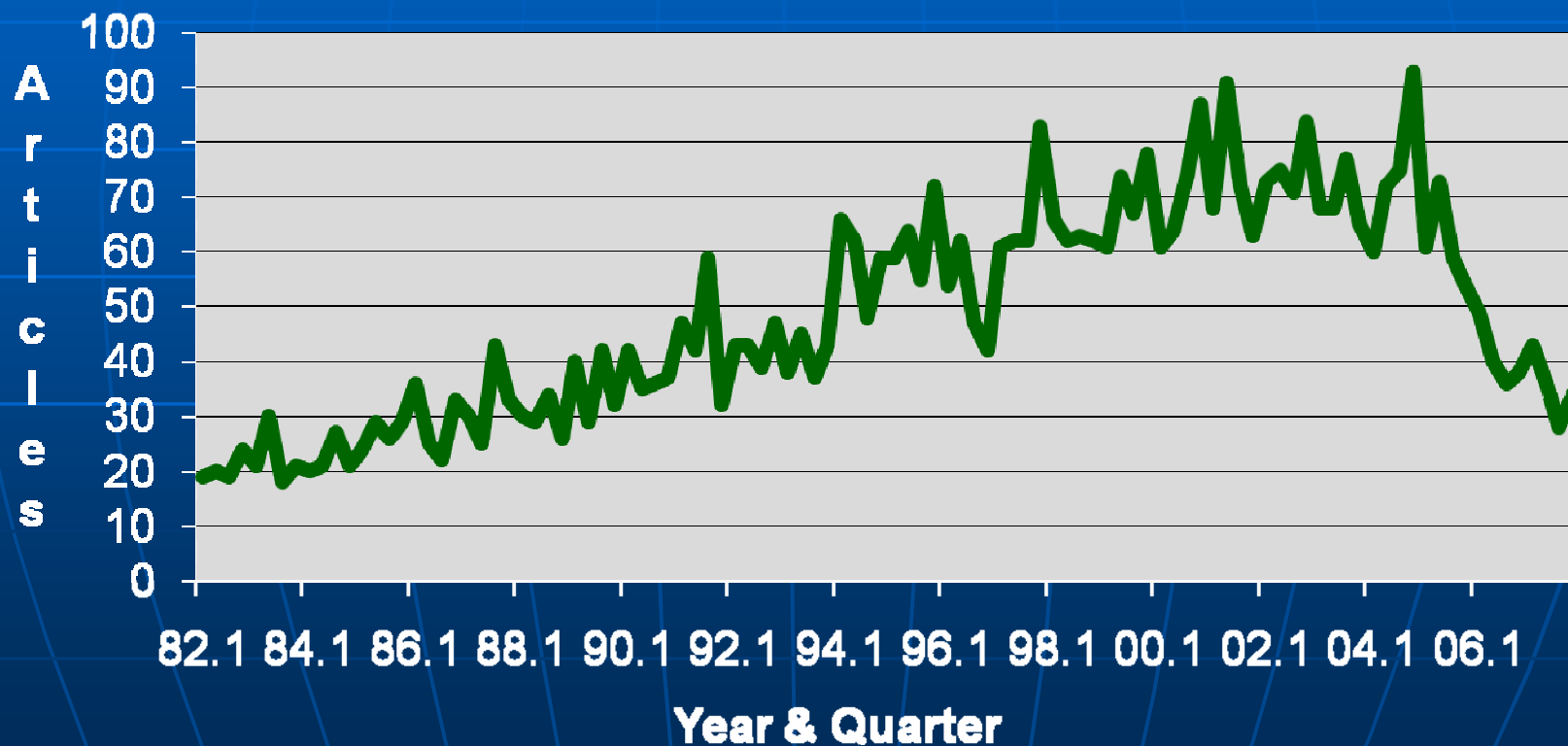
# Beef Food Safety Recalls Increasing

**Beef Food Safety Recalls**  
**Class I & II Recalls, Quarterly, 1982-2007**



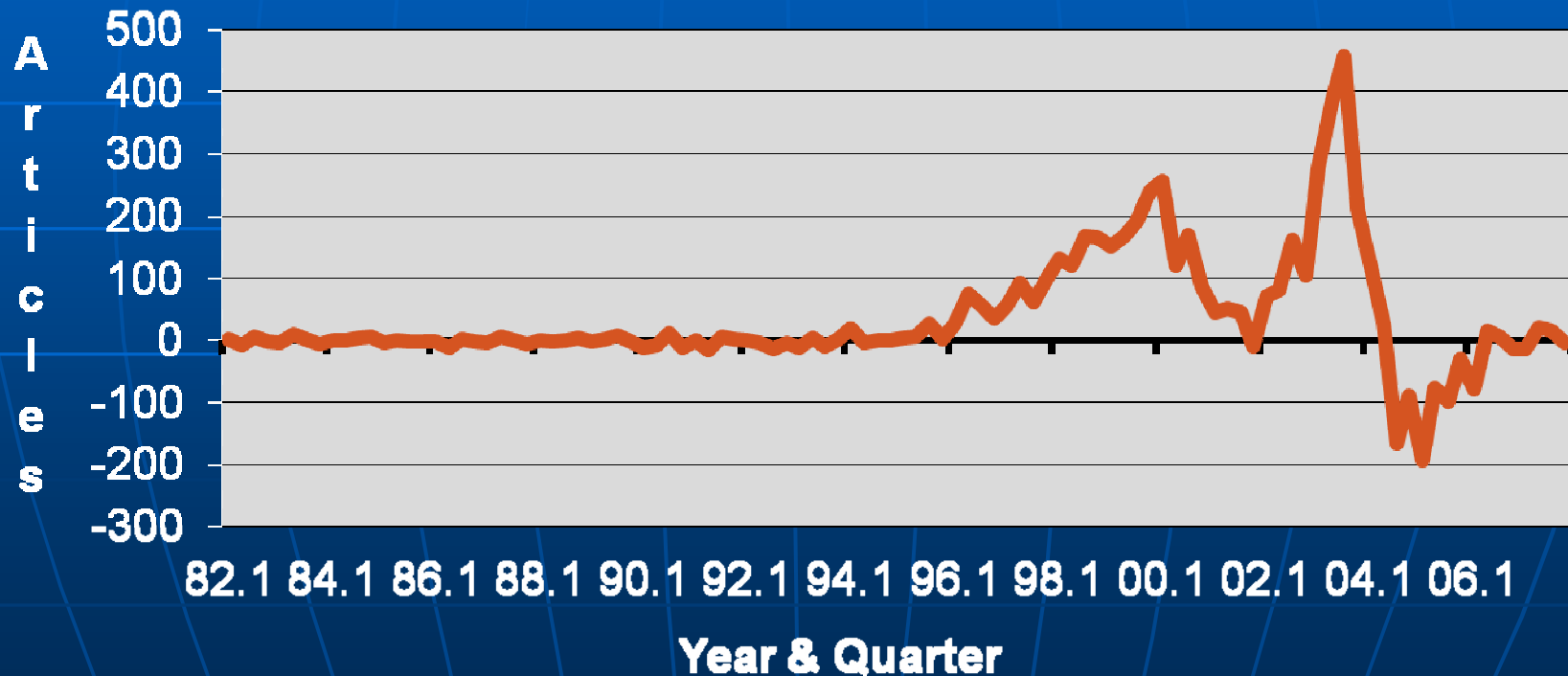
# Medical Journal Info. on Heart Disease Peaked, But Still Having a Negative Effect

**Articles Published Referencing Heart Disease & Diet  
Medical Journals, Quarterly, 1982-2007**



# Atkins Diet Did Boost Beef Demand But The Atkins Diet Fad Is Over

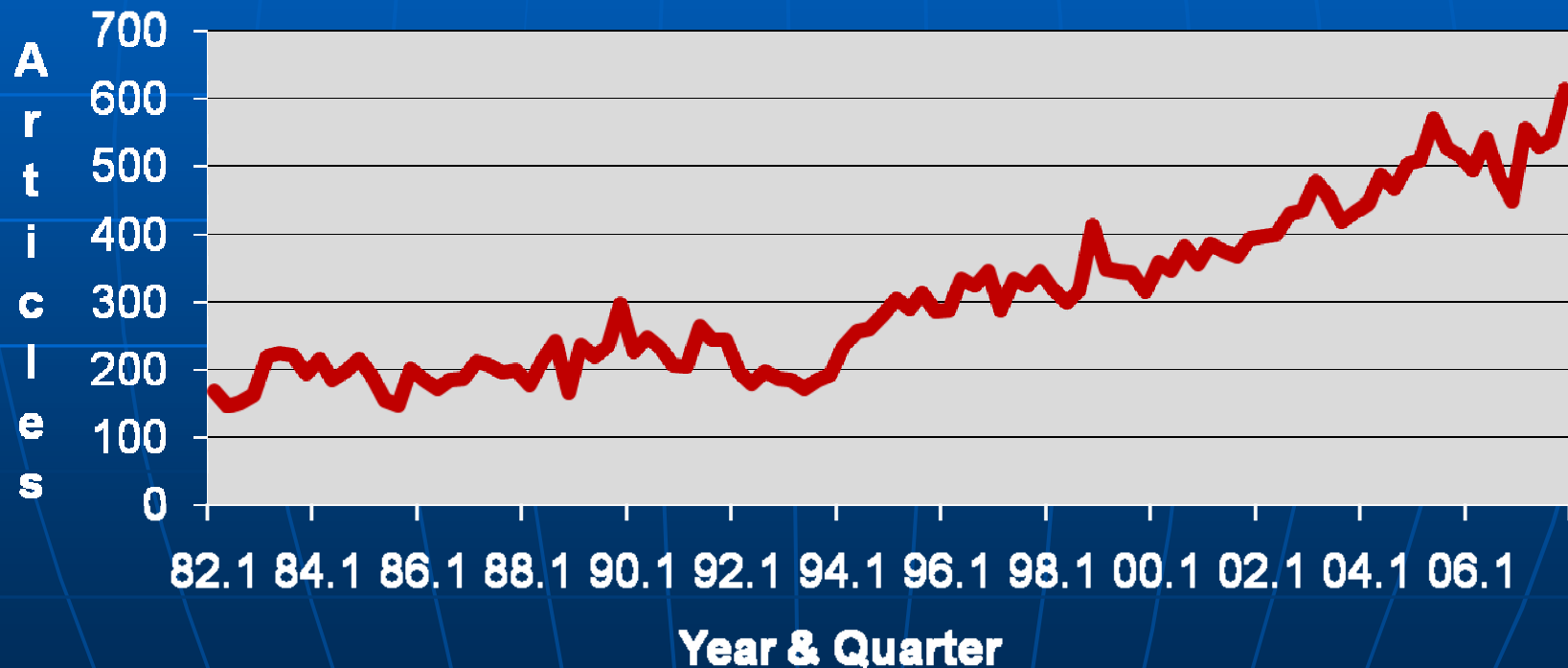
**Net Articles Published Referencing Atkins Diet  
Positive Minus Negative Articles, U.S. Newspapers,  
Quarterly, 1982-2007**





# Consumer Awareness About One of Beef's Positives Is Increasing

**Articles Published Referencing  
Zinc or Iron or Protein & Diet  
U.S. Newspapers, Quarterly, 1982-2007**



# Female Employment Surged in '80's & 90's But Leveled Off Over the Last Decade

**Percent of Females Employed Outside the Home**  
**Quarterly, 1982-2007**



# Food Consumed Away from Home Increased But Leveled Off Recently

**Percentage of Food Consumed Away From Home  
Quarterly, 1982-2007**

