

Impacts of Welfare Media Coverage on Meat Demand

Glynn Tonsor

**Dept. of Agricultural Economics
Kansas State University**

***NIAA Animal Care Council
San Antonio, TX (April 12, 2011)***

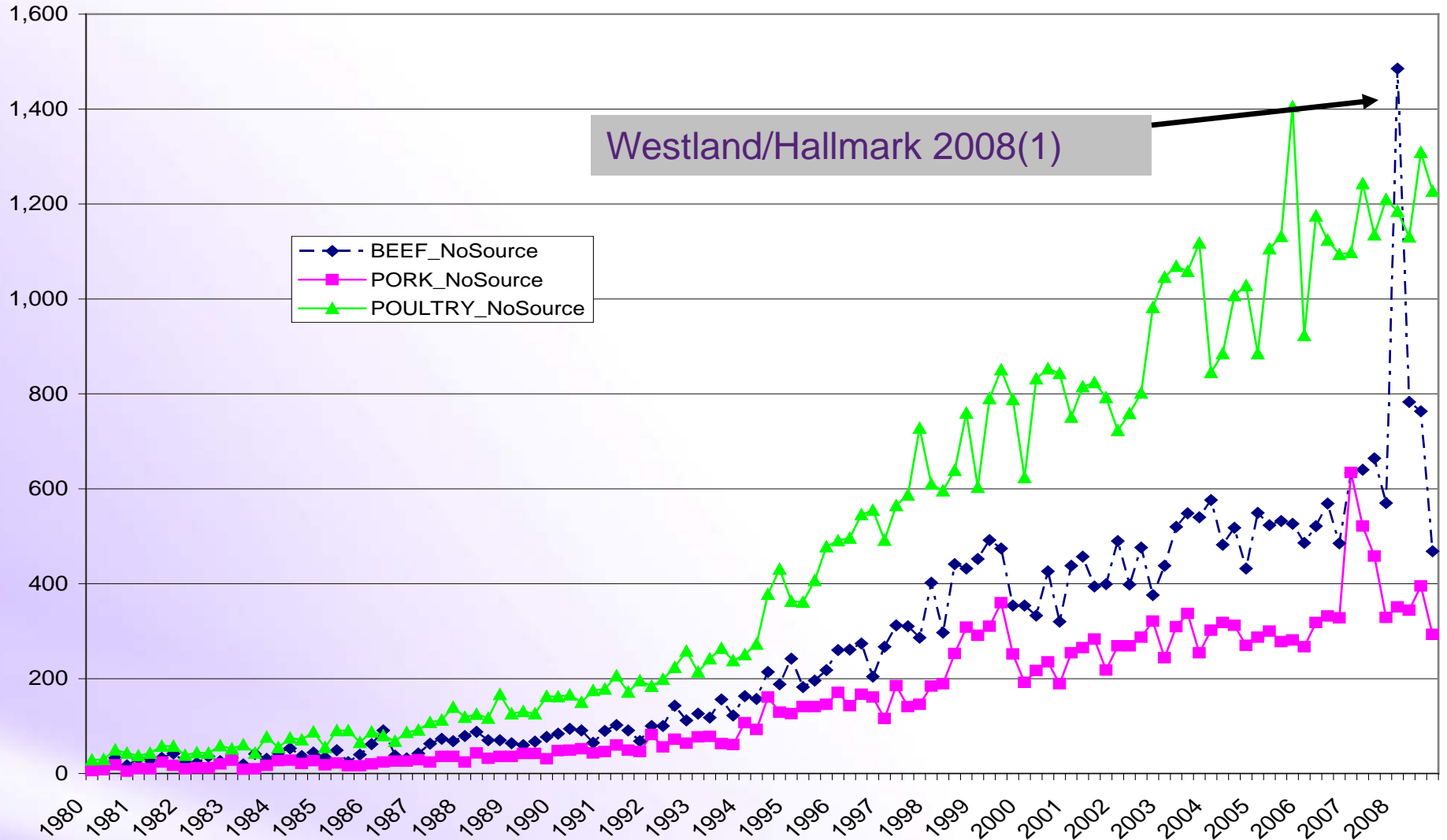
Background & Objective

- Animal welfare (AKA care, handling, well-being) is a rapidly growing issue in the U.S.
- Yet, no known analysis of aggregate meat demand impacts exist...
 - Objective of this study (collaborated w/ Dr. Nicole Olynk, Purdue University)

Methods: Media Indices

- Lexis-Nexis searches (1980-2008) of major U.S. newspaper and magazine articles with key words:
“(animal welfare) or (animal friendly) or (animal care) or (animal handling) or (animal transportation) or humane or (humanely raised) or cage or crate or stall.”

Species-Specific Indices



Methods: Model

- Estimated aggregate demand model
 - Beef, pork, poultry, non-meat food
 - Allow for “cross-meat” and “out of meat” substitution impacts
- Control for time trends, quarterly seasonality, prices, total meat expenditures, and AW media impacts

Results Summary

- *Reject* null hypotheses of:
 - No AW media effects
 - AW media effects being contemporaneous only
 - AW media effects extending beyond 6 months
 - SO: AW media effects are significant in the quarter of article release & one subsequent quarter...
- *Fail to reject* null hypotheses of:
 - Cross-species spillover effects = 0
 - SO: AW impacts lead to expenditure reallocation to non-meat food rather than to increases in competing meats...

Results Summary

- AW media elasticities are notably smaller than price & expenditure effects
- Increases in AW media have:
 - Not directly impacted beef demand
 - Reduced pork demand (both in short- and long-run)
 - Reduced poultry demand (in long-run)
- 1999(1)-2008(4) pork & poultry AW media indices increased by 181% & 253%
= 2.65% & 5.01% demand reductions...

Implications for Industry

- Aggregate meat demand impacts exist. Do they cover avg. adjustment costs?
 - Highlights the resident voting vs. consumption decision dilemma that needs further research...
 - Also consistent with limited “free market” disadoption observed to-date by livestock industry...
- Budget reallocation effects:
 - Supports notion of a broader meat industry response rather than species-specific responses
 - All species lose as expenditures leave meat complex...

Future Work Opportunities

- Reassessment & replication needed
- Net Information vs. Separating out “positive,” “negative,” and “neutral” articles...
- No delineation by source considered...
- Broader global “comparative advantage” consideration needed (pork exports: 20-25%)

More information available at:
AgManager (<http://www.agmanager.info/>)

<http://www.agmanager.info/livestock/marketing/AnimalWelfare/default.asp>
Fact Sheet, Journal Article, YouTube Videos,.....

Glynn T. Tonsor
Assistant Professor
Dept. of Agricultural Economics
Kansas State University
gtt@agecon.ksu.edu

Compensated Elasticities

with respect to:	Quantity of:			
	Beef	Pork	Poultry	Other Food
<i>Short Run Animal Welfare Elasticities:</i>				
Beef AW Index	0.0049			-0.0001
Pork AW Index		-0.0066		0.0001
Poultry AW Index			0.0057	0.0000
<i>Long Run Animal Welfare Elasticities:</i>				
Beef AW Index	0.0063			-0.0001
Pork AW Index		-0.0146		0.0001
Poultry AW Index			-0.0198	0.0001

- Elasticities are notably smaller than Price & Exp.
- 1999(1)-2008(4) pork & poultry indices increased by 181% & 253% = 2.65% & 5.01% demand reductions...
- Cross-species effects = 0
 - However expenditure reallocates to non-meat food