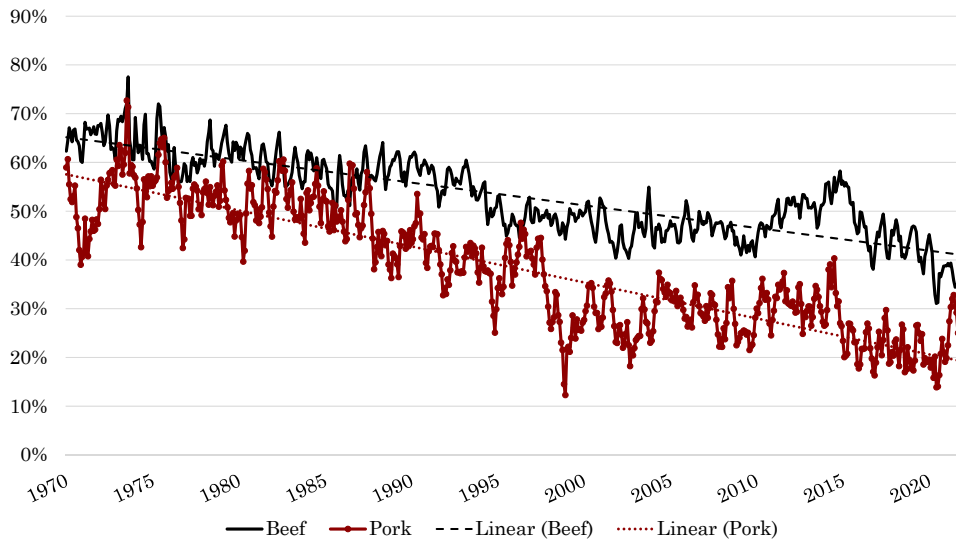


Insights on Beef & Pork Marketing Margins

Jaime Luke, Glynn Tonsor
Risk & Profit Conference
August 2022

The findings and conclusions in this presentation are those of the author(s) and should not be construed to represent any official USDA or U.S. Government determination or policy. This presentation was supported in part by the U.S. Department of Agriculture, Economic Research Service.

Historical Farmers' Share of the Retail Beef & Pork Dollar





BRIEFING ROOM

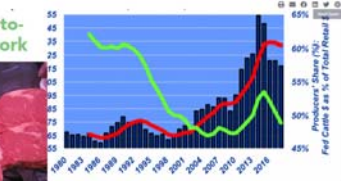
Recent Data Show Dominant Meat Processing Companies Are Taking Advantage of Market Power to Raise Prices and Grow Profit Margins

DECEMBER 16, 2021 • BLOG

By: Brian Deese, Sameera Fazili, and Bharat Ramamurti

The Biden Administration has been working at every level to address supply chain issues that are affecting prices. Many such issues are related to the pandemic-like changes in demand patterns, bottlenecks, or disruptions. But for some price increases affecting Americans directly,

Pandemic Results in Record Farm-to-Retail Price Spreads in Beef and Pork



money in retail beef sales gets funneled back to producers? Here's a look.

May 11, 2021

PORK

NEWS

Farmers' Share Of Food Dollar At Record Low

AMERICAN FARM BUREAU FEDERATION April 26, 2020

USDA's Economic Research Service's Food Dollar Series recently revealed that in 2016 the farmers' share of the food dollar fell to 14.8 cents, down 4.5 percent from the prior year and the lowest level since the series was launched in 1993.

When adjusted for inflation, in 2009 dollars, the farmers' share of the food dollar was 12.2 cents, down 11.6 percent from 2015 and again the lowest level since the series began.

f t in

FARMERS' SHARE OF FOOD DOLLAR IS SHRINKING

A DECADE AGO, FARMERS RECEIVED 17.6¢ OF EACH \$1 SPENT ON FOOD BY AMERICANS.

By Chuck Abbott

5/19/2021

Listen to article 2 minutes

A decade ago, farmers received 17.6¢ of each \$1 spent on food by Americans. Their share now is barely above 14¢ while processors, retailers, and others in the food chain take a larger share, according to USDA economists, who have tracked the farmer/marketer



An example of farmers' share in proposed policy:

Small Family Farmer and Rancher Relief Act (H.R. 8590)

- Introduced by Rep. David Scott (R-GA) in July 2022
- Stronger safety net, increased competition and market access for small beef producers (100 head or fewer)
- Beef Cattle Spread Coverage Program
 - Create a USDA indemnity program administered by the Farm Service Agency (FSA) that provides relief to small producers *when the farmer's share of the retail dollar drops below 51.7 percent*
 - Indemnity rate is calculated based off the "spread" or difference between the price of fed beef cattle, the price of boxed beef sold at the wholesale level and *the price of beef sold at retail*
 - Aims to provide small producers with protection against significant swings in the difference between cattle prices, wholesale beef prices, and retail prices

Notes on marketing margins

FINAL NOTE:

Farmers' share statistics are not a good measure of industry well-being

“The lack of informational content in [farmers' share] statistics suggests these data **should not be used for policy purposes.**”

-Brester et al., 2009

- Retail meat prices are calculated by USDA using Bureau of Labor Statistics (BLS) prices
- BLS collects prices to calculate CPI and track inflation
- BLS retail meat prices are simply price **observations**
- Observed prices do not account for larger quantities purchased at lower prices due to sales and promotions



BLS Retail Beef Price

Ground Beef

- Fresh regular 100% ground beef excluding round, chuck, and sirloin. Includes organic and non-organic. Excludes pre-formed patties.

Round Roast

- Boneless, USDA Choice uncooked round roasts, regardless of cut. Includes organic, non-organic, fresh, and frozen.

Sirloin

- Boneless, USDA choice sirloin steaks, regardless of cut. Includes organic, non-organic, fresh, and frozen.



BLS Retail Pork Price

Bacon

- Pre-packaged, thick sliced, regular sliced or thin sliced pork bacon, regardless of process state.

Chops

- Bone-less chops regardless of type, loin source, or processing state.

Ham

- Bone-less ham, regardless of cut, skin status, cure status, process status, or smoke status. Excludes canned ham.



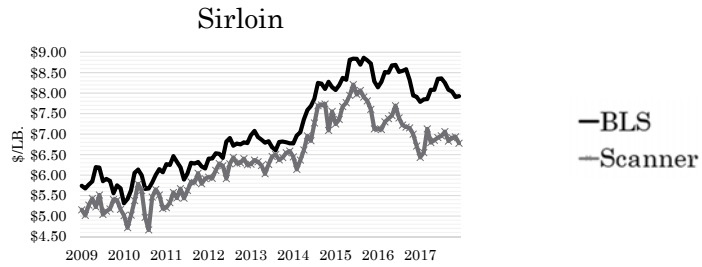
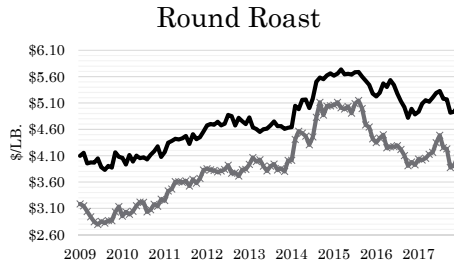
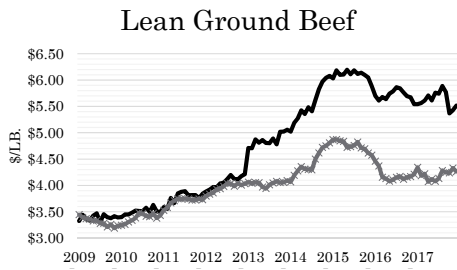


- **Scanner-based transaction data** offer an alternative to simple average BLS prices
- Allow for average price calculations considering price **AND** quantity purchased
- Prices available for a greater number of meat cuts
- Perhaps more accurate representation of what consumers are actually paying for meat

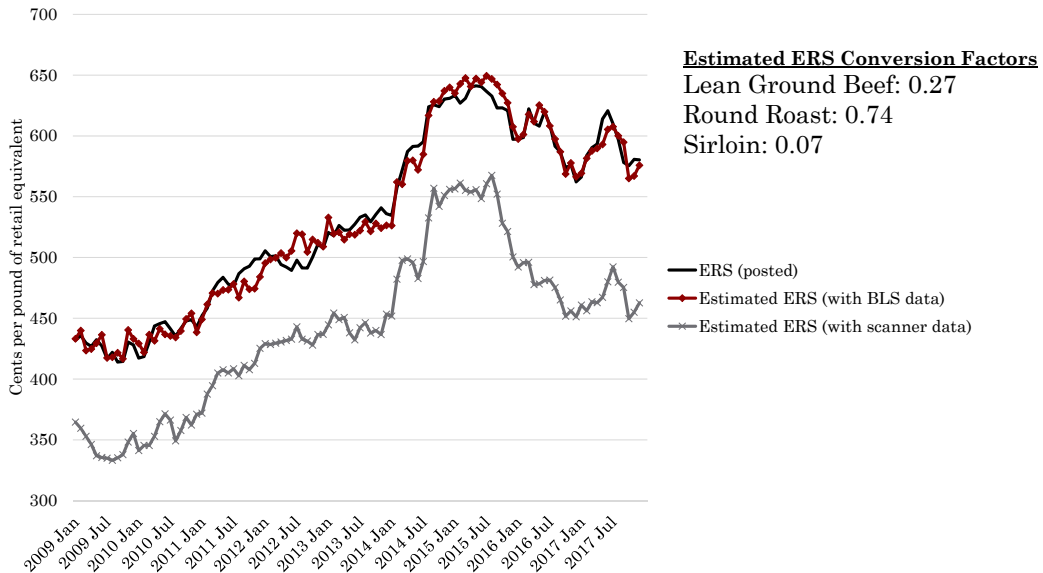
Scanner Data

- Third-party agreement with USDA Economic Research Service (ERS)
- IRI Infoscan random weight data
- Jan 2009 – Dec 2017
- Accounts for ~50% of retail food sales in the U.S.
- Primarily grocery stores (\$2 million + in annual sales) & mass merchandisers
 - Kroger, Publix, Sam's, Target, Walmart
- Data limitations
 - Urban biased (meat sales in rural areas underrepresented)

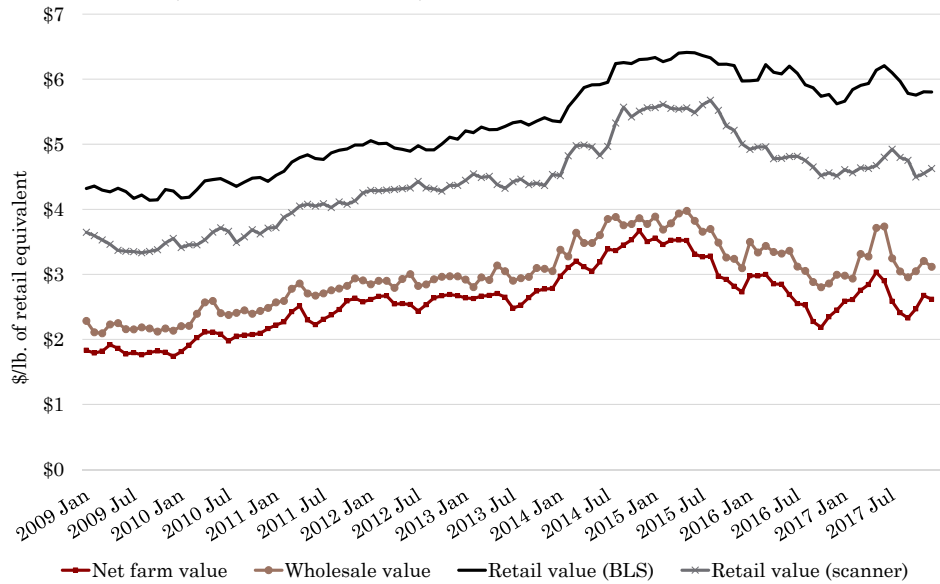
Average Monthly Retail Beef Prices



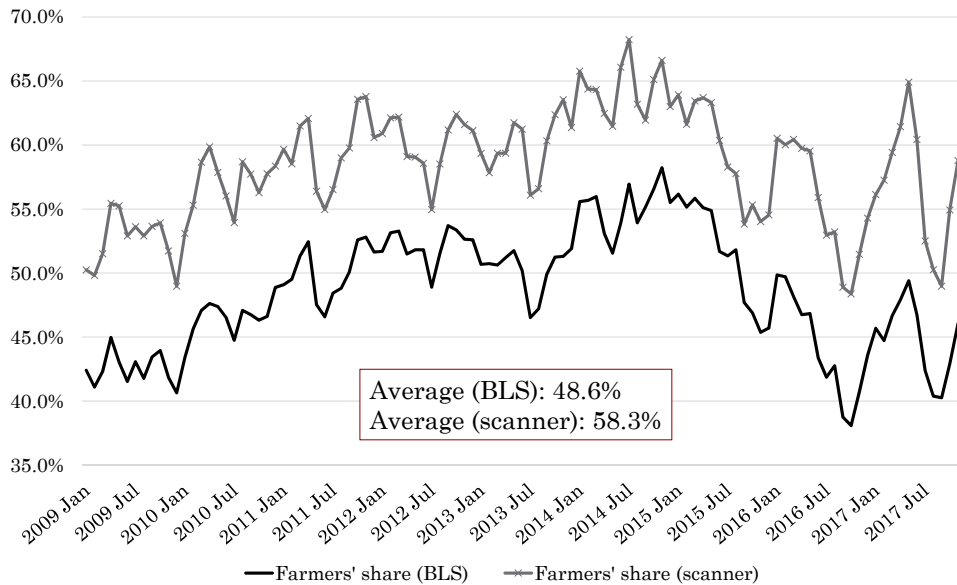
Beef Retail Value



Farm, Wholesale, and Retail Beef Prices



Farmers' Share of the Retail Beef Dollar



Beef Price Bias

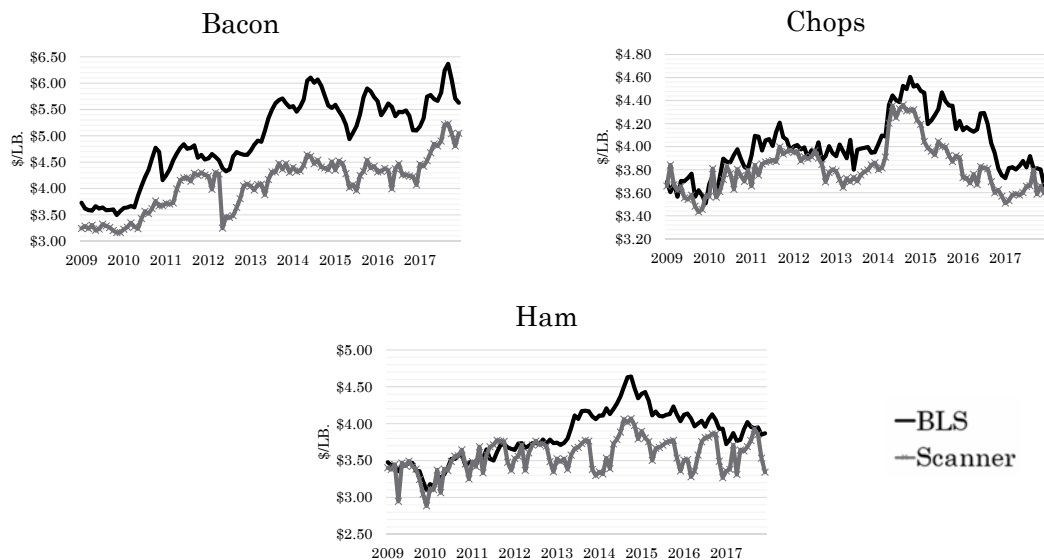
$$\text{Beef Farm-to-Retail Spread} = \beta_1 + \beta_2 * (\text{BLS} - \text{Scanner}) + \beta_3 * 2010 \text{ dummy} + \dots + \beta_{10} * 2017 \text{ dummy}$$

Significant upward bias in the BLS vs. scanner price spread from 2013-2017 relative to 2009

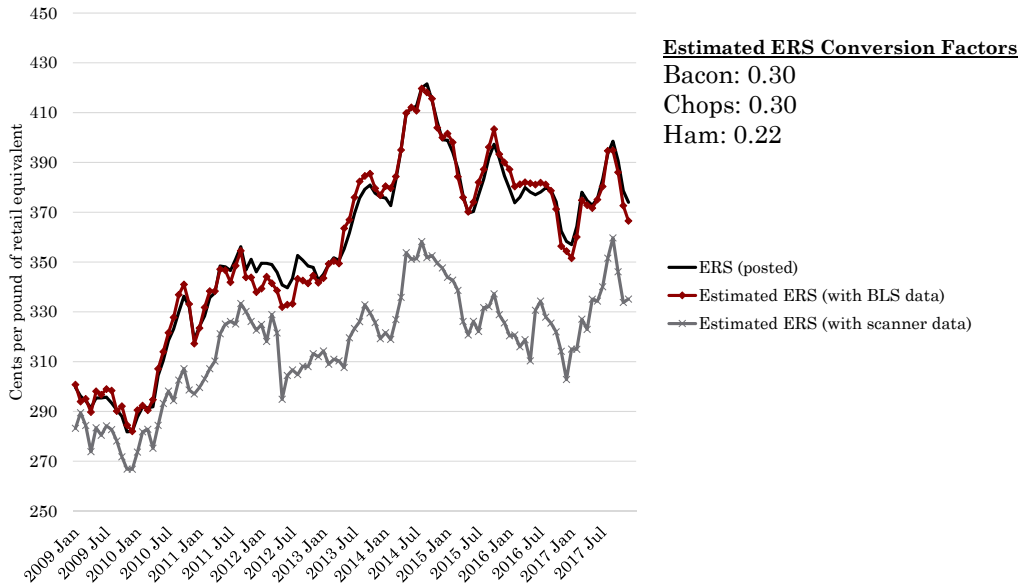
Dependent variable:	
Beef Farm-to-Retail Margin	
BLS/scanner price spread	0.31** (0.14)
2010 dummy	-10.28* (5.68)
2011 dummy	-3.88 (5.70)
2012 dummy	-1.79 (6.04)
2013 dummy	16.85*** (5.71)
2014 dummy	21.40*** (5.71)
2015 dummy	59.62*** (5.68)
2016 dummy	75.04*** (8.03)
2017 dummy	67.59*** (8.28)
Constant	219.83*** (12.03)
Observations	108
R ²	0.88
Adjusted R ²	0.87
Residual Std. Error	13.90 (df = 98)
F Statistic	83.45*** (df = 9; 98)

Note: *p<0.1; **p<0.05; ***p<0.01

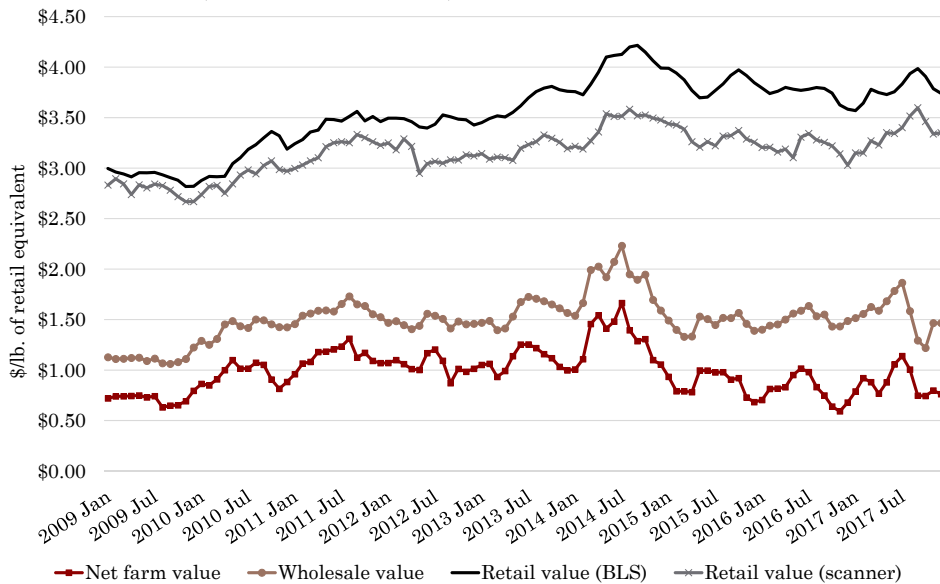
Average Monthly Retail Pork Prices



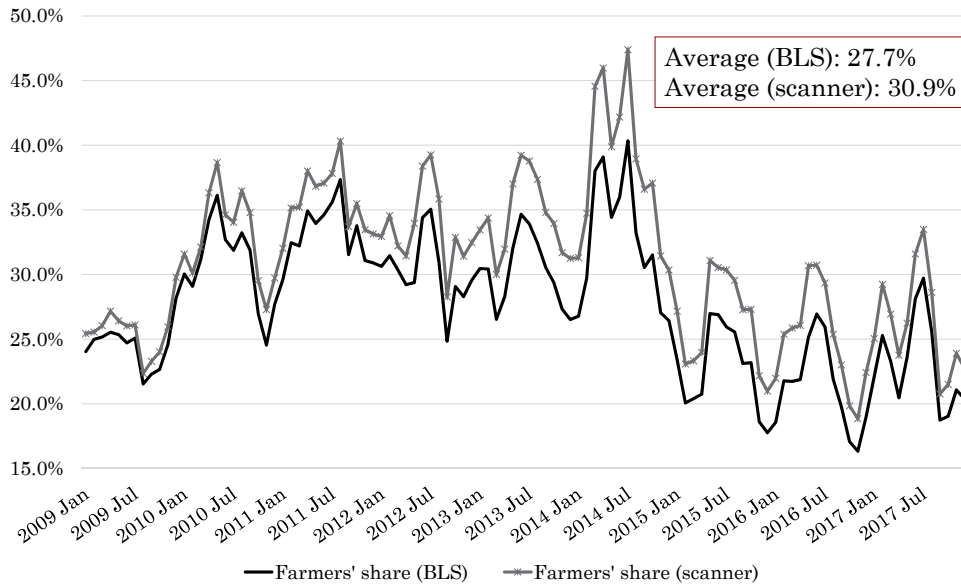
Pork Retail Value



Farm, Wholesale, and Retail Pork Prices



Farmers' Share of the Retail Pork Dollar



Pork Price Bias

$$\text{Pork Farm-to-Retail Spread} = \beta_1 + \beta_2 * (\text{BLS} - \text{Scanner}) + \beta_3 * 2010 \text{ dummy} + \dots + \beta_{10} * 2017 \text{ dummy}$$

Significant upward bias in the BLS vs. scanner price spread from 2015-2017 relative to 2009

Dependent variable:	
Pork Farm-to-Retail Margin	
BLS/scanner price spread	0.82*** (0.23)
2010 dummy	-10.63* (5.91)
2011 dummy	-0.14 (6.22)
2012 dummy	3.78 (7.49)
2013 dummy	7.15 (9.35)
2014 dummy	12.95 (11.67)
2015 dummy	44.06*** (10.87)
2016 dummy	39.82*** (11.11)
2017 dummy	44.45*** (9.22)
Constant	210.27*** (4.91)
Observations	108
R ²	0.85
Adjusted R ²	0.83
Residual Std. Error	13.93 (df = 98)
F Statistic	59.58*** (df = 9; 98)
Note:	* p<0.1; ** p<0.05; *** p<0.01

Future Research

Updated data

- Analyze 2018-2020 data
- BLS price collection went online during Covid
- Fewer promotions in stores in early months of Covid?

Improved process

- Scanner data provide opportunity to develop a more representative retail meat price
- How could ERS better utilize meat scanner data?

Conclusion

Quantity-weighted scanner retail meat prices are lower than simple average BLS meat prices

- Farmers' share of retail dollar for beef and pork is higher when using scanner prices as compared to BLS prices
- Farmers' share statistics are not a good measure of industry well-being and should not be used for policy purposes
- BLS beef and pork prices are becoming significantly positively biased over time
- There remains room for improvement in ERS retail meat price calculations

THANK YOU

Questions?

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