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Price Data for Sheep and Lambs

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Overview

- History of livestock price reporting for livestock in general
- Mandatory price reporting for livestock
- Problems with mandatory price reporting specifically for sheep & lambs
- Brief note on previous research on solving these problems
- Summary





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Why do we need price information?

- To help producers and packers make decisions
- Improve market efficiency
 - More information is good for competitive markets
 - Could make collusion easier in noncompetitive markets





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History of Price Reporting for Livestock

- In the late 19th century, development of railroads led to development of terminal markets for all livestock
- These terminal markets were public auction markets
- News media reported prices paid at these markets
 - Later government collection and reports of these prices





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Post World War II

- Still had terminal markets but added
 - Smaller country auctions based on truck transport
 - Packer buying stations
 - Direct to packer sales
 - Packer buyers visiting producers
 - Producers delivering directly to packers





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Pricing for Direct to Packer Sales

- Negotiation between packer and producer
 - Negotiations would be influenced by auction price reports
- Formula pricing
 - Pay based on reported auction price





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Livestock Market Developments: 1960-1980s

- Terminal markets declined and eventually disappeared
- Country auctions declined
- Direct sales increased in importance

- Less publicly-available price information





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Direct Sales Complicate Price Reporting

- Sales price not seen by 3rd parties
- Solution for price discovery: voluntary price reporting
 - Reporters would contact both buyer and seller
 - Agricultural Marketing Service (AMS) was authorized to provide voluntary price reports by the Agricultural Marketing Act of 1946
 - Packers begin to use voluntary reports in formula pricing





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Alternative Marketing Arrangements

- Packers and producers enter longer term relationship
 - Ensure market access for producer, animals for packers
 - Specific qualities of livestock for packers
- Usually with formula pricing
- These transactions were not reported





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In response to growth of alternative marketing arrangements and decline of auctions...

- Producers lobbied for Mandatory Price Reporting (MPR)
- MPR passed in 1999, implemented April 2002
 - Covers sheep, lambs, imported and domestic lamb meat
 - Hogs mandatory reporting, pork reporting added later
 - Cattle, cattle and domestic beef sales





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One Problem with Mandatory Reporting

- If there were too few firms in the market, a firm could calculate what its competitors paid or received
 - This could make collusion easier
- USDA's Agricultural Marketing Service created the 3/70/20 guideline





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3/70/20 Guidelines

- Three or more firms report at least 50% of the time over a 60-day period
- No single firm is responsible for more than 70% of the volume in that 60-day period
- No single firm is the only one reporting for no more than 20% of the days in that 60-day period





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3/70/20 Guidelines, Continued

- These guidelines hold for each type of transaction





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Problems in Lamb & Sheep Reporting

- Sheep and lamb price reporting quickly ran into problems due to small number of transactions
 - 2019 annual sheep slaughter is smaller than weekly hog slaughter
 - Annual sheep slaughter around the same size as negotiated hg sales
- Frequently had no lamb or sheep reports due to confidentiality issues





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How do we eliminate missing reports?

- Aggregation of data
 - Average over more types of animals or transactions
 - Rolling averages for transactions
- Report over longer time periods





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Lamb Meat Reporting

- USDA AMS has a daily lamb-meat price report
- Lamb meat reporting uses a 5-day rolling average for lamb cuts to deal with the confidentiality problems
- More problems with live animal reports





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Daily Price Reports for Lambs & Sheep

- Prior to 2010 daily reports would (occasionally) show a daily average
- Not enough volume of lamb sales to get negotiated or formula prices at a daily level
- More recent daily reports are summaries of the previous day's auctions throughout the country





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Weekly Lamb Price Reports

- My weekly database for lamb prices starts with MPR
- 6 weeks are missing, 3 due to budget sequester in Fall
- AMS file, `lm_lm352.txt`, shows negotiated, formula, and comprehensive prices
 - Comprehensive averages over all pricing methods





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Weekly Price Reports, Continued

- Negotiated missing from April 3, 2020 to October 16, 2020
- Formula transactions disappeared August 7, 2020 until (at least) January 15, 2021
- No comprehensive averages when negotiated and formula averages are missing





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Research on Reducing Missing Reports

- USDA AMS 2018 Report to Congress
- <https://www.ams.usda.gov/sites/default/files/media/LMR2018ReporttoCongress.pdf>
- Appendix B by Parcell & Tonsor looks at various methods for eliminating the “unreportable” weekly lamb data
 - Considered mathematical adjustments





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Other Things to Try:

- Some have suggested dropping volume statistics from the price reports
 - This would make it harder for a firm to back its average out of the statistics—unless it is the only one buying lambs that way
 - Show only a comprehensive average





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Conclusions

- Lamb price data is “spotty”
- No average national prices for cull sheep
- Problems are likely to continue





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Questions?

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