

How Resilient is the US Meat Supply Chain? Lessons from COVID-19

Webinar: June 5th, 2020 12:00-1:00 PM (EST)

Presented jointly by:

Tufts
UNIVERSITY

Gerald J. and Dorothy R.
Friedman School of
Nutrition Science and Policy



End-User Perspectives

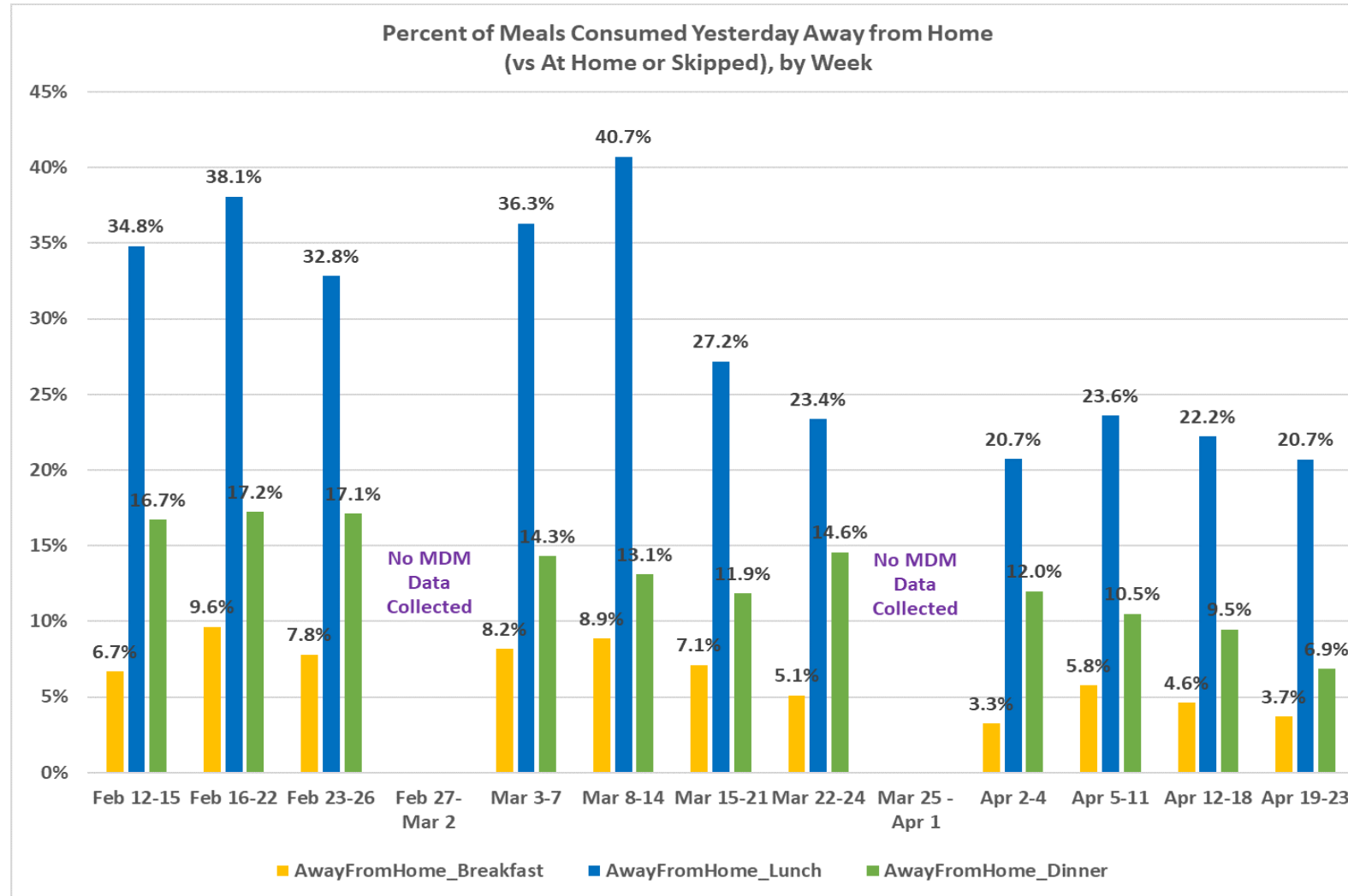
1. *DOMESTIC RETAIL (GROCERY-STORES)*
2. *DOMESTIC FOOD SERVICE (RESTAURANTS)*
3. *EXPORTS*



KANSAS STATE
UNIVERSITY

Agricultural Economics

Shift to At-Home: Mid-March thru April



Where's my Meat?

COVID-19 Meat Shortages Could Last for Months. Here's What to Know
Before Your Next Grocery Shopping Trip

TIME

<https://time.com/5830178/meat-shortages-coronavirus/>

Kansas State University Department Of Agricultural Economics Extension Publication

04/28/2020

Meat Availability and Shortages Overview

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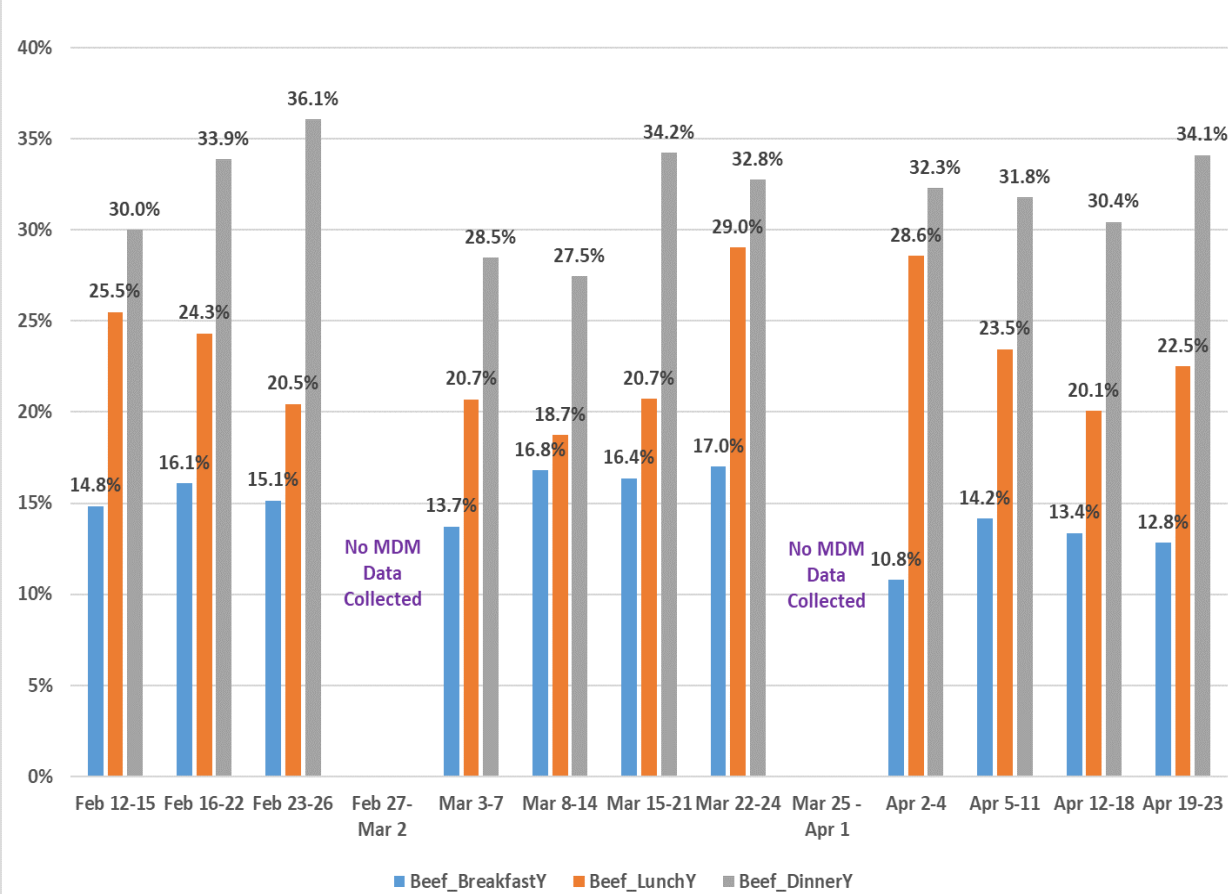
Lee Schulz (lschulz@iastate.edu) Iowa State University Department of Economics

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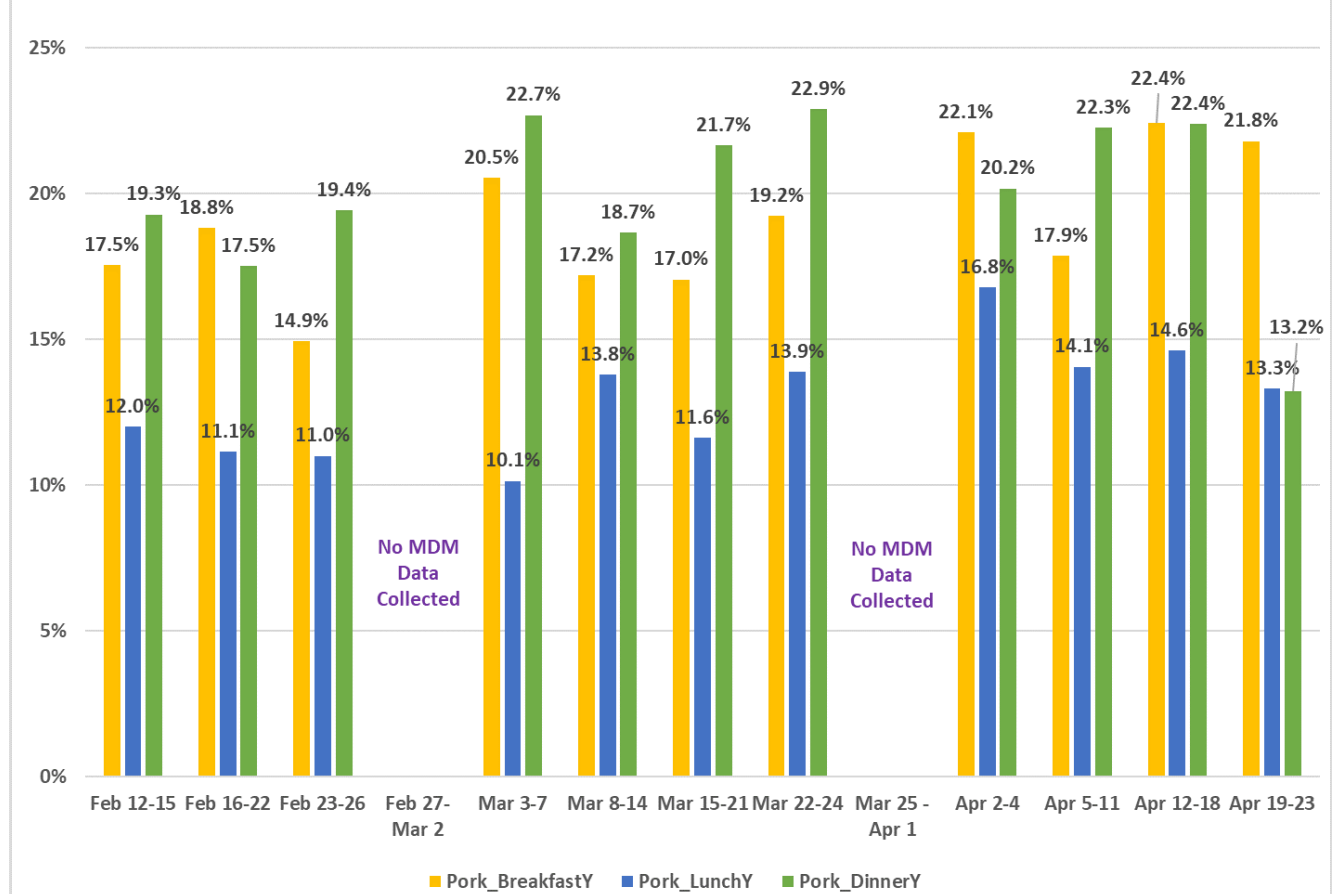
<https://www.agmanager.info/livestock-meat/marketing-extension-bulletins/trade-and-demand/meat-availability-and-shortages>

Where's my Meat?

Prior Day Meals including Beef, by Week

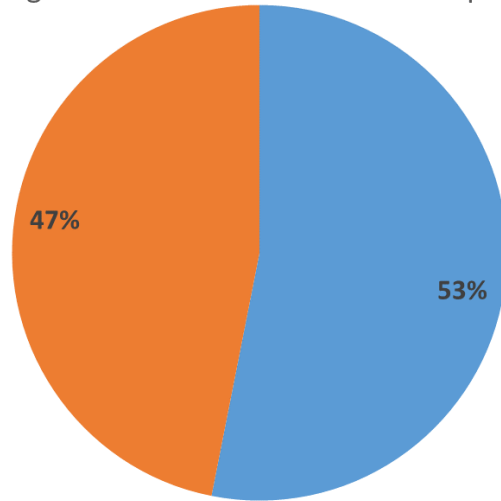


Prior Day Meals Including Pork, by Week



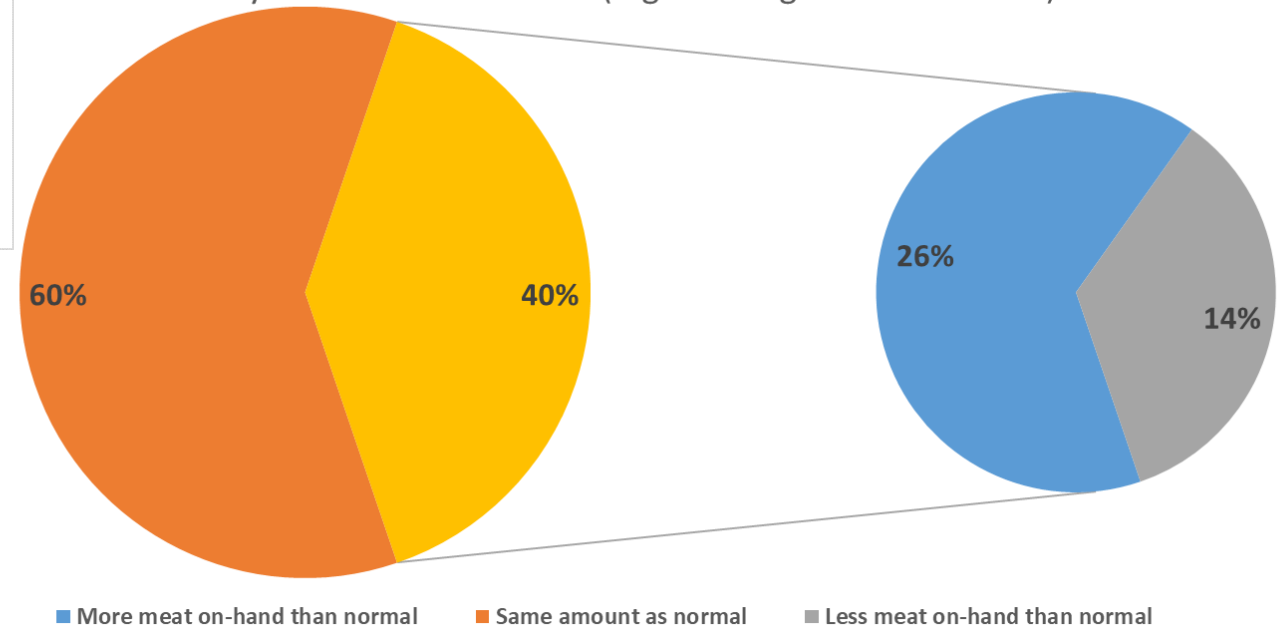
Many consumers entered May “ready”

Thinking of the last time you were buying food for at-home consumption, which of the following best describes the set of meat options available?



- The volume and type of meat options available seemed normal and consistent with the past
- The volume and type of meat options available did not seem normal and consistent with the past

How would you describe the amount of meat your household currently has on-hand at home (e.g. in refrigerator or freezer)?



■ More meat on-hand than normal ■ Same amount as normal ■ Less meat on-hand than normal

You can have your pork & export it too!

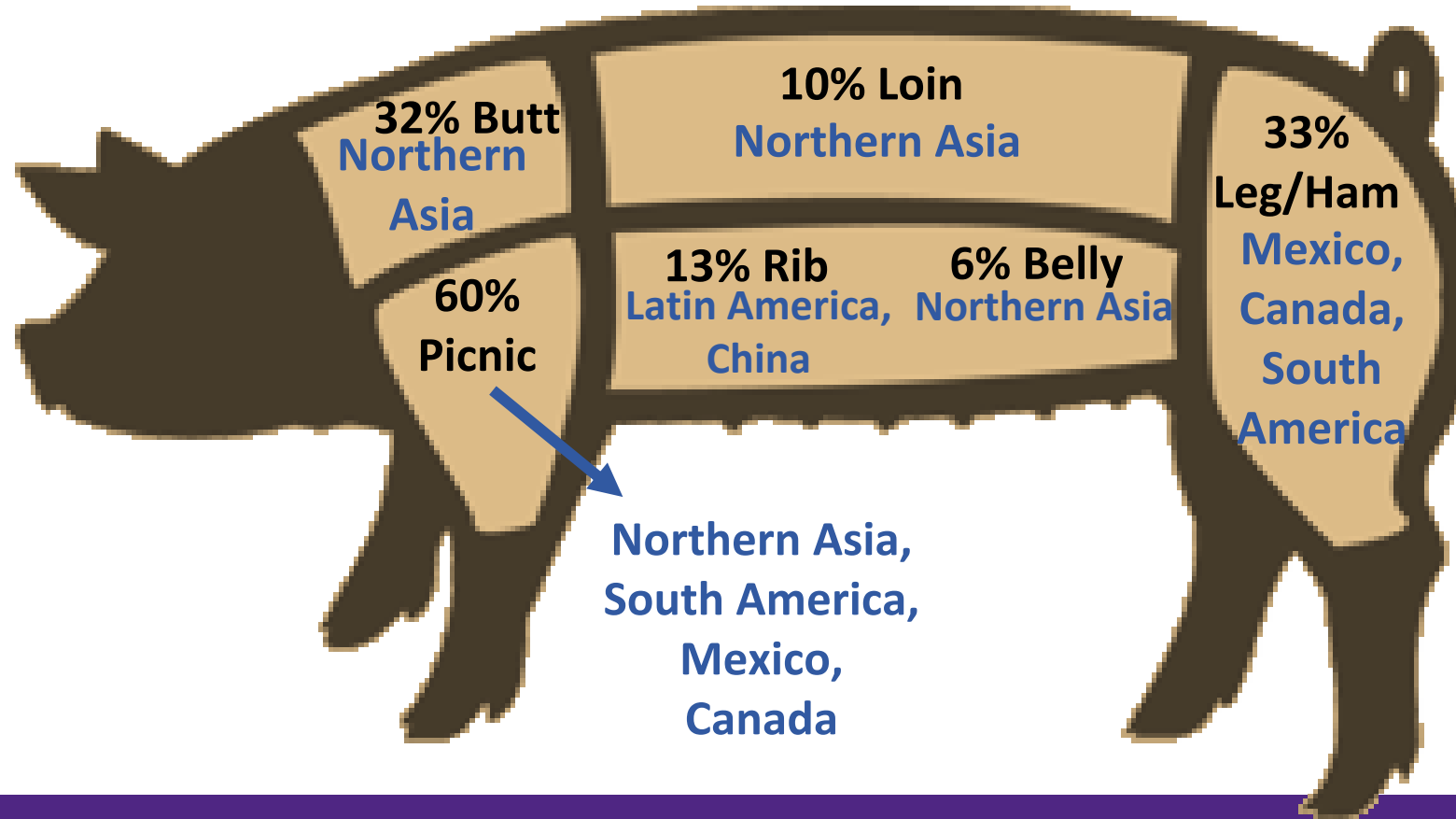
2009-2019 Pork Volumes:

- US Production: +20%
- Domestic Consumption: +11% (+4% per capita)
- Exports: +54%
- ***“NOT ALL PORK IS EQUAL”***

<https://twitter.com/TonsorGlynn/status/1267792065255149568>

Share of Pork Primals Exported

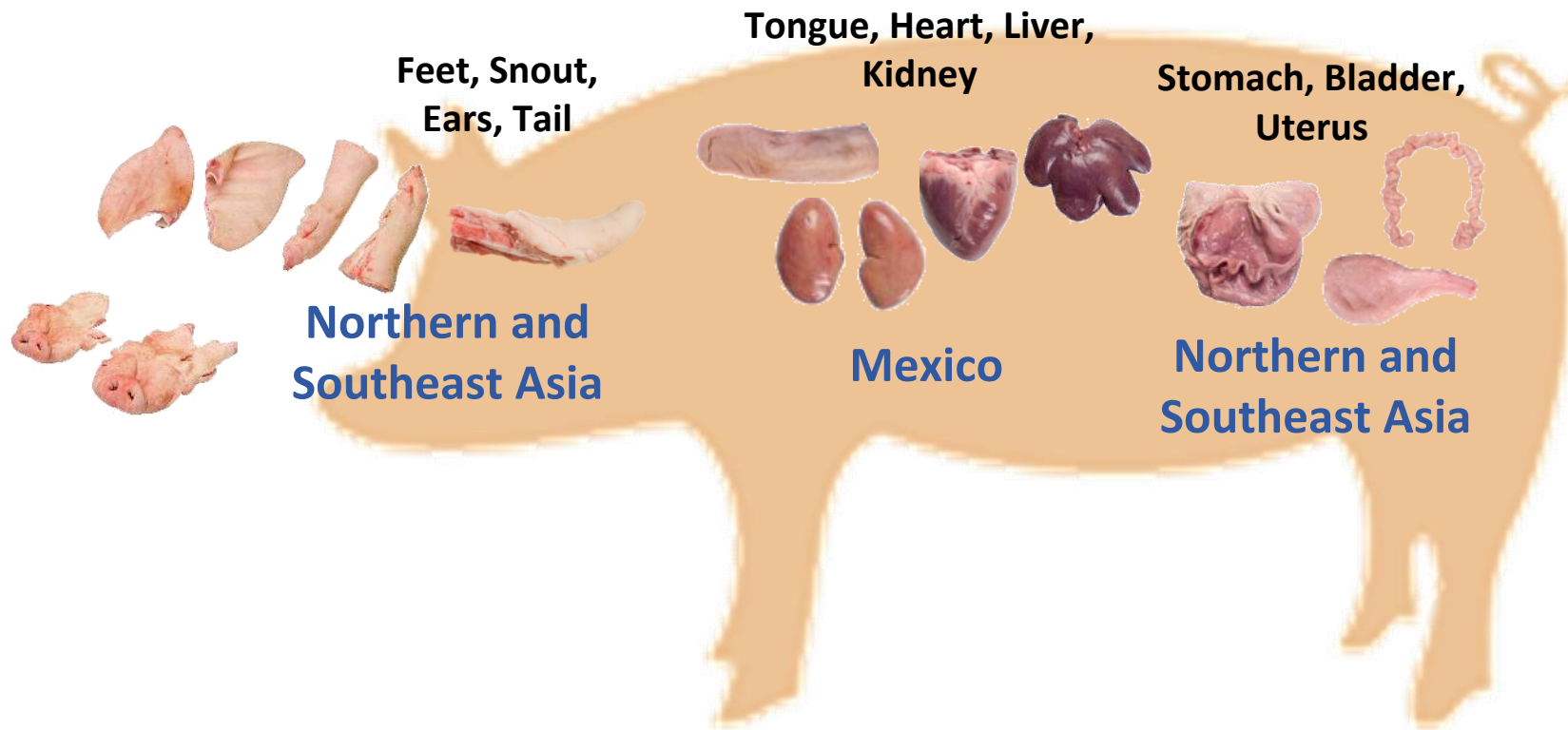
Additionally 2%
of 2019
production was
exported as
boxed
carcasses,
mainly to China



The majority of edible pork variety meats are exported

Variety meat exports equated to **8.7 pounds** per head in 2019

And value of **\$8.00** per head



China/HK & Mexico

accounted for over **80%** of total U.S. pork variety meat exports in 2019

Feet are the top item to China/HK, accounting for **32%** of 2019 total U.S. pork variety meat export volume

Will Meat Demand Weaken ? / TBD!

Table 2.1. Aggregate Meat Demand Elasticities Summary

| Period | Beef Price Used | Beef Demand | | | Exp. | Pork Demand | | Chicken Demand | |
|-----------|-----------------|-------------|------------------|---------------------|-------|-------------|--------|----------------|-------|
| | | Own-Price | Pork Cross-Price | Chicken Cross-Price | | Own-Price | Exp. | Own-Price | Exp. |
| 1988-2017 | All-Fresh | -0.479 | 0.087 | 0.023 | 0.803 | -0.307 | 0.141 | -0.339 | 0.425 |
| 1988-2007 | All-Fresh | -0.645 | 0.145 | 0.026 | 0.790 | -0.229 | -0.262 | -0.345 | 0.371 |
| 2008-2017 | All-Fresh | -0.450 | -0.032 | 0.083 | 0.959 | -0.089 | 1.231 | -0.378 | 0.856 |
| 1970-2017 | Choice | -0.593 | 0.120 | 0.041 | 0.118 | -0.973 | -0.170 | -0.133 | 0.218 |
| 1988-2017 | Choice | -0.490 | 0.085 | 0.021 | 0.781 | -0.313 | 0.146 | -0.345 | 0.430 |
| 1970-1994 | Choice | -0.594 | 0.138 | 0.039 | 0.118 | -0.924 | -0.004 | -0.159 | 0.003 |
| 1995-2017 | Choice | -0.468 | 0.049 | -0.044 | 0.867 | -0.287 | 0.634 | -0.469 | 0.960 |

Assessing Beef Demand Determinants

Prepared for the Cattlemen's Beef Board

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Note: "Exp." is Expenditure abbreviated. All Rotterdam models were estimated using iterative three-stage least squares.

WTP Lower
for Those
Expecting
Worse

| RETAIL | | Ribeye Steak | Ground Beef | Pork Chop | Bacon | Chicken Breast | Plant-Based Patty | Shrimp | Beans and Rice | Something Else |
|--------------------------------------|--------------|--------------|----------------|-----------|----------------|----------------|-------------------|----------|----------------|----------------|
| Finances will be Worse in 1 Year | WTP (\$/lb) | \$ 15.64 | \$ 6.80 | \$ 5.31 | \$ 4.36 | \$ 6.57 | \$ 8.63 | \$ 8.56 | \$ 1.90 | |
| | Market Share | 6.4% | 24.0% | 11.6% | 6.9% | 26.4% | 3.1% | 4.3% | 7.0% | 10.4% |
| Finances will NOT be Worse in 1 Year | WTP (\$/lb) | \$ 16.65 | \$ 7.96 | \$ 6.60 | \$ 5.25 | \$ 7.85 | \$ 8.12 | \$ 9.10 | \$ 2.75 | |
| | Market Share | 7.3% | 23.3% | 13.2% | 7.5% | 26.2% | 2.5% | 4.5% | 7.5% | 8.1% |
| FOOD SERVICE | | Ribeye Steak | Beef Hamburger | Pork Chop | Baby Back Ribs | Chicken Breast | Plant-Based Patty | Shrimp | Salmon | Something Else |
| Finances will be Worse in 1 Year | WTP (\$/lb) | \$ 20.92 | \$ 15.20 | \$12.45 | \$ 14.37 | \$ 13.86 | \$ 7.29 | \$ 14.39 | \$16.53 | |
| | Market Share | 10.2% | 24.1% | 4.1% | 9.0% | 14.2% | 2.0% | 14.3% | 10.5% | 11.6% |
| Finances will NOT be Worse in 1 Year | WTP (\$/lb) | \$ 25.94 | \$ 18.48 | \$13.97 | \$ 18.00 | \$ 17.07 | \$ 12.80 | \$ 17.34 | \$17.38 | |
| | Market Share | 15.3% | 21.9% | 4.2% | 11.0% | 14.4% | 4.8% | 13.8% | 7.6% | 7.1% |

Will Meat Demand Weaken ? / TBD!

- Renewed resident appreciation of food supply?
- Expanded comfort with at-home cooking & product use?
- Will food (meat) share of expenditures grow?

Projected 2020 Domestic Beef & Pork Consumption STILL > 2018!

More information available at:



This presentation will be available in PDF format at:

<http://www.agmanager.info/about/contributors/individual/tonsor.asp>

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